KITAGAWA GmbH

ELECTRONIC COMPONENTS

PCB ACCESSORIES
WIRING CLAMPS
CABLE TIES
GROMMETS & BUSHINGS
WIRING TUBES & DUCTS

SYMBIOSIS & COLLABORATION

KITAGAWA INDUSTRIES CO., LTD.
A global technology group providing high quality for life' s amenities through "Symbiosis & Collaboration"
The high pace of industrial technology innovationcan lead to various problems. We carry out the research and propose the solutions to the problems in order to provide a clean electromagnetic environment.

R&D bases

Technology Center

Kasugai factory

Inazawa factory

Thailand factory

Wuxi (China) factory

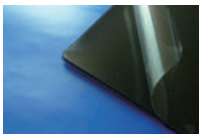
Shenzhen factory

Material Developments

Functional film

Sputtering technology applied at the nano-Level for producing functional coatings provides greater design □ exibility for high density electronic equipment.

KG-GEL(vibration damping and shock buffering)



KG-GEL is a special polystyrene gel with super-low hardness of ASKER FP, which provides excellent shock buffering, vibration and noise damping for equipment and sub-assembly components.

LOSTOMER(vibration damping)

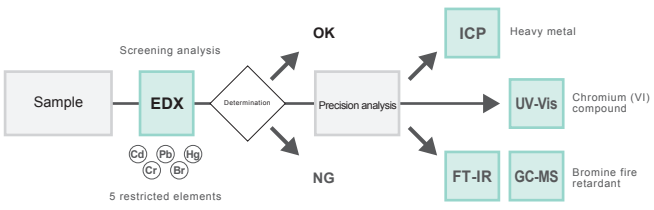
High vibration damping and heat resistant properties (100℃) for a wide range of applications. Can be produced in customized con gurations.

COOLPROVIDE(Heat+EMC)

Using our original composite technology we develop multifunctional materials for simultaneous management of EMC and thermal problems.

Environmental policy

Example of hazardous element Analysis



KGS is equipped with hazardous element analyticalequipment to provide safe products.

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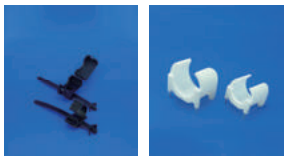
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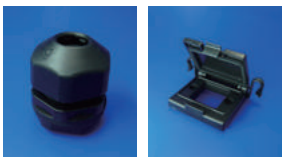
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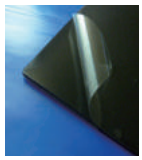
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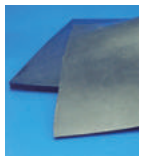
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LOCKING CARDSPACER™ / KGLS™-RTBM

P.13

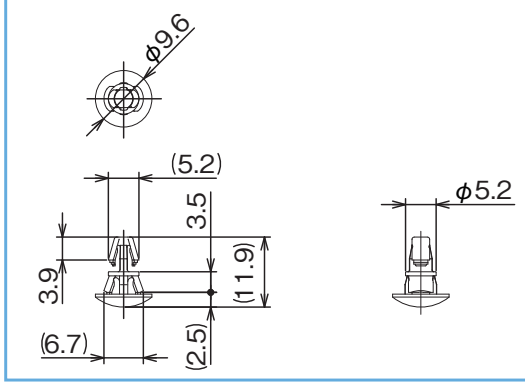
Dome-head, snap-mount spacer for thin panel or thin back plate

Features

- Applicable thickness of sheet metal is at 0.4 to 1.2mm.
- Applicable thickness of PC board is for 1.6mm and 1.2mm.
- Dust resistant performance is performed by bowl shaped snap mounted from chassis bottom.

⟨New Lineup⟩

KGLS™-3.5RTBM

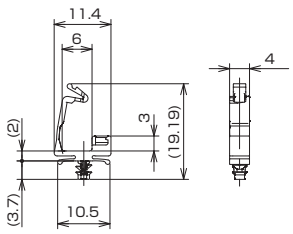


SCREW-LESS CLAMP / VLBWS

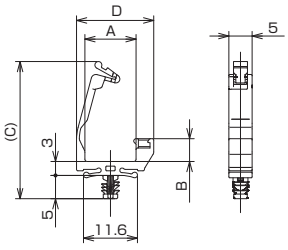
P.51

Mini snap-mount, locking clamp

VLBWS-0306-M3-V0



VLBWS--M4-V0**

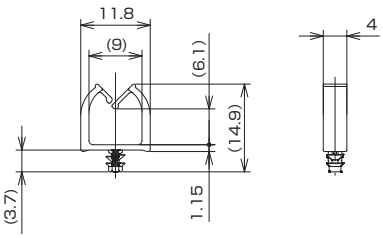


SCREW-LESS CLAMP / VLUAMS

P.51

Mini snap-mount clamp that easily inserts into screw holes

VLUAMS-09-M3-V0



SCREW-LESS CLAMP / VLC

P.68

Adjustable snap-mount clamp that easily inserts into screw holes

USB CONNECTOR COVER / USBCC-A

P.85

Slip-proof sleeve for USB connectors

Features

- Locking mechanism prevents USB from unplugging from slot.
- Locking tab makes it easy to lock and release USB connector.

Snap Mounting

Square hole

ALUMINIUM FRAME FASTENER / ALFF

P.99

Accessory that mounts onto aluminum frame for band, clamp, and fastener

Features

- It enables fixing by being inserted into aluminum frame and rotated.
- Fixing is performed by cable tie inserted into back and forth and around it.
- Installation of fastener such as clamp is possible onto the top face.

SCREW-LESS CABLE TIE MOUNT / VLTMS

P.100

Snap-mount cable tie mount that insets into screw holes

Features

- Plug-in mounting in screw hole is available without tool.

PCB ACCESSORIES

Spacers

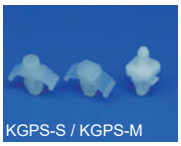
Securing, holding and spacing for PC boards and chassis

Snap Mounting

P3-4
LOCKING CARD SPACER

P4
RE-USE SPACER

P5
RE-USE CARD SPACER



P5
CARD SPACER

P6
LOCKING CARD SPACER

P7
LOCKING CARD SPACER

P7
LOCKING CARD SPACER

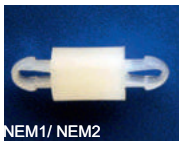
P8
LOCKING CARD SPACER

P8
LOCKING CARD SPACER

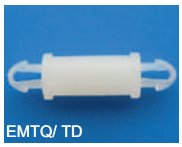
P9
LOCKING CARD SPACER

P10
LOCKING CARD SPACER

P10
LOCKING CARD SPACER



P11
LOCKING CARD SPACER



P11
LOCKING CARD SPACER

P12
DOUBLE LOCKING SPACER

P12
MINI CARD SPACER

P13
LOCKING CARD SPACER

P13
LOCKING CARD SPACER

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P18
CARD SPACER

P18
CARD SPACER

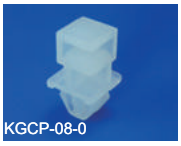
P20
LOCKING CARD SPACER

P20
LOCKING CARD SPACER

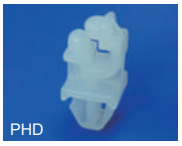
P21
LOCKING CARD SPACER

P21
CARD EDGE SPACER

P22
CARD EDGE SPACER



P22
CARD SPACER



P23
PIERCE HOLD

P24
RE-USE EDGE SPACER

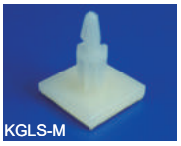
P25
RE-USE PIERCE HOLD

P27
SELF RETAINING SPACER

P28
SPEED SCREW

Snap and Adhesive tape Mounting

P19
LOCKING CARD SPACER

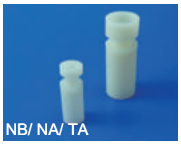


P19
LOCKING CARD SPACER

Snap and Screw Mounting

P25
TAPPING CARD SPACER

Screw Mounting



P26
ONE TOUCH COLLAR BUSHING

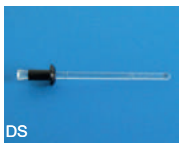
P29
EXPANSION NUT

P29
TOGGLE FIXER

Rivets

Securing metal plates and components

Snap Mounting



P27
CLINCH RIVET

P30
NYLON RIVET

P30
RIVET

P31
NYLON RIVET

P32
NYLON RIVET

P33
RIVET

Card Guides

Card guides and ejectors support smooth insertion and extraction

Card Guides

Snap Mounting

P33
CARD CORNER HOLDER

P34
RE-USE CARD HOLDER

P35
CARD FIXER
RE-USE CARD FIXER

P36
CARD GUIDE

P37
CARD GUIDE

P38
CARD GUIDE
WITH STOPPER

Ejectors

Spring pin mounting

P38
EJECTOR

P40
EJECTOR

Snap Mounting

P39
EJECTOR

P39
EJECTOR

LOCKING CARD SPACER /KGLS™-S·KLCS·KGSL-M

Snap-mount PCB spacer

Features

- Provides simultaneous functions of spacing and supporting for PCB and chassis.

Material

- Nylon 66（Color：Natural）　UL94 V-2(V-0※)

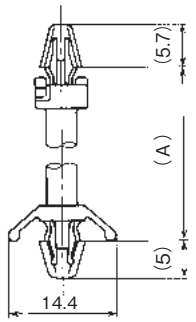
Snap Mounting

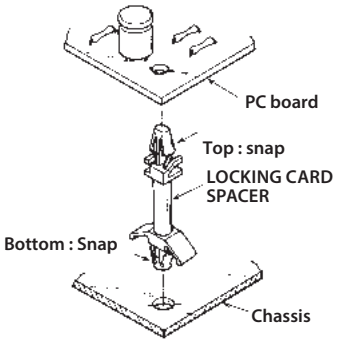
Round hole

Can be used with KGPS-S series
Supports heavily loaded PC boards at the middle of PCB

For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.)

KGLS-S

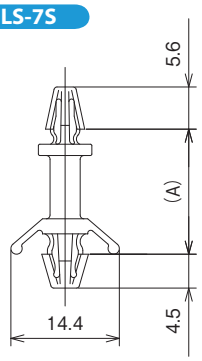




Part No.	(A)	Mounting hole size	Panel thickness	Std. Package
KGLS-3S	9.8	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top 1～2 Bottom 0.5～2.3	100 pcs.
KGLS-4S	11.4			
KGLS-6S	14.4			
KGLS-8S	17.7			
KGLS-10S	20.9			
KGLS-12S	24.1			
KGLS-14S	27.2			
KGLS-16S	30.4			
KGLS-18S	33.6			
KGLS-22S	39.9			

(Unit：mm)

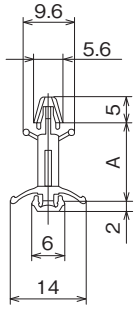
KGLS-7S



Part No.	(A)	Mounting hole size	Panel thickness	Std. Package
KGLS-7S	16.6	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top ≦t1.8 Bottom 0.5～2.3	1,000 pcs.

(Unit：mm)

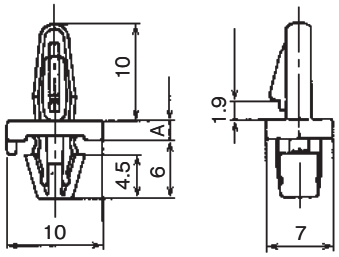
KLCS



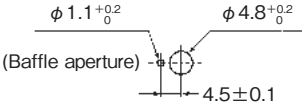
Part No.	A	Mounting hole size	Panel thickness		Std. Package
KLCS-4H	12.0	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top 1.2～1.6	Bottom 0.8～1.3	100 pcs.
KLCS-6	14.4			Bottom 0.5～1	

(Unit：mm)

KGLS-1S



Specification drawing for bottom holes

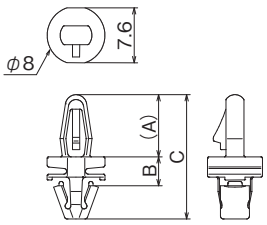


Part No.	A	Mounting hole size	Panel thickness	Std. Package
KGLS-1S	2.0	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$ ※Baffle aperture is required.	Top 1.7 Bottom $1.2^{+0.15}_{-0.10}$	1,000 pcs.

(=Unit：mm)

LOCKING CARD SPACER /KGLS™-S·KLCS·KGSL-M

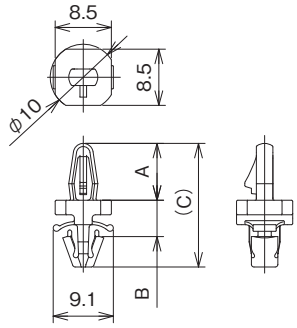
KGSL-1M-V0



Part No.	(A)	B	C	Mounting hole size	Panel thickness	Std. Package
KGSL-1M-V0	8.6	4.0	17.2	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top 1.6±0.1 Bottom 1±0.1	1,000 pcs.

(Unit : mm)

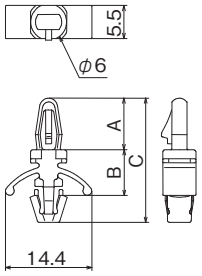
KGSL-1.5M-V0



Part No.	A	B	(C)	Mounting hole size	Panel thickness	Std. Package
KGSL-1.5M-V0	8.6	5.5	18.7	Top $\phi 4\pm0.1$ Bottom $\phi 4.8^{+0.2}_{0}$	Top 1.6~t1.8 Bottom 1.0~1.6	1,000 pcs.

(Unit : mm)

KGSL-＊M-V0



Part No.	A	B	C	Mounting hole size	Panel thickness	Std. Package
KGSL-2M-V0	8.6	7.6	20.7	Top $\phi 4^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top 1.6±0.1 Bottom 0.5~1.3	1,000 pcs.
KGSL-3M-V0		8.4	21.5			
KGSL-5M-V0		11.6	24.7			1,00 pcs.
KGSL-7M-V0		13.2	26.3			

(Unit : mm)

RE-USE SPACER / RLS

Releasable PCB spacer

Features

- Holding and spacing for PC boards and chassis.
- Easily removed for maintenance and disassembling.

Push Type

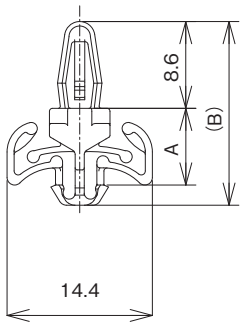
Round hole

Material

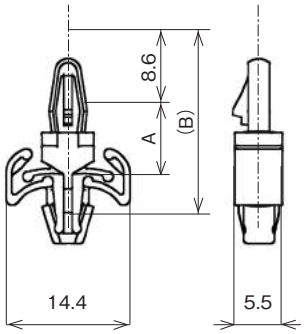
- Nylon 66（Color：Natural）

UL94 V-0

RLS-2E



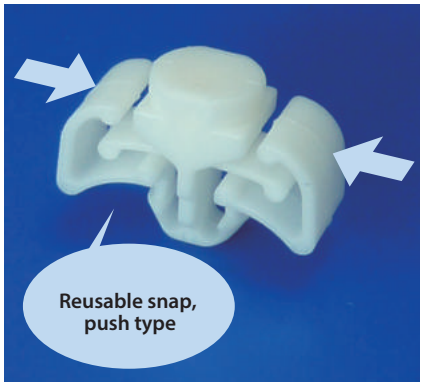
RLS-3E



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
RLS-2E-V0	7.6	18.2	Top $\phi 4.0^{+0.2}_{0}$ Bottom $\phi 4.8^{+0.2}_{0}$	Top : 1.6~1.8 Bottom : 0.8~1.2	1000 pcs.
RLS-3E-V0	8.4	21.5		Top : 1.6~1.8 Bottom : 0.5~1.6	1000 pcs.

(=Unit : mm)

RE-USE CARD SPACER / RPS



Releasable snap-mount spacer

Features

- Supports load at the middle of PCB and keeps spaces.
- Snap is easily removed to shorten time for maintenance and disassembling.

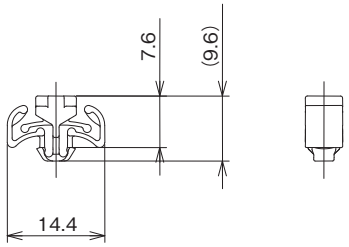
Material

- Nylon 66 (Color : Natural) UL94 V-0

Push Type

Round hole

Reusable Snap
For push-type, refer to P4



Part No.	Mounting hole size	Panel thickness	Std. Package
RPS-2E-V0	$\phi 4.8^{+0.2}_{0}$	0.8~1.2	1,000 pcs.

(Unit : mm)

CARD SPACER™- / KGPS-S•KGSP-M•KGSP-MP

Snap-mount PCB spacer support

Features

- Provides spacing and support at the centre of PCB.
- Supports heavily loaded PCB at the centre.

Material

- Nylon 66 (Color : Natural) UL94 V-2 (V-0※)

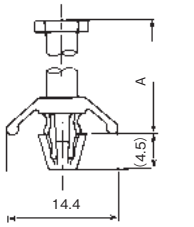
※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Snap Mounting

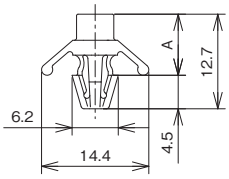
Round hole

Can be used with KGLS-S series
Securing and spacing for PCB P3

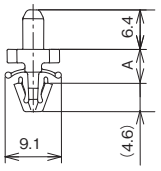
KGPS-S•KGSP-M



KGPS-3.5S-N



KGSP-1.5MP-V0



Part No.	A	Mounting hole size	Panel thickness	Std. Package
KGPS-3S	7.5	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	100 pcs.
KGPS-4S	9.1			
KGPS-6S	12.1			
KGPS-8S	15.4			
KGPS-10S	18.6			
KGPS-12S	21.8			
KGPS-14S	24.9			
KGPS-16S	28.1			
KGPS-18S	31.3			
KGSP-2.5M-V2	6.6	$\phi 4.8^{+0.2}_{0}$	0.5~1.6	1,000 pcs.
KGSP-3M-V0	7.4		0.5~1.3	

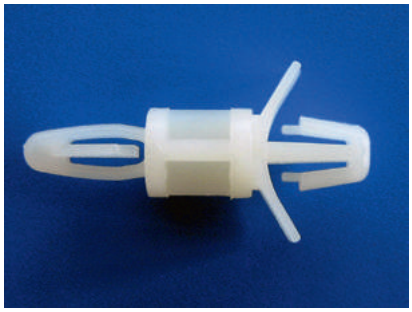
(Unit : mm)

Part No.	A	Mounting hole size	Panel thickness	Std. Package
KGPS-3.5S-N	8.2	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	500 pcs.

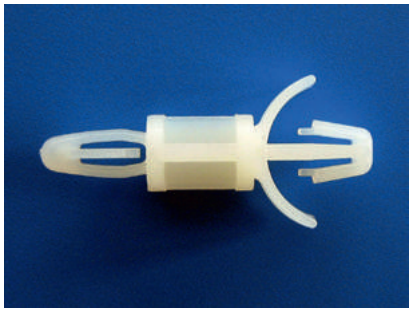
(Unit : mm)

Part No.	A	Mounting hole size	Panel thickness	Std. Package
KGSP-1.5MP-V0	5.5	Top $\phi 3.5 \pm 0.1$ Bottom $\phi 4.8^{+0.2}_{0}$	Top — Bottom 1.0~1.6	500 pcs.

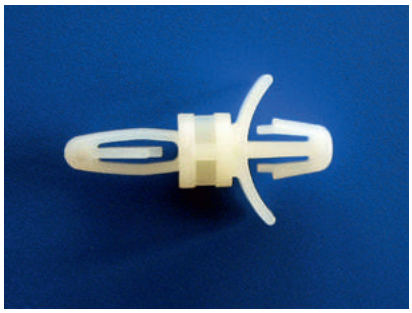
(Unit : mm)



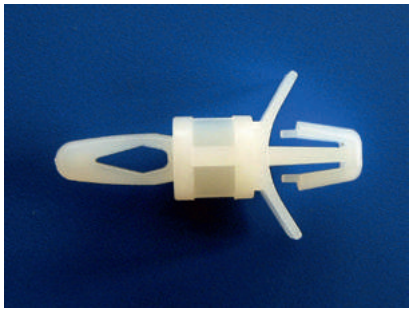
MTQ 1



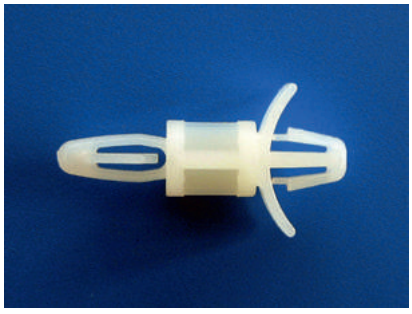
MTQ 2



MTQ 3 / MTQ 6



MTQ 4



MTQ 8

Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Material

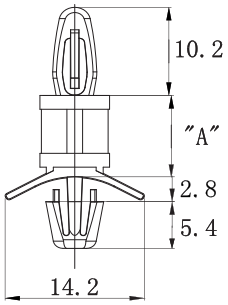
- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

Snap Mounting

Round hole

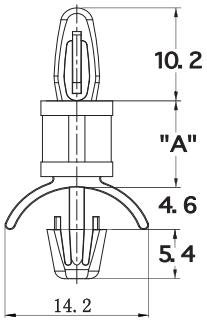
* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top hole: 4.0 ± 0.08 mm
Panel Thickness: 1.6 mm



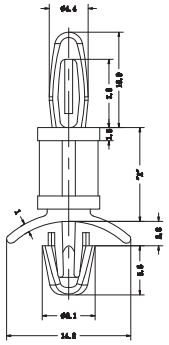
Bottom Hole: 4.8 ± 0.08 mm
Panel Thickness: 0.8~2.0 mm

Fig. 2
Top hole: 4.0 ± 0.08 mm
Panel Thickness: 1.6 mm



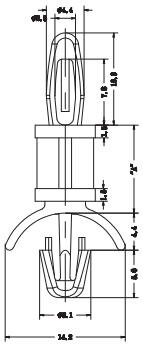
Bottom Hole: 4.8 ± 0.08 mm
Panel Thickness: 2.0~3.6 mm

Fig. 3
Hole: ø 4.8 mm
Panel Thickness: 0.8~2.0 mm



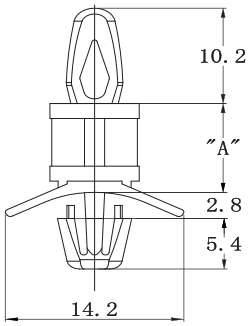
Hole: ø 4.0 mm
Panel Thickness: 2.3 mm

Fig. 4
Hole: ø 4.8 mm
Panel Thickness: 2.0~3.6 mm



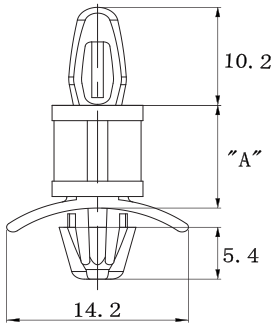
Bottom Hole : 4.8 ± 0.08 mm
Panel Thickness: 2.0~3.6 mm

Fig. 5
Top hole: 4.0 mm
Panel Thickness: 1.6 mm



Bottom Hole: 4.8 mm
Panel Thickness: 0.8~2.0 mm

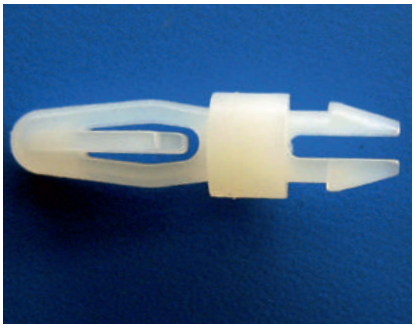
Fig. 6
Top hole: 4.8 mm
Panel Thickness: 1.6 mm



Bottom Hole : 4.8 mm
Panel Thickness: 0.2~1.4 mm

Part No.						"A"±0.4mm	Std.Package
Fig. 1	Fig. 2	Fig. 3	Fig. 4	Fig. 5	Fig. 6		
MTQ1-03	MTQ2-03	MTQ3-03	MTQ6-03	MTQ4-03	MTQ8-03	4.8	1000 pcs.
MTQ1-04	MTQ2-04	MTQ3-04	MTQ6-04	MTQ4-04	MTQ8-04	6.4	
MTQ1-05	MTQ2-05	MTQ3-05	MTQ6-05	MTQ4-05	MTQ8-05	7.9	
MTQ1-06	MTQ2-06	MTQ3-06	MTQ6-06	MTQ4-06	MTQ8-06	9.5	
MTQ1-07	MTQ2-07	MTQ3-07	MTQ6-07	MTQ4-07	MTQ8-07	11.1	
MTQ1-08	MTQ2-08	MTQ3-08	MTQ6-08	MTQ4-08	MTQ8-08	12.7	
MTQ1-10	MTQ2-10	MTQ3-10	MTQ6-10	MTQ4-10	MTQ8-10	15.9	
MTQ1-12	MTQ2-12	MTQ3-12	MTQ6-12	MTQ4-12	MTQ8-12	19.1	
MTQ1-14	MTQ2-14	MTQ3-14	MTQ6-14	MTQ4-14	MTQ8-14	22.2	
MTQ1-16	MTQ2-16	MTQ3-16	MTQ6-16	MTQ4-16	MTQ8-16	25.4	
MTQ1-18	MTQ2-18	MTQ3-18	MTQ6-18	MTQ4-18	MTQ8-18	28.6	
MTQ1-20	MTQ2-20	MTQ3-20	MTQ6-20	MTQ4-20	MTQ8-20	31.7	
MTQ1-22	MTQ2-22	MTQ3-22	MTQ6-22	MTQ4-22	MTQ8-22	34.9	

LOCKING CARD SPACER / MTQ11



Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

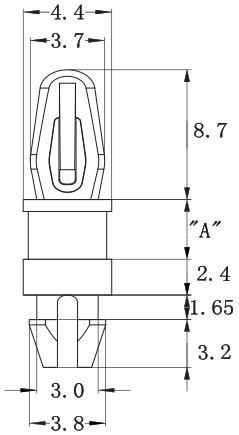
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Top hole: 3.2 ± 0.05 mm
Panel Thickness: 1.6 mm

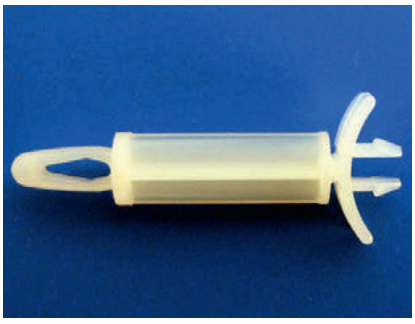


Bottom Hole: 3.2 ± 0.05 mm
Panel Thickness: 1.6 mm

Part No.	“A”±0.4mm	Std.Package
MTQ11-2	3.2	1000 pcs.
MTQ11-3	4.8	
MTQ11-4	6.4	
MTQ11-5	7.9	
MTQ11-6	9.5	
MTQ11-7	11.1	
MTQ11-8	12.7	
MTQ11-9	14.3	
MTQ11-10	15.9	
MTQ11-12	19.1	
MTQ11-14	22.2	

(Unit: mm)

MINI CARD SPACER / MDCT



Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

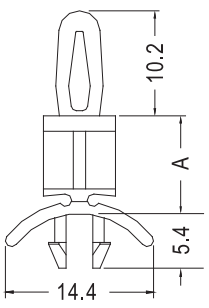
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

P.C.B Ø4.0
THICKNESS 1.2~1.7

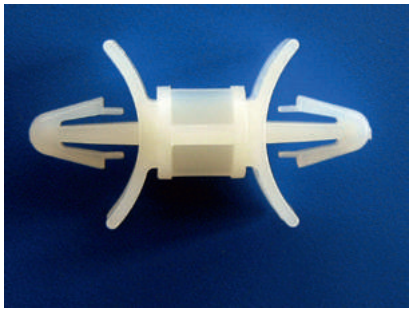


P.C.B Ø4.8
THICKNESS 0.8~2.5

Part No.	“A”±0.4mm	Std.Package
MDCT-5	4.8	1000 pcs.
MDCT-6	6.4	
MDCT-9	9.5	
MDCT-12	12.7	
MDCT-15	15.9	
MDCT-19	19.1	
MDCT-22	22.2	

(Unit: mm)

LOCKING CARD SPACER / MDFP



Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

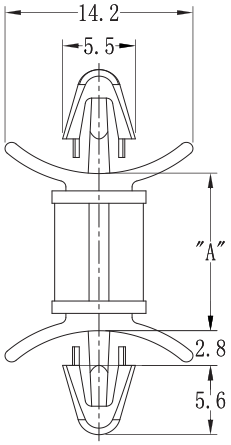
Snap Mountin g

Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

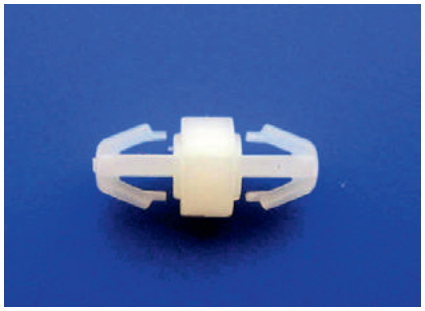


Hole: 4.0 ± 0.08 mm
Panel Thickness: 0.8~2.0 mm

Part No.	“A”±0.4mm	Std.Package
MDFP-5	4.8	1000 pcs.
MDFP-6	6.4	
MDFP-9	9.5	
MDFP-12	12.7	
MDFP-15	15.9	
MDFP-19	19.1	
MDFP-22	22.2	

(Unit: mm)

CARD SPACER / EMTQ1•EMTQ3



Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

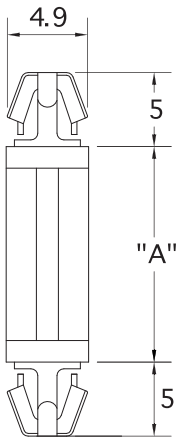
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

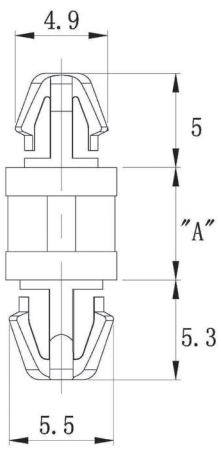
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top hole: 4.0 ± 0.08 mm
Panel Thickness: 1.6 mm



Bottom Hole: 4.0 mm
Panel Thickness: 1.6 mm

Fig. 2
Top hole: 4.0 mm
Panel Thickness: 1.6 mm

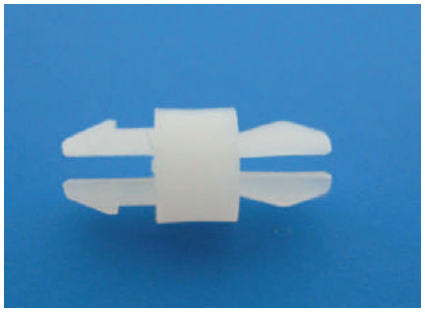


Bottom Hole: 4.8 mm
Panel Thickness: 1.6 mm

Part No.		“A”±0.4mm	Std.Package
Fig. 1	Fig. 2		
EMTQ1-3M	EMTQ3-3M	3.0	1000 pcs.
EMTQ1-4M	EMTQ3-4M	4.0	
EMTQ1-6M	EMTQ3-6M	6.0	
EMTQ1-8M	EMTQ3-8M	8.0	
EMTQ1-10M	EMTQ3-10M	10.0	
EMTQ1-12M	EMTQ3-12M	12.0	
EMTQ1-14M	EMTQ3-14M	14.0	
EMTQ1-16M	EMTQ3-16M	16.0	
EMTQ1-18M	EMTQ3-18M	18.0	

(Unit: mm)

LOCKING CARD SPACER / NDCQ•DCQ•NTQE



NDCQ / DCQ

NTQE

Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

Round hole

Material

- Nylon 66 (Color: Natural)

UL94 V-2 (V-0*)

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Panel Thickness: 1.6 mm for all

Fig. 1
Top & Bottom Hole: 3.2 mm

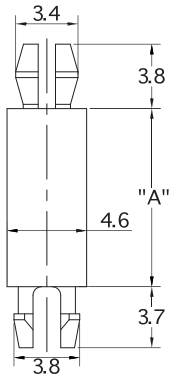


Fig. 2
Top & Bottom Hole: 3.86 mm

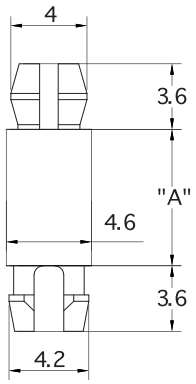
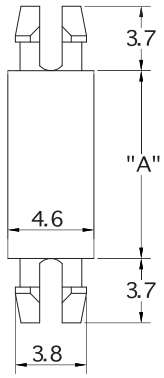


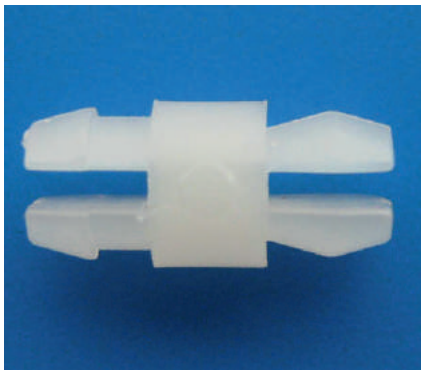
Fig. 3
Top & Bottom Hole: 3.2 mm



Part No.			“A”±0.4mm	Std. Package
Fig. 1	Fig. 2	Fig. 3		
NDCQ-2	DCQ-2	NTQE-2	3.2	1000 pcs.
NDCQ-3	DCQ-3	NTQE-3	4.8	
NDCQ-4	DCQ-4	NTQE-4	6.4	
NDCQ-5	DCQ-5	NTQE-5	7.9	
NDCQ-6	DCQ-6	NTQE-6	9.5	
NDCQ-7	DCQ-7	NTQE-7	11.1	
NDCQ-8	DCQ-8	NTQE-8	12.7	
NDCQ-9	DCQ-9	NTQE-9	14.3	
NDCQ-10	DCQ-10	NTQE-10	15.9	
NDCQ-11	DCQ-11	NTQE-11	17.5	
NDCQ-12	DCQ-12	NTQE-12	19.1	
NDCQ-13	DCQ-13	NTQE-13	20.6	
NDCQ-14	DCQ-14	NTQE-14	22.2	
NDCQ-16	DCQ-16	NTQE-16	25.4	
NDCQ-18	DCQ-18	NTQE-18	28.6	
NDCQ-20	DCQ-20	NTQE-20	31.7	
NDCQ-22	DCQ-22	NTQE-22	34.9	
NDCQ-24	DCQ-24	NTQE-24	38.1	

(Unit: mm)

LOCKING CARD SPACER / NTQ



Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

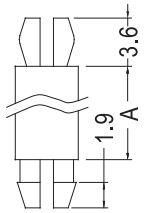
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

P.C.B Ø4.0
THICKNESS 1.2~1.7

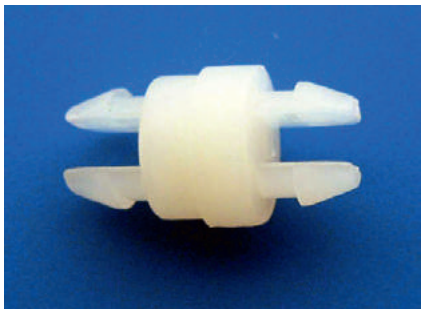


P.C.B Ø4.0
THICKNESS 1.2~1.7

Part No.	“A”±0.4mm	Std.Package
NTQ-3	3.2	1000 pcs.
NTQ-4	4.0	
NTQ-4.5	4.5	
NTQ-5	5.0	
NTQ-6	6.3	
NTQ-7	7.0	
NTQ-8	8.0	
NTQ-9	9.5	
NTQ-10	10.5	
NTQ-12	12.7	
NTQ-14	14.0	
NTQ-15	15.9	
NTQ-19	19.0	
NTQ-22	22.0	

(Unit: mm)

LOCKING CARD SPACER / TQ1•TQ2•TQ3



TQ1 / TQ2 / TQ3

Holding and spacing for PC boards and chassis

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

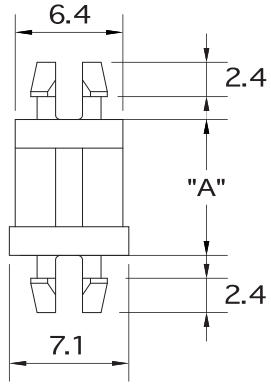
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Panel Thickness: 1.6 mm for all

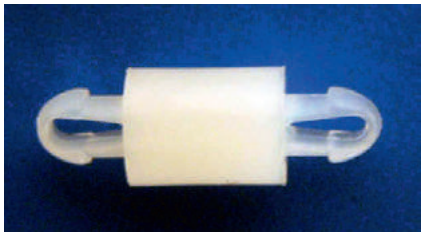


	TQ1	TQ2	TQ3
Top Hole	4.0	4.8	4.0
Bottom hole	4.0	4.8	4.8

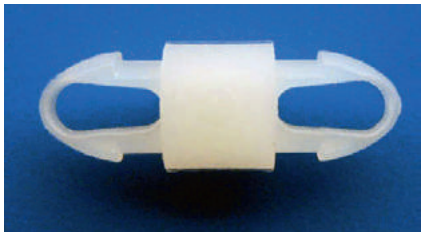
Part No.			“A”±0.4mm	Std. Package
TQ1-3	TQ2-3	TQ3-3	4.8	1000 pcs.
TQ1-4	TQ2-4	TQ3-4	6.4	
TQ1-5	TQ2-5	TQ3-5	7.9	
TQ1-6	TQ2-6	TQ3-6	9.5	
TQ1-7	TQ2-7	TQ3-7	11.1	
TQ1-8	TQ2-8	TQ3-8	12.7	
TQ1-9	TQ2-9	TQ3-9	14.3	
TQ1-10	TQ2-10	TQ3-10	15.9	
TQ1-12	TQ2-12	TQ3-12	19.1	
TQ1-14	TQ2-14	TQ3-14	22.2	
TQ1-16	TQ2-16	TQ3-16	25.4	

(Unit: mm)

LOCKING CARD SPACER / NEM1•NEM2



NEM1



NEM2

Holding and spacing for PC boards and chassis

Snap Mountin g

Round hole

Features

- Holding and spacing for PC boards and chassis

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top & Bottom Hole: 2.5 mm
Panel Thickness: 2.0~3.6 mm

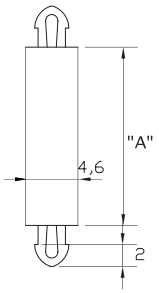
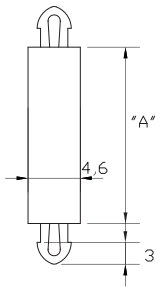


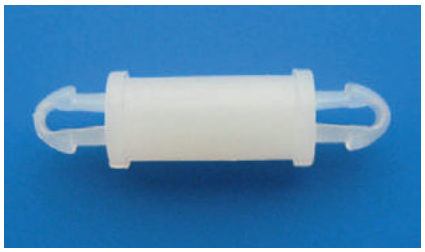
Fig. 2
Top & Bottom Hole: 3.5 mm
Panel Thickness: 2.0~3.6 mm



Part No.		“A”±0.4mm	Std.Package
Fig.1	Fig.2		
NEM1-2M	NEM2-2M	2.0	1000 pcs.
NEM1-3M	NEM2-3M	3.0	
NEM1-4M	NEM2-4M	4.0	
NEM1-5M	NEM2-5M	5.0	
NEM1-6M	NEM2-6M	6.0	
NEM1-7M	NEM2-7M	7.0	
NEM1-8M	NEM2-8M	8.0	
NEM1-10M	NEM2-10M	10.0	
NEM1-12M	NEM2-12M	12.0	
NEM1-14M	NEM2-14M	14.0	
NEM1-16M	NEM2-16M	16.0	
NEM1-18M	NEM2-18M	18.0	
NEM1-20M	NEM2-20M	20.0	
NEM1-22M	NEM2-22M	22.0	

(Unit: mm)

LOCKING CARD SPACER / EMTQ•TD



EMTQ

TD

Holding and spacing for PC boards and chassis

Snap Mountin g

Round hole

Features

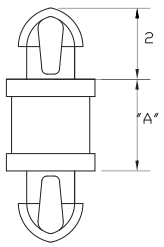
- Holding and spacing for PC boards and chassis

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

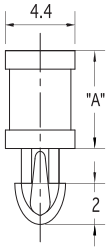
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top hole: 2.54 mm
Panel Thickness: 1.63 mm



Bottom Hole: 2.5 mm
Panel Thickness: 1.6 mm

Fig. 2



Bottom Hole: 2.5 mm
Panel Thickness: 1.6 mm

Part No.		“A”±0.4mm	Std.Package
Fig.1	Fig.2		
EMTQ-1	TD-1	1.6	1000 pcs.
EMTQ-2	TD-2	3.2	
EMTQ-3	TD-3	4.8	
EMTQ-4	TD-4	6.4	
EMTQ-5	TD-5	7.9	
EMTQ-6	TD-6	9.5	
EMTQ-7	TD-7	11.1	
EMTQ-8	TD-8	12.7	
EMTQ-9	TD-9	14.3	
EMTQ-10	TD-10	15.9	

(Unit: mm)

DOUBLE LOCKING SPACER / WLS

PCB spacer for space saving

Features

- Space-saving PCB spacer.

Material

- Nylon 66（Color：Natural）

UL94 V-2（V-0※）

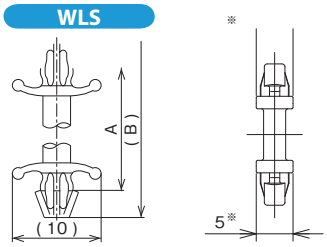
※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

Snap Mounting

Round hole

Can be used with MPS series
Supports heavily loaded PC boards at the middle of PCB
Refer to the bottom column

WLS



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
WLS-03-0	6.2	10.8	$\phi 3.5^{+0.2}_{0}$	Top /bottom 1.6±0.15	500 pcs.
WLS-04-0	7.2	11.8			

※WLS-03-0, -04-0 : 4.5

Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
WLS-06-0	9.2	15.2	$\phi 4 \pm 0.1$	Top /bottom 1.6±0.15	500 pcs.
WLS-08-0	11.2	17.2			1,000 pcs.
WLS-10-0	13.2	19.2			500 pcs.
WLS-12-0	15.2	21.2			1,000 pcs.
WLS-13-0	16.2	22.2			500 pcs.
WLS-14-0	17.2	23.2			1,000 pcs.
WLS-16-0	19.2	25.2			500 pcs.
WLS-16.8-0	20.0	26.0			1,000 pcs.
WLS-18-0	21.2	27.2			500 pcs.
WLS-20-0	23.2	29.2			

(Unit：mm)

MINI CARD SPACER / MPS,-L

Snap-mount PCB spacer support for space saving

Features

- Space-saving type, with support at the centre of PCB.

Material

- Nylon 66（Color：Natural）

UL94 V-2 : MPS-**-0
UL94 V-0 : MPS-**L-V0

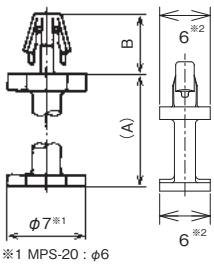
※ Please contact us material and lot size for MPS-**-0 V0 type

Snap Mounting

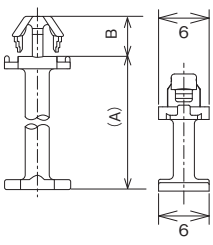
Round hole

Can be used with WLS series
Mini PCB spacer
Refer to the top column

MPS



MPS-L



※1 MPS-20 : φ6
※2 MPS-20 : 5

Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
MPS-2.5-0	2.5	5.35	$\phi 3.0^{+0.1}_{0}$	1.6±0.15	500 pcs.
MPS-04-0	4.0	5.35			
MPS-06-0	6.0	5.35			1,000 pcs.
MPS-08-0	8.0	5.35			
MPS-10-0	10.0	5.35			
MPS-12-0	12.0	5.35			
MPS-14-0	14.0	5.35			
MPS-14.8-0	14.8	5.35			500 pcs.
MPS-16-0	16.0	5.35			
MPS-18-0	18.0	5.35			
MPS-20	20.0	5.1	$\phi 3.5^{+0.1}_{0}$	$1.6^{+0.1}_{0}$	1,000 pcs.

Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
MPS-03L-V0	3.0	3.9	$\phi 4.0^{+0.2}_{0}$	0.8～1.6	1,000 pcs.
MPS-04L-V0	4.0	3.9			
MPS-05L-V0	5.0	3.9			1,000 pcs.
MPS-06L-V0	6.0	3.9			1,000 pcs.
MPS-07L-V0	7.0	3.9			1,000 pcs.
MPS-08L-V0	8.0	3.8			500 pcs.
MPS-09L-V0	9.0	3.9			1,000 pcs.
MPS-10L-V0	10.0	3.9			1,000 pcs.
MPS-11L-V0	11.0	3.9			1,000 pcs.
MPS-12L-V0	12.0	3.9			

(Unit：mm)

LOCKING CARD SPACER™ / KGLS™-RTBM

Dome-head, snap-mount spacer for thin panel or thin back plate

Features

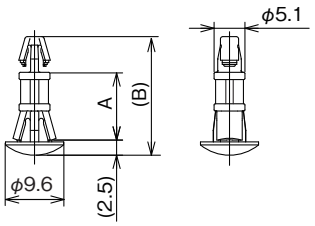
- Applicable thickness of sheet metal is at 0.4 to 1.2mm.
- Applicable thickness of PC board is for 1.6mm and 1.2mm.
- Dust resistant performance is performed by bowl shaped snap mounted from chassis bottom.

Material

- Nylon 6（Color：Natural）
- Nylon 66（Color：Natural）

UL94 V-0 ：KGLS-8, 10, 12RTBM V0
UL94 V-0 ：KGLS-3.5,KGLS-5, 6RTBM V0
UL94 V-2 ：KGLS-14RTBM

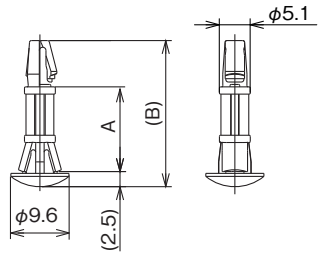
KGLS-RTBM V0



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGLS-3.5 RTBM V0	3.5	11.9	Top ϕ4 +0.2 0 Bottom ϕ5.5 +0.2 0	Top 1.2～1.6 Bottom 0.4～1.2	100 pcs.
KGLS-5RTBM V0	5	13.4			
KGLS-6RTBM V0	6	14.4			
KGLS-8RTBM V0	8	16.4			
KGLS-10RTBM V0	10	18.4			
KGLS-12RTBM V0	12	20.4			

(Unit：mm)

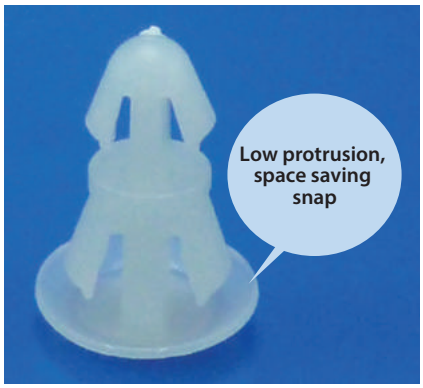
KGLS-14RTBM



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGLS-14RTBM	14	24.15	Top ϕ4 +0.2 0 Bottom ϕ5.5 +0.2 0	Top 1.2～1.6 Bottom 0.4～1.2	100pcs.

(Unit：mm)

LOCKING CARD SPACER™ / KGLS™-RT



Dome-head, snap-mount spacer

Features

- Dome head snap mounted from underside of chassis, seals the hole from dust intrusion.

Material

- Nylon 66（Color：Natural）

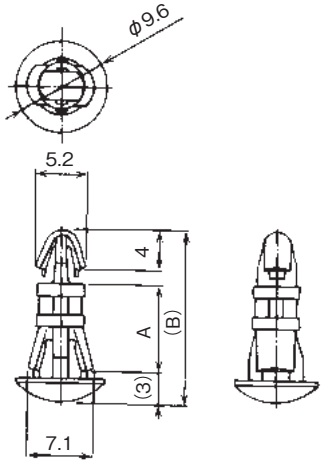
UL94 V-2（V-0※）

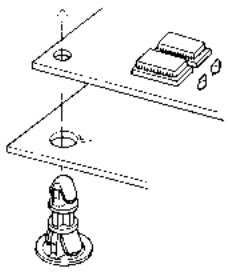
※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

Snap Mounting (Dome head with low protrusion)

Round hole

Can be used with KGPS-RF series
Supports heavily loaded PC boards at the middle of PCB
▶P18





Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGLS-5RT	5	13.8	Top ϕ4 +0.2 0 Bottom ϕ5.5 +0.2 0	Top 1.6±0.15 Bottom 1～1.75	100 pcs.
KGLS-6RT	6	14.8			
KGLS-7RT V0	7	15.8			
KGLS-8RT	8	16.8			100 pcs.
KGLS-10RT	10	18.8			
KGLS-12RT	12	20.8			
KGLS-14RT	14	22.8			
KGLS-16RT	16	24.8			
KGLS-18RT	18	26.8			500 pcs.
KGLS-20RT V0	20	28.7			
KGLS-22RT	22	30.7			
KGLS-24RT	24	32.8			

(Unit：mm)

LOCKING CARD SPACER / SCT

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

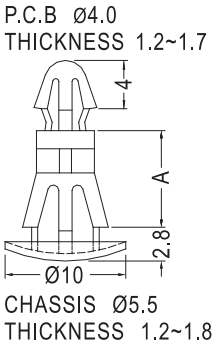
Snap Mountin g

Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	“A”±0.4mm	Std.Package
SCT-5	5.0	1000 pcs.
SCT-6	6.0	
SCT-7	7.0	
SCT-8	8.0	
SCT-10	10.0	
SCT-12	12.0	
SCT-14	14.0	
SCT-18	18.0	

(Unit: mm)

LOCKING CARD SPACER / SDC

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1

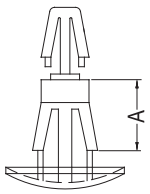
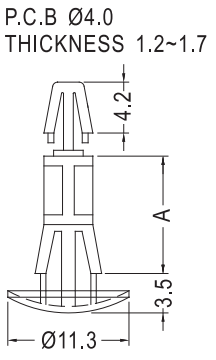


Fig. 2



Part No.	“A”±0.4mm		Std.Package
SDC-3	3.5	Fig.1	1000 pcs.
SDC-5	5.0		
SDC-6	6.35		
SDC-8	8.0		
SDC-10	10.0	Fig.2	
SDC-12	12.7		
SDC-15	15.9		
SDC-19	19.0		
SDC-25	25.4		
SDC-35	35.5		

(Unit: mm)

LOCKING CARD SPACER / SDB

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

Round hole

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

(Unit: mm)

Fig. 1

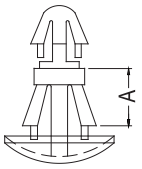
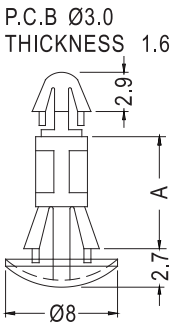


Fig. 2



Part No.	“A”±0.4mm		Std.Package
SDB-2.5	2.5	Fig.1	2000 pcs.
SDB-3	3.2		
SDB-4	4.0		
SDB-5	5.0	Fig.2	
SDB-6	6.0		
SDB-7	7.0		1000 pcs.
SDB-8	8.0		
SDB-9	9.0		
SDB-10	10.0		
SDB-12	12.0		
SDB-14	14.0		
SDB-16	16.0		

LOCKING CARD SPACER / SDX

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

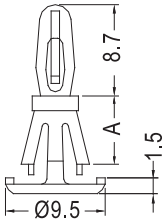
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

P.C.B Ø3.2
THICKNESS 1.2~1.7

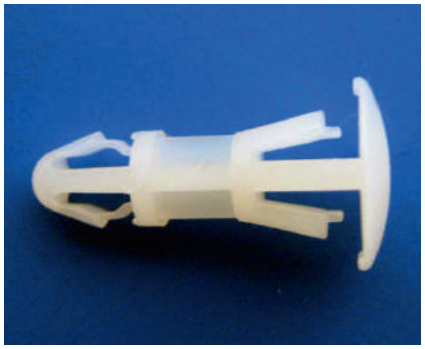


P.C.B Ø4.8
THICKNESS 1.2~1.6

Part No.	“A”±0.4mm	Std.Package
SDX-6.5	6.5	1000 pcs.
SDX-7.9	7.9	
SDX-9.7	9.7	
SDX-11.1	11.1	
SDX-12.7	12.7	
SDX-14.3	14.3	
SDX-15.9	15.9	

(Unit: mm)

LOCKING CARD SPACER / MDCTD



Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

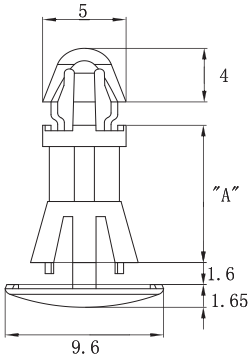
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top hole: 4.0 mm
Panel Thickness: 1.6 mm



Bottom Hole: 5.4 mm
Panel Thickness: 1.6 mm

Part No.	“A”±0.4mm	Std.Package
MDCTD-6	6.0	1000 pcs.
MDCTD-8	8.0	
MDCTD-10	10.0	
MDCTD-12	12.0	
MDCTD-14	14.0	

(Unit: mm)

LOCKING CARD SPACER / MDCTD2

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

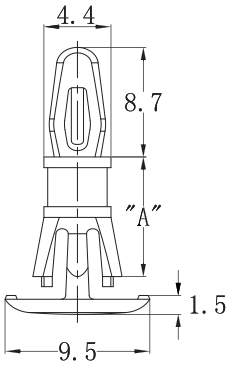
Round hol e

Material

- Nylon 66 (Color: Natural/ Black) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 2
Top hole: 3.2 mm
Panel Thickness: 1.6 mm

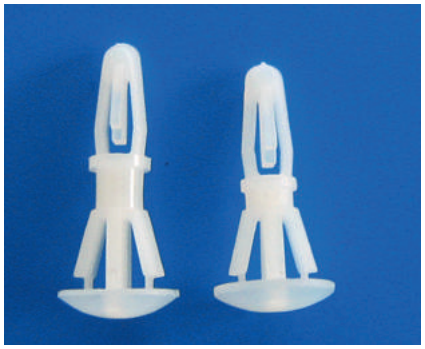


Bottom Hole: 4.8 mm
Panel Thickness: 1.5~1.6 mm

Part No.	“A”±0.4mm	Std.Package
MDCTD2-4	6.4	1000 pcs.
MDCTD2-5	7.9	
MDCTD2-6	9.5	
MDCTD2-7	11.1	
MDCTD2-8	12.7	
MDCTD2-9	14.3	
MDCTD2-10	15.9	

(Unit: mm)

LOCKING CARD SPACER / QDCT



Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

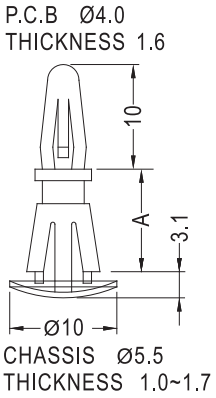
Round hole

Material

- Nylon 66 (Color: Natural)

UL94 V-2 (V-0*)

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	"A"±0.4mm	Std.Package
QDCT-6	6.3	1000 pcs.
QDCT-8	7.9	
QDCT-10	10.0	
QDCT-12A	12.0	
QDCT-12	12.7	

(Unit: mm)

LOCKING CARD SPACER / SDN

Dome-head, snap-mount spacer

Features

- Holding and spacing for PC boards and chassis

Snap Mountin g

Round hol e

Material

- Nylon 66 (Color: Natural)

UL94 V-2 (V-0*)

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1

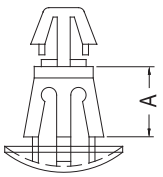


Fig. 2

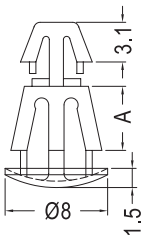
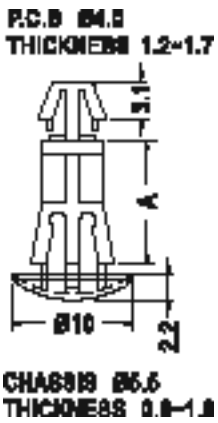


Fig. 3



Part No.	"A"±0.4mm		Std.Package
SDN-3	3.5	Fig.1	1000 pcs.
SDN-5	5.0		
SDN-6	6.35		
SDN-5SP	5.0	Fig.2	
SDN-7	7.0	Fig.3	
SDN-8	8.0		
SDN-8.5	8.5		
SDN-10	10.0		
SDN-12A	12.0		
SDN-12	12.7		
SDN-13.5	13.5		
SDN-14	14.0		
SDN-15	15.2		
SDN-16	15.9		
SDN-18	18.0		
SDN-19	19.0		
SDN-20	20.0		
SDN-22	21.7		
SDN-24	24.0		
SDN-25	25.4		
SDN-30	30.0		

(Unit: mm)

CARD SPACER ™ / KGPS-RF

Dome-head, snap-mount spacer support

Features

- Provides spacing and support at the centre of PCB.
- Dome head snap protects against dust intrusion. Mounted from underside of chassis.

Snap Mounting (Dome head with low protrusion)

Round hole

KGLS-RT

Can be used with KGLS-RT series
Securing and spacing for PCB
Refer to the page 13

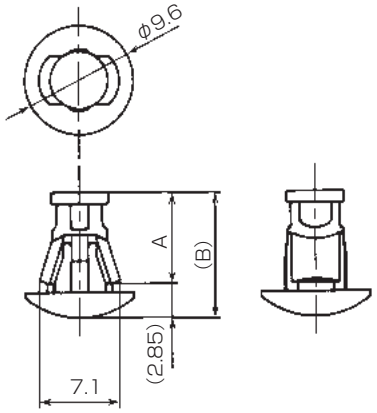
Material

- Nylon 66 (Color : Natural)

UL94 V-2 (V-0※)

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

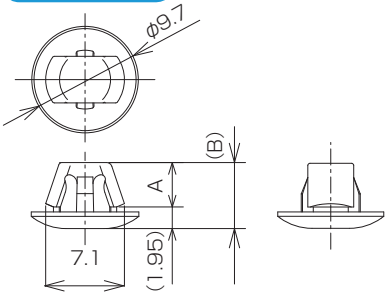
KGPS-RF



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGPS-5RF	5	7.9	ϕ5.5 +0.2 0	1~1.7	500 pcs.
KGPS-6RF	6	8.9			
KGPS-8RF	8	10.9			
KGPS-10RF	10	12.9			
KGPS-12RF	12	14.9			
KGPS-14RF	14	16.9			
KGPS-16RF	16	18.9			
KGPS-18RF	18	20.9			

(Unit : mm)

KGPS-4RF-V0



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGPS-4RF-V0	4	5.95	ϕ5.5±0.1	0.6~1.2	1,000 pcs.

(Unit : mm)

CARD SPACER™ / KGPS-RTBM

Dome-head, snap-mount spacer support for thin panel

Features

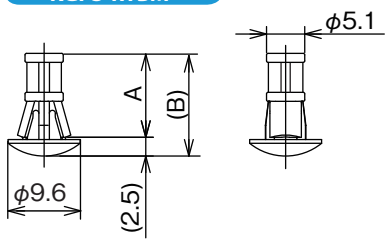
- Provides spacing and support at the center of PCB.
- Applicable thickness of sheet metal is at 0.4 to 1.2mm.
- Dust resistant performance is performed by bowl shaped snap mounted from chassis bottom.

Material

- Nylon 6 (Color : Natural)
- Nylon 66 (Color : Natural)

UL94 V-0 : KGPS-8, 10, 12RTBM V0
UL94 V-0 : KGPS-5, 6RTBM V0
UL94 V-2 : KGPS-14RTBM

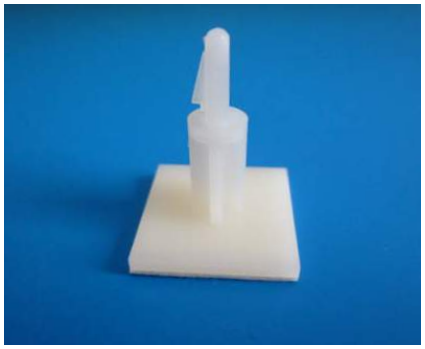
KGPS-RTBM



Part No.	A	(B)	Mounting hole size	Panel thickness	Std. Package
KGPS-5RTBM V0	5	7.5	ϕ5.5 +0.2 0	0.4~1.2	100 pcs.
KGPS-6RTBM V0	6	8.5			
KGPS-8RTBM V0	8	10.5			
KGPS-10RTBM V0	10	12.5			
KGPS-12RTBM V0	12	14.5			
KGPS-14RTBM	14	16.5			

(Unit : mm)

LOCKING CARD SPACER / BTT



Locking Card Spacer with adhesive tape mount

Features

- Holding and spacing for PC boards and chassis

Material

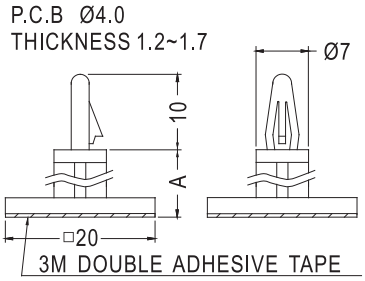
- Nylon 66 (Color: Natural)

UL94 V-2 (V-0*)

Top: Snap Mountin g

Round hol e

Bottom: Adhesive tape mountin g

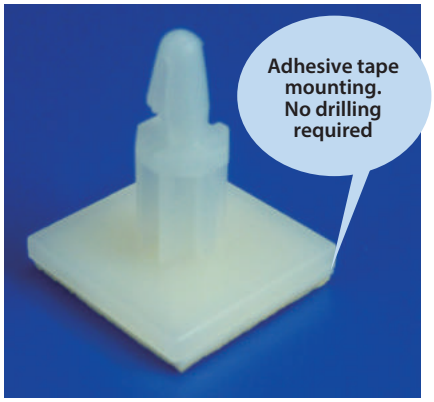


* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Part No.	"A"±0.4mm	Std.Package
BTT-5	5.4	500 pcs.
BTT-6	6.3	
BTT-8	8.0	
BTT-10	9.8	
BTT-12	12.8	
BTT-15	16.2	

(Unit: mm)

LOCKING CARD SPACER / KGLS-M



PCB spacer with adhesive tape mount with no drilling required

Features

- Spacing and securing for PCB and chassis.

Material

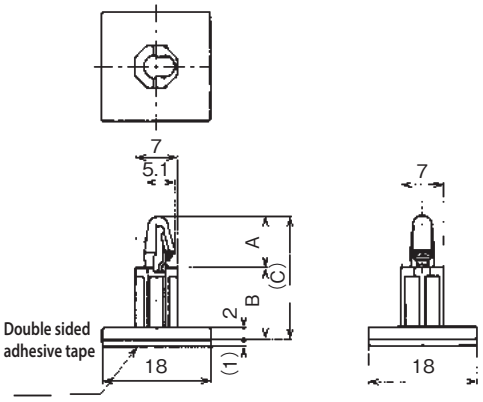
- Nylon 66 (Color : Natural)

UL94 V-2

Top : Snap Mounting

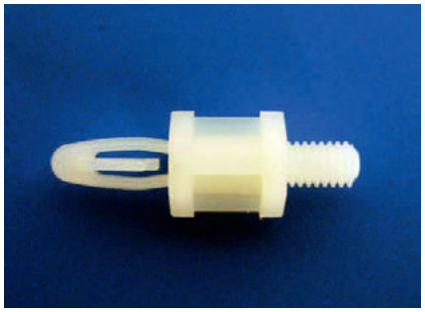
Round hole

Bottom : Adhesive tape mounting



Part No.	A	B	(C)	Mounting hole size	Panel thickness	Std. Package
KGLS-4M-R	8.5	5.6	14.1	Top $\phi 4^{+0.1}_{0}$	Top 1.6~2.0	100 pcs.
KGLS-6M-R	8.5	8.7	17.2			1,000 pcs.
KGLS-8M-R	8.5	11.9	20.4			100 pcs.

(Unit : mm)



TDCT

CT

Locking Card Spacer

Features

- Holding and spacing for PC boards and chassis

Top: Snap Mountin g

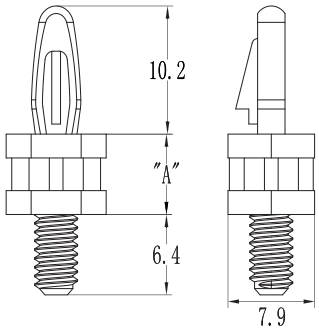
Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Fig. 1
Top hole: 4.0 ± 0.08 mm
Panel Thickness: 1.57 mm

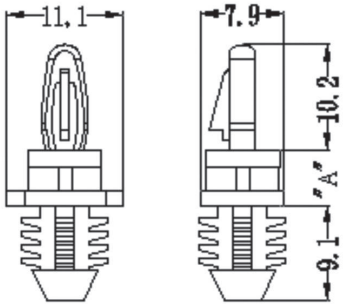


Bottom: M4 thread

Part No.	“A”±0.4mm	Std.Package
TDCT-4	6.4	1000 pcs.
TDCT-6	9.5	
TDCT-8	12.7	
TDCT-10	15.9	
TDCT-12	19.1	
TDCT-14	22.2	
TDCT-16	25.4	
TDCT-18	28.6	
TDCT-22,5	35.7	

(Unit: mm)

Fig. 2
Top hole: 4.0 ± 0.08 mm
Panel Thickness: 1.6 mm



Bottom Hole: 7.9 ± 0.08 mm
Panel Thickness: 6.4 mm mind.

Part No.	“A”±0.4mm	Std.Package
CT-3	4.8	1000 pcs.
CT-4	6.4	
CT-6	9.5	
CT-7	11.1	
CT-8	12.7	
CT-10	15.9	
CT-12	19.1	
CT-14	22.2	

(Unit: mm)

LOCKING CARD SPACER / KGLS™-T

Snap-mount spacer for wooden chassis and PCB panel

Features

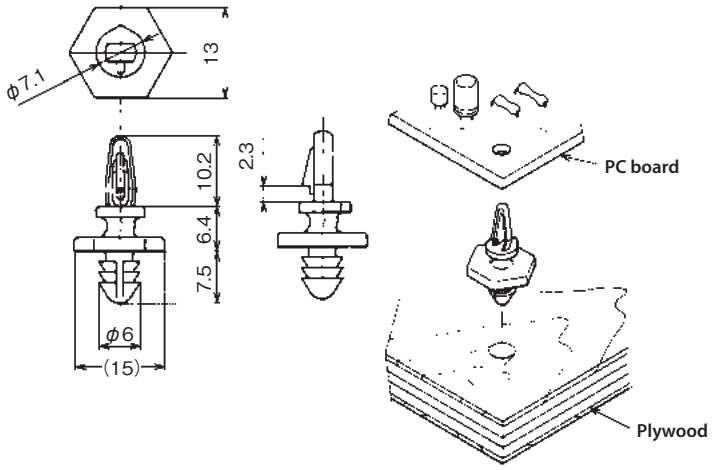
- Spacing and securing for PCB and chassis.

Top : Snap Mounting
Bottom : Snap mounting for wood panels

Round hole

Material

- Nylon 66 (Color : Natural) UL94 V-2

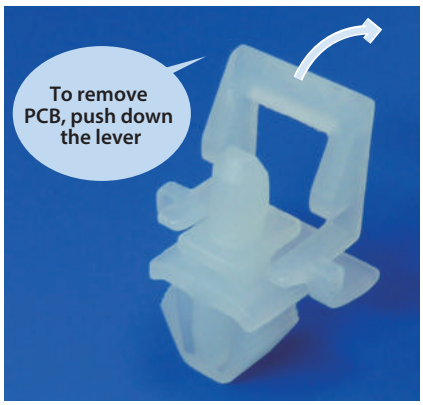


Part No.	Mounting hole size	Panel thickness	Std. Package
KGLS-04T	Top $\phi 4^{+0.2}_{0}$ Bottom ϕ5.5~5.8※	Top Max.2.0 Bottom —※	100 pcs.

(Unit : mm)

※Varies according to the material, please confirm suitable hole dimensions and panel thickness using the actual material.

CARD EDGE SPACER / KGES



Releasable PCB spacer for easy mount and dismount

Features

- Board is mounted and dismounted easily using the special lever.

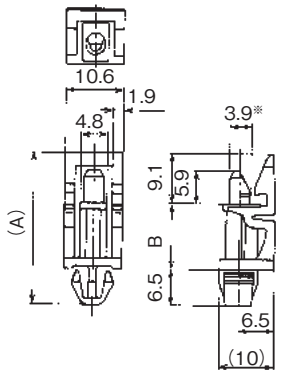
Material

- Nylon 66 (Color : Natural) UL94 V-2(V-0※)

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

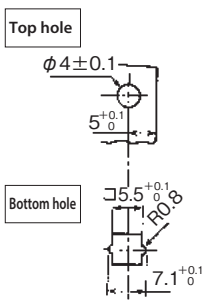
Snap Mounting
Top
Round hole
Bottom
Odd-shaped hole

Can be used with PHD series
Holding and opening of PCB for access to backside with no hinge used.
▶P23



※3.8mm for KGES 4-8.

Specification drawing

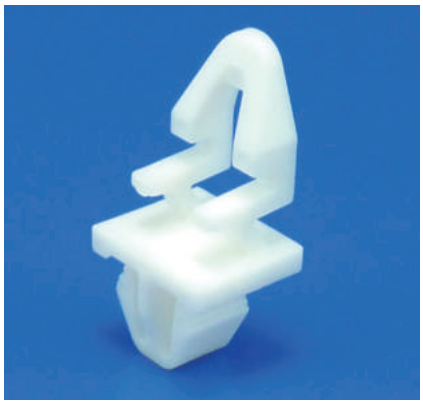


Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
※KGES-4	19.6	4	Refer to Specification drawing	Top 1.6±0.1 Bottom 1~1.8	1,000 pcs.
KGES-6	21.6	6			
KGES-8	23.6	8			
KGES-10	25.6	10			100 pcs.
KGES-12	27.6	12			1,000 pcs.
KGES-14	29.6	14			
KGES-18	33.6	18			
KGES-25	40.6	25			
KGES-30	45.6	30			

※KGES-4 has a slightly different configuration from the left drawing.

(Unit : mm)

CARD EDGE SPACER / CESP-55



Releasable PCB spacer that does not drilling for easy access

Features

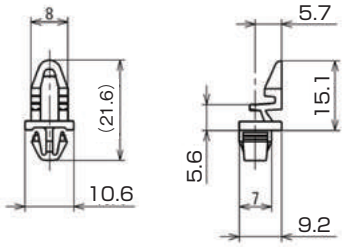
- PC board spacer that stabilise edge of PC board by simply pressing it onto this product.
- Easy removable of board by lever action.
- Suitable to mount thin PC board. (Thickness of mounted PC board：1.2±0.17mm)
- Suitable to prevent bending of PCB and secure spacing.

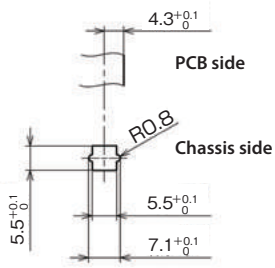
※ We recommend you to utilize this product as a supplementary usage together with screw or other fixing means.

Material

- Nylon 66（Color：Natural） UL94 V-0

Specification drawing

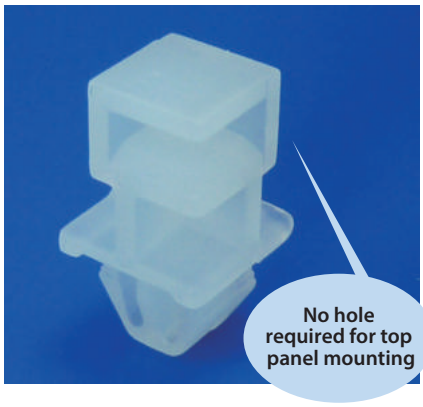




Part No.	Chassis thickness		Mounting hole size	
	PC board	Chassis	PC board	Chassis
CESP-55	1.2 ±0.17	0.8～1.8	—	Custom (See above)

(Unit：mm)

CORNER POST / KGCP-08-0



Releasable PCB spacer that does not require drilling

Features

- Requires no mounting hole and occupies only 6mm square.

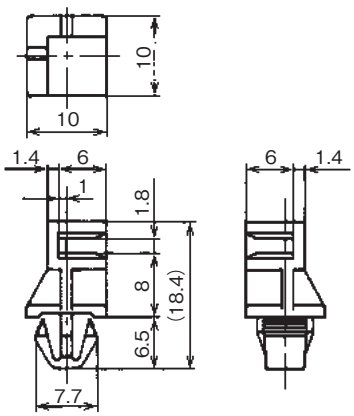
Snap Mounting
Bottom
Odd-shaped hole
Top：No mounting hole needed
(Space of 6mm square is required at each panel corner)

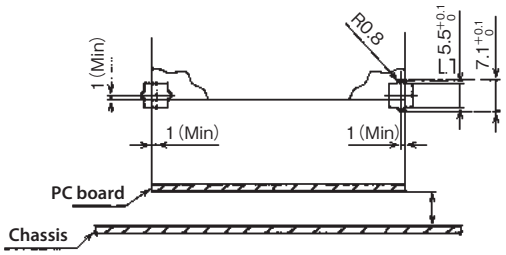
Can be used with KGES-8 series
For installation and removal of PCB
Refer to the left page

Material

- Nylon 66（Color：Natural） UL94 V-2

Specification drawing

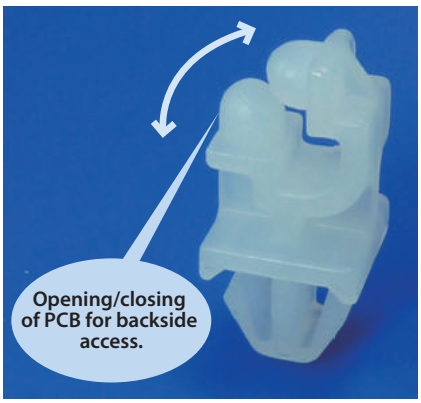




Part No.	Mounting hole size	Panel thickness	Std. Package
KGCP-08-0	Refer to Specification drawing	Top 1.6±0.15 Bottom 1～1.8	1,000 pcs.

(Unit：mm)

PIERCE HOLD / PHD



Spacer that allows easy opening/ closing/ removal of PCB

Features

- PCB can be mounted and opened for access to the backside for maintenance.
- Non-hinge mechanism protects the product from damage by PCB open/close movement.

Material

- Nylon 66（Color：Natural） UL94 V-2（V-0※）

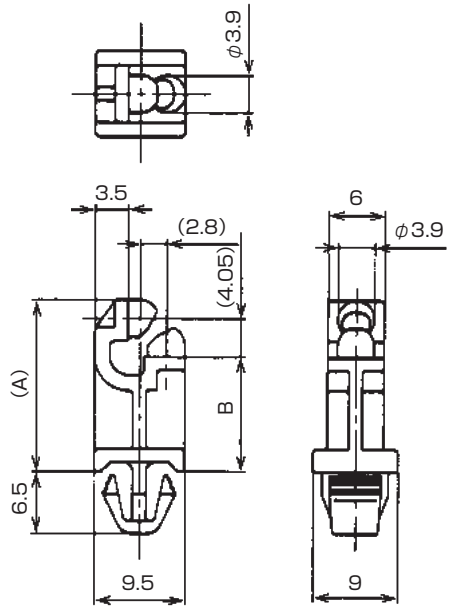
※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

Snap Mounting

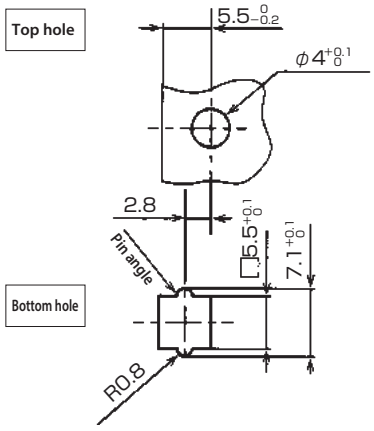
Top
Round hole

Bottom
Odd-shaped hole

Can be used with KGES series
For installation and removal of PCB
P21

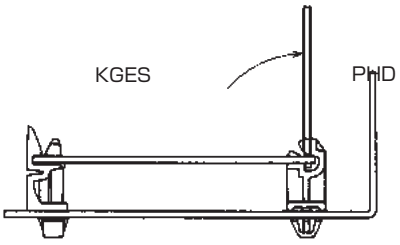


Specification drawing



Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
PHD-04	10	4	Top φ4 +0.1 0 Bottom Refer to Specification drawing	Top 1.6±0.1 Bottom 1～1.8	1,000 pcs.
PHD-06	12	6			
PHD-08	14	8			
PHD-10	16	10			
PHD-12	18	12			
PHD-14	20	14			
PHD-18	24	18			
PHD-25	31	25			1,000 pcs/ MOQ: 10,000 pcs.
PHD-30	36	30			1,000 pcs.

(Unit：mm)



RE-USE EDGE SPACER / RES

Releasable spacer for easy access and maintenance of PCB and panel

Features

- Easily mount and dismount PCB by pushing down the lever.
- Removal by one hand with no tools required.

Material

- Nylon 66（Color：Natural）　UL94 V-2(V-0※)

※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

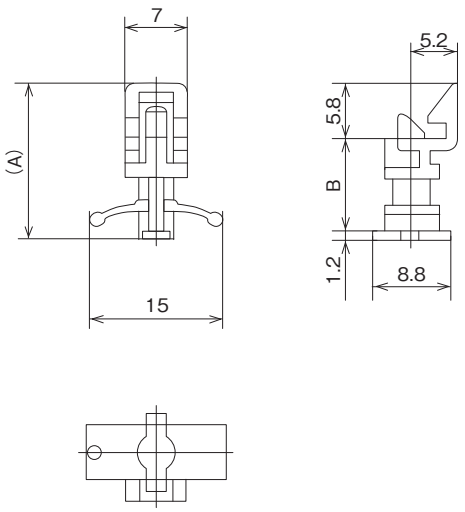
TWIST ReusableSnap Mounting

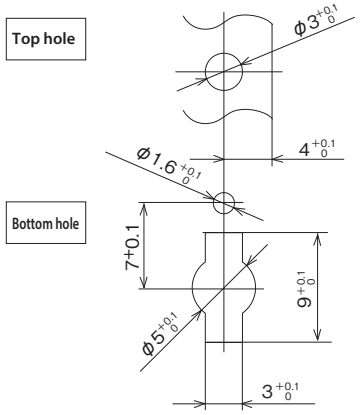
Top
Round hole

Bottom
Odd-shaped hole

Can be used with RPH series
Holding and opening of PCB for backside access.
▶P25

Specification drawing



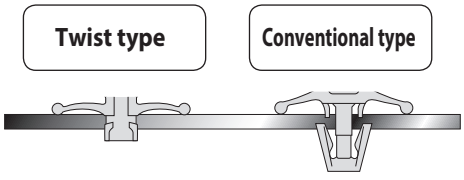


Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
RES-6	13	6	Refer to Specification drawing	Top 1.6±0.1 Bottom 0.8～1.6	100 pcs.
RES-8	15	8			
RES-10	17	10			
RES-12	19	12			
RES-14	21	14			

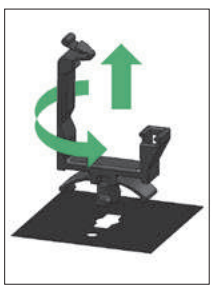
(Unit：mm)

Turn and remove　Reusable Snap　(Twist type)

Space saving



The snap protrusion is greatly reduced
Compared to conventional snap, the protrusion of snap is greatly lowered for application in limited spaces.



Easy Operation!

For installation and removal, simply turn the body
Can be removed from mounting side with no tool needed, while conventional snap requires cutting by nippers etc from the backside of the panel.

RE-USE PIERCE HOLD / RPH

Releasable spacer for easy access and maintenance of PCB and panel (not hinged)

Features

- PCB can be mounted and opened for access to the backside for maintenance.
- Removed by one hand no tools required.

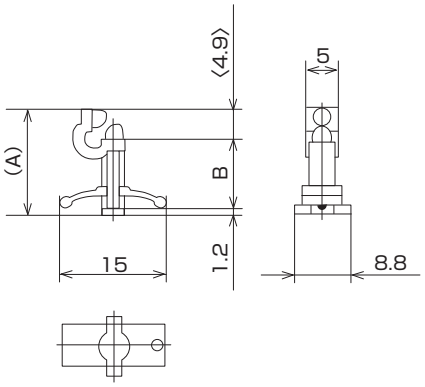
Material

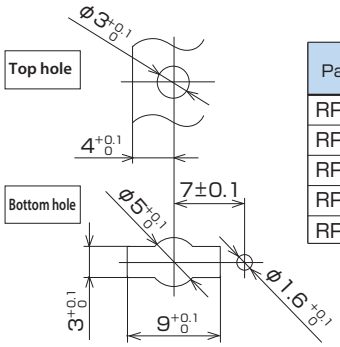
- Nylon 66 (Color : Natural) UL94 V-2

Twist Type
Top
Round hole
Bottom
Odd-shaped hole

Can be used with RES series
Mount and dismount of PCB by pushing down the lever.
◀P24

Specification drawing





Part No.	(A)	B	Mounting hole size	Panel thickness	Std. Package
RPH-6	12.1	6	Refer to Specification drawing	Top 1.6±0.1 Bottom 0.8~1.6	100 pcs.
RPH-8	14.1	8			
RPH-10	16.1	10			
RPH-12	18.1	12			
RPH-14	20.1	14			

(Unit : mm)

TAPPING CARD SPACER / KGTS-T, K

Spacer of PCB that allows for screw mount onto the chassis

Features

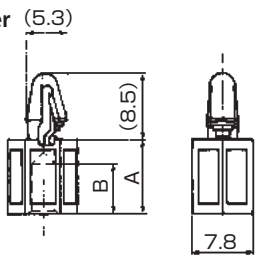
- Provides simultaneous functions of spacing and supporting for PCB and chassis.

Material

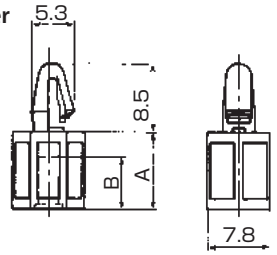
- Nylon 66 (Color : Natural) UL94 V-2

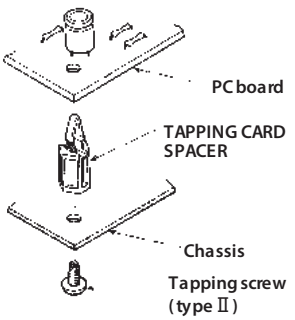
Top : Snap Mounting
Round hole
Bottom : Screw Mounting

KGTS-T type
(Nominal diameter 3.5mm type)



KGTS-K type
(Nominal diameter 3mm type)





Part No.	A	(Depth of screw hole)	Mounting hole size	Panel thickness	Std. Package
KGTS-4T	6.4	5.2	$\phi 4^{+0.1}_{0}$	1.6~2.0	100 pcs.
KGTS-5T	7.5	6.4			
KGTS-6T	9.5	6.4			
KGTS-8T	12.7	9.6			
KGTS-10T	15.9	12.8			
KGTS-12T	19.1	16.0			
KGTS-14T	22.2	19.1			
KGTS-18T	28.6	25.5			
KGTS-22T	35.7	32.6			

(Unit : mm)

Part No.	A	(Depth of screw hole)	Mounting hole size	Panel thickness	Std. Package
KGTS-4K	6.4	5.2	$\phi 4^{+0.2}_{0}$	1.6~2.0	100 pcs.
KGTS-5K	7.5	6.4			
KGTS-6K	9.5	6.4			
KGTS-8K	12.7	9.6			
KGTS-10K	15.9	12.8			
KGTS-12K	19.1	16.0			
KGTS-14K	22.2	19.1			
KGTS-18K	28.6	19.1			
KGTS-22K	35.7	19.1			

(Unit : mm)

ONE TOUCH COLLAR BUSHING / NB·NA·TA

Height adjustable collar bushing for PCB protection

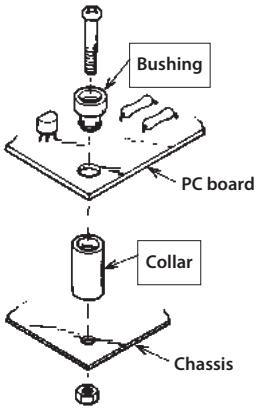
Features

- Combination of a bushing and a collar provides various spacing height.

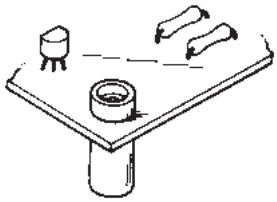
Screw Mounting

Material

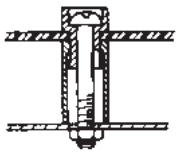
- ABS（Color：Natural） UL94 HB
- Poly-carbonate※（Color：Black） UL94 V-O



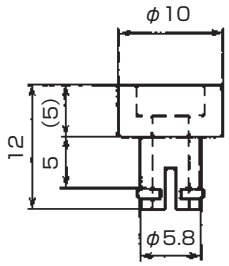
〈When temporary mounted on PCB〉



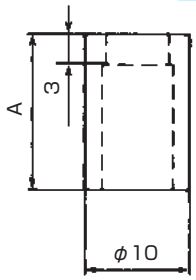
〈When screw is tightened〉



Bushing for 3mm screw NB-300



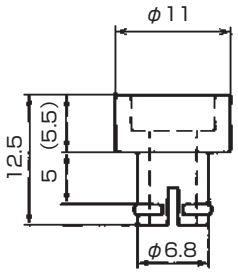
Collar for 3mm screw NA-3※※



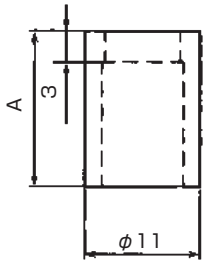
Collar No	Spacing height A	Mounting hole size	Std. Package
NA-305	5.7	φ6.5	200 pcs.
NA-307	7.5		
NA-310	10.0		
NA-315	15.0		
NA-320	20.0		100 pcs.

(Unit：mm)

Bushing for 4mm screw NB-400



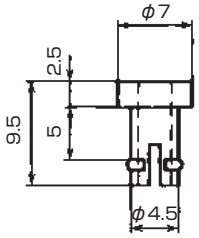
Collar for 4mm screw NA-4※※



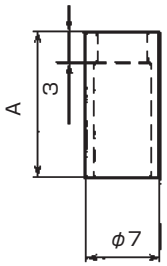
Collar No	Spacing height A	Mounting hole size	Std. Package
NA-405	5.7	φ7.5	200 pcs.
NA-407	7.5		
NA-410	10.0		
NA-415	15.0		100 pcs.
NA-420	20.0		

(Unit：mm)

Bushing for 3mm screw TB-300



Collar for 3mm screw TA-3※※



Collar No	Spacing height A	Mounting hole size	Std. Package
TA-305	5.7	φ5.2	200 pcs.
TA-306.4	6.4		
TA-307	7.5		
TA-308	8.0		
TA-309	9.0		
TA-310	10.0		
TA-314	14.0		
TA-320	20.0		
TA-329	29.0		

(Unit：mm)

※ Please order in unit of a bushing and collar set.

SELF RETAINING SPACER / TST8•TST6

Self-Retaining Support Post

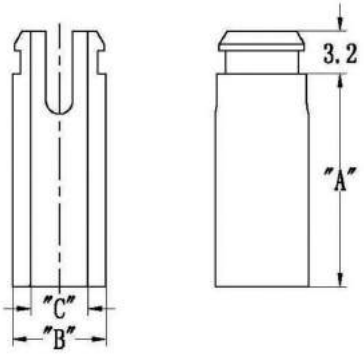
Features

- Anti Rotation type spacer

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



B=7.0mm C=3.9mm (TST6-x)
B=7.0mm C=4.3mm (TST8-x)
Hole diameter 5.9mm
Panel Thickness 1.6 mm

Part No.		"A"±0.4mm	Std.Package
TST8-4	TST6-4	6.4	1000 pcs.
TST8-5	TST6-5	7.9	
TST8-6	TST6-6	9.5	
TST8-7	TST6-7	11.1	
TST8-8	TST6-8	12.7	
TST8-10	TST6-10	15.9	
TST8-12	TST6-12	19.1	
TST8-14	TST6-14	22.2	
TST8-16	TST6-16	25.4	

(Unit: mm)

CLINCH RIVET / DS

Clinch Rivet with permanent fixation of two chassis

Features

- Permanent fixation of two chassis by simply pushing

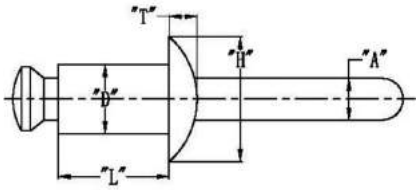
Snap Mountin g

Round hol e

Material

- PC (Lod) **UL94 V-2**
- Nylon 6 (Rivet) **UL94 V-0**

Add color code to the end of part number: Black=1, White=2, Grey=3, Beige=4



Std. Package: 1000 pcs.

Part No.	Hole Dia.	Panel Thick.	"D"	"L"	"E"	"T"	"A"	Tensile Strength	Shear Strength
DS32-1-x	3.3	1.0~3.5	3.2	6.4	6.4	1.4	2.1	10KG	15KG
DS32-2-x		3.5~6.5		9.6					
DS32-3-x		6.5~9.5		12.7					
DS40-1-x	4.1	1.0~3.5	4.0	6.4	8.0	1.8	2.4	18KG	20KG
DS40-2-x		3.5~6.5		9.6					
DS40-3-x		6.5~9.5		12.7					
DS48-1-x	4.9	1.5~4.5	4.8	8.0	9.6	2.0	2.8	23KG	32KG
DS48-2-x		4.5~7.5		11.2					
DS48-3-x		7.5~10.5		14.4					
DS56-1-x	5.7	2.0~5.0	5.6	9.6	12.0	2.2	3.4	40KG	40KG
DS56-2-x		5.0~8.0		12.7					
DS56-3-x		8.0~11.5		15.9					

(Unit: mm)

Speed screw can be used repeatedly

Features

- Easiest and fastest way to screw and unscrew
- Can be used repeatedly, for at least 1000 times
- Suitable to closed and sealed space without screw nuts
- Rust free and environmental friendly

Snap Mountin g

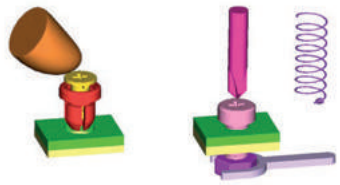
Round hol e

Material

- PC UL94 V-2

Std. Package: 1000 pcs.

Speed Screw vs Current screw



Screw 2s 30s

Unscrew 2s 30s

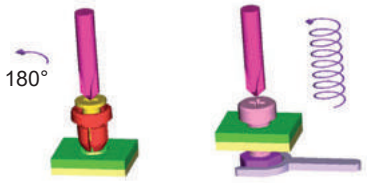


Fig. 1

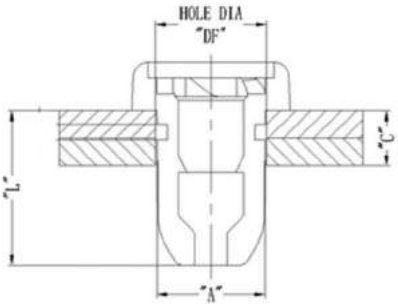
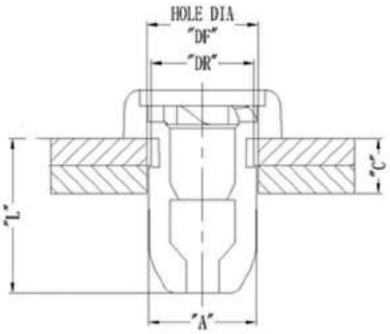
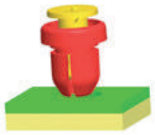


Fig. 2

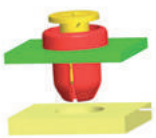


Part No.	"A" (mm)	"C" (mm)	"L" (mm)	Removable Panel "DF"	Fixed Panel "DR"	Fig No.	Max. Strength
TT1-6.3	6.3	3.0~4.2	9.0	6.4~6.5		1	30kg
TT1-7.9	7.9	3.0~4.2	9.0	8.0~8.1			50kg
TT2-6.3	6.3	3.0~4.2	9.0	6.4~6.5	6.0~6.1	2	30kg
TT-2-7.9	7.9	3.0~4.2	9.0	8.0~8.1	7.5~7.7		50kg

(Unit: mm)

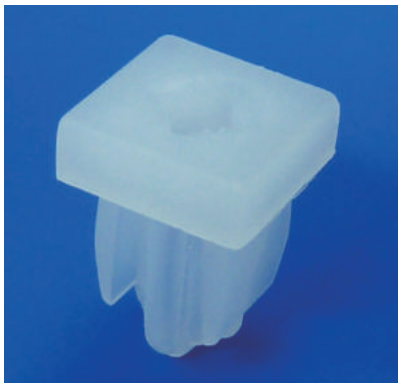


TT1 is the type that separated from both panaels when unscrewed



TT2 is the type that fixed into one panel when unscrewed.

EXPANSION NUT / ES



Screw mount PCB spacer that keeps components and panel in place

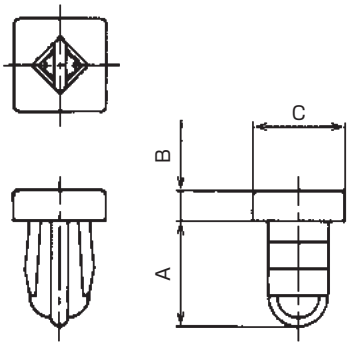
Features

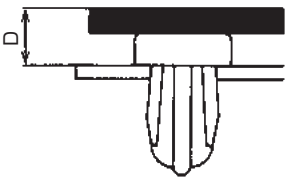
- Provides fixation of panel to panel and component to panel, as well as spacing between them.
- Tightening screw provides secure fixation by swelling of the middle part of the nut.
- Plastic nut surrounds the screw for high insulation and corrosion protection.

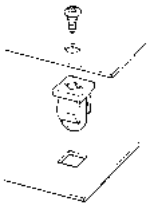
Material

- Nylon 66（Color：Natural） UL94 V-2

Screw Mounting
(Applicable screw: ϕ4.5mm Tapping screw Type 1)
Top
Round hole
Bottom
Square hole







Part No.	A	B	□C	Mounting hole size	Panel thickness	Screw diameter	Screw length (Nominal length)	Std. Package
ES-1K	11.0	0.8	9.7	□6.7$^{+0.3}_{0}$	0.5~2.0	4.5	D+9.5	500 pcs.
ES-2K		1.6						
ES-3K		3.2						
ES-4K		4.8						
ES-5K		6.4						

(Unit：mm)

TOGGLE FIXER / TFR

Screw mount PCB spacer that keeps components and panel in place

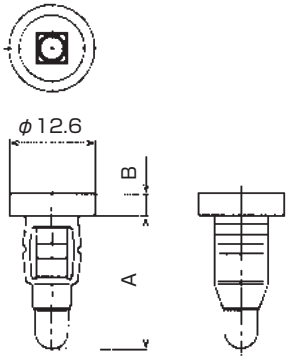
Features

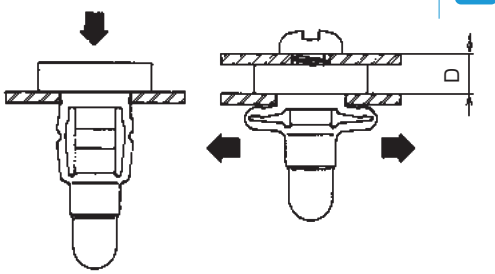
- Spacing and fixation for panels and components.
- Locking tabs open to secure by tightening the screw.

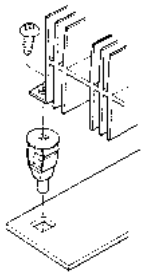
Material

- Nylon 66（Color：Natural） UL94 V-2

Screw Mounting
(Applicable screw: ϕ4mmTapping screw Type 1)
Top
Round hole
Bottom
Square hole







Part No.	Screw diameter	Screw length (Nominal length)	A	B	Mounting hole size	Panel thickness	Std. Package
TFR-1	ϕ4	D +12.5	19.4	0.8	□7.9$^{+0.2}_{0}$	0.5~ 2.8	500 pcs.
TFR-3				3.2			
TFR-4				4.8			

(Unit：mm)

NYLON RIVET / P•NR•NRP•P-SN

Snap-mount rivet series to fix 2 chassis plates together

Features

- Permanent fixation of two chassis by simply pushing down the rivet.

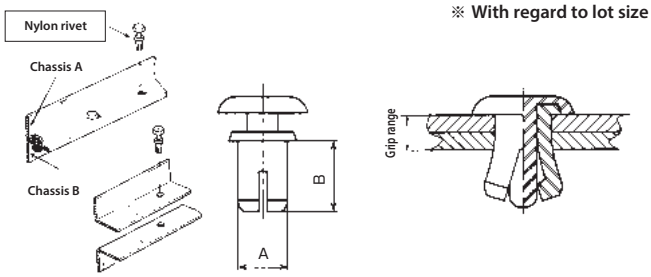
Snap Mounting(by Pushing rivet)

Round hole

Material

- Nylon 6 （Color：Black,White※） UL94 V-2
- Nylon 46 （Color：Beige） UL94 V-2

※ With regard to lot size and lead time for the white type, please contact us.



Made of Nylon 46

Part No.	Axis diameter A	Length B	Grip range	Mounting hole size	Std. Package
P3045SN	3	4.5	2.0~3.0	φ3.1	1,000 pcs.
P3055SN		5.5	3.0~4.0		
P4060SN	4	6.0	3.5~4.5	φ4.1	

(Unit：mm)

Made of Nylon 6

Part No.	Axis diameter A	Length B	Grip range	Mounting hole size	Std. Package
P2024	2.0	2.4	0.6~1.2	φ2.1	1,000 pcs.
P2032		3.2	1.3~2.0		
P2040		4.0	2.1~2.8		
P2048		4.8	2.9~3.6		
NRP-232	2.6	3.2	1.0~2.0	φ2.7	
NRP-242		4.2	2.1~3.0		
NRP-335	3.0	3.5	1.0~2.0	φ3.1	
NRP-345		4.5	2.0~3.0		
NRP-355		5.5	3.0~4.0		
NRP-365		6.5	4.0~5.0		
NRP-380		8.0	5.5~6.5		
NR-354	3.5	5.5	3.2~4.1	φ3.6	

Part No.	Axis diameter A	Length B	Grip range	Mounting hole size	Std. Package
NRP-450	4.0	5.0	2.5~3.5	φ4.1	1,000 pcs.
NRP-460		6.0	3.5~4.5		
NRP-470		7.0	4.5~5.5		
NRP-480		8.0	5.5~6.5		
NRP-504	5.0	4.5	1.5~2.5	φ5.1	
NRP-505		5.5	2.5~3.5		
NRP-506		6.5	3.5~4.5		
NRP-507		7.5	4.5~5.5		
NRP-508		8.5	5.5~6.5		
NRP-509		9.5	6.5~7.5		
NRP-510		10.5	7.5~8.5		

(Unit：mm)

RIVET / RVT

Resin rivet to provide vibration damping

Features

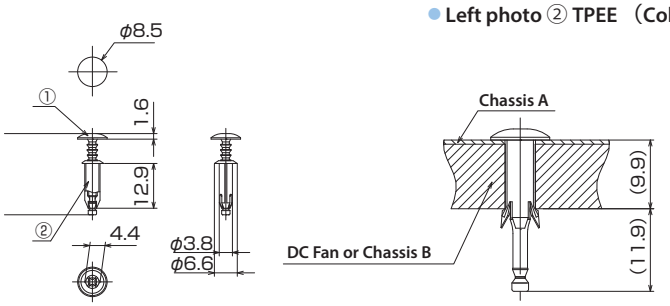
- Quick insertion in mounting holes in flanges of fans etc with no screw needed.
- Elastomeric material provides effective vibration control.

Snap Mounting(by Pushing rivet)

Round hole

Material

- Left photo ① Nylon 66 （Color：Black） UL94 V-O
- Left photo ② TPEE （Color：Natural） UL94 HB



NYLON RIVET / SI

Rivet with permanent fixation of two chassis by simply pushing

Features

- Permanent fixation of two chassis by simply pushing

Snap Mountin g

Round hol e

Material

- Nylon 6 (Color: White or Black) **UL94 V-2 (V-0*)**

Please add W for White color or B for Black to the end of Part No.
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Std. Package: 1000 pcs.

Fig. 1

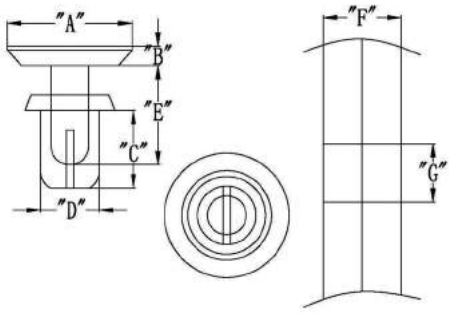
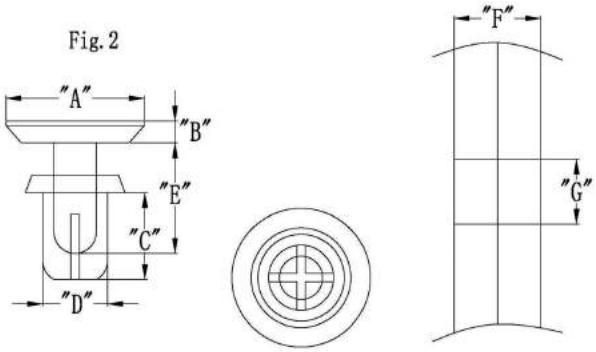


Fig. 2



Part No	Hole Dia.	Panel Thickness	“A”	“B”	“C”	“D”	“E”	Fig.
SI3035	3.1	1.0~2.0	6.4	1.0	3.5	3.0	6.5	1
SI3045		2.0~3.0			4.5			
SI3055		3.0~4.0			5.5			
SI3065		4.0~5.0	6.0		6.5		10.0	
SI3075		5.0~6.0			7.5			
SI3080		5.5~6.5			8.0			
SI3090		6.5~7.5			9.0			
SI3100		7.5~8.5			10.0			
SI3535	3.6	1.0~2.0	6.4	1.0	3.5	3.5	6.5	2
SI3545		2.0~3.0			4.5			
SI3555		3.0~4.0	6.0		5.5		10.0	
SI3560		3.5~4.5			6.0			
SI3570		4.5~5.5			7.0			
SI3580		5.5~6.5			8.0			

(Unit: mm)

Rivet with permanent fixation of two chassis by simply pushing

Features

- Permanent fixation of two chassis by simply pushing

Snap Mountin g

Round hol e

Material

- Nylon 6 (Color: White or Black) **UL94 V-2 (V-0*)**

Please add W for White color or B for Black to the end of Part No.
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Std. Package: 1000 pcs.

Fig. 1

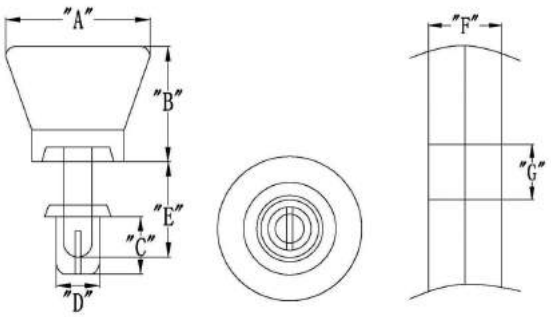
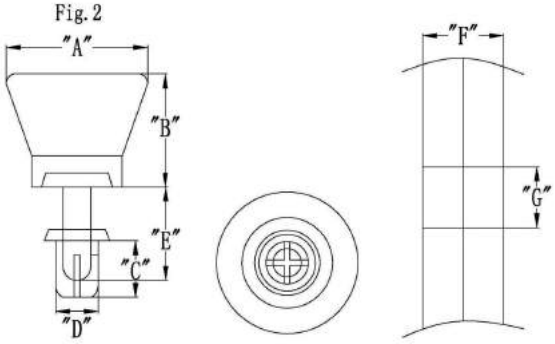


Fig. 2



Part No	Hole Dia	Panel Thick-ness	“A”	“B”	“C”	“D”	“E”	Fig.
SU3035	3.1	1.0~2.0	10.0	8.0	3.5	3.0	6.6	1
SU3045		2.0~3.0			4.5			
SU3055		3.0~4.0			5.5			
SU3065		4.0~5.0			6.5		9.0	
SU3075		5.0~6.0			7.5			
SU3080		5.5~6.5			8.0			
SU3535	3.6	1.0~2.0	10.0	8.0	3.5	3.5	6.6	2
SU3545		2.0~3.0			4.5			
SU3555		3.0~4.0			5.5			
SU3560		3.5~4.5			6.0		9.0	
SU3570		4.5~5.5			7.0			
SU3580		5.5~6.5			8.0			
SU4050	4.1	2.5~3.5	12.0	8.0	5.0	4.0	7.6	
SU4060		3.5~4.5			6.0			
SU4070		4.5~5.5			7.0		11.2	
SU4080		5.5~6.5			8.0			
SU4090		6.5~7.5			9.0			
SU4100		7.5~8.5			10.0			

(Unit: mm)

RIVET / NRK-450L WT

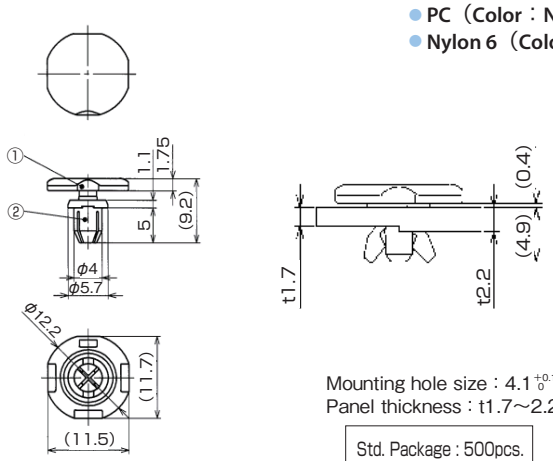
Resin push mount rivet that snaps into a hole with low insertion force

Features

- Insertion forces realized in consideration of assembly.
- Structure easier to remove from mounting side for rework.
- Use Materials having a high reflectance in the visible light region on the top surface.
- Corresponding structure even if you use a reflection sheet on the PCB.

Material

- PC（Color：Natural） UL94 V-0
- Nylon 6（Color：Natural） UL94 V-0

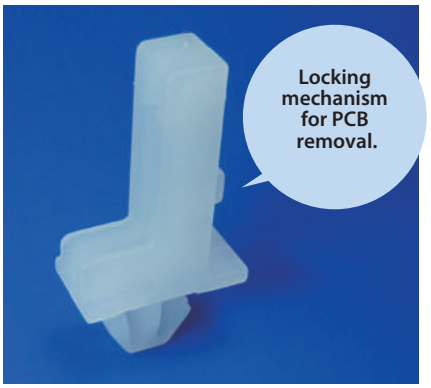


(Unit : mm)

Mounting hole size : 4.1 $^{+0.1}_{0}$
Panel thickness : t1.7～2.2mm

Std. Package : 500pcs.

CARD CORNER HOLDER / KGCH-20-0



Sub-PCB holder to mount onto chassis or main PCB

Features

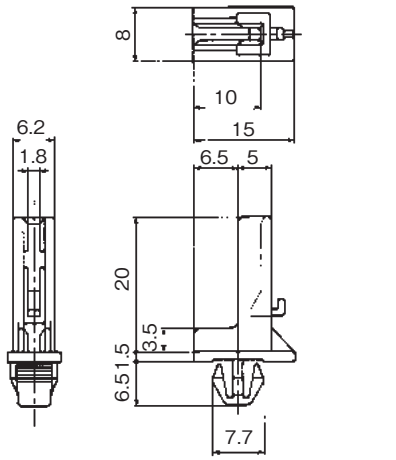
- Space-saving holder allows mounting of sub-PCB onto chassis or main-PCB.
- Sub-PCB can be removed due to the locking mechanism.

Snap Mounting
Odd-shaped hole

Material

- Nylon 6（Color：Natural） UL94 V-2（V-0※）

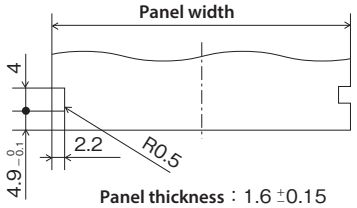
※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）



(Unit : mm)

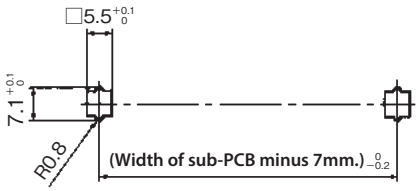
Std. Package : 1000pcs.

Specification drawing for sub-PCB

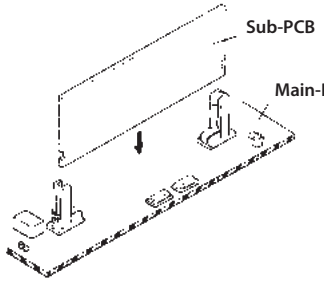


Panel thickness : 1.6 ±0.15

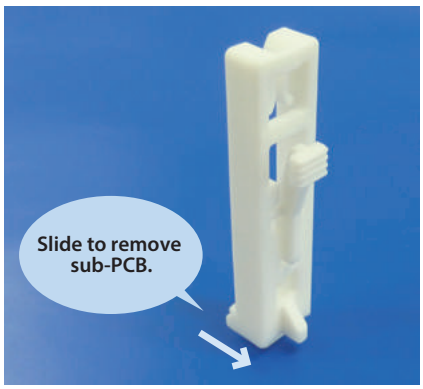
Specification drawing



Panel thickness : 0.8～1.8



RE-USE CARD HOLDER / RCH-40-V0



PCB spacer that enables easy PCB / chassis release

Features

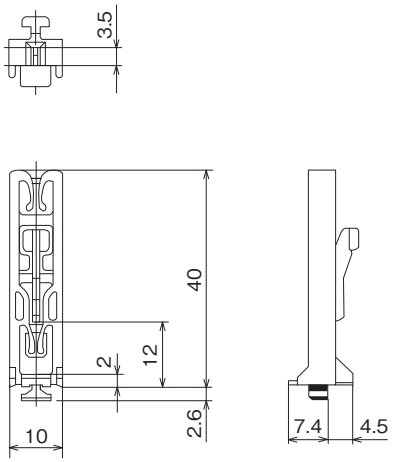
- Space-saving, sub-PCB holder for installation on chassis or main-PCB.
- Sup-PCB can be removed due to the locking mechanism.
- Detachable holder requires no tools for maintenance and disassembling.

Slide Type

Odd-shaped hole

Material

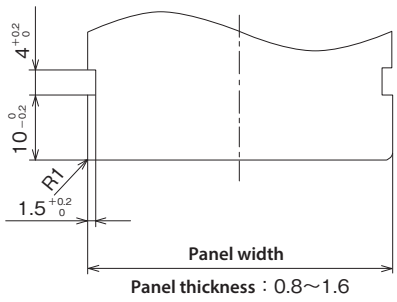
- Nylon 66（Color：Natural） UL94 V-0



(Unit：mm)

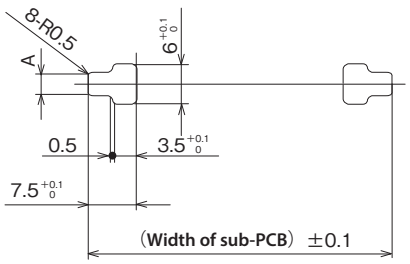
Std. Package：250pcs.

Specification drawing for sub-PCB



Panel thickness：0.8～1.6

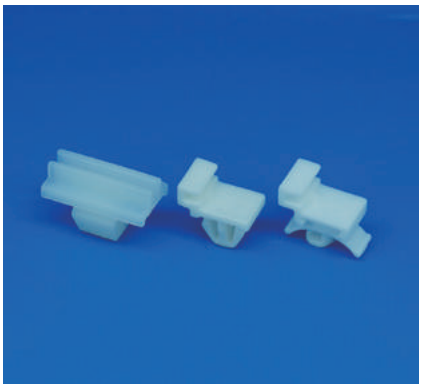
Specification drawing



Panel thickness：0.8～1.6

Panel thickness	A
0.8 +0.1 0	2.0 +0.1 0
1±0.1	2.6 +0.1 0
1.2±0.1	3.2 +0.1 0
1.4±0.1	3.8 +0.1 0
1.6 0 −0.1	4.4 +0.1 0

(Unit：mm)



PCB guide for limited space

Snap Mounting
UEGR-※※-0
UEGR-08Y, RUEGR-08Y-V0

Round hole

Slide Type
RUEGR-08Y-V0

Odd-shaped hole

Features

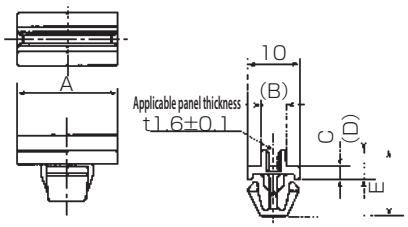
- Low-cost and space saving card guide.
- Reusable type, requires no tools for mount/dis-mounting.

Material

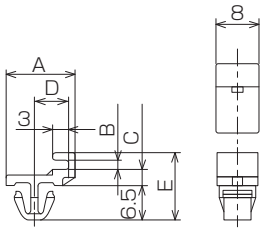
- Nylon 66（Color：Natural）

UL94 V-2 : UEGR-※※-0
UL94 V-0 : UEGR-08Y, RUEGR-08Y-V0

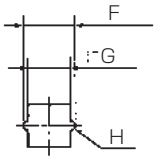
UEGR-※※-0 For mounting on vertical plane



UEGR-08Y For mounting on horizontal plane



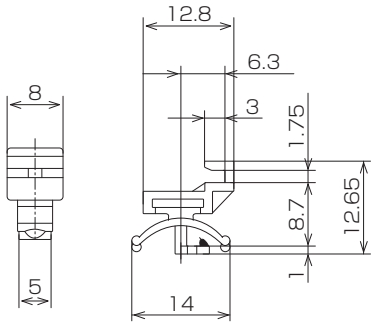
Specification drawing



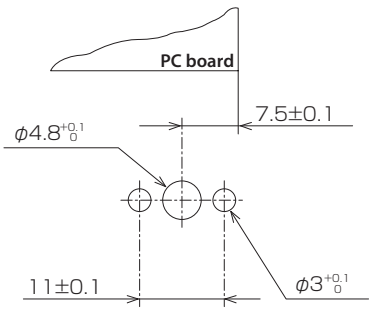
Part No.	A	B	C	D	E	F	G	H	Panel thickness	Std. Package
UEGR-08-0	8	5.5	1.6	4.6	10.1	$7.1^{+0.1}_{0}$	$□5.5^{+0.1}_{0}$	R0.8	1～2	1,000 pcs.
UEGR-19-0	19	4.7	2.5	5.5	12.5	$9.8^{+0.1}_{0}$	$□8^{+0.1}_{0}$	R0.9	0.8～1.2	
UEGR-08Y	12.8	1.6	3.0	6.3	12.5	$7.1^{+0.1}_{0}$	$□5.5^{+0.1}_{0}$	R0.8	1.5±0.1	500 pcs.

(Unit：mm)

RUEGR-08Y-V0



Specification drawing



Part No.	Panel thickness	Std. Package
RUEGR-08Y-V0	0.8～2.0	1,000 pcs.

(Unit：mm)

Slide and remove　Reusable Snap　(Slide type)

Easy Operation!

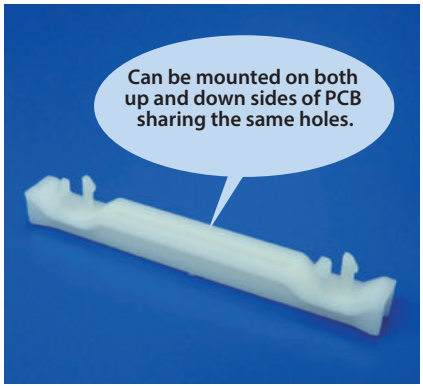
Simply slide the body to install and remove.

Space saving

Greatly reduces the snap protrusion on the underside of PCB
Also suitable for application in limited spaces.

Round hole mounting

No odd-shaped hole required
Drilling 3 holes only.



Compact guide rail to 1mm thick PCB

Features

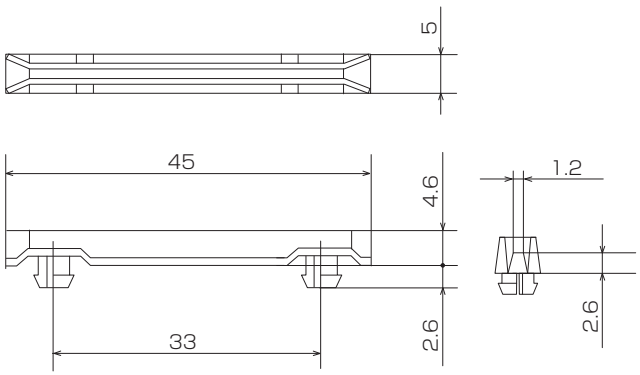
- Space-saving card guide can be installed on both sides of PCB by using the same holes.
- Card guide for 1mm thick PCB, improved stable holding without making clattering of PC board.

Snap Mounting

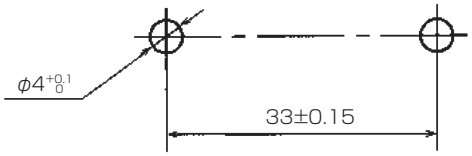
Round hole

Material

- Nylon 66（Color：Natural） UL94 V-0



Specification drawing



Part No.	Mounting hole size	Panel thickness	Applicable panel thickness	Std. Package
GR-45A	Refer to Specification drawing	$1^{0}_{-0.1}$	1±0.2	100 pcs.

(Unit：mm)

CARD GUIDE / GR

Standard PCB guide rail

Features

- Slim PCB guide.

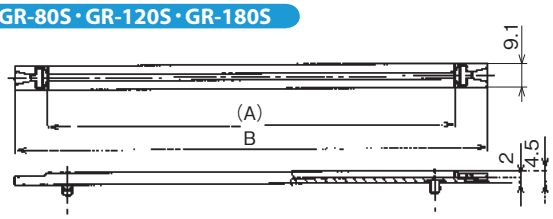
Material

- Poly-carbonate （Color：Black） UL94 V-2

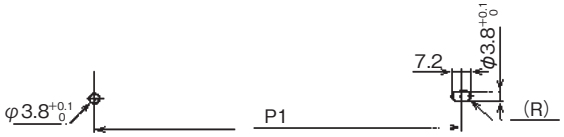
Snap Mounting

Round hole

GR-80S・GR-120S・GR-180S



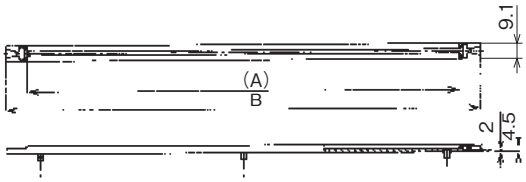
Specification drawing



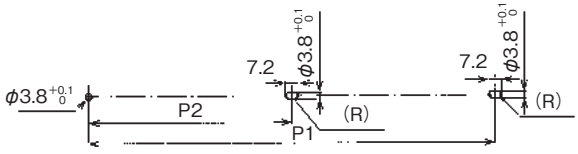
Part No.	(A)	B	Pitch of mounting hole P1	Panel thickness	Std. Package
GR-80S	55	80	40±1	1.6±0.1	100 pcs.
GR-120S	95	120	80±1		
GR-180S	155	180	140±1		

(Unit：mm)

GR-280S

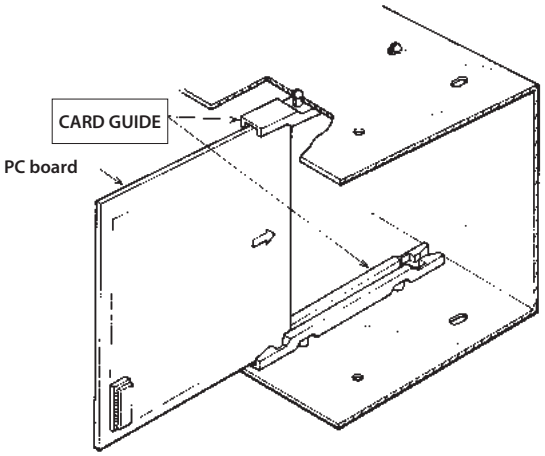


Specification drawing



Part No.	(A)	B	Pitch of mounting hole P1	Pitch of mounting hole P2	Panel thickness	Std. Package
GR-280S	255	280	240±1	120±1	1.6±0.1	100 pcs.

(Unit：mm)



CARD GUIDE WITH STOPPER / GR-170SS

PCB guide with end-stopper that prevents sliding

Features

- Stopper prevents PCB from undesired removal.
- Can hold 60 and 110 mm PCB by using NYLON RIVET (P30) in the middle of the guide.
- PCB can be removed with one hand using a special ejector.

Material

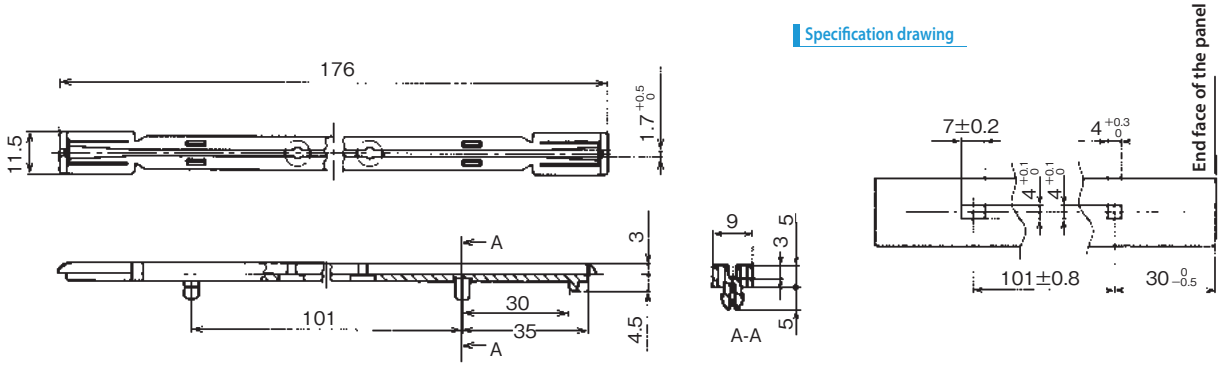
- Noryl（Color：Black） UL94 V-O

Snap Mounting

Odd-shaped hole

CBE-15
Special ejector for the guide
Refer to the bottom column

Specification drawing



Part No.	Mounting hole size	Panel thickness	Std. Package
GR-170SS	Refer to Specification drawing	1.6±0.1	200 pcs.

(Unit：mm)

EJECTOR / CBE-15

PCB card ejector for GR-170SS

Features

- Special ejector for CARD GUIDE WITH STOPPER Easy extraction of PCB.

Material

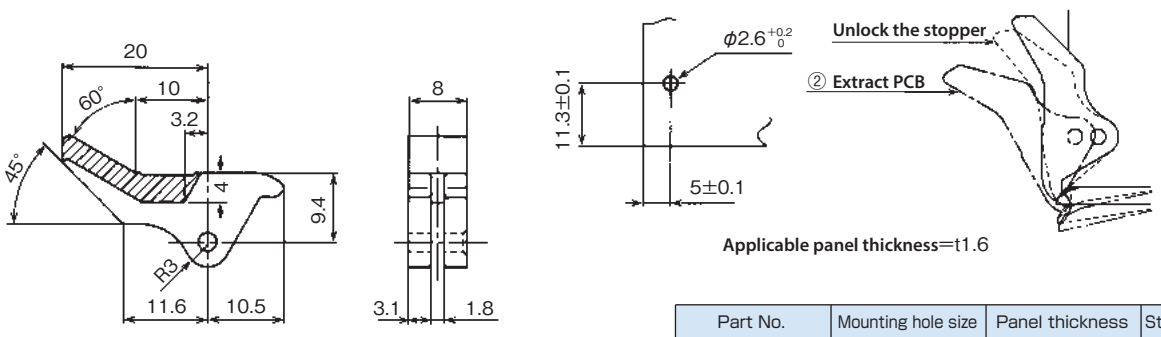
- Noryl（Color：Black） UL94 5VA

Spring pin mounting
(JIS B2808 2.5×8BW)

Round hole
Special guide for the ejector
Refer to the top column

GR-170SS

Specification drawing



Applicable panel thickness=t1.6

Part No.	Mounting hole size	Panel thickness	Std. Package
CBE-15	φ2.6 +0.2 0	1.6±0.1	500 pcs.

(Unit：mm)

EJECTOR / EJC-1A

PCB card ejector for the 1-mm thick PCB that uses no spring pins

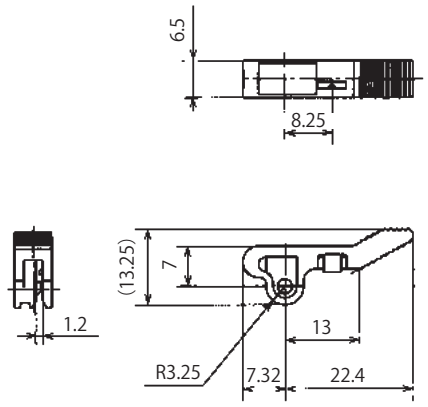
Features

- Compact ejector for 1mm thick PCB.
- Quick, snap in installation without using spring pin.

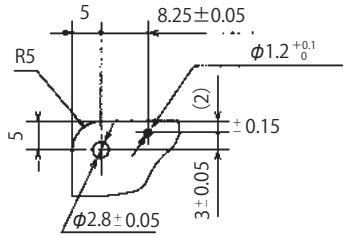
Snap Mounting
Round hole

Material

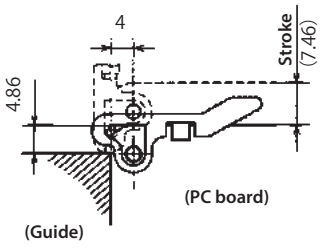
- PPHOX（Black）　UL94 V-O



Specification drawing



Panel thickness：1± 0.2



(Unit：mm)　Std. Package：500pcs.

EJECTOR / CBE-18

PCB card ejector for center mount

Features

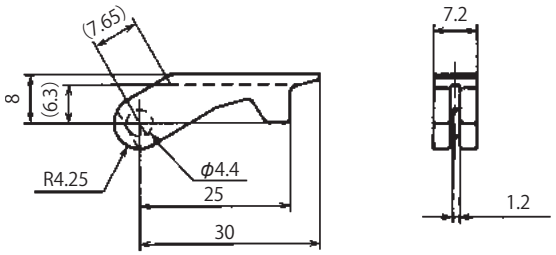
- CBE-18 provides easy dismounting of PCB for maintenance.
- Quick, snap in installation without using spring pin.

Snap Mounting
Round hole

Material

- Nylon 66（Color：Natural）　UL94 V-2

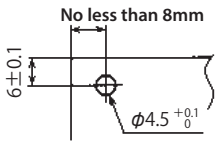
Specification drawing

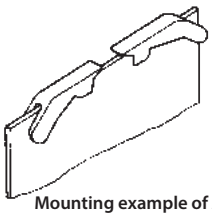


Part No.	Mounting hole size	Panel thickness	Std. Package
CBE-18	$\phi 4.5^{+0.1}_{0}$	1.6±0.1	500 pcs.

(Unit：mm)

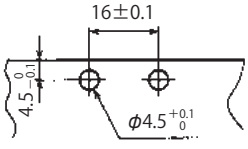
■ A type

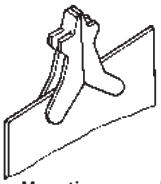




Mounting example of A type

■ B type





Mounting example of B type

●Can be used as a handle for transport, when mounted on the middle edge of PCB.

Standard PCB card ejector

Round hole

Spring pin mounting

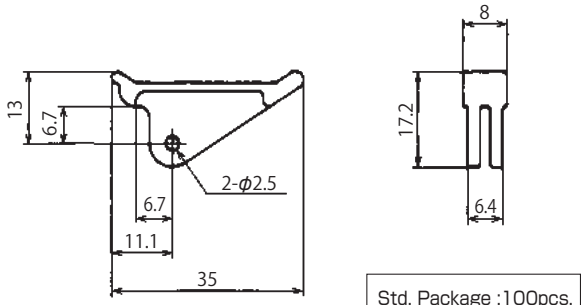
Features

- Provides easy extraction of a connected PCB by using leverage.

Material

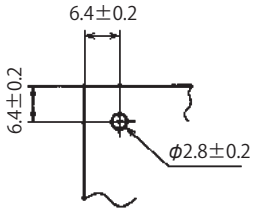
- Nylon 6（Color：Natural） UL94 V-2 : CBE-12
- Polyacetal（Color：Natural） UL94 HB : CBE-14
- Polyethylene terephthalate（Color：Natural） UL94 V-0 : CBE-2P

CBE-12



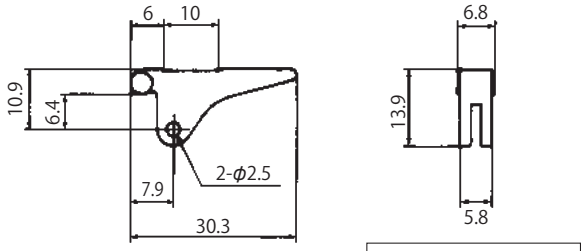
Std. Package :100pcs.

Specification drawing



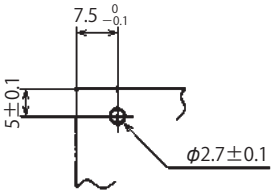
Applicable panel thickness：=1.6

CBE-14



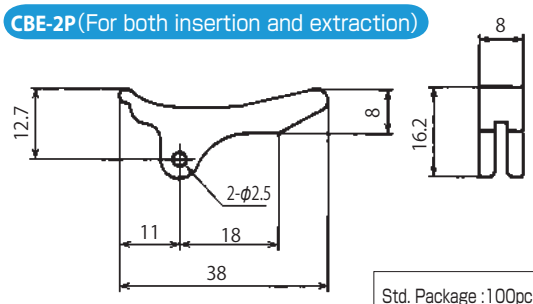
Std. Package :100pcs.

Specification drawing



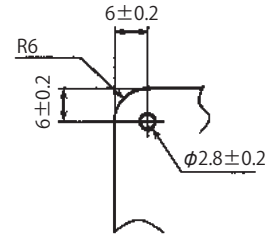
Applicable panel thickness：=1.6

CBE-2P (For both insertion and extraction)



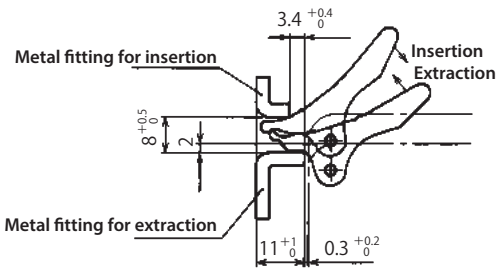
Std. Package :100pcs.

Specification drawing



Applicable panel thickness：=1.6

Specification drawing for metal fitting



(Unit

CLAMPS

For Cables

and Tubing, Optic fibers, etc.

Binding and fastening

Snap Mounting

GRBWS-E
P43
RE-USE CLAMP

RBWS-E-F
P43
RE-USE CLAMP

RBWS-S,-N
P44
RE-USE CLAMP

RBWS-D,-TD
P45
RE-USE CLAMP

RBWS-T,-TL
P46
RE-USE CLAMP

RTMC-01T V0
P47
TENSION MINI CLAMP

RLMC
P47
RE-USE CLAMP

RLWS-T,-TL,-S
P48
RE-USE CLAMP

LBWS
P49
LOCKING CLAMP

LAMS-05/ LMC-05N
P49
LOCKING MINI CLAMP

LWS-05,-S,SL,-NS,-Y
P50
LOCKING WIRE SADDLE

VLUAMS
P51
SCREW-LESS CLAMP

VLBWS
P51
SCREW-LESS CLAMP

UAMS
P55
MINI CLAMP

WS
P55
MINI CLAMP

NXT
P56
WIRE MOUNT

NXT
P57
WIRE MOUNT

NXT-T
P57
MINI WIRE SADDLE

RWS-T,-E
P58
RE-USE WIRE SADDLE

YMC/ YMW-16
P59
SIDE SLOT MINI CLAMP

NAD
P59
SPEED CLAMP

KS
P62
KS CLAMP

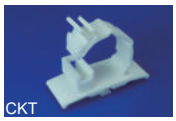
DMI
P64
WIRE MOUNT

PDD
P65
WIRE HOLDER

DMN
P65
WIRE MOUNT

PDDC
P66
WIRE HOLDER

WBC
P66
WOOD-USE CLAMP


CKT
P67
CKT CLAMP

FLC
P68
FREE CLAMP

VLC
P68
SCREW-LESS CLAMP

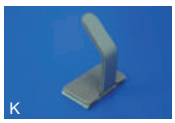
CKS
P69
CKS CLAMP

Adhesive Tape Mounting

RBWS-M
P52
LOCKING WIRE SADDLE

LWS-M/ LWS-MS
P53
LOCKING WIRE SADDLE

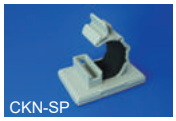
MU
P54
MINI CLAMP

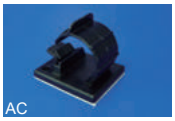

K
P60
CORD KEEP

XDM
P63
WIRE MOUNT

XD
P64
WIRE MOUNT

CKN
P70
CKN CLAMP


CKN-SP
P70
CKN CLAMP WITH CUSHION PAD


AC
P71
ADJUSTABLE CLAMP

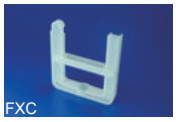
LM
P76
OMEGA HOLDER

Screw Mounting

LWS-H, -W
P53
LOCKING WIRE SADDLE

NK
P61
NYLON CLAMP

KCA
P62
HEAT RESISTANT CABLE CLAMP


FXC
P72
FLEXIBLE CLAMP

KC
P72
CABLE CLAMP

Adhesive Tape and Screw Mounting

MN/ MB/ MNC-4
P54
MINI CLAMP

ARC.68
P71
CLINCHER

Binding, Fastening and Spacing

Snap Mounting

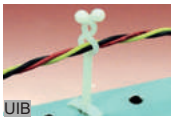
RHL-28E-V0
P73
RE-USE HARNESS LIFTER

HL
P73
HARNESS LIFTER

VSC-10
P74
SPACING CLIP

LHL-18
P74
HARNESS LOCK SPACER

NPL
P75
NIPLOCKER


UIB
P76
OMEGA HOLDER

Others

Z-2L
P75
WIRE LOCK SPACER

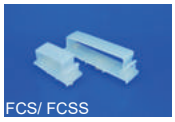
For Flat Cables

and Flexible Printed Circuits, etc.

Snap Mounting

P77
MINI FLAT CABLE CLIP

P77
RE-USE FLAT CABLE CLAMP



P78
FLAT CABLE CLAMP

P78
FLAT CABLE CLAMP

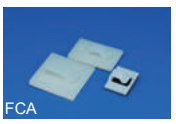
P81
FLAT CLAMP

P81
THIN TYPE CLAMP

P82
FLAT CABLE CLAMP

P82
FLAT CABLE CLAMP

Adhesive Tape Mounting

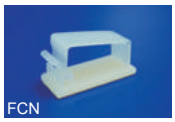


P79
FLAT CABLE CLIP

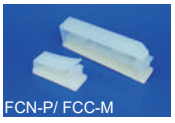
P79
FLAT CABLE CLIP

P80
FLAT CABLE CLAMP

P80
FLAT CABLE CLAMP



P83
FLAT CABLE CLAMP



P83
FLAT CABLE CLAMP

Adhesive Tape and Screw Mounting

P84
FCW CLAMP

Screw Mounting

P84
FLAT CABLE MOUNTING SYSTEM

Removal prevention for connectors

Prevention against undesired removal of cable from equipment

Snap Mounting

P85
USB CONNECTOR COVER

P86
A.C. CORD CLAMP

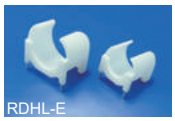
P87
RE-USE A.C. CORD CLAMP

P87
CONNECTOR CLAMP

For Aluminium electrolytic capacitor holder

for horizontal mount

Flow Soldering



P88
CAPACITOR HOLDER

P88
CAPACITOR HOLDER

Snap Mounting

P89
CAPACITOR HOLDER

For Optical Fibers

and General cables as well

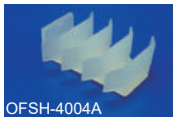
Holding and fastening

Snap Mounting

P90
FIBER HOLDER

P91
FIBER HOLDER

Adhesive Tape Mounting



P89
SLEEVE HOLDER

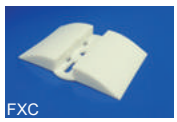
P90
FIBER CLAMP

P91
DIVERGE MODULE HOLDER

Holding and maintaining curvature of cables

Snap Mounting

P92
WIRE SADOLE WING

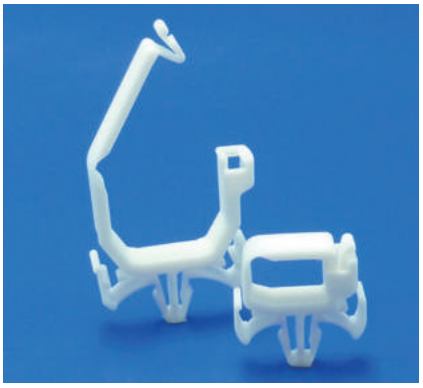


P93
FXC WING

Snap Mounting

P92
STORAGE BOBBIN

RE-USE CLAMP / GRBWS-E



Releasable chassis clamp

Features

- Can be removed from mounting side for easy disassembly.
- Round mounting hole allows easy fastening and unfastening of clamp.
- Original structure enables stable securing.

Material

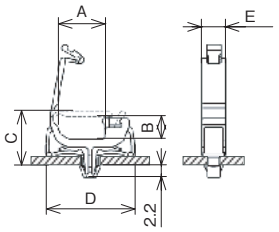
- Nylon 66（Color：Natural）

UL94 V-0

Push Type

Round hole

type Ⅰ

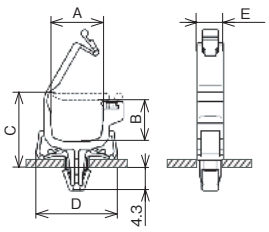


	Part No.	Type	A	B	C	D	E	Mounting hole size	Panel thickness
UL	GRBWS-0306E-V0	Ⅰ	5.7	2.5	(8.3)	(12.4)	4.5	ϕ3.5±0.1	t0.5~1.6
UL	GRBWS-0409E-V0		9.0	4.0	(10.4)	(16.2)	4.5		

UL ···UL1565 recognized product

(Unit：mm)

type Ⅱ



	Part No.	Type	A	B	C	D	E	Mounting hole size	Panel thickness
UL	GRBWS-0610E-V0	Ⅱ	10.0	6.0	(13.9)	(17.4)	5.5	ϕ4.8±0.1	t0.5~2.0
UL	GRBWS-0911E-V0		11.0	8.5	(16.4)	(17.0)	5.5		
UL	GRBWS-1212E-V0		12.0	12.0	(20.3)	(17.0)	5.5		
UL	GRBWS-1416E-V0		16.0	14.0	(22.6)	(21.2)	5.5		
UL	GRBWS-2020E-V0		20.0	20.0	(28.7)	(25.2)	5.8		

UL ···UL1565 recognized product

(Unit：mm)

RE-USE CLAMP / RBWS-E-F

Releasable fluoro resin clamp

Features

- The use of Fluoro resin material has excellent heat resistance and cold resistance. And therefore ideal for use in Outdoors, food processing machinery, medical equipment
- The lock, the snap malfunction prevention structure that does not come off easily.

Push Type

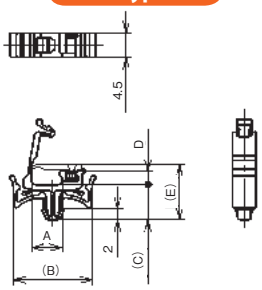
Round hole

Material

- PVDF（Color：Natural）

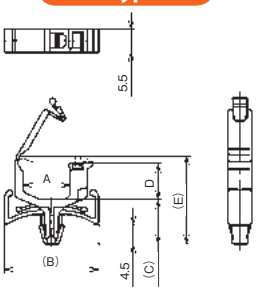
UL94 V-0

A type



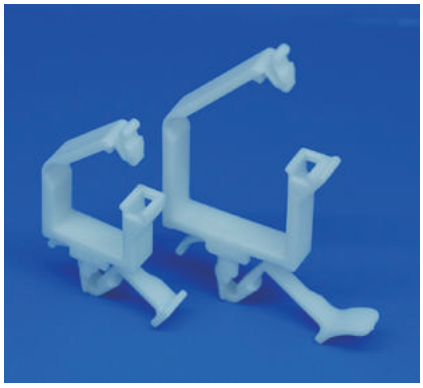
Part No.	Type	A	(B)	(C)	D	(E)	Mounting hole size	Panel thickness
RBWS-0306E-F	A	5.7	14.6	6.5	2.5	10.3	ϕ3.5 $^{+0.2}_{0}$	t0.5~1.6
RBWS-0409E-F		9.0	19.2	7.2	4.0	12.5		

B type



Part No.	Type	A	(B)	(C)	D	(E)	Mounting hole size	Panel thickness
RBWS-0610E-F	B	10.0	21.2	10.5	6.0	18.3	ϕ4.8 $^{+0.2}_{0}$	t0.8~2.0
RBWS-0911E-F		11.0	22.2	10.5	8.5	20.8		
RBWS-1212E-F		12.0	20.6	10.8	12.0	24.6		
RBWS-1416E-F		16.0	25.8	11.0	14.0	26.8		
RBWS-2020E-F		20.0	30.0	12.5	20.0	34.3		

(Unit：mm)



Releasable chassis clamp

Features

- Can be removed from mounting side for easy disassembly.
- Round mounting hole allows easy fastening and unfastening of clamp.

Push Type

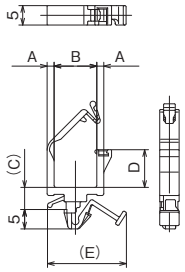
Round hole

Material

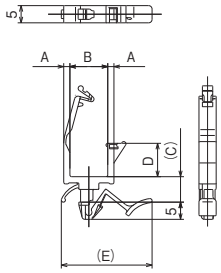
- Nylon 66（Color：Natural）

UL94 V-0

RBWS-S



RBWS-N



	Part No.	A	B	(C)	D	(E)	Mounting hole size	Panel thickness	Std. Package
UL	RBWS-3S V0	1.8	11	5.7	9.7	20.4	$\phi 4.8^{+0.2}_{0}$	0.5～1.6	1,000 pcs.
UL	RBWS-1N V0	1.5		7.1	(5.2)	26.51		0.5～3.2	
UL	RBWS-3N V0	1.8		7.4	9.7	26.39			
UL	RBWS-5N V0		16.5		(15.5)	29.97			
UL	RBWS-8N V0	2.0			(22.5)	30.17			500 pcs.

UL ···UL1565 recognized product

(Unit：mm)

RE-USE CLAMP / RBWS-D, -TD

Releasable cable clamp with minimum protrusion on panel

Features

- Equipped with a new lock for easy fastening and unfastening.
- Dismounted without any tools required.

Material

- Nylon 66 (Color : Natural※) UL94 V-0

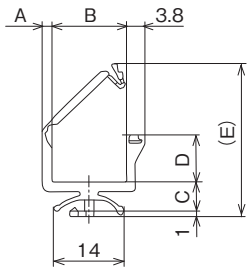
※ Color of RBWS-1TD-V0BK is black.

Slide type

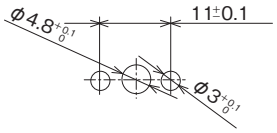
Round hole
RBWS-D

Odd-shaped hole
RBWS-TD

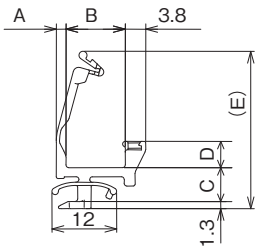
RBWS-D



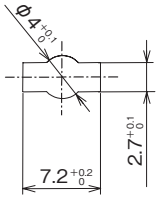
Specification drawing



RBWS-1TD-V0 BK



Specification drawing



	Part No.	A	B	C	D	(E)	Mounting hole size	Panel thickness	Std. Package
UL	RBWS-0406D V0	1.5	6	4.5	3.7	17.13	Refer to Specification drawing	0.5~1.6	500 pcs.
UL	RBWS-0510D V0		10	5.0	4.7	21.61			
UL	RBWS-1015D V0	1.8	15	6.0	9.7	31.35			
UL	RBWS-1515D V0				14.7	36.35			
UL	RBWS-2020D V0	2.0	20		19.7	45.03			
	RBWS-1TD-V0 BK	1.8	11	6.3	4.9	29.21		1.5~2.3	

UL ···UL1565 recognized product

(Unit : mm)

Slide and remove

Reusable Snap (Slide type)

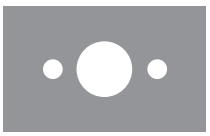
Easy Operation!

Simply slide the body to install and remove.
(Above photo is D type)

Space saving

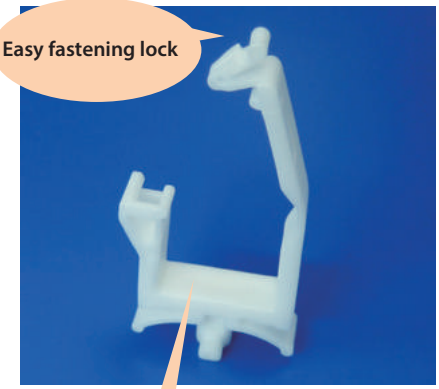
Greatly reduces the snap protrusion on the underside of PCB
Also suitable for application in limited spaces.

Round hole mounting



No odd-shaped hole required
Drilling 3 holes only.

RE-USE CLAMP / RBWS-T,-TL



Releasable cable clamp with minimum protrusion on panel

Features

- Lock fastens and releases cables quickly.
- Detachable with no tools required.

Twist Type

Odd-shaped hole

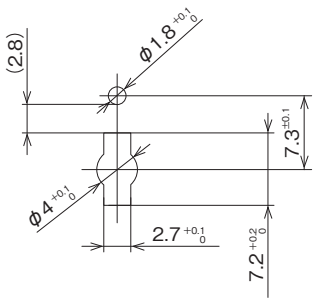
Material

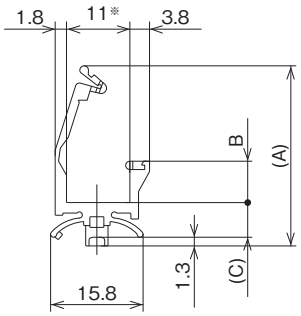
- Nylon 66（Color：Natural, Black※）

UL94 V-0

※ Black product has "BK" at the end of the part No.

Specification drawing





※ 13mm for RBWS-1.5TL-V0 BK

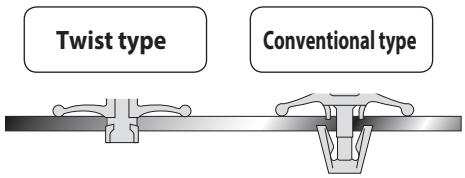
Part No.	(A)	B	(C)	Mounting hole size	Panel thickness	Std. Package
RBWS-1T-V0	28.2	4.9	5.3	Refer to Specification drawing	0.8～1.6	500 pcs.
RBWS-3T-V0	33.7	9.9	5.8			

Part No.	(A)	B	(C)	Mounting hole size	Panel thickness	Std. Package
RBWS-1TL-V0 BK	28.6	4.9	5.7	Refer to Specification drawing	0.8～2.0	500 pcs.
RBWS-1.5TL-V0 BK	32.0	6.4	5.7			
RBWS-2TL-V0 BK	31.6	7.4	6.2			
RBWS-3TL-V0 BK	34.1	9.9	6.2			

(Unit：mm)

Turn and remove　Reusable Snap　(Twist type)

Space saving



The snap protrusion is greatly reduced

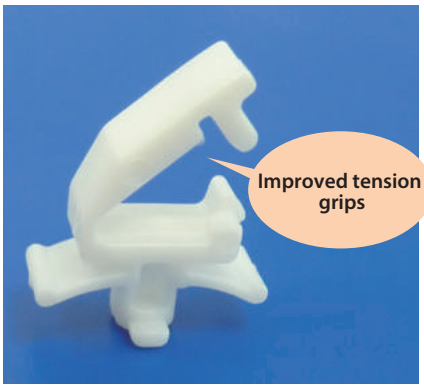
Compared to conventional snap, the protrusion of snap is greatly lowered for application in limited spaces.

Easy Operation!

For installation and removal, simply turn the body

Can be removed from mounting side with no tool needed, while conventional snap requires cutting by nippers etc from the backside of the panel.

TENSION MINI CLAMP / RTMC-01T V0



Releasable mini clamp that grips thin cables

Features
- Tensioning clamp grips even thin cables firmly.
- Removed with no tools required for easy maintenance and disassembling.

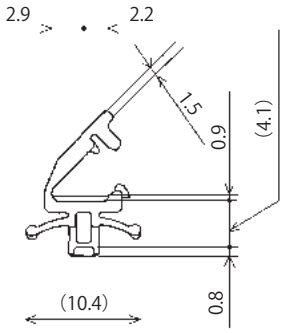
Material
- Nylon 66（Color：Natural） UL94 V-0

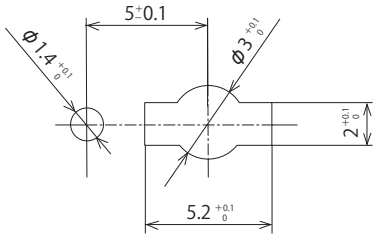
Twist Type

Odd-shaped hole

Reusable Snap
For twist type, refer to P46

Specification drawing





	Part No.	Mounting hole size	Panel thickness	Std. Package
UL	RTMC-01TV0	Refer to Specification drawing	1.2～1.6	1,000 pcs.

UL ···UL1565 recognized product

(Unit：mm)

RE-USE LOCK MINI CLAMP / RLMC

Releasable mini clamp with minimum protrusion on panel

Features
- Fast dismount without any tools for easy maintenance and disassembling.

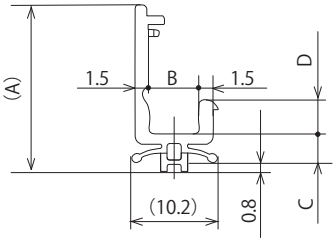
Material
- Nylon 66（Color：Natural） UL94 V-0

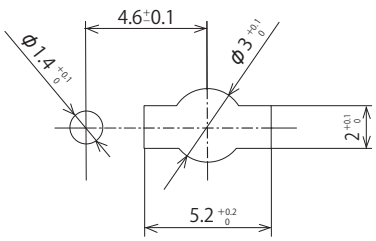
Twist Type

Odd-shaped hole

Reusable Snap
For twist type, refer to P46

Specification drawing

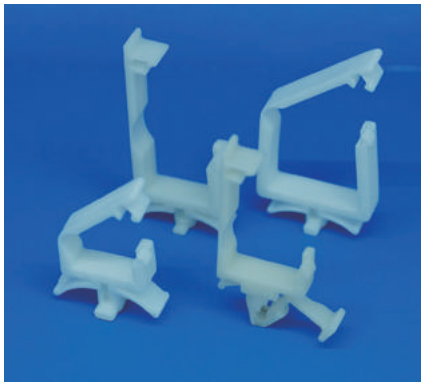




	Part No.	(A)	B	C	D	Mounting hole size	Panel thickness	Std. Package
UL	RLMC-01T V0	17.3	5.6	3.8	1.7	Refer to Specification drawing	0.8～1.2	1,000 pcs.
UL	RLMC-05T V0	19.8	6.0	3.7	4.0			

UL ···UL1565 recognized product

(Unit：mm)



Releasable cable clamp that provides a secure lock

Features

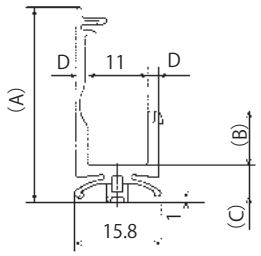
- Snap mounting provides easy maintenance and disassembling with no tools required.
- Both twist type and push type are available for easy dismount.

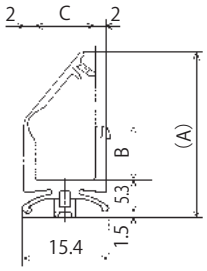
Material

- Nylon 66（Color：Natural）　UL94 V-0

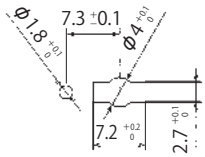
Twist Type
Odd-shaped hole
RLWS-T,TL
Push Type
Round hole
RLWS-S

RLWS-T





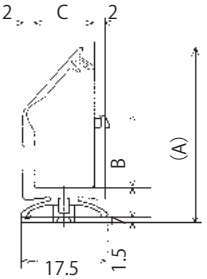
Specification drawing



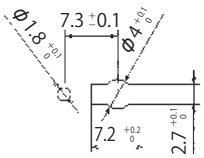
	Part No.	(A)	(B)	(C)	D	Mounting hole size	Panel thickness	Std. Package
UL	RLWS-1T V0	29.1	4.9	5.3	1.5	Refer to Specification drawing	0.8～1.6	1,000 pcs.
UL	RLWS-2T V0	32.8	7.4	5.7	2			
UL	RLWS-3T V0	35.6	9.9	5.8				500 pcs.

UL …UL1565 recognized product　(Unit：mm)

RLWS-TL



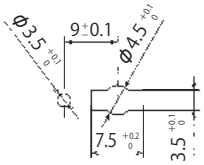
Specification drawing



	Part No.	(A)	B	C	Mounting hole size	Panel thickness	Std. Package
UL	RLWS-1015T V0	32.84	10.4	15	Refer to Specification drawing	0.8～1.6	500 pcs.
UL	RLWS-1515T V0	37.84	15.4				
UL	RLWS-2020T V0	46.37	20.4	20			

UL …UL1565 recognized product　(Unit：mm)

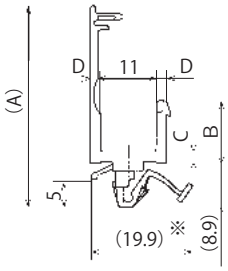
Specification drawing



	Part No.	(A)	B	C	Mounting hole size	Panel thickness	Std. Package
UL	RLWS-0510TL V0	26.00	5.4	10	Refer to Specification drawing	0.8～3.2	500 pcs.
UL	RLWS-1010TL V0	31.00	10.4				
UL	RLWS-1515TL V0	39.54	15.4	15			
UL	RLWS-2020TL V0	48.07	20.4	20			

UL …UL1565 recognized product　(Unit：mm)

RLWS-S



※ (19.5)mm for RLWS-IS V0

	Part No.	(A)	B	C	D	Mounting hole size	Panel thickness	Std. Package
UL	RLWS-1S V0	32.8	6.4	1.5	1.5	ϕ4.8 +0.1 0	0.5～1.6	1,000 pcs.
UL	RLWS-3S V0	39.4	11.9	2.0	2.0			

UL …UL1565 recognized product　(Unit：mm)

LOCKING CLAMP / LBWS

Push mount, locking clamp

Features

- Compact, space-saving clamp.
- Clamp is open for cable insertion without causing any damage to cables such as optical fibers.

Snap Mounting

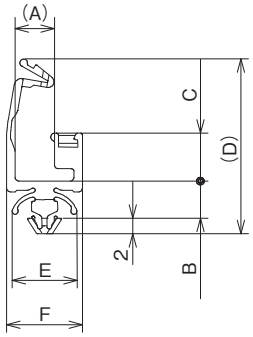
Round hole

Material

- Nylon 66（Color：Natural）

UL94 V-0

LBWS

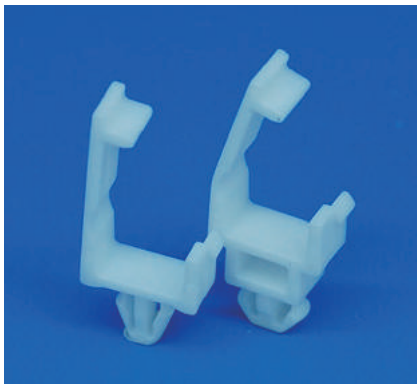


	Part No.	(A)	B	C	(D)	E	F	Mounting hole size	Panel thickness	Std. Package
UL	LBWS-0206S-V0	6.0	3.9	2.1	18.3	10.5	11.4	$\phi 3.5^{+0.2}_{0}$	0.5～1.6	1,000 pcs.
UL	LBWS-0605S-V0	5.1	4.8	6.2	22.6	8.4	9.8		0.8～2.0	
UL	LBWS-0511S-V0	11.7	3.9	5.0	26.7	12.5	16.4		0.5～1.6	

UL ···UL1565 recognized product

(Unit：mm)

LOCKING MINI CLAMP / LAMS-05・LMC-05N



Mini push mount clamp for space saving

Features

- Compact, space-saving clamp.
- Clamp is open for cable insertion without causing any damage to cables such as optical fibers.

Snap Mounting

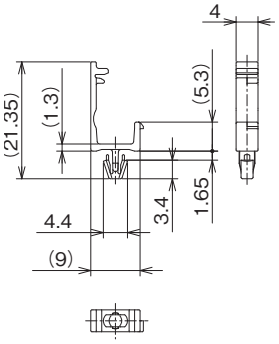
Round hole

Material

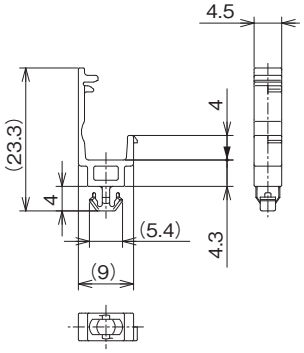
UL94 V-0

- Nylon 66（Color：Natural）

LAMS-05



LMC-05N



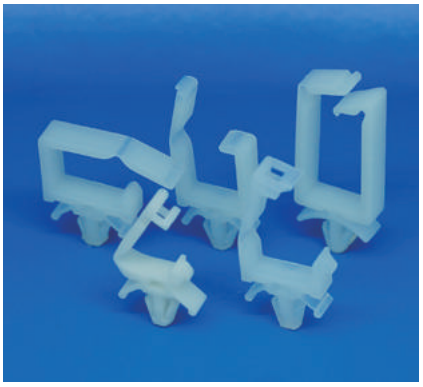
	Part No.	Mounting hole size	Panel thickness	Std. Package
UL	LAMS-05	$\phi 3^{+0.1}_{0}$	1.6±0.1	1,000 ／pcs.

UL ···UL1565 recognized product

(Unit：mm)

Part No.	Mounting hole size	Panel thickness	Std. Package
LMC-05N	$\phi 4^{+0.1}_{0}$	1.6±0.1	100 ／pcs.

(Unit：mm)



Locking snap-mount clamp

Features

- Secure lock prevents wire/cable bundles from accidental release.

Snap Mounting
Round hole

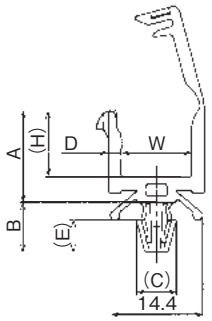
Material

- Nylon 66 (Color : Natural, Black※1)

UL94 V-2 (V-0※2)

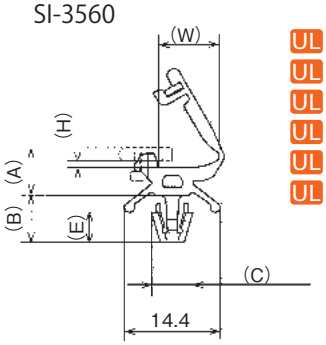
※1 Black product has "BK" at the end of the part No. For natural color, please contact us.
※2 For V-0 type, "V0" is added to the end of the part No.(LWS-05 is also V-0 type).

LWS-S,SL



LWS-05

SI-3560

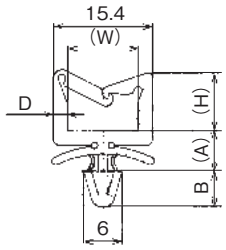


	Part No.	(H)	(A)	(B)	(C)	D	(E)	(W)	Mounting hole size	Panel thickness	Std. Package
UL	LWS-05	1	7.2	7	6.2	—	4.5	9.2	$\phi 4.8^{+0.1}_{0}$	0.5~2	200 pcs.
UL	LWS-1S	5.2	9.2	7.7	6	2.0	4.9	11	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	100 pcs.
UL	LWS-3S V0	10.2	14.2		6.1			16.5			500 pcs.
UL	LWS-3S 2W V0										
UL	LWS-5S-2W V0 BK	15.2	19.2								1,000 pcs.
UL	LWS-8S-2.5W V0 BK	22.7	27.2			2.5		18			500 pcs.

UL ···UL1565 recognized product

(Unit : mm)

LWS-NS



Part No.	(H)	A	B	(C)	D	(E)	W	Mounting hole size	Panel thickness	Std. Package
LWS-1SL V0 BK	4.2	9.4	8.6	6.2	2.0	5	11	$\phi 4.8^{+0.2}_{0}$	1.6~3.2	500 pcs.
LWS-1.5SL V0 BK	12.5	16.7								
LWS-5SL-2W V0 BK	15.2	19.4		6			16.5			
LWS-8SL-2.5W V0 BK	22.7	27.4			2.5		18			

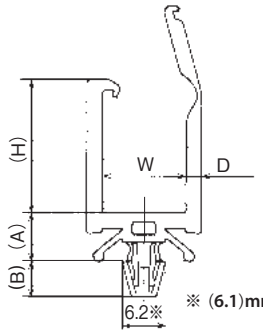
(Unit : mm)

	Part No.	(H)	(A)	B	D	(W)	Mounting hole size	Panel thickness	Std. Package
UL	LWS-1NS	9.2	6.2	5.5	2.2	11	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	100 pcs.
UL	LWS-2NS	14.4						0.5~2	
UL	LWS-3NS	23.4						0.5~2.3	
UL	LWS-4NS	31.3							

UL ···UL1565 recognized product

(Unit : mm)

LWS-S

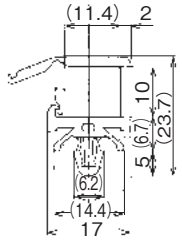


※ (6.1)mm for LWS-2.5S

Part No.	(H)	(A)	(B)	D	W	Mounting hole size	Panel thickness	Std. Package
LWS-1.5S	14.5	6.7	5.0	2.0	10.4	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	500 pcs.
LWS-2.5S	19.2	6.9	4.5	2.2	12			

(Unit : mm)

LWS-Y



Part No.	Mounting hole size	Panel thickness	Std. Package
LWS-2Y	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	1,000 pcs.

(Unit : mm)

SCREW-LESS CLAMP / VLUAMS

Mini snap-mount clamp that easily inserts into screw holes

Features

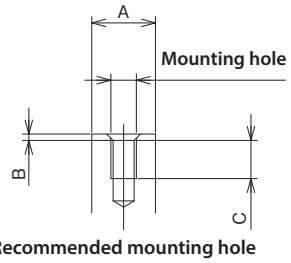
- Plug-in mounting in screw hole is available without tool.
- Compact, space-saving clamp.

Material

- Nylon 66（Color：Natural）

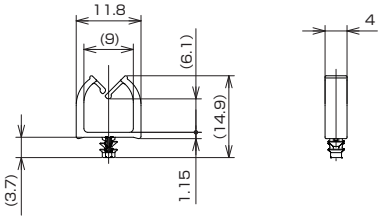
UL94 V-0

Installation specifications



Recommended mounting hole

VLUAMS-09-M3-V0



Part No.	A	B	C	Mounting hole size	Std. Package
VLUAMS-09-M3-V0	≧φ12	≦1	≧5	M3 screw hole (Thread pitch:0.5)	500 pcs.

(Unit：mm)

SCREW-LESS CLAMP / VLBWS

Mini snap-mount, locking clamp

Features

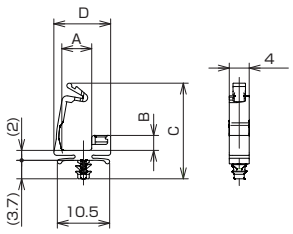
- Plug-in mounting in screw hole is available without tool.
- Compact, space-saving clamp.

Material

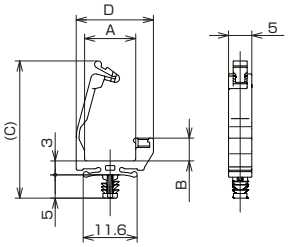
- Nylon 66（Color：Natural）

UL94 V-0

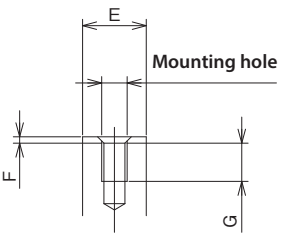
VLBWS-0306-M3-V0



VLBWS-**-M4-V0



Installation specifications



Recommended mounting hole

Part No.	A	B	(C)	D	E	F	G	Mounting hole size
VLBWS-0306-M3-V0	6	3	19.19	11.4	≧φ12	≦1	≧5	M3 (0.5)
VLBWS-0511-M4-V0	11	4.9	29.49	16.6	≧φ15	≦1	≧6	M4 (0.7)
VLBWS-1313-M4-V0	13	12.7	39.13	18.6				

(Unit：mm)

Adhesive locking cable clamp

Features

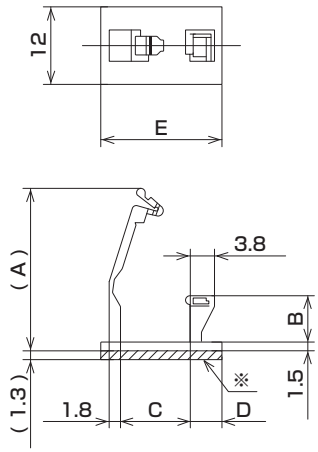
- Lock fastens and releases cables quickly.
- Round inner corners also suitable for halogen-free cables

Material

- Nylon 66（Color：Black） UL94 V-0

Adhesive tape mounting

※With regard to adhered body which is covered by UL1565, please contact our sales department.



※ Double sided adhesive tape

	Part No.	(A)	B	C	D	E	Std. Package
UL	RBWS-05M-V0 BK-R	18.3	4.9	7.0	3.7	13.0	100 pcs.
UL	RBWS-1M-V0 BK-R	23.1		11.0	5.0	19.0	
UL	RBWS-2M-V0 BK-R	25.6	7.4				
UL	RBWS-3M-V0 BK-R	28.1	9.9				

	Part No.	(A)	B	C	D	E	Std. Package
UL	RBWS-1WM-V0 BK-R	27.0	4.9	15.0	4.2	22.0	100 pcs.
UL	RBWS-2WM-V0 BK-R	29.5	7.4				

UL …UL1565 recognized product

(Unit：mm)

LOCKING WIRE SADDLE / LWS-M・LWS-MS

Adhesive-mount locking clamp

Features

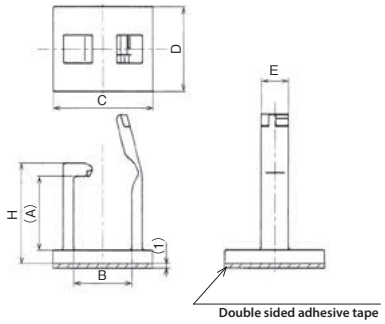
- Lock holds cables securely.
- Adhesive tape mounting with no drilling hole required.

Adhesive tape mounting

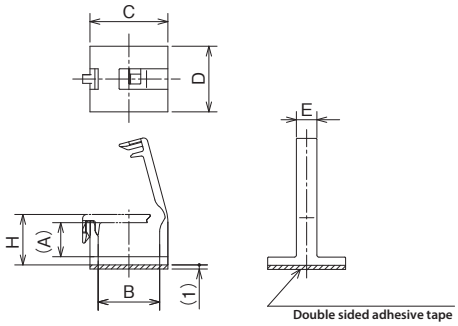
Material

- Nylon 66（Color：Natural）　UL94 V-2

LWS-M



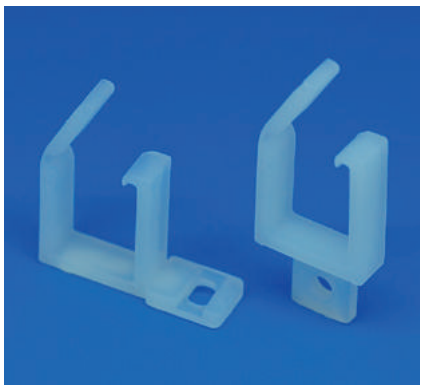
LWS-1.5MS-R



Part No.	(A)	B	C	D	E	H	Std. Package
LWS-1M-R	8.0	11.7	19.0	16.0	4.8	12.5	100 pcs.
LWS-1.5MS-R	8.3	15.0	(19.0)		5.0	(12.3)	500 pcs.
LWS-2M-R	14.0	11.0	19.0		4.8	18.5	100 pcs.
LWS-3M-R	22.3		19.0	19.0	5.2	27.0	

(Unit：mm)

LOCKING WIRE SADDLE / LWS-H, -W



Screw mount locking clamp

Features

- Lock secures cables.

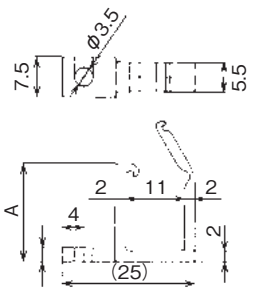
Screw mounting

Material

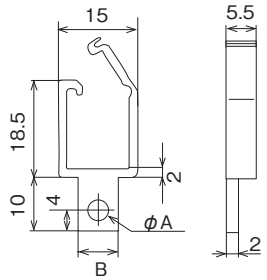
- Nylon 66（Color：Natural）　UL94 V-2（V-0※）

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

LWS-H



LWS-W



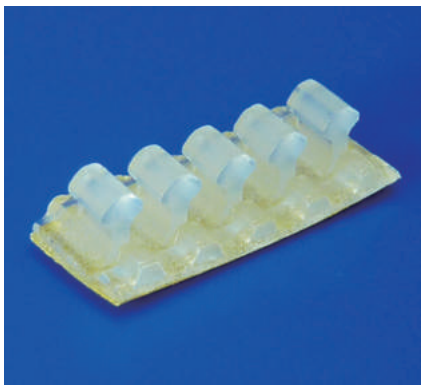
Part No.	A	Std. Package
LWS-2H	18.5	100 ／pcs.
LWS-3H	27.5	1,000 ／pcs.

(Unit：mm)

Part No.	ϕA	B	Std. Package
LWS-2W	3.5	8.5	100 ／pcs.
LWS-2W-4	4.2		

(Unit：mm)

MINI CLAMP / MU



Mini cable clamp for 1 mm diam. cable

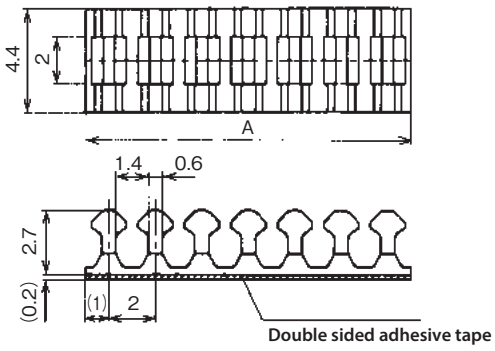
Features

- Low-profile of H 2.9 mm Can be sub-divided to desired number of mounts.
- 6 types are available from MU-01-1 capable of holding 1 cable of Φ1-1.2mm to Mu-01-8 holding max 8 cables.

Adhesive tape mounting

Material

- Nylon 6（Color：Natural） UL94 V-2



Part No.	A	Std. Package
MU-01-1	4	1,000 pcs.
MU-01-2	6	
MU-01-3	8	
MU-01-4	10	
MU-01-5	12	
MU-01-8	18	

(Unit：mm)

MINI CLAMP / MN・MB・MNC-4

Mini cable clamp in a variety of shapes

Features

- Space-saving mini clamp.
- Employs easy-to-peel adhesive tape type, with two clamps aligned on one tape.

Material

- Nylon 66（Color：Natural） UL94 V-2

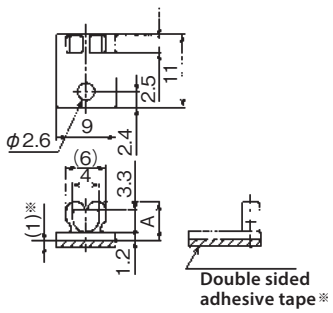
Adhesive tape mounting

※ With regard to adhered body which is covered by UL1565, please contact our sales department.

Screw mounting

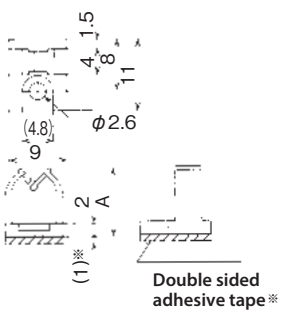
※ Specifications are described in the tables below.

MN-1-R
MB-1

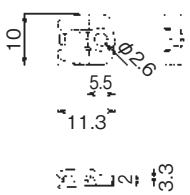


※ No adhesive backing for screw type

MN-2,3-R
MB-2,3



MNC-4



Tape mounting

Part No.	A	Std. Package
MN-1-R	5.7	500 pcs.
UL MN-2-R	8.5	
UL MN-3-R	10.5	1,000 pcs.

Screw mounting

Part No.	A	Screw	Std. Package
MB-1	5.7	M2.5	500 pcs.
MB-2	8.5		
MB-3	10.5		1,000 pcs.
MNC-4	—	M2.6	

UL ···UL1565 recognized product

(Unit：mm)

MINI CLAMP / UAMS

Snap-mount mini clamp

Features

- Space-saving compact type.

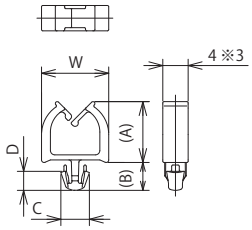
Snap Mounting
Round hole

Material

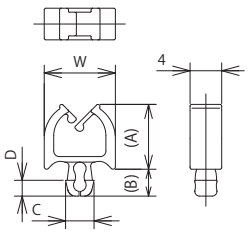
- Nylon 66 (Color : Natural, Black※1) UL94 V-2 (V-0※2)

※1 Black product has "-2" at the end of the part No.
※2 For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

■A type



■B type



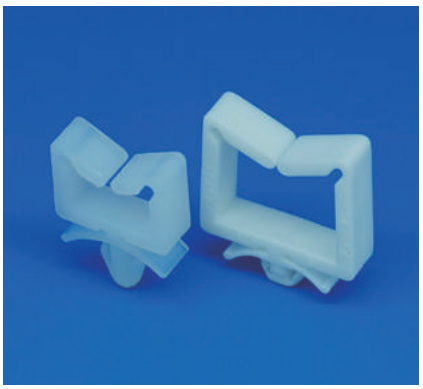
※3 UAMS-02WL-0, -02WH-2 : 3mm

	Part No.	(A)	(B)	C	D	W	Snap type	Mounting hole size	Panel thickness	Std. Package
	UAMS-02WL-0	4.4	3.2	4.0	2.5	8.2	A	$\phi 3^{+0.1}_{0}$	0.8~1.2	1,000 pcs.
	UAMS-02WH-2		3.6						1.2~1.6	
UL	UAMS-02-0	3.9	3.0	2.2	1.5	7.0	B	$\phi 1.9^{0}_{-0.1}$	1.6±0.1	
UL	UAMS-03-0	6.0	3.1					$\phi 1.7^{+0.1}_{0}$		
UL	UAMS-03W		3.0			9.0				
UL	UAMS-05-0	8.2	3.4	3.6	2.0			$\phi 3$±0.05	1.2~1.6	
UL	UAMS-05-2	8.7	2.9						1~1.2	
UL	UAMS-05S-2	7.7	5.0	4.4	3.4		A	$\phi 3^{+0.05}_{0}$	$1.6^{+0.15}_{0}$	
UL	UAMS-05SN	7.9	3.9		3.0				1±0.2	
	UAMS-05SN-W					11.0				
UL	UAMS-05L-0	7.7	4.9	4.5	3.5	9.0		$\phi 3.5^{+0.1}_{0}$	1.6±0.1	500 pcs.
UL	UAMS-07-0	9.6	4.4		3.0	10.6		$\phi 3.5$±0.1		1,000 pcs.
UL	UAMS-09-0	11.7				11.8				500 pcs.
UL	UAMS-11-0	13.5								1,000 pcs.

UL ···UL1565 recognized product

(Unit : mm)

WIRE SADDLE / WS



Snap-mount clamp for easy insertion and bundle of cables

Features

- Easy insertion of wire/cable bundles.

Snap Mounting
Round hole

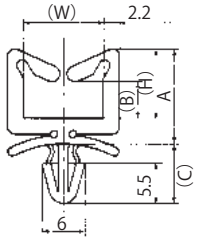
Material

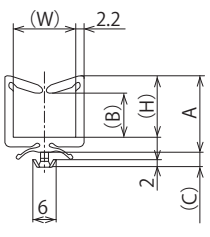
- Nylon 66 (Color : Natural) UL94 V-2 (V-0※)

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

WS

WS-2WC-V0
Space-saving snap

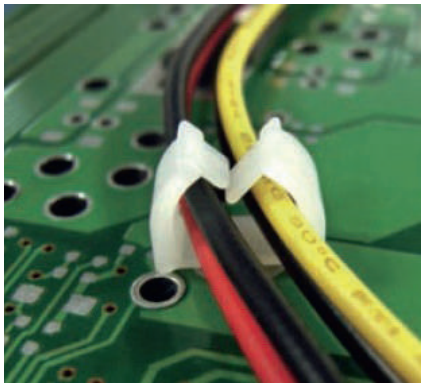




	Part No.	(H)	A	(B)	(C)	(W)	Mounting hole size	Panel thickness	Std. Package
UL	WS-1NS	9.5	13.0	5.0	8.2	11.1	$\phi 4.8^{+0.2}_{0}$	0.5~2.0	100 pcs.
UL	WS-2NS	14.7	18.2	10.2					
UL	WS-3NS	23.7	27.2	19.2					
UL	WS-4NS	31.6	35.1	27.1					
UL	WS-2WS	15.5	19.0	11.2		16.0			
	WS-2NS-L	14.7	18.2	10.2	9.9	11.1		2.3~4.1	
	WS-2WC-V0	15.5	19.0	11.2	3.7	16.0		0.8~1.3	500 pcs.

UL ···UL1565 recognized product

(Unit : mm)



Snap-mount mini clamp

Features

- Space-saving compact type.

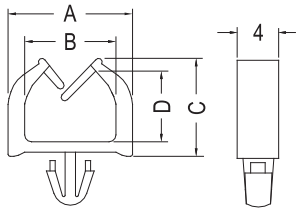
Snap Mounting

Round hole

Material

- Nylon 66 (Color: Natural) **UL94 V-2**

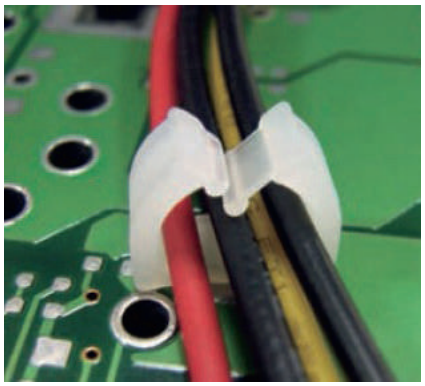
NXT-6/7



CHASSIS ØE
THICKNESS 1.0~1.6

Part No.	A	B	C	D	E	Std. Package
NXT-6	12.0	8.8	11.5	8.5	3.5	1000
NXT-7	9.2	6.8	7.6	5.0	3.0	2000

(Unit: mm)

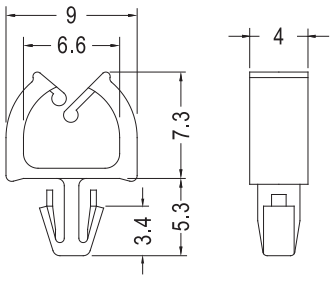


NXT-10

Material

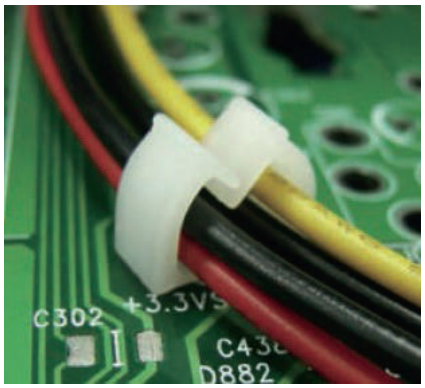
- Nylon 66 (Color: Natural) **UL94 V-2**

Std. Package: 1000 pcs.



CHASSIS Ø3
THICKNESS 1.6

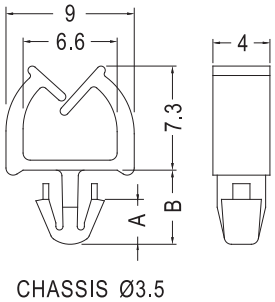
(Unit: mm)



NXT-11

Material

- Nylon 66 (Color: Natural) **UL94 V-2**

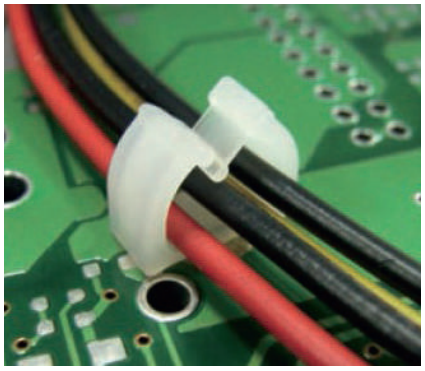


CHASSIS Ø3.5

Part No.	A	B	Chassis Thickness	Std. Package
NXT-11	3.2	5.2	1.6	1000
NXT-11S	2.8	4.15	1.0	

(Unit: mm)

WIRE MOUNT / NXT



Snap-mount mini clamp

Features

- Space-saving compact type.

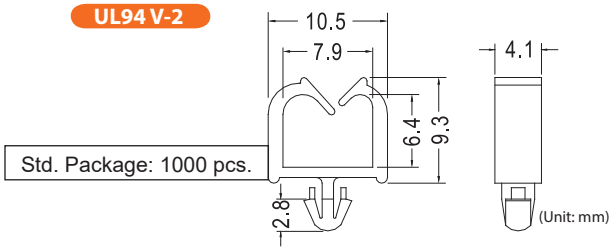
Snap Mounting

Round hole

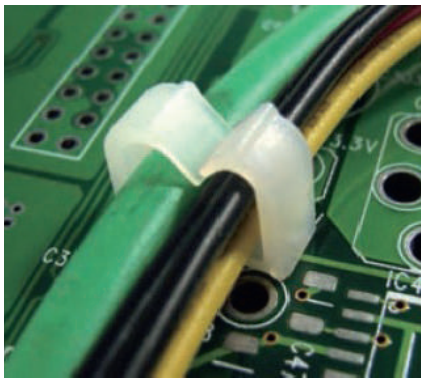
NXT-12

Material

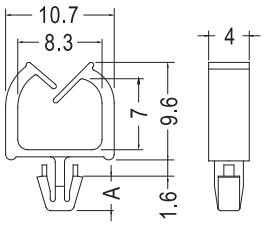
- Nylon 66 (Color: Natural) **UL94 V-2**



CHASSIS Ø3.0
THICKNESS 0.8~1.6



NXT-15



CHASSIS Ø3.0
THICKNESS 1.6

Part No.	A	Std. Package
NXT-15	3.4	1000
NXT-15S	2.4	

(Unit: mm)

MINI WIRE SADDLE / NXT-T

Snap-mount mini clamp

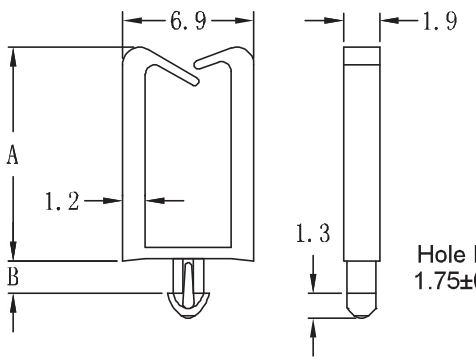
Features

- Teardrop Head

Material

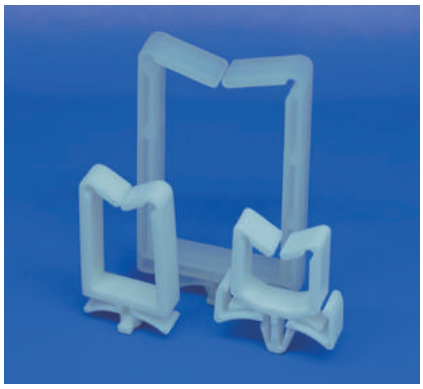
- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	A	B	Panel Thickness	Std. Package
NXT-T-1	5.8	1.7	1.6	1000
NXT-T-2	11.2	1.7		
NXT-T-3	11.2	2.3	2.2	
NXT-T-2-1	5.8	2.45	2.36	

(Unit: mm)



Releasable M-shaped clamp

Features

- Snap mounting provides easy maintenance and disassembling with no tools required.

Material

- Nylon 66 (Color : Natural)

UL94 V-0 (V-2※)

※ For V0 type,"V0" is added to the end of the part No.
※ With regard to lead time and lot size of V-2 type, please contact us.

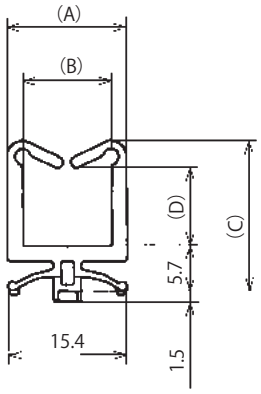
TWIST Twist Type

Odd-shaped hole
RWS-T

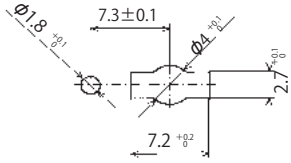
PUSH Push Type

Round hole
RWS-E

RWS-T



Specification drawing

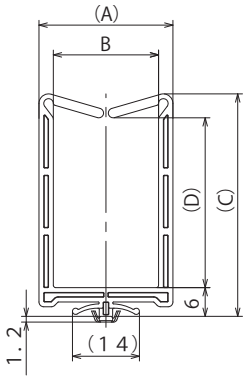


	Part No.	(A)	(B)	(C)	(D)	Mounting hole size	Panel thickness	Std. Package
UL	RWS-1T V0	15.5	11.5	14.2	5.0	Refer to Specification drawing	0.8~1.6	200 /pcs.
UL	RWS-2T V0			19.2	10.0			
UL	RWS-3T V0			28.2	19.0			
UL	RWS-4T V0			36.2	27.0			
	RWS-1015T-V0	20.0	16.0	20.4	11.2			500 /pcs.

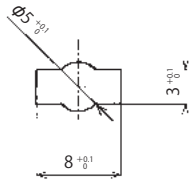
UL ···UL1565 recognized product

(Unit : mm)

RWS-3522T



Specification drawing

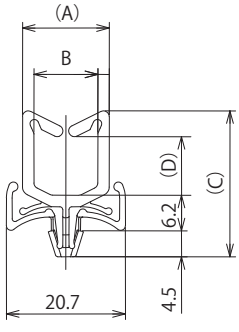


	Part No.	(A)	B	(C)	(D)	Mounting hole size	Panel thickness	Std. Package
UL	RWS-3522T	28.0	22.0	46.5	35.5	Refer to Specification drawing	0.8~1.6	100 /pcs.

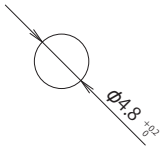
UL ···UL1565 recognized product

(Unit : mm)

RWS-E



Specification drawing



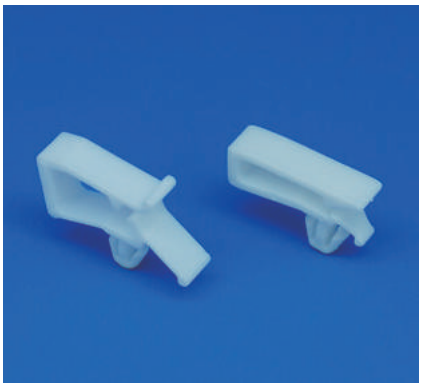
	Part No.	(A)	B	(C)	(D)	Mounting hole size	Panel thickness	Std. Package
UL	RWS-2E-V0	15.1	11.1	25.4	10.2	Refer to Specification drawing	0.5~2.0	500 /pcs.

UL ···UL1565 recognized product

(Unit : mm)

SIDE SLOT MINI CLAMP / YMC・YMW-16

UL 1565



Snap-mount mini clamp with side slot

Features

- Easy insertion from the side slot and secure holding against accidental release of cables.

Snap Mounting

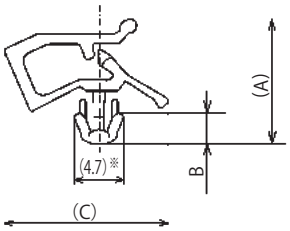
Round hole

Material

- Nylon 6※ (Color : Natural) UL94 V-0

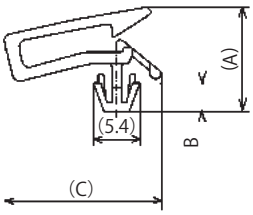
※ YMC-05-H-0 V0 is made of Nylon 66

YMC



※ 4.6mm for YMC-10-0V0

YMW



	Part No.	(A)	B	(C)	Mounting hole size	Panel thickness	Std. Package
	YMC-05-H-0 V0	10.7	3.0	11.8	$\phi 3.5^{+0.1}_{0}$	0.5~2	1,000 pcs.
UL	YMC-05-0 V0	10.2		12.7		0.5~1.6	
UL	YMC-10-0 V0	12.0		15.1			
UL	YMC-15-0 V0	13.8		20.5			
	YMW-16	12.2	3.5	17.9	$\phi 4^{+0.1}_{0}$	0.8~1.8	

UL ···UL1565 recognized product

(Unit : mm)

SPEED CLAMP / NAD

Snap-mount cable clamp with flexible strap

Features

- Flexible strap fastens cables quickly.

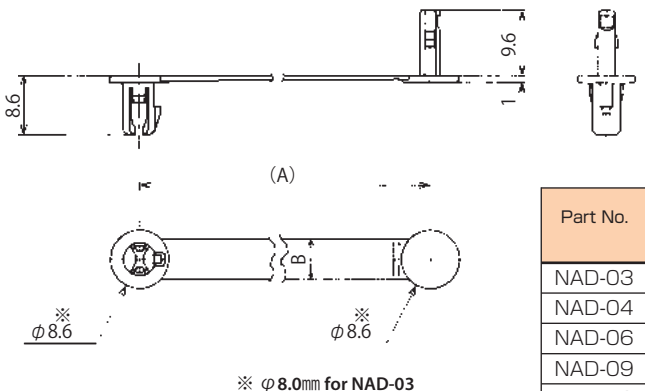
Snap Mounting

Round hole

- Nylon 6 (Color : Black) UL94 V-2

Material

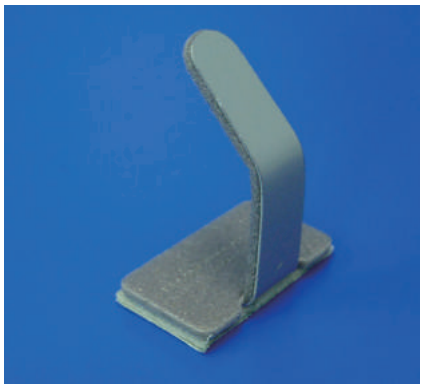
※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



※ φ8.0㎜ for NAD-03

Part No.	(A)	B	Max bundle diameter	Mounting hole size	Panel thickness	Std. Package
NAD-03	28	4	φ5.5	φ4.8±0.1	0.8~2.3	1,000 pcs.
NAD-04	33	6	φ6.5		0.8~3.2	500 pcs.
NAD-06	43		φ9.5			
NAD-09	63		φ14		0.6~3.0	
NAD-13	89		φ22			

(Unit : mm)



Adhesive metal clamp with a foam layer that grips cables firmly and safley

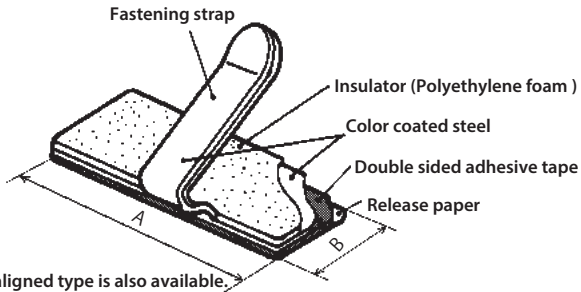
Features

- Metal clamp with an electric insulating foam layer grips cables firmly and safely.

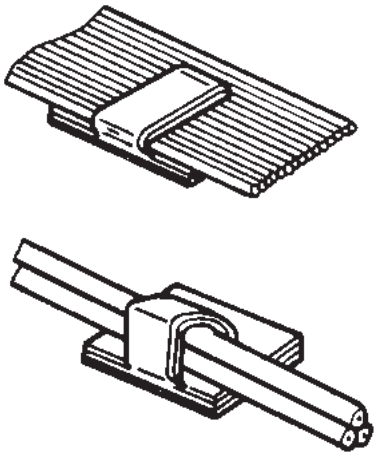
Adhesive tape mounting

Material

- Body / Color coated steel（Color：Grey）
- Insulator / Polyethylene foam（Color：Grey）



※ 50 clamp aligned type is also available.
5×10 components are on one adhesive tape.
(K-103G-50,K-105G-50)



Part No.	A	B	Length of binding strap	Std. Package
K-103G	18	10	(23)	250 pcs.
K-104G	23.8	9.2	(19)	
K-105G		12.9	(25)	
K-106G		14.7	(36)	

(Unit：mm)

NYLON CLAMP / NK

UL 1565

Screw mount standard cable clamp

Features

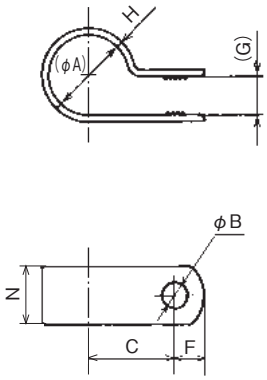
- No slipping of screwed area when mounted, since the mating faces have slip stoppers.

Screw mounting

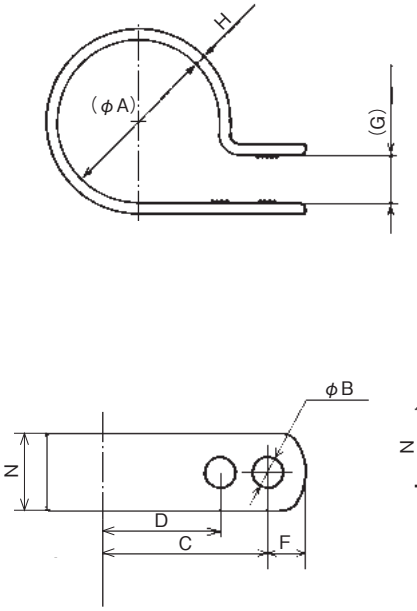
Material

- Nylon 66（Color：Natural） UL94 V-2

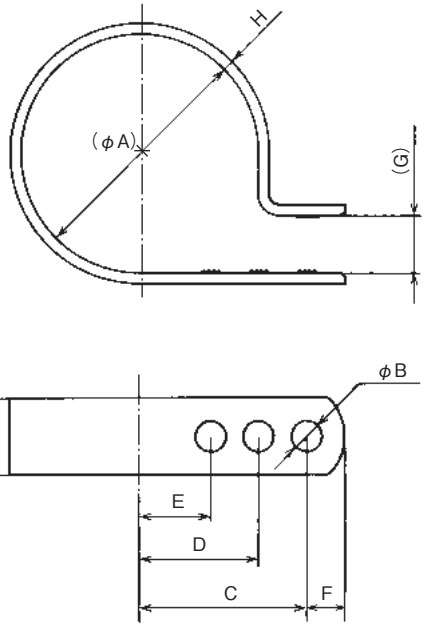
A type



B type



C type



	Part No.	Type	Diameter and dimension									Inner diameter			Std. Package
			(φA)	φB	C	D	E	F	(G)	H	N	Outer hole	Center hole	Inner hole	
UL	NK-2N	A	3.3	4.3	9.5	–	–	4.8	3.2	1.1	9.5	3.0	–	–	100 pcs.
UL	NK-3N		5.3		10.3	–	–		4.8			4.6	–	–	
UL	NK-4N		6.8		11.1	–	–					5.6	–	–	
UL	NK-5N		8.4		11.9	–	–					7.4	–	–	
UL	NK-6N		10.6		12.7	–	–		6.3			10.0	–	–	
UL	NK-7N		12.2		13.5	–	–					10.7	–	–	
UL	NK-8N		13.2		14.3	–	–					11.9	–	–	
UL	NK-9N		15.2		15.1	–	–					13.5	–	–	
UL	NK-10N		16.0		15.9	–	–					14.0	–	–	
UL	NK-11N		19.0	5.1	17.5	–	–	6.3	7.9	1.8	12.7	16.8	–	–	
UL	NK-12N		19.8		18.2	–	–					17.8	–	–	
UL	NK-13N		22.1		19.0	–	–					20.8	–	–	
UL	NK-14N	B	22.9		19.8	11.9	–					21.3	–	18.5	
UL	NK-16N		26.9		21.4	13.5	–					24.4	–	22.3	
UL	NK-18N		29.2		23.0	15.1	–					26.7	–	24.1	50 pcs.
UL	NK-24N	C	39.4		27.8	19.8	11.9		9.5			37.3	35.0	31.2	
UL	NK-32N		52.1		34.1	24.6	13.5					51.0	46.2	43.7	25 pcs.

UL ···UL1565 recognized product

(Unit：mm)

HEAT RESISTANT CABLE CLAMP / KCA

UV and heat resistant fluoro resin clamp

Features

- Made of heat, weather, chemical and radiation resistant fluorocarbon resin.

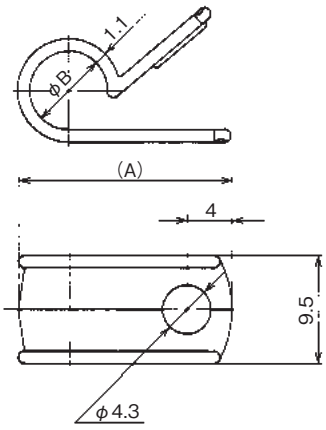
Screw mounting

(Applicable screw : Nominal diameter 4mm)

Material

- ETFE (Color : Blue)

UL94 V-0



Part No.	(A)	φB	Max bundle diameter	Std. Package
KCA-34	17.5	5.1	φ4.3	100 pcs.
KCA-44	19.0	6.9	φ5.9	
KCA-54	20.9	8.8	φ7.5	
KCA-64	23.7	10.8	φ9.1	

(Unit : mm)

KS CLAMP / KS

Snap-mount standard cable clamp

Features

- Binding and securing of cables by easy snap mounting.

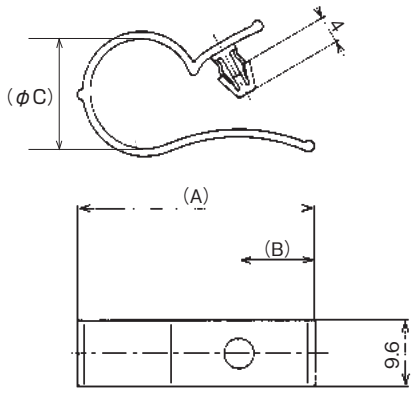
Snap Mounting

Round hole

Material

- Nylon 66 (Color : Natural)

UL94 V-2



Part No.	(A)	(B)	(φC)	Max bundle diameter	Mounting hole size	Panel thickness	Std. Package
KS-2S	18.9	8.0	3.8	φ2.6	φ4 $^{+0.2}_{0}$	0.5~2	100 pcs.
KS-5S	26.6	9.4	9.3	φ7.8			
KS-8S	34.7	10.5	15.0	φ13.0			
KS-10S	37.1	11.0	17.8	φ15.0			

(Unit : mm)

Clip with side slot for cable

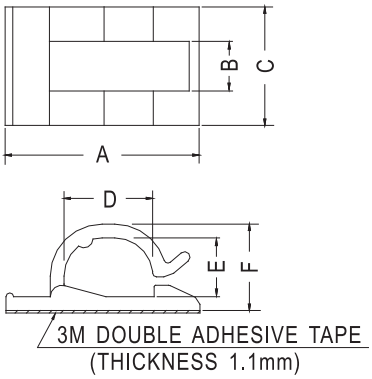
Features

- Can be mounted with adhesive tape

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



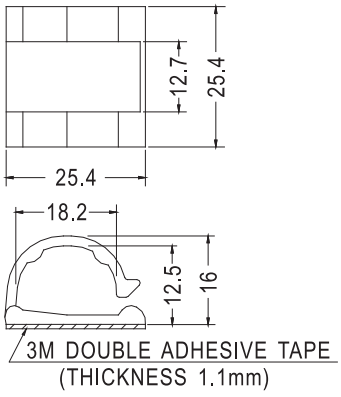
XDM-8/9

Part No.	A	B	C	D	E	F
XDM-8	25.4	6.5	15.5	11.6	7.8	11.3
XDM-9	25.2	12.7	25.2	11.6	7.6	11.0

(Unit: mm)

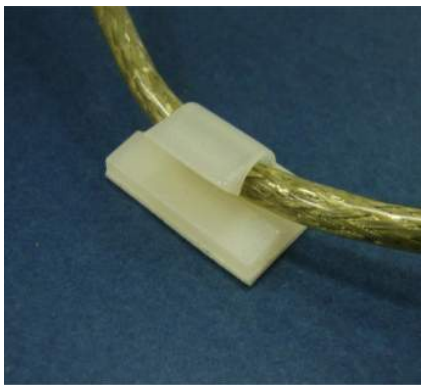
Std. Package: 500 pcs.

XDM-10

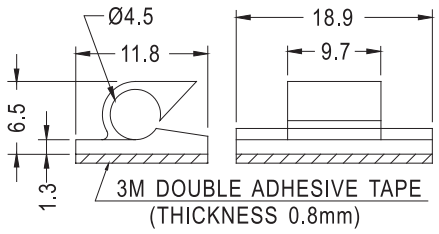


Std. Package: 500 pcs.

(Unit: mm)



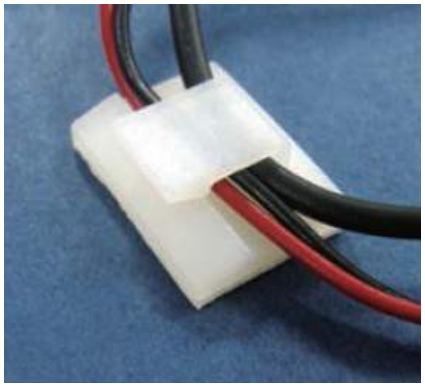
XDM-11



Std. Package: 1000 pcs.

(Unit: mm)

WIRE MOUNT / XD



Clip with side slot for cable

Features

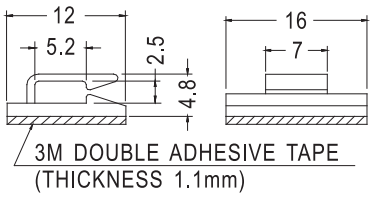
- Can be mounted with adhesive tape

Material

- Nylon 66 (Color: Natural) UL94 V-2 (V-0*)

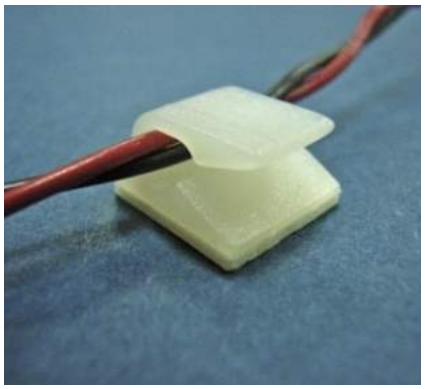
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

XD-4

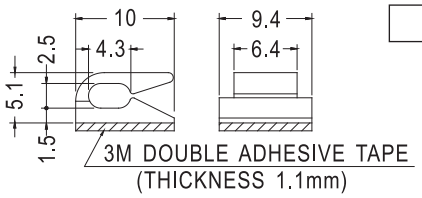


Std. Package: 1000 pcs.

(Unit: mm)



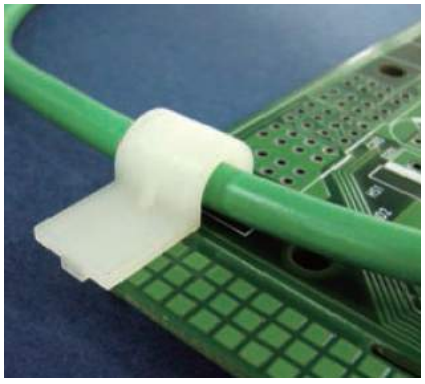
XD-6



Std. Package: 1000 pcs.

(Unit: mm)

WIRE MOUNT / DMI



Snap-mount standard cable clamp

Features

- Snapped on PCB

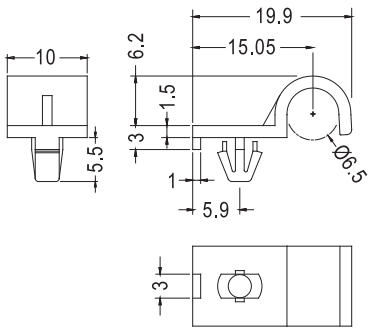
Material

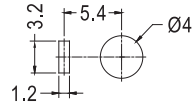
- Nylon 66 (Color: Natural) UL94 V-2 (V-0*)

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

DMI-6

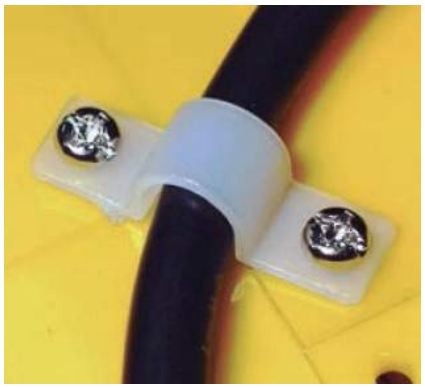
Std. Package: 500 pcs.





(Unit: mm)

WIRE MOUNT / DMN



Cable Clip with screw fixation

Features

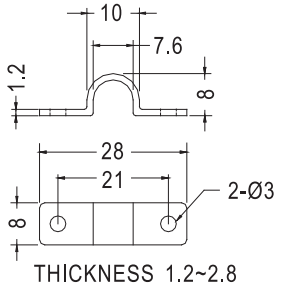
- Fixed with 2 x M3 screw

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

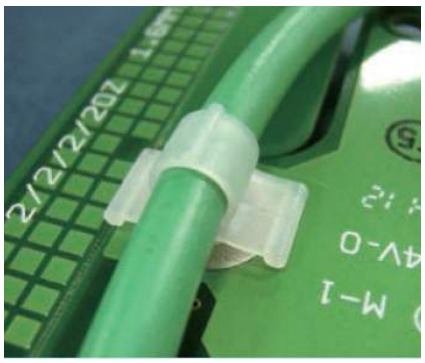
* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

DMN-7.5 Std. Package: 500 pcs.



(Unit: mm)

WIREHOLDER / PDD



Snap-mount cable clip

Features

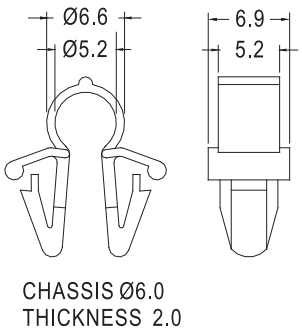
- Wireholder on PCB

Material

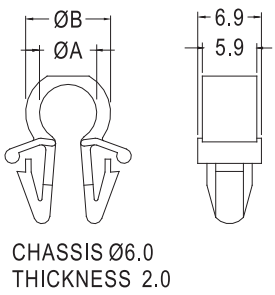
- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

PDD-5



PDD-6/8/10

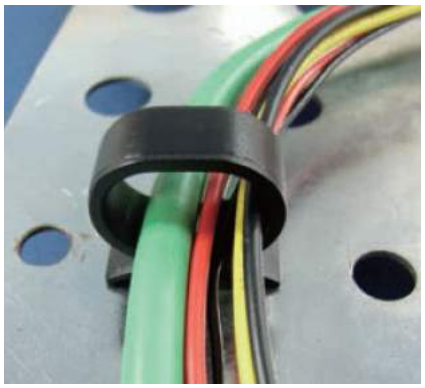


(Unit: mm)

Part No.	A	B	Standard Package
PDD-5	5.2	6.6	1000
PDD-6	6.2	9.2	1000
PDD-8	8.2	11.2	500
PDD-10	10.2	13.2	500

(Unit: mm)

WIREHOLDER / PDDC



Snap-mount cable clip

Features

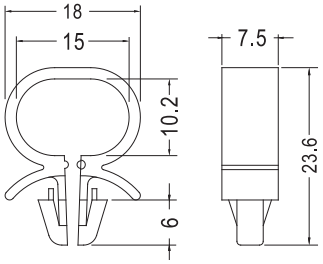
- Wireholder on PCB

Material

- Nylon 66 (Color: Natural, Black) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

PDDC-15



CHASSIS Ø6.0~Ø6.5
THICKNESS 0.8~2.5

Std. Package: 500 pcs.

(Unit: mm)

WOOD-USE CLAMP / WBC

Snap-mount locking clamp to insert into wooden panel

Features

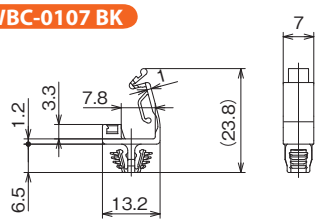
Round hole

- Snap-in structure enables one-touch installation which reduces workload.
- Unique snap structure holds securely onto wooden board.
- Round mounting hole

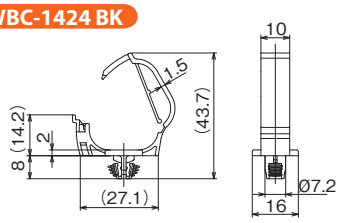
Material **UL94 V-2**

- Nylon 66 (Color : Black)

WBC-0107 BK



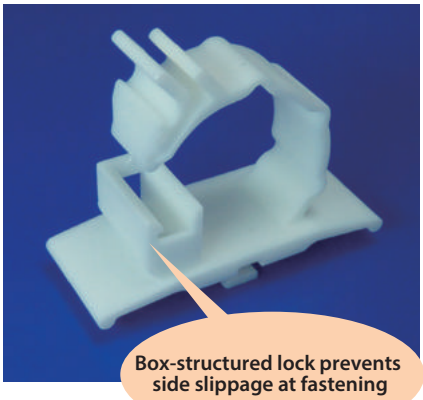
WBC-1424 BK



Part No.	Mounting	Mounting hole depth	Max number/ diameter of bundle
WBC-0107 BK	ϕ6.7±0.1	≧8	ϕ1×5pcs.≧
WBC-1424 BK	ϕ7.7±0.2	≧9	≦ϕ17

(Unit : mm)

CKT CLAMP / CKT



Releasable cable clamp with minimum protrusion on panel

Features

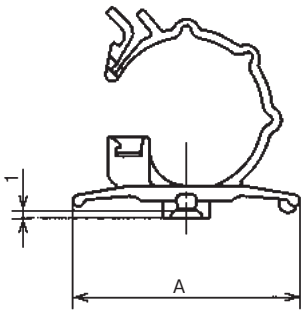
- Space-saving snap has a very low 1mm protrusion on the underside of PCB.
- Easy maintenance and recyclable. Snap is detachable from mounting side with no tools required.

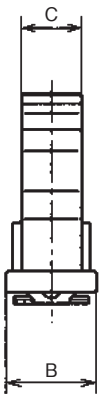
Twist Type

Odd-shaped hole

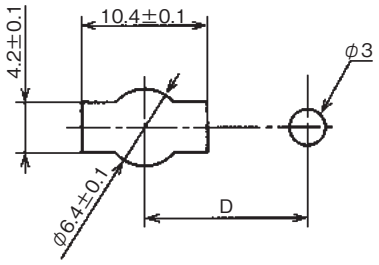
Material

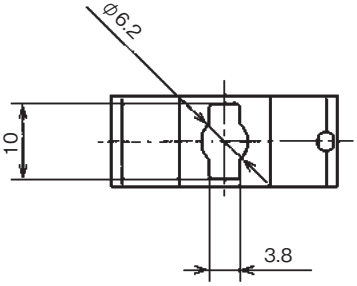
- Nylon 66（Color：Natural） UL94 V-0





Specification drawing





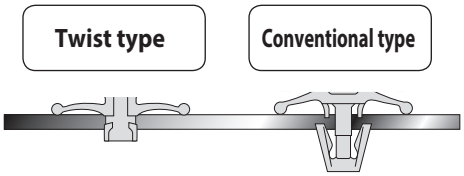
	Part No.	A	B	C	D	Max bundle diameter	Mounting hole size	Panel thickness	Std. Package
UL	CKT-05 V0	23.0	10.0	6.0	10.0±0.1	ϕ5.4	Refer to Specification drawing	1±0.2	100 pcs.
UL	CKT-07 V0					ϕ6.5			
UL	CKT-10 V0	30.0	12.0	8.0	13.5±0.1	ϕ10.0			
UL	CKT-13 V0					ϕ14.4			
UL	CKT-16 V0	36.0	14.0	10.0	16.5±0.1	ϕ17.5			
UL	CKT-20 V0					ϕ20.0			

UL ···UL1565 recognized product

(Unit：mm)

Turn and remove　Reusable Snap　(Twist type)

Space saving



The snap protrusion is greatly reduced

Compared to conventional snap, the protrusion of snap is greatly lowered for application in limited spaces.

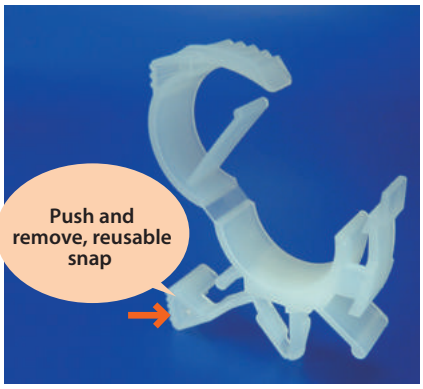
Easy Operation!

For installation and removal, simply turn the body

Can be removed from mounting side with no tool needed, while conventional snap requires cutting by nippers etc from the backside of the panel.

FREE CLAMP / FLC

REUSABLE



Adjustable, releasable snap-mount clamp

Push Type

Round hole

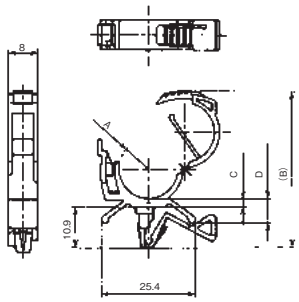
Features

- Clamp diameter can be adjusted to wire bundle. Easy release of cables.
- Dismounted with one hand. Reusable snap is employed for maintenance and recycling.

Material

- Nylon 66（Color：Natural）

UL94 V-2



Part No.	A	(B)	C	D	Bundle diameter	Mounting hole size	Panel thickness	Std. Package
FLC-10S	R8	42.2	2.4	6.6	φ7～14	φ4.8 $^{+0.2}_{0}$	0.8～2	500 pcs.
FLC-20S	R13	59.4	3.4	7.6	φ14～22			100 pcs.

(Unit：mm)

SCREW-LESS CLAMP / VLC

Adjustable snap-mount clamp that easily inserts into screw hole

Features

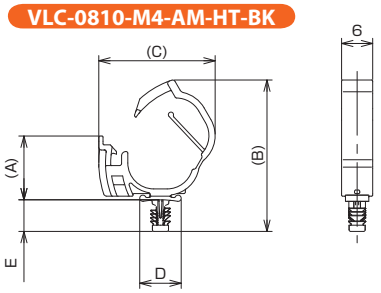
- Plug-in mounting in screw hole is available without tool.
- Clamp porting has locking mechanisms with harness holder.
- Applying heat resistant aging material, both heat resistance and durability are performed.

Material

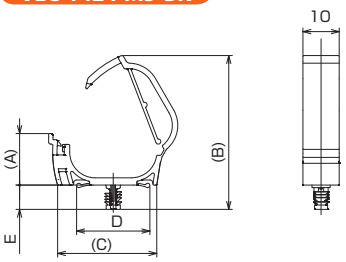
- Nylon 66（Color：Black）

UL94 V-2

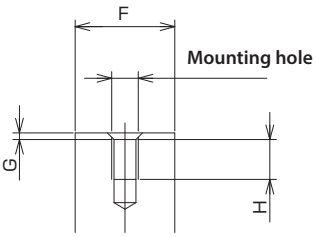
VLC-0810-M4-AM-HT-BK



VLC-1424-M5-BK



Installation specifications



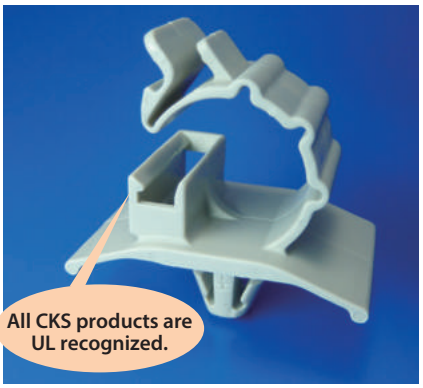
Recommended mounting hole

Part No.	(A)	(B)	(C)	D	E	F	G	H	Max bundle diameter	Mounting hole size	Std. Package
VLC-0810-M4-AM-HT-BK※	12.3	28.2	22.5	8	(6.1)	≧φ10	≦1	≧7	φ10	M4 screw hole (Thread pitch:0.7)	100 pcs.
VLC-1424-M5-BK	14.2	42.4	27.3	(20.2)	6.7	≧φ22	≦1	≧8	φ17	M5 screw hole (Thread pitch:0.8)	100 pcs.

※Operating temperature range: -40℃ to +125℃.

(Unit：mm)

CKS CLAMP / CKS



Snap-mount clamp applicable for thick panles (0.5～4.1 mm)

Features

- Box-structured lock prevents side slippage at fastening.
- Applicable to panel thickness from 0.5mm (L-type) to 4.1mm (H -type).

Snap Mounting

Round hole

CKN series

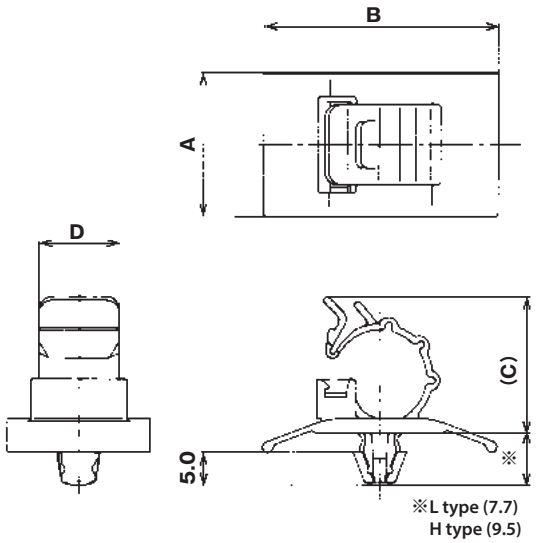
For adhesive backed type

Refer to the right page

Material

- Nylon 66（Color：Grey）

UL94 V-2



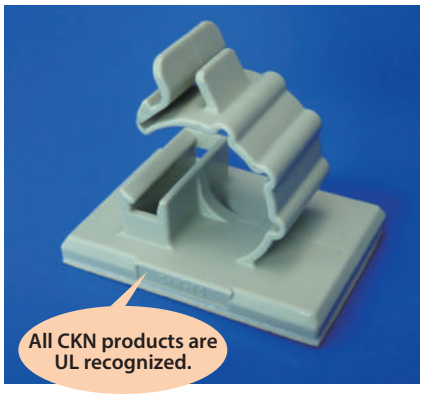
※L type (7.7)
H type (9.5)

	Part No.	A	B	(C)	D	Max bundle diameter	Mounting hole size	Panel thickness	Std. Package
UL	CKS-05-L	13.8	23.2	12.8	8.5	φ5.4	$\phi 6.4^{+0.2}_{0}$	-L type 0.5～2.3 -H type 2.3～4.1	100 pcs.
UL	CKS-05-H								
UL	CKS-07-L	15.1	25.0	15.1	9.8	φ6.2			
UL	CKS-07-H								
UL	CKS-10-L	17.3	28.4	19.7	12.0	φ9.8			
UL	CKS-10-H								
UL	CKS-13-L	19.3	32.0	25.6	14.0	φ14.4			
UL	CKS-13-H								
UL	CKS-16-L	21.3	35.0	26.2	16.0	φ17.5			
UL	CKS-16-H								
UL	CKS-20-L	23.3	37.0	30.8	18.0	φ20.0			
UL	CKS-20-H								
UL	CKS-26-L	31.4	46.0	40.75	24.0	φ28.0			

UL ···UL1565 recognized product

(Unit：mm)

CKN CLAMP / CKN



Cable clamp with a box lock, for adhesive tape fixation

Features

- Box-structured lock prevents side slippage at fastening.

Material

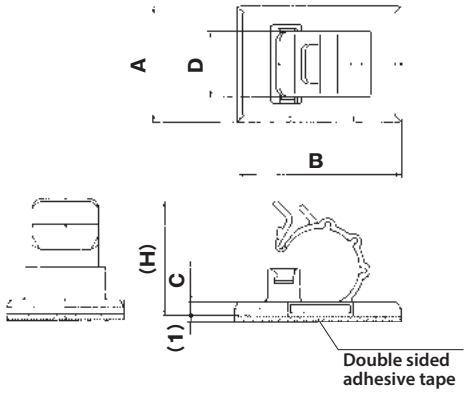
- Nylon 66 (Color : Grey) UL94 V-2

Adhesive tape mounting

※ With regard to adhered body which is covered by UL1565, please contact our sales department.

CKS series

snap mounting type Refer to the left page



	Part No.	A	B	C	D	(H)	Max bundle diameter	Std. Package
UL	CKN-05-R	20.5	17.5	2.0	8.5	13.4	φ 5.4	100 pcs
UL	CKN-07-R	17.5	25.5	2.2	9.8	15.9	φ 6.2	
UL	CKN-10-R	21.0	30.0	2.5	12.0	20.6	φ10.0	
UL	CKN-13-R	24.0	30.0	2.5	14.0	26.1	φ14.4	
UL	CKN-16-R	25.5	36.0	3.0	16.0	27.0	φ17.4	
UL	CKN-20-R	30.0	40.0	3.0	18.0	31.4	φ20.0	
UL	CKN-28-R	43.0	56.0	3.5	24.0	41.7	φ29.0	20 pcs
UL	CKN-38-R	56.0	76.0	4.1	30.0	57.2	φ37.4	

UL ···UL1565 recognized product

(Unit : mm)

CKN CLAMP WITH CUSHION PAD / CKN-SP

Adhesive cable clamp with protective foam

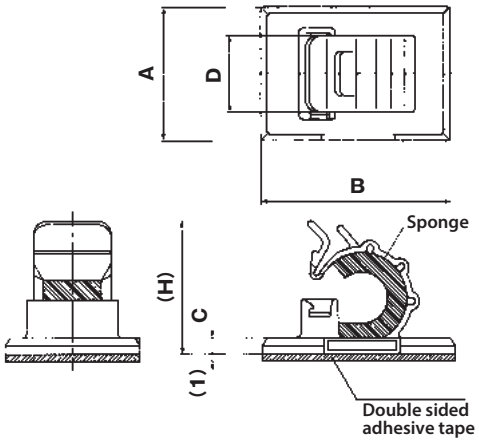
Features

- CKN clamp with foam pad protects cables from vibration etc.

Adhesive tape mounting

Material

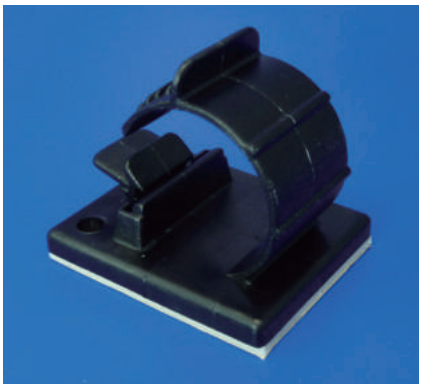
- Body / Nylon 66 (Color : Grey) UL94 V-2
- Sponge / Natural rubber foam (Color : Black)



Part No.	A	B	C	D	(H)	Max bundle diameter	Std. Package
CKN-10SP-R	21.0	30.0	2.5	12.0	20.6	φ8	100 pcs.
CKN-13SP-R	24.0	30.0	2.5	14.0	26.1	φ10	
CKN-16SP-R	25.5	36.0	3.0	16.0	27.0	φ13	
CKN-20SP-R	30.0	40.0	3.0	18.0	31.4	φ14	

(Unit : mm)

ADJUSTABLE CLAMP / AC



Adjustable locking clamp

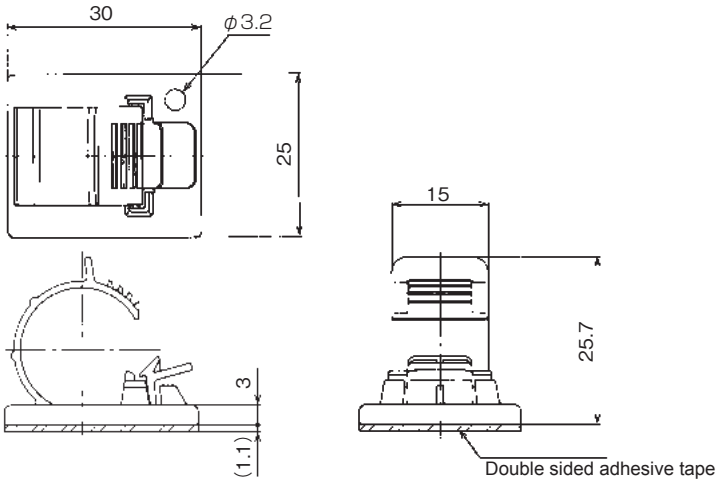
Features

- Bundle diameter is adjustable to cables. Easy fastening clamp.

Adhesive tape mounting

Material

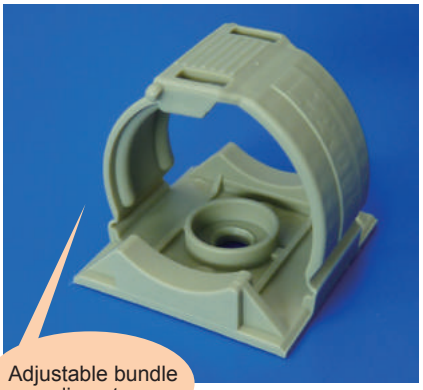
- Body / Nylon 66（Color：Black） UL94 V-2



Part No.	Bundle diameter	Std. Package
AC-13-R	φ12～13.5	100 pcs.

(Unit：mm)

CLINCHER / ARC.68



Adjustable locking clamp

Features

- Easily releases cables. Bundle diameter is adjustable in wide range.

Material

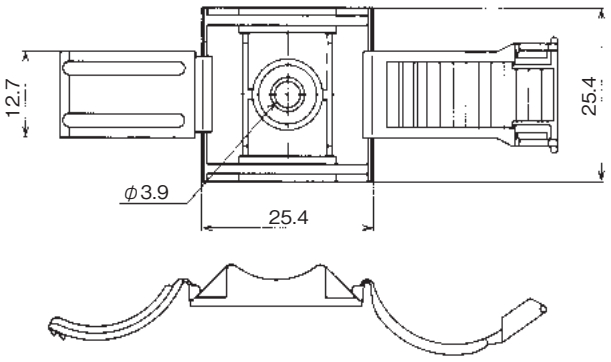
- Polypropylene（Color: Grey）

Adhesive tape mounting

Screw mounting

(Applicable screw:Nominal diameter 3.5mm Small flat head screw)

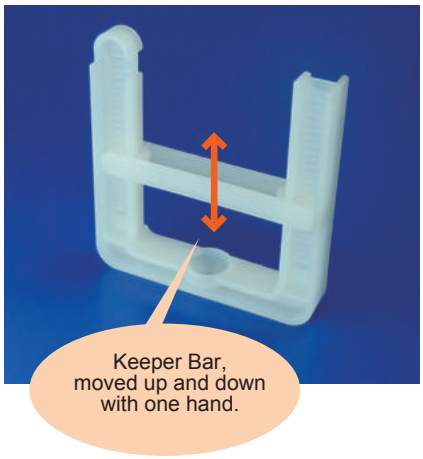
※ Specifications are described in the table below.



Part No.	Mounting method	Bundle diameter	Std. Package
ARC.68-A-14	Adhesive tape	φ4.8～17.3	100 pcs.
ARC.68-S6-14	Screw		

(Unit：mm)

FLEXIBLE CLAMP / FXC



Large, screw mount clamp with an easy adjustable arm

Features

- Pushing down the keeper bar to secure wire bundles.
- Bar height is adjustable to cable volume by small pitch.
- Easily unlock the bar by pinching.

Screw mounting

(Applicable screw:Nominal diameter 4mm
Small flat head or oval head screw)

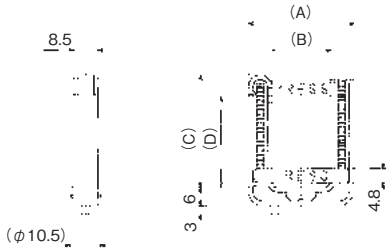
Round hole

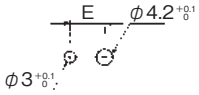
Material

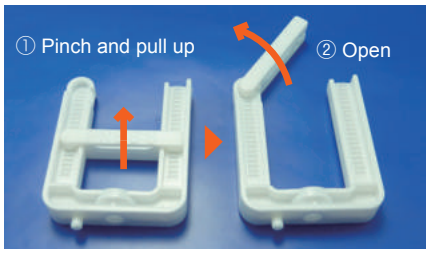
- Nylon 66（Color：Natural）

UL94 V-0 : FXC-2030-V0
UL94 V-2 : FXC-3240

Specification drawing



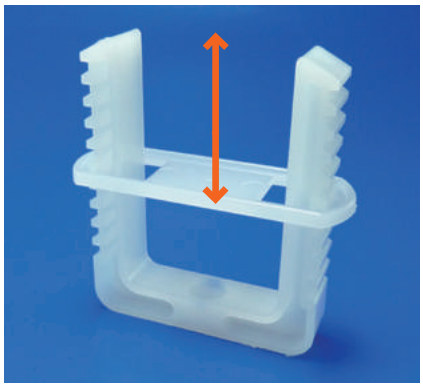




Part No.	(A)	(B)	(C)	(D)	E	Mounting hole size	Std. Package
FXC-2030-V0	36	20	37	30	9±0.1	Refer to Specification drawing	100 pcs.
FXC-3240	48	32	46.3	39.3	15±0.1		

(Unit：mm)

CABLE CLAMP / KC



Large, screw mount clamp with an adjustable arm

Features

- U structured clamp holds cables from below with the keeper bar pushed down to fasten them. Adding or removing cables is easy.

Screw mounting

(Applicable screw:Nominal diameter 4mm
Small flat head or oval head screw)

Round hole

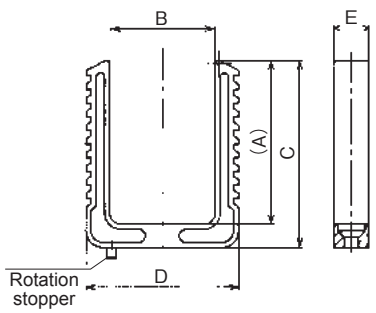
※ Specifications are described in the table below.

Material

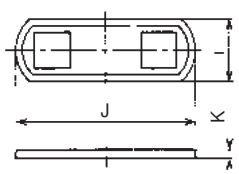
- Nylon 66（Color：Natural）

UL94 V-2

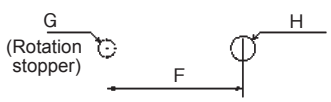
Clamp



Keeper Bar



Specification drawing



Part No.	(A)	B	C	D	E	F	G	H	I	J	K	Std. Package
KC-1830	30	18	37	31	8	9±0.1	φ3.4 +0.1 0	φ4.3±0.1	15	40	2.25	100 pcs.
KC-3148	48	31	55	45	10	15±0.1	φ3.1 +0.1 0		18	53	2.5	

(Unit：mm)

RE-USE HARNESS LIFTER / RHL-28E-V0

REUSABLE

Releasable snap-mount spacer clamp

Features

- Spacing and clamping of cables.
- Detachable snap for easy maintenance and disassembling.

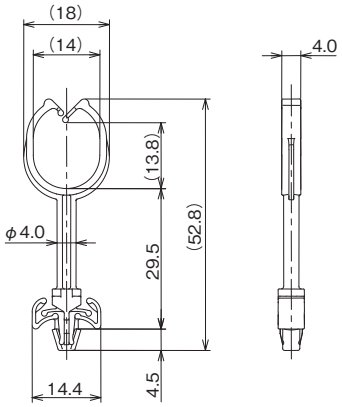
Push Type

Round hole

Material

- Nylon 66 (Color : Natural)

UL94 V-0

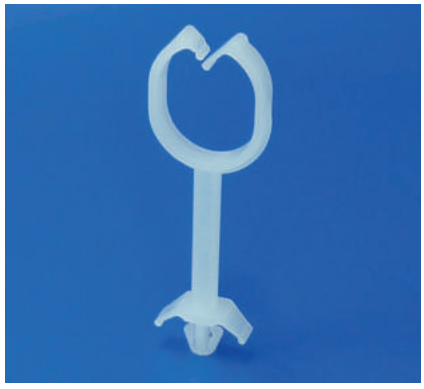


Part No.	Mounting hole size	Panel thickness	Std. Package
RHL-28E-V0	$\phi 4.8^{+0.2}_{0}$	0.5~1.6	1,000 pcs.

(Unit : mm)

HARNESS LIFTER / HL

UL 1565



Snap-mount spacer clamp

Features

- Dual function, spacing and clamping.

Snap Mounting

Round hole

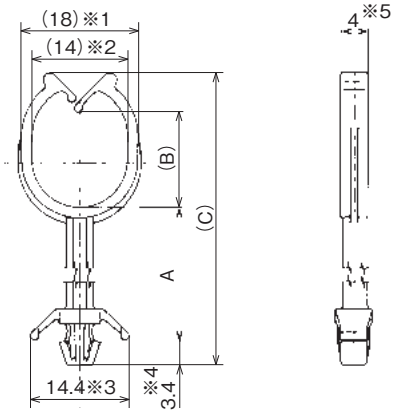
Material

- Nylon 6※1 (Color : Natural)

UL94 V-2 (V-0※2)

※1 HL-26L is made of Nylon 66

※2 For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



	Part No.	A	(B)	(C)	Mounting hole size	Panel thickness	Std. Package
UL	HL-18-0	19.5	13.8	41.7	$\phi 4.8^{+0.1}_{0}$	0.5~2.3	1,000 pcs.
UL	HL-28-0	29.5		51.7			100 pcs.
UL	HL-38-0	39.5		62.4			1,000 pcs.
	HL-26L※	27.7	16.9	57.2		0.8~2.0	100 pcs.

UL ···UL1565 recognized product

(Unit : mm)

※ HL-26L has a slightly different configuration from the others.
※1 : (23) ※2 : (14) ※3 : 17.8 ※4 : 4.9 ※5 : 5

SPACING CLIP / VSC-10

UL 1565

Snap-mount spacer and locking clamp

Features

- Lock secures wire/cable bundles.
- Inner spring fastens wires firmly.
- Nylon 66 (Color : Natural)

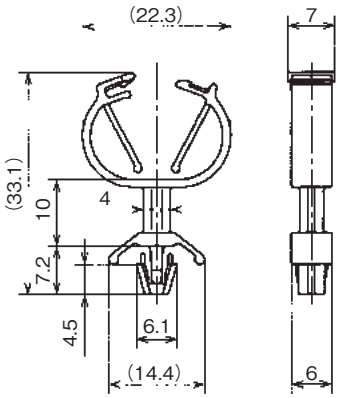
UL94 V-2 (V-0※)

Snap Mounting

Round hole

Material

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



	Part No.	Applicable bundle diameter	Mounting hole size	Panel thickness	Std. Package
UL	VSC-10	φ9～12	φ4.8 $^{+0.2}_{0}$	0.5～2.3	500 pcs.

UL ···UL1565 recognized product

(Unit : mm)

HARNESS LOCK SPACER / LHL-18

Snap-mount spacer and locking clamp for space saving

Features

- Space-saving spacer holds cables securely by the lock mechanism.

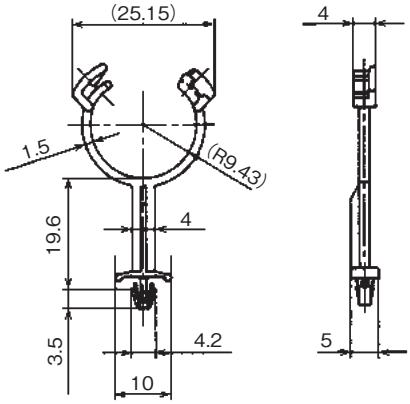
Snap Mounting

Round hole

Material

- Nylon 66 (Color : Natural)

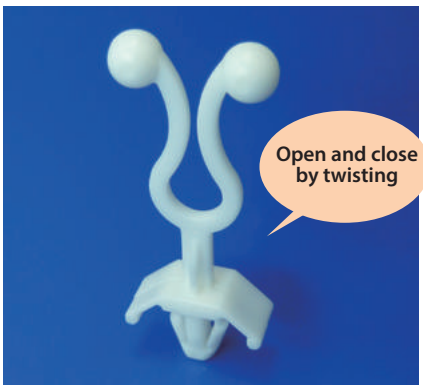
UL94 V-2



Part No.	Applicable bundle diameter	Mounting hole size	Panel thickness	Std. Package
LHL-18	φ13	φ3 $^{+0.1}_{0}$	1.6±0.15	1,000 pcs.

(Unit : mm)

NIPLOCKER / NPL



Snap-mount clamp with twist locking of cable bundles

Features

- Twist lock secures wire/cable bundles.

Snap Mounting

Round hole

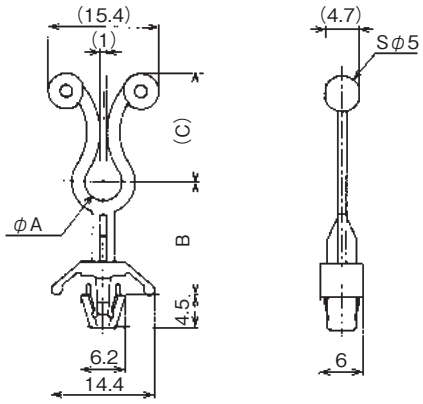
OLS series

For twist lock type binding , refer to P98

Material

- Nylon 66 (Color : Natural) UL94 V-2 (V-0※)

※ For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

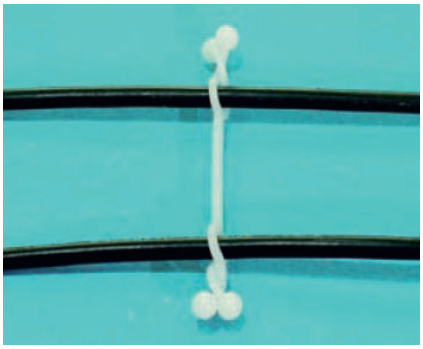


	Part No.	ϕA	B	(C)	Mounting hole size	Panel thickness	Std. Package
UL	NPL-320	3.0	15.8	15.2	ϕ4.8 +0.1 0	0.5~2	500 pcs.
UL	NPL-510	5.2	8.9				
UL	NPL-520V0	5.2	15.8				
UL	NPL-1230	11.5	28.0	21.7			200 pcs.

UL ···UL1565 recognized product

(Unit : mm)

WIRE LOCK SPACER / Z-2L



Wire lock spacer snap-mount

Features

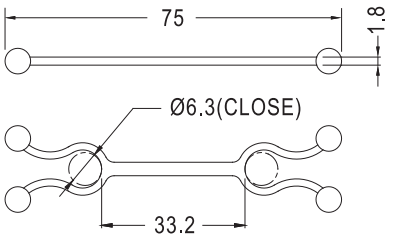
- Can be mounted with snap on PCB

Material

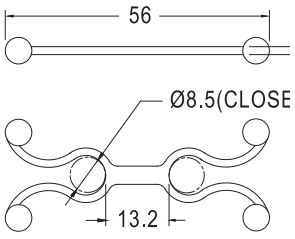
- Nylon 66 (Color: Natural) UL94 V-2 (V-0*)

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Z 2L-7



Z 2L-8



(Unit: mm)

Std. Package: 500 pcs.

OMEGA HOLDER / LM

Adhesive-mount clamp with twist locking of cable

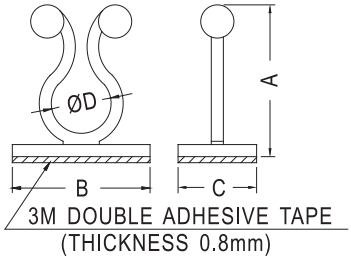
Features

- Can be mounted with adhesive tape
- Cost saving and easy locking/un-locking

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

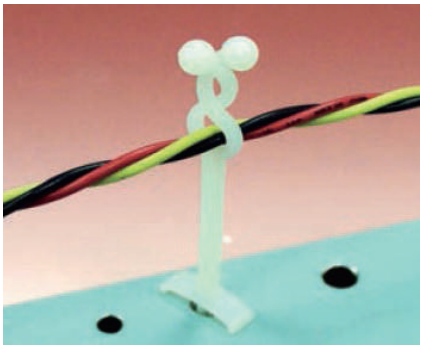
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	A	B	C	D	CLOSED (D)	Std. Package
LM-1	31.9	20.0	20.0	15.0	13.8	250
LM-2	26.2	20.0	14.0	9.2	8.5	500
LM-2L	27.9	25.0	13.0	9.4	8.2	
LM-3	28.2	21.0	19.0	11.1	10.0	
LM-5	56.2	38.0	20.0	36.0	34.0	100
LM-6	27.6	10.0	19.8	6.6	5.8	500
LM-7	21.9	20.0	13.0	8.5	7.2	
LM-16	37.0	25.0	13.0	18.0	17.0	250
LM-19	39.0	25.0	13.0	21.0	20.0	
LM-22	41.0	28.0	15.0	24.0	23.0	

(Unit: mm)

OMEGA HOLDER / UIB



Snap-mount clamp with twist locking of cable

Features

- Can be mounted with snap
- Cost saving and easy locking/un-locking

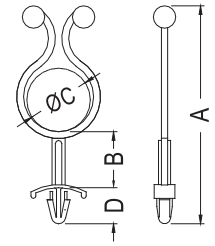
Snap Mounting

Round hole

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	A	B	C	D	CLOSED (D)	Std. Package
UIB-1	33.8	3.1	7.1	10.6	6.1	1000
UIB-2	51.0	20.0	7.1	10.6	6.1	500
UIB-3	66.0	35.3	7.1	10.6	6.1	
UIB-4	39.6	2.8	10.8	10.6	9.8	1000
UIB-5	56.8	20.0	10.8	10.6	9.8	500
UIB-6	71.5	35.2	10.8	10.6	9.8	
UIB-7	42.0	3.0	15.0	10.6	13.8	1000
UIB-8	59.3	20.4	15.0	10.6	13.8	500
UIB-9	74.7	35.8	15.0	10.6	13.8	
UIB-10	63.5	16.2	20.0	10.6	18.4	
UIB-11	56.8	3.0	24.3	9.8	22.3	
UIB-12	53.1	15.3	11.0	10.6	9.7	
UIB-14	55.3	5.0	20.3	10.6	18.7	
UIB-15	43.8	10.5	8.0	10.6	6.8	
UIB-16	34.7	5.6	8.8	10.0	7.0	

(Unit: mm)

MINI FLAT CABLE CLIP / MFS-1000

Snap-mount clip for flat cables

Features

- Compact clip for flat cables.
- Rotation stopper secures cables even if they slip.

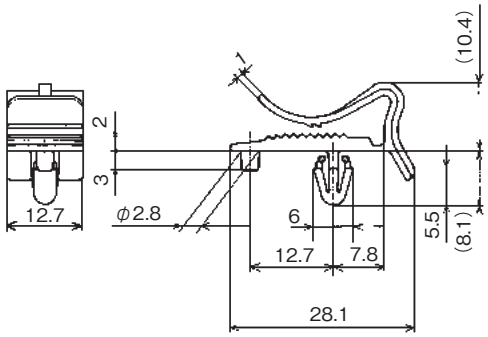
Snap Mounting

Round hole

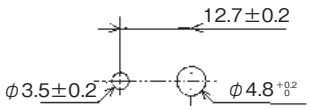
Material

- Nylon 66（Color：Natural）

UL94 V-2



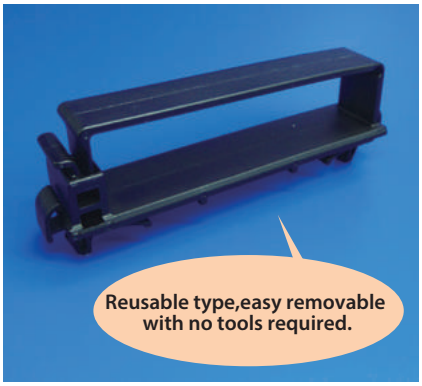
Specification drawing



Part No.	Mounting hole size	Panel thickness	Std. Package
MFS-1000	Refer to Specification drawing	0.5～2.3	100 pcs.

RE-USE FLAT CABLE CLAMP / RFCS-6015 BK

REUSABLE



Releasable snap-mount, flat cable clamp

Features

- New lock employed for quick opening/closing of clamp.
- Reusable type,easy removable with no tools required.

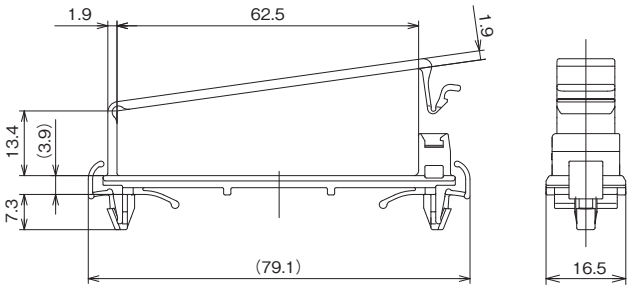
PUSH Push Type

Round hole

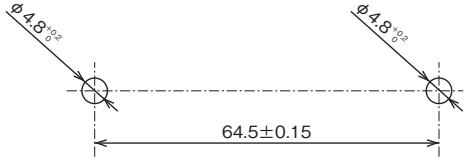
Material

- Nylon 66（Color：Black）

UL94 V-2



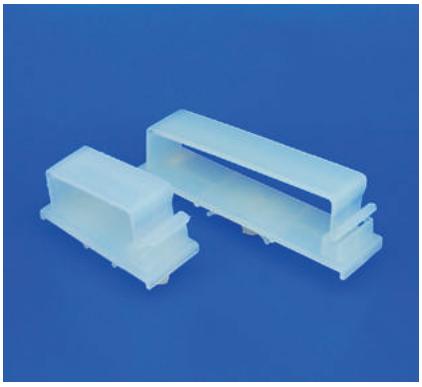
Specification drawing



Part No.	Panel thickness	Std. Package
RFCS-6015 BK	0.5～2.3	100 pcs.

(Unit：mm)

FLAT CABLE CLAMP / FCS•FCSS



Releasable snap-mount spacer clamp

Features

- Easy fastening/releasing of cables. Box-structured lock prevents side slippage at fastening.

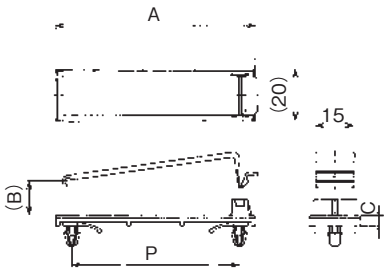
Snap Mounting

Round hole

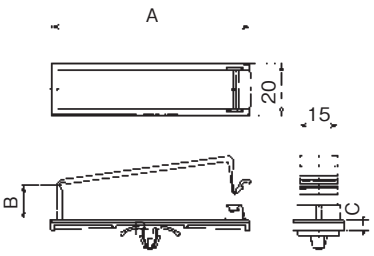
Material

- Nylon 66（Color：Natural） UL94 V-2

FCS



FCSS



	Part No.	Applicable cable		A	(B)	C	Mounting hole pitch	Mounting hole size	Panel thickness	Std. Package
		Max. width	Max. thickness							
UL	FCS-3010	31.0	6.5	45.5	7.0	4.0	33.0±0.1	$\phi 4.8^{+0.2}_{0}$	0.5~2.3	100 pcs.
UL	FCS-3015		13.0		13.4					
UL	FCS-6010	63.0	6.5	77.0	7.0		64.5±0.1			
UL	FCS-6015		13.0		13.4					
	FCSS-6010		6.5		7.0	4.2	——	$\phi 6.4^{+0.2}_{0}$		
	FCSS-6015		13.0		13.4					

UL ···UL1565 recognized product

(Unit：mm)

FLAT CABLE CLAMP / FCS-P

Snap-mount clamp with pantograph strip to hold down multiple flat cables

Features

- Pantograph structured strip holds down one to multiple flat cables securely.

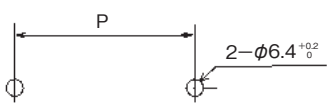
Snap Mounting

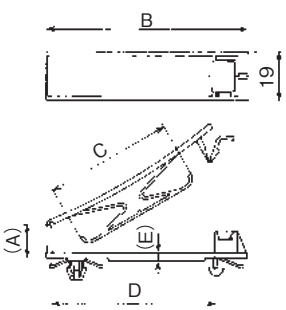
Round hole

Material

- Nylon 66（Color：Natural） UL94 V-2

Specification drawing



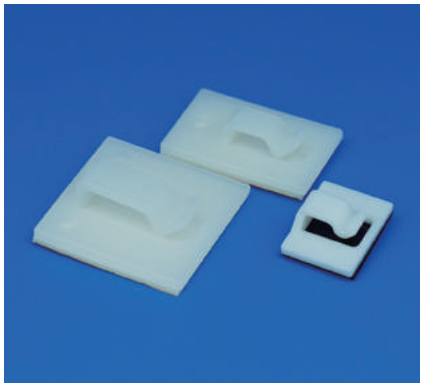


	Part No.	Applicable cable		(A)	B	C	D	(E)	P	Mounting hole size	Panel thickness	Std. Package
		Max. width	Max. thickness									
UL	FCS-25P	32.0	2.6	9.8	47	23	32	3	$21^{+0.1}_{0}$	Refer to Specification drawing	0.8~2.3	100 pcs.
UL	FCS-50P	63.5	7.0	13	79	50	64	3.2	$52^{+0.7}_{0}$			

UL ···UL1565 recognized product

(Unit：mm)

FLAT CABLE CLIP / FCA



Clip with side slot for cable

Features

- Compact clamp for flat cables.

Material

- Nylon 66（Color：Natural）

Adhesive tape mounting

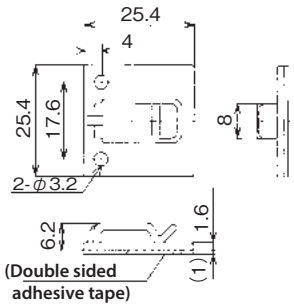
Screw mounting

※Specifications are described.

UL94 V-0 ：FCA-07-V0-R

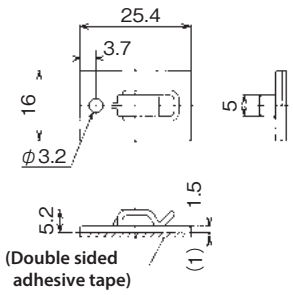
UL94 V-2 ：FCA-10, -16-R

FCA-16-R (Both adhesive tape and screw employed)



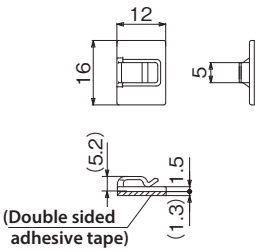
Std. Package :100 pcs.

FCA-10-R (Both adhesive tape and screw employed)



Std. Package :100 pcs.

FCA-07-V0-R (Adhesive tape)



Std. Package :100 pcs.

(Unit：mm)

MINI FLAT CABLE CLIP / MFC

Mini clip with side slot for flat cable

Features

- Compact clamp for flat cables.

Material

- Nylon 66（Color：Natural）

UL94 V-2

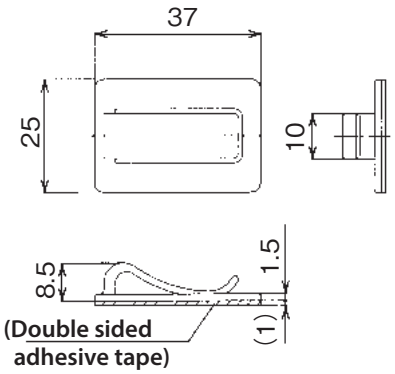
Adhesive tape mounting

※Specifications are described.

MFC-2000 (No adhesive backing)

MFC-3000-R (With adhesive tape)

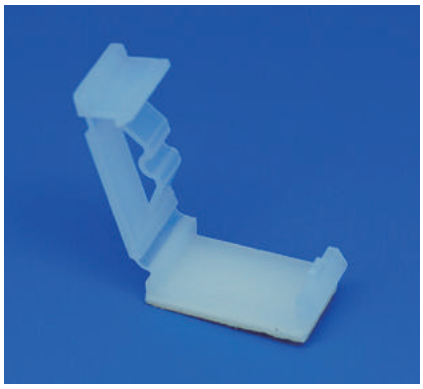
Std. Package :100pcs.



(Unit：mm)

Std. Package :100pcs.

FLAT CABLE CLAMP / LFC-N



Adhesive-mount clamp with side locking slot for flat cable

Adhesive tape mounting

※ With regard to adhered body which is covered by UL1565, please contact our sales department.

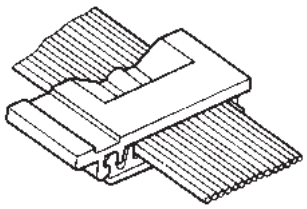
Features

- Space-saving clamp holds down cables safely.

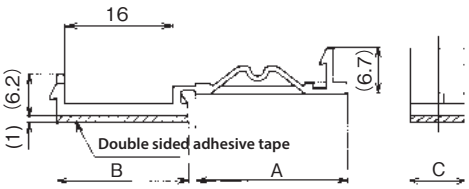
Material

- Nylon 66（Color：Natural）

UL94 V-2



LFC-16N-0-R

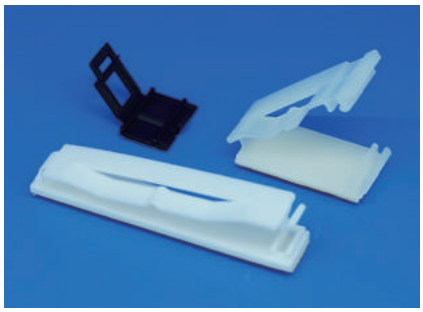


	Part No.	A	B	C	Applicable cable		Std. Package
					Max. width	Max. thickness	
UL	LFC-16N-0-R	22.4	19.4	10.0	16	2.7	1,000 pcs.

UL ···UL1565 recognized product

（Unit：mm）

THIN TYPE CLAMP / LFC · LBFC



Adhesive-mount clamp with side locking slot for flat cable

Adhesive tape mounting

※ With regard to adhered body which is covered by UL1565, please contact our sales department.

Features

- Space-saving clamp holds down cables safely.

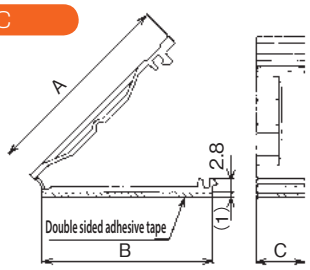
Material

- Nylon 66（Color：Natural）

UL94 V-2

UL94 V-0 ：LBFC-45N-V0-R

LFC

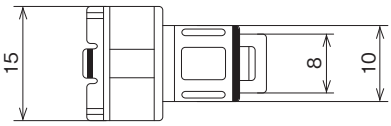


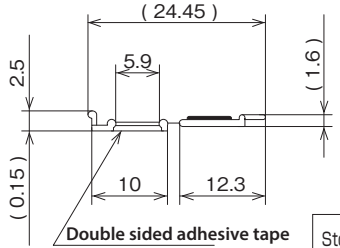
	Part No.	A	B	C	Applicable cable		Std. Package
					Max. width	Max. thickness	
UL	LFC-20W-R	30.4	25.6	14.0	21	1.2	500 pcs.
UL	LFC-27W-R	37.4	32.6		28		
UL	LFC-30N-0-R	40.0	35.1	10.0	30	1.0	

UL ···UL1565 recognized product

（Unit：mm）

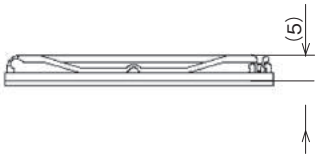
LFC-05BK

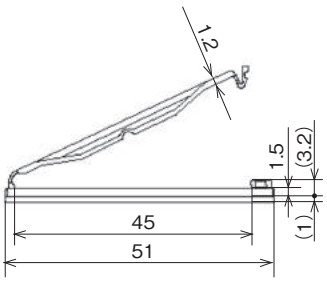


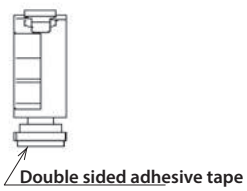


Std. Package : 500 pcs.

LBFC-45N-V0-R

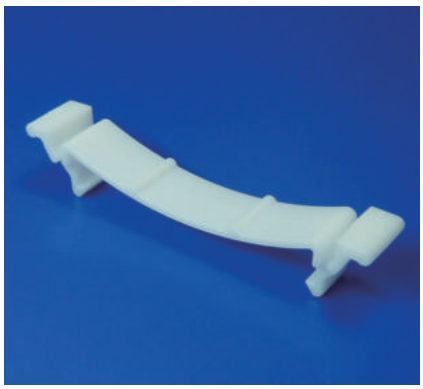






Std. Package :1000 pcs.

FLAT CLAMP / FCR



Snap-mount flat clamp to secure cables directly on panel

Features

- Low profile clamp secures flat cables directly on mounting panels.
- Reusable type,easy removable with no tools required.

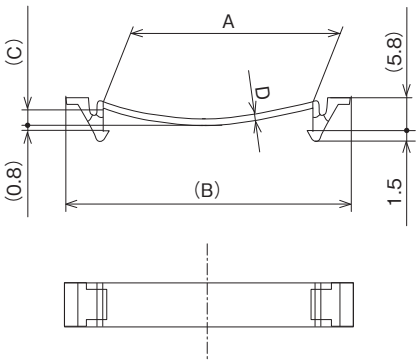
Push Type

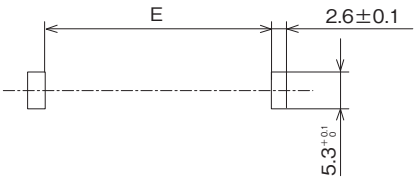
Odd-shaped hole

Material

- Nylon 66 (Color : Natural) UL94 V-0

Specification drawing



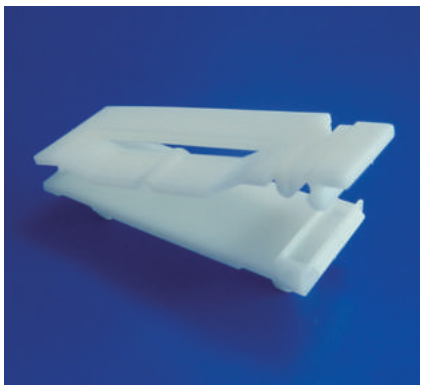


	Part No.	A	(B)	(C)	D	E	Mounting hole size	Panel thickness	Std. Package
UL	FCR-15 VO	15	27	2.6	0.8	15±0.1	Refer to Specification drawing	0.8~1.6	100 pcs.
UL	FCR-30 VO	30	42	2.9	1.0	30±0.1			
UL	FCR-35 VO	35	47			35±0.1			
UL	FCR-45 VO	45	57		1.2	45±0.1			
UL	FCR-60 VO	60	72		1.5	60±0.1			
	FCR-30L VO	30	42	3.0	1.0	30±0.1		1.5~2.5	

UL ···UL1565 recognized product

(Unit : mm)

THIN TYPE CLAMP / LFCS-30



Snap-mount flat cable clamp with base to secure cables directly on panel

Features

- Space-saving clamp holds down cables safely.

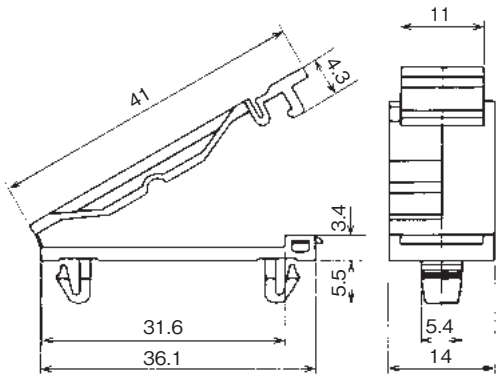
Snap Mounting

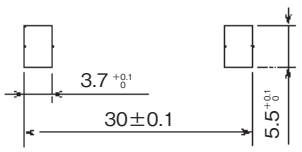
Odd-shaped hole

Material

- Nylon 66 (Color : Natural) UL94 V-0

Specification drawing





Part No.	Mounting hole size	Panel thickness	Std. Package
LFCS-30	Refer to Specification drawing	1~1.8	100 pcs.

(Unit : mm)

FLAT CABLE CLAMP / KFCS-3002

UL 1565

Snap-mount clamp with side locking slot for flat cable

Features

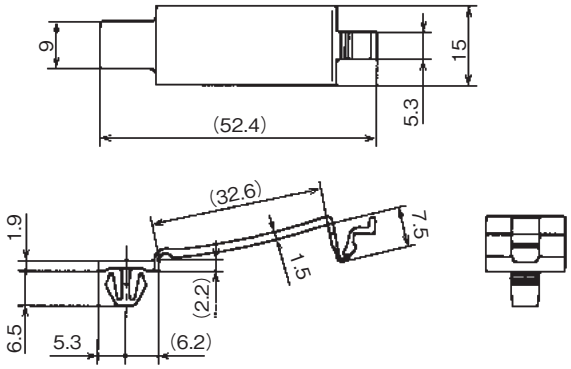
- Super-low profile clamp.
- Arced fastening strap holds down flat cables.

Snap Mounting

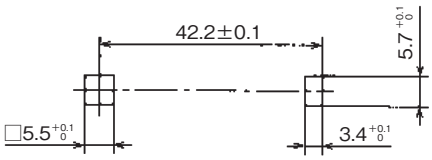
Odd-shaped hole

Material

- Nylon 66 (Color : Natural) UL94 V-2



Specification drawing



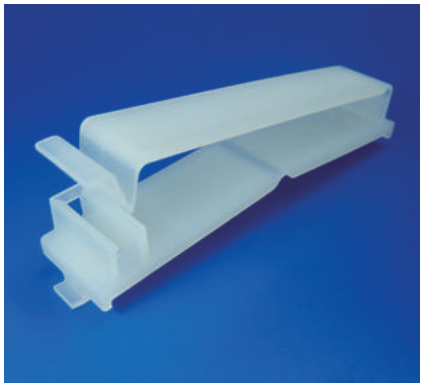
Part No.	Mounting hole size	Panel thickness	Std. Package
KFCS-3002	Refer to Specification drawing	1～1.6	500 pcs.

UL ···UL1565 recognized product

(Unit : mm)

FLAT CABLE CLAMP / FCT-6010

UL 1565



Snap-mount clamp with minimum protrusion on panel

Features

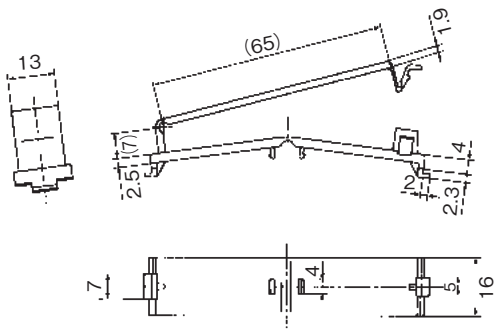
- Space-saving due to low protrusion on the underside of PCB.

Snap Mounting

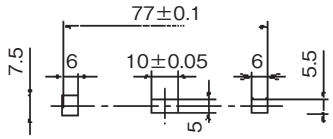
Odd-shaped hole

Material

- Nylon 66 (Color : Natural) UL94 V-2



Specification drawing



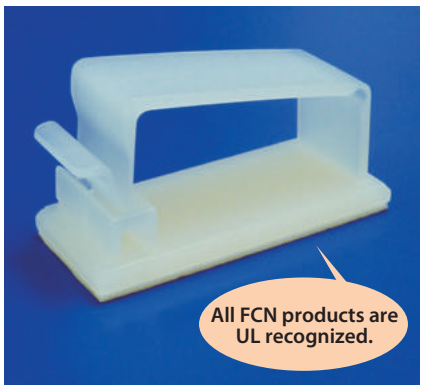
Part No.	Mounting hole size	Panel thickness	Std. Package
FCT-6010	Refer to Specification drawing	1±0.2	100 pcs.

UL ···UL1565 recognized product

(Unit : mm)

FLAT CABLE CLAMP / FCN

UL 1565



Adhesive-mount locking flat cable clamp

Features

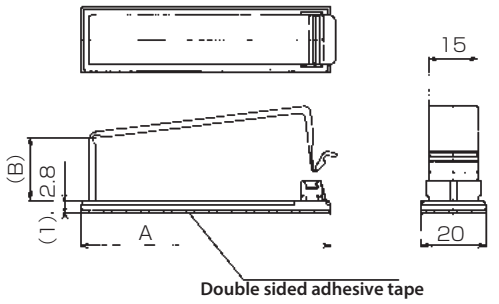
- Easy cable fastening and releasing. Box-structured lock prevents side slippage at fastening.

Material

- Nylon 66（Color：Natural） UL94 V-2

Adhesive tape mounting

※With regard to adhered body which is covered by UL1565, please contact our sales department.

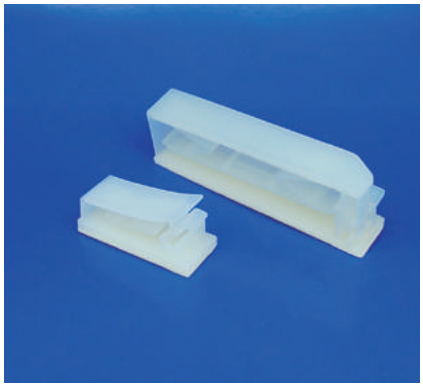


	Part No.	A	(B)	Max. width of cable	Max. thickness of cable	Std. Package
UL	FCN-3010-R	45.5	7.0	31.0	6.5	100 pcs.
UL	FCN-3015-R		13.4		13.0	
UL	FCN-6010-R	77.0	7.0	63.0	6.5	
UL	FCN-6015-R		13.4		13.0	
UL	FCN-6020-R		19.1		19.0	

UL ···UL1565 recognized product

(Unit：mm)

FLAT CABLE CLAMP / FCN-P・FCC-M



Adhesive-mount clamp with pantograph strip to hold down multiple flat cables

Features

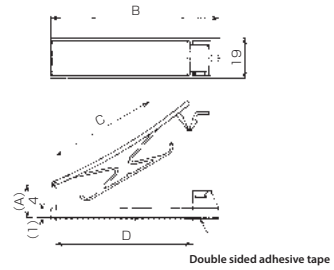
- Pantograph structured strip holds down one to multiple flat cables securely.

Adhesive tape mounting

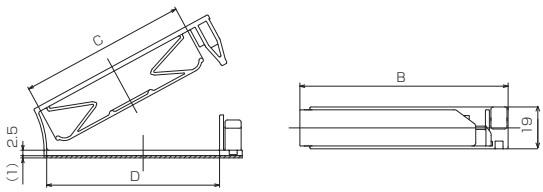
Material

- Nylon 66（Color：Natural） UL94 V-2

FCN-P-R



FCC-60M-R



Part No.	(A)	B	C	D	Applicable cable		Std. Package
					Max. width	Max. thickness	
FCN-25P-R	12	47	23	32.0	32.0	2.6	100 pcs.
FCN-50P-R	15	79	50	64.0	63.5	7.0	
FCC-60M-R	——	90	76	78.5	77.0	16.0	

(Unit: mm)

FCW CLAMP / FCW

Adhesive flat cable clamp that secures one or two cables with a screw option

Features

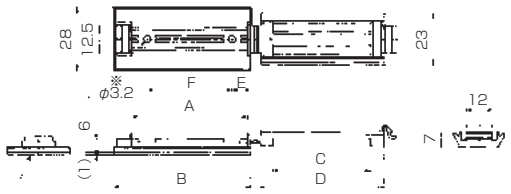
- Height of approx. 12mm, applicable to limited spaces. Holds one or two flat cables firmly.

Adhesive tape mounting

Screw mounting

Material

- Nylon 66（Color：Grey） UL94 V-2



Double sided adhesive tape

	Part No.	A	B	C	D	E	F	Applicable cable		Std. Package
								Max. width	Max. thickness	
	FCW-26-R	26	35.5	18	29.5	14.5	——※	25.5	2.4	100 pcs.
UL	FCW-52-R	52	61.5	44	55.5	8.45	38.1	51.5		50 pcs.

※ FCW-26-R is one screw hole type.

UL ···UL1565 recognized product

(Unit：mm)

FLAT CABLE MOUNTING SYSTEM / FCPI·FCBI

Screw-mount clamp with cable tie that bundles flat cables

Features

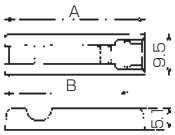
- Secures and bundles flat cables in combination with a cable tie.

Screw mounting

Material

- Nylon 66（Color：Black） UL94 V-2

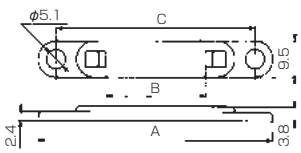
Top plate



Part No.	A	B	Applicable cable width(Max.)	Std. Package
FCPI1	32.8	26.4	26.4	100 pcs.
FCPI2	58.7	51.8	51.8	
FCPI3	84.3	77.2	77.2	

(Unit：mm)

Base



Part No.	A	B	C	Applicable cable width(Max.)	Std. Package
FCBI1-S10	63.5	26.4	52.8	26.4	100 pcs.
FCBI2-S10	88.9	51.8	78.7	51.8	
FCBI3-S10	114.8	77.2	104.6	77.2	

(Unit：mm)

Combination table

Cable width	Top plate+Base+Cable tie (1each)	2 top plates+1 cable tie	Cable ties part No. and Max. height of cable layer			
			PLT1.51	PLT21	PLT31	PLT41
Max 25.4	FCPI1, FCBI1-S10	FCPI1	20.3	50.8	94.0	132.1
Max 50.8	FCPI2, FCBI2-S10	FCPI2	——	25.4	68.6	106.7
Max 76.2	FCPI1, FCBI3-S10	FCPI3	——	——	43.2	81.3

(Unit：mm)

USB CONNECTOR COVER / USBCC-A

Slip-proof sleeve for USB connectors

Features

- Locking mechanism prevents USB from unplugging from slot.
- Locking tab makes it easy to lock and release USB connector.

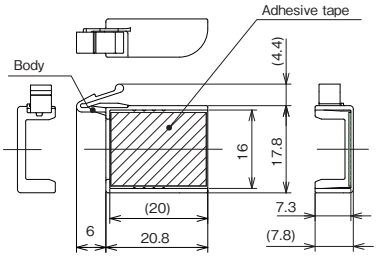
Snap Mounting

Square hole

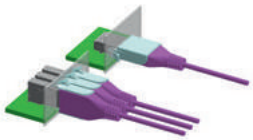
Material

- PBT（Color：Black）

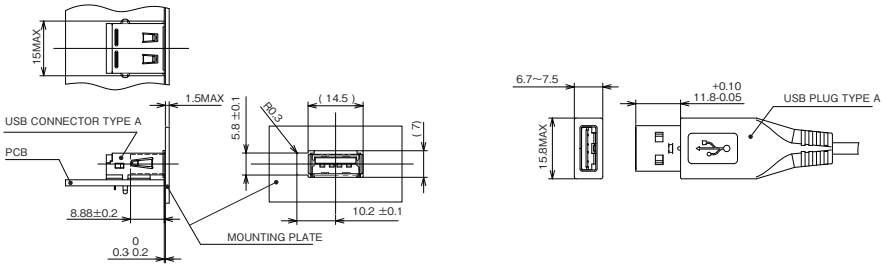
UL94 V-0



Application examples



Specification drawing



Part No.	Compatible connector	USB plug size	Std. Package
USBCC-A	Type-A USB connector	Refer to Specification drawing	100 pcs.

(Unit：mm)

A.C. CORD CLAMP / ACCD

Adjustable, snap-mount clamp that prevents power cord from unplugging

Features

- Prevents power sockets from being removed from inlets.
- Socket holder is adjustable by using the lever.

Snap Mounting

Round hole

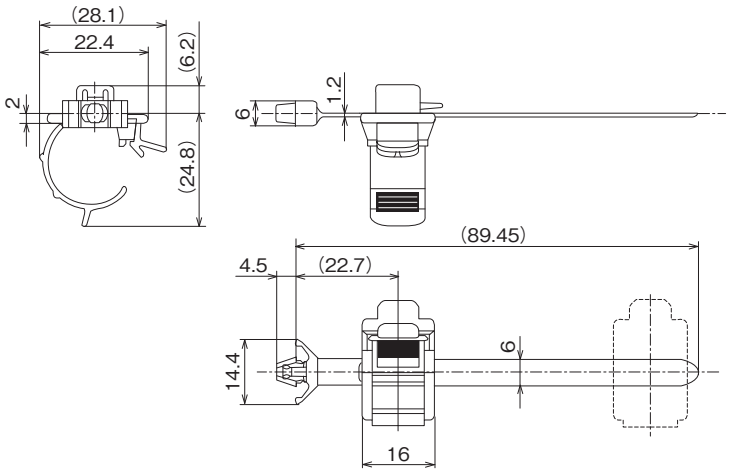
Material

- Nylon 66（Color：Black）

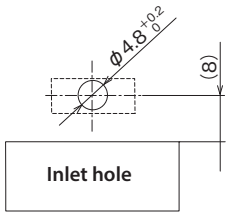
UL94 V-2 ：ACCD86AS

UL94 V-0 ：ACCD107AS

ACCD86AS



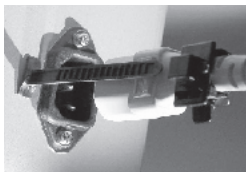
Specification drawing

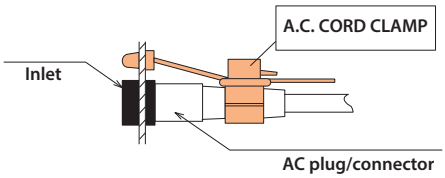


Part No.	Panel thickness	Std. Package
ACCD86AS	0.8~2.0	50 pcs.

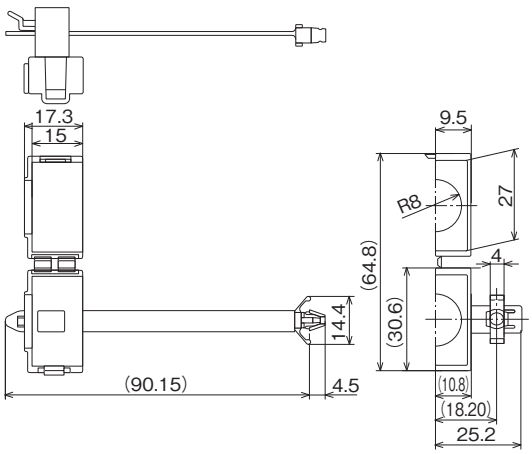
(Unit：mm)

Installation image (ACCD86AS)

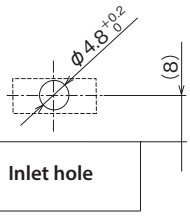




ACCD107AS



Specification drawing



Part No.	Panel thickness	Std. Package
ACCD107AS	0.5~2.3	50 pcs.

(Unit：mm)

RE-USE A.C. CORD CLAMP / RACCD86-***AS

Releasable, adjustable snap-mount clamp that prevents power cord from unplugging

Features

- Prevents power sockets from being removed from inlets.
- Easy detachable, reusable structure enables improved maintenance and disassembly with no tools.

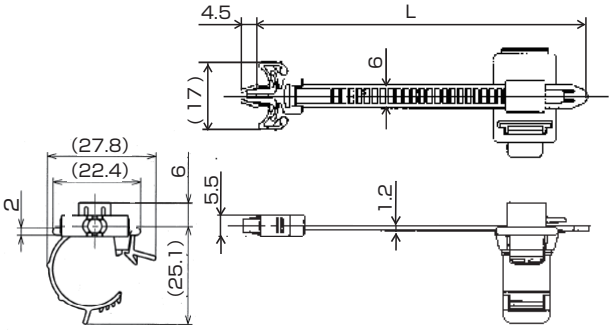
Snap Mounting

Round hole

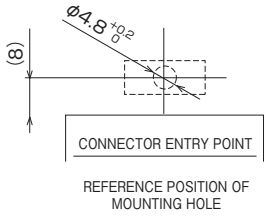
Material

- Nylon 66（Color：Black）

UL94 V-2 ：RACCD86-276AS
UL94 V-0 ：RACCD86-236AS



Specification drawing



Part No.	Length	Panel thickness	Std. Package
RACCD86-236AS	84.5	0.5~2.0	50 pcs.
RACCD86-276AS	118.5		

(Unit：mm)

CONNECTOR CLAMP / HDCD-**-80-V0 BK

Adjustable, snap-mount clamp that prevents USB cord from unplugging

Features

- Prevents power sockets from being removed from inlets.
- Socket holder is adjustable by using the lever.

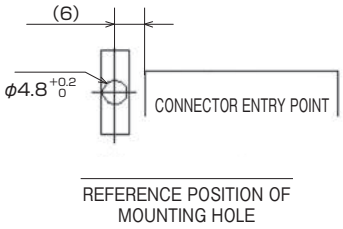
Snap Mounting

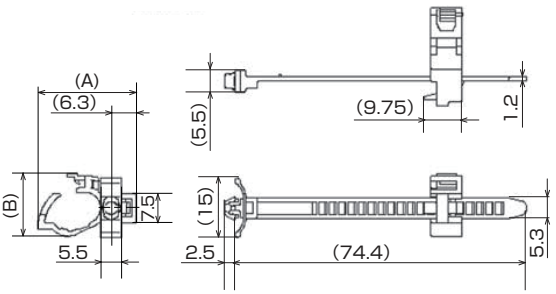
Round hole

Material

- Nylon 66（Color：Black）

Specification drawing





Part No.	(A)	(B)	Panel thickness	Std. Package
HDCD-08-80-V0 BK	25	15.9	0.8~1.6	500 pcs.
HDCD-10-80-V0 BK	26.5	18.8		

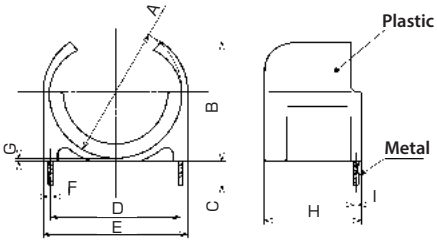
(Unit：mm)

CAPACITOR HOLDER / RDHL-E

Flow soldering holder that allows for easy mount of capacitors

Features

- Because capacitors can be mounted without adhesive, It contributes for reduction of adhesive cost and improvement of workability in the conventional process.
- Capacitor can be mounted from the top of this product.
- Relief loads of vibration and shock applied to leads of capacitors.
- The product can be applied to various length of capacitors by flow soldering.

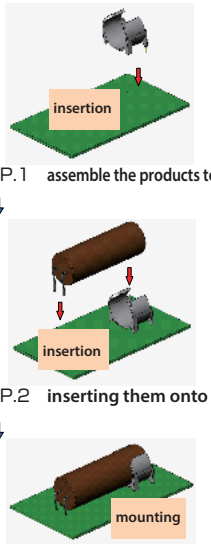


Material

UL94 V-0

- Plastic part：Nylon66
- Metal part： Low carbon steel wire （□0.6mm）
  Surface treatment： Sn plating on the underplating by Cu

Assembling method



STEP.1 assemble the products to PC board

STEP.2 inserting them onto PC board

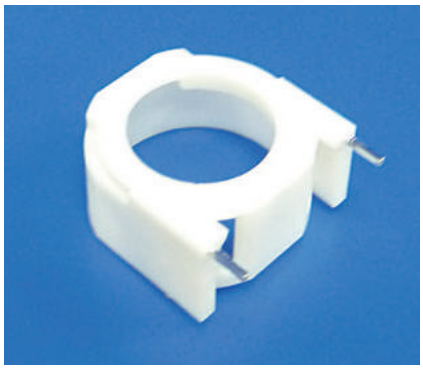
STEP.3 mounting （flow soldering）

Metal portion	Plastic portion	Diameter accommodation		Method of mounting	Packaging specification
CP wire □0.6mm	PA66	RDHL-12.5E-V0 : φ12.5mm	RDHL-18E-V0 : φ18mm	For flow soldering	Bulk

Part No.	A	B	C	D	E	F	G	H	I	Std.Pakage
RDHL-12.5E-V0	φ13	12	3.3	12.2	14.2	0.6	0.4	13.5	0.6	1000 pcs.
RDHL-16E-V0	φ16.5	15.4	3.3	15.6	17.9	0.6	0.4	13.5	0.6	500 pcs.
RDHL-18E-V0	φ18.5	16.7	3.3	18.1	20.1	0.6	0.4	13.5	0.6	500 pcs.

(Unit：mm)

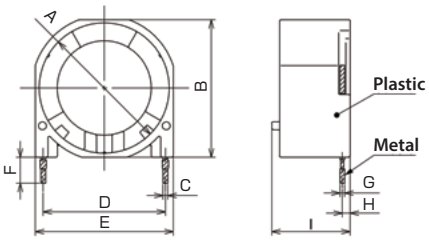
CAPACITOR HOLDER / RDHL



Flow soldering holder for vibration damping of capacitors

Features

- Excellent resistance in vibration and impact of the product brings relief loads applied to leads of capacitors.
- Because capacitors can be mounted without adhesive, It contributes for reduction of adhesive cost and improvement of workability in the conventional process.
- The product can be applied to various length of capacitors by flow soldering.

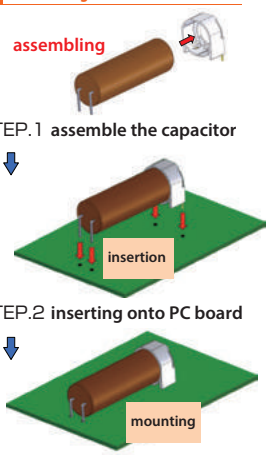


Material

UL94 V-0

- Plastic part：Nylon66
- Metal part： Low carbon steel wire （□0.6mm）
  Surface treatment： Sn plating on the underplating by Cu

Assembling method



STEP.1 assemble the capacitor

STEP.2 inserting onto PC board

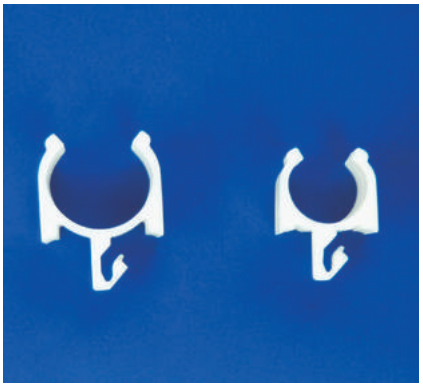
STEP.3 mounting （flow soldering）

Metal portion	Plastic portion	Diameter accommodation	Method of mounting	Packaging specification
CP wire □0.6mm	PA66	RDHL-16-V0 : φ16mm	For flow soldering	Bulk

Part No.	A	B	C	D	E	F	G	H	I	Std.Pakage
RDHL-16-V0	φ16.6	17.5	0.6	15.6	17.6	3.3	0.6	1.0	10.0	500 pcs.

(Unit：mm)

CAPACITOR HOLDER / CPHL-*S-V0



Snap-mount capacitor holder

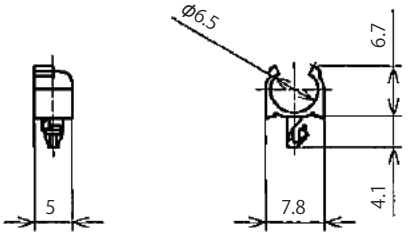
Features

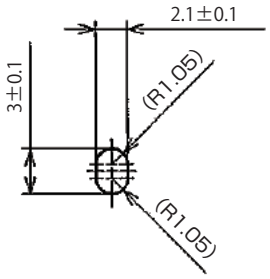
- Because capacitors can be mounted without adhesive, It contributes for reduction of adhesive cost and improvement of workability in the conventional process.
- Capacitor can be mounted from the top of this product.
- The product is mounted onto PC board by means of its plastic snap.

Material

- Nylon 66（Color：Natural） UL94 V-0

※Because the product is not use for flow soldering process, it is required the masking of plastic snap on the reverse side of PC board.





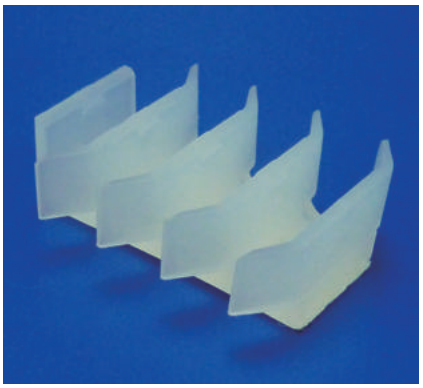
Mounting Hole

Part No.	A	B	C	D	E	Diameter accommodation	Mounting Hole	Packaging specification	Panel thickness	Std. Package
CPHL-6.3S-V0	φ6.5	6.7	4.1	7.8	5.0	φ6.3	Refer to Specification drawing	Bulk	1.5～1.7	1000 pcs.
CPHL-8S-V0	φ8.2	8.3	4.3	9.5	5.0	φ8				

(Unit：mm)

SLEEVE HOLDER / OFSH-4004A

OPTICAL



Adhesive-mount clip for optical fiber sleeve to hold and support cables

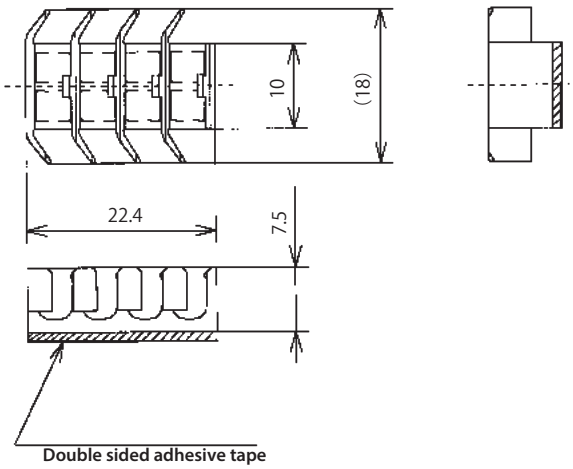
Features

- Can hold 4 cables of Φ3～4mm.
- As well as up to four CS sleeves of Φ3～4mm.

Adhesive tape mounting

Material

- Nylon 66（Color：Natural） UL94 V-2



Double sided adhesive tape

Part No.	Std. Package
OFSH-4004A	100 pcs.

(Unit：mm)

FIBER HOLDER / OFHP-2008

OPTICAL

Snap-mount clip for optical fiber cables

Features

- Holds cables in array.
- Up to 8 cables of Φ2mm can be held.
- The structure minimizes the risk of damaging optical fibers when fastening and holding.

Snap Mounting

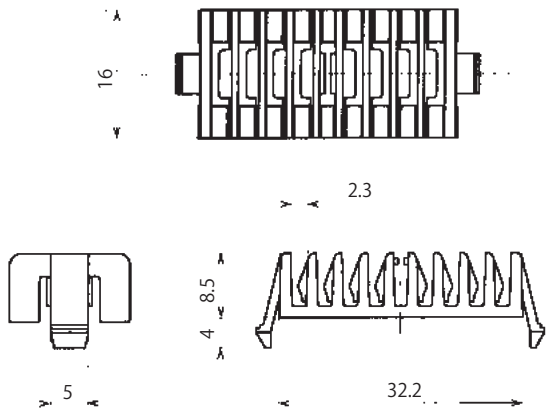
Odd-shaped hole

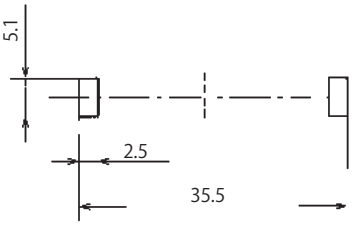
Material

- Nylon 66（Color：Natural）

UL94 V-0

Specification drawing



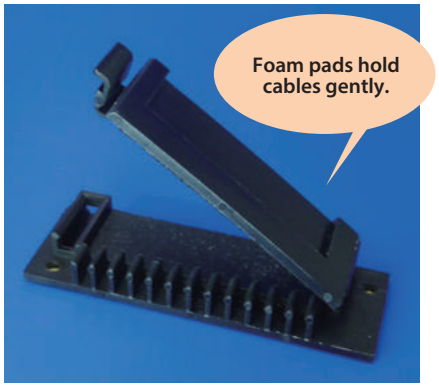


Part No.	Mounting hole size	Panel thickness	Std. Package
OFHP-2008	Refer to Specification drawing	1～1.6	100 pcs.

(Unit：mm)

FIBER CLAMP / OFC-2012

OPTICAL



Adhesive-mount, locking clamp for optical fiber cables

Features

- Foam pads hold cables (temporary fastening) and the arm part closes to lock the cables.
- Can hold 12 cables of Φ2mm or 3.2×2 oval cables.
- Foam pads holds optical fiber cables softly and prevents slippage.

Adhesive tape mounting

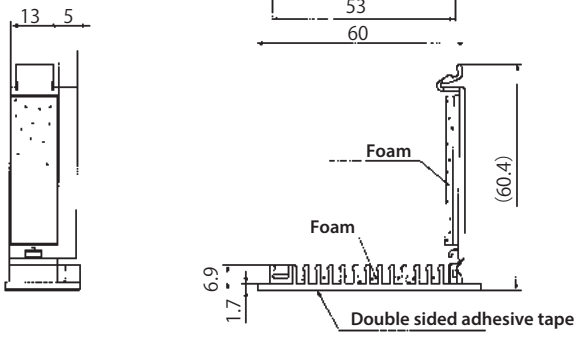
Screw mounting type is also available

(Nominal diameter 2.5mm)

Material

- Body/Nylon 6（Color：Black）
- Sponge/EPDM foam（Color：Black）

UL94 V-2



Part No.	Std. Package
OFC-2012	100 pcs.

(Unit：mm)

DIVERGE MODULE HOLDER / OFDM

OPTICAL

Adhesive-mount optical fiber holder capable of holding 2 cables at φ7mm diam.each

Features

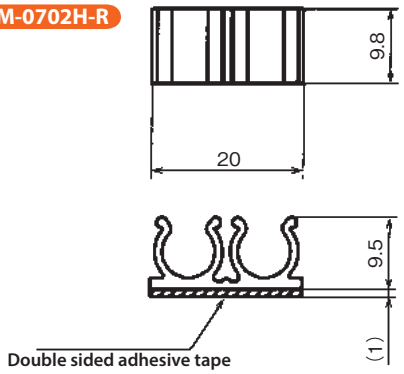
- Can hold up to 2 cables of Φ7mm
- Accommodates optical branch modules in limited spaces. Holder prevents accidental release of modules.

Adhesive tape mounting

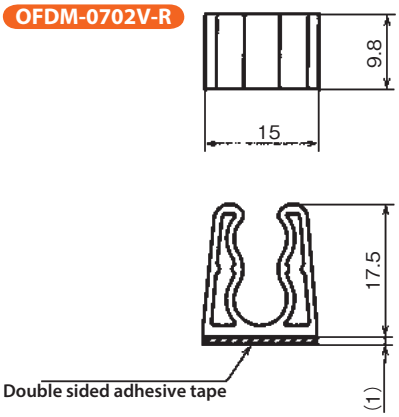
Material

- Nylon 66（Color：Natural） UL94 V-2

OFDM-0702H-R



OFDM-0702V-R

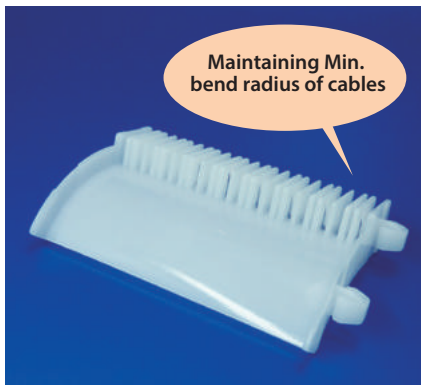


Part No.	Std. Package
OFDM-0702H-R	100 pcs.
OFDM-0702V-R	

(Unit：mm)

FIBER HOLDER / OFHR-1716R,L

OPTICAL



Snap-mount optical fiber clip to minimize bend radius cables

Features

- Holds cables in array with no load applied.
- 16 cables of Φ1.7～2mm can be held.
- Maintains minimum bend radius of optical fiber cables.

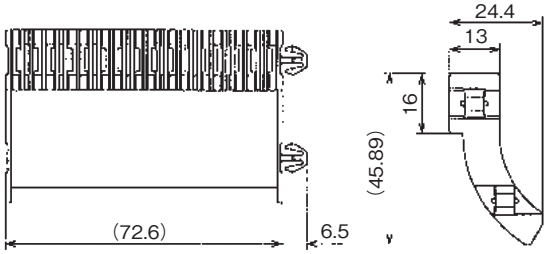
Snap Mounting

Odd-shaped hole

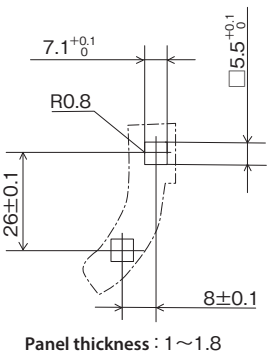
Material

- POM（Color：Natural） UL94 HB

OFHR-1716R



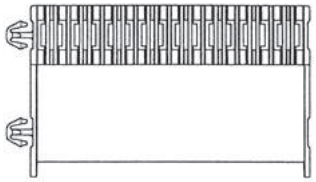
Specification drawing



Panel thickness：1～1.8

OFHR-1716L

Configuration of "L" type is symmetrical to that of "R".

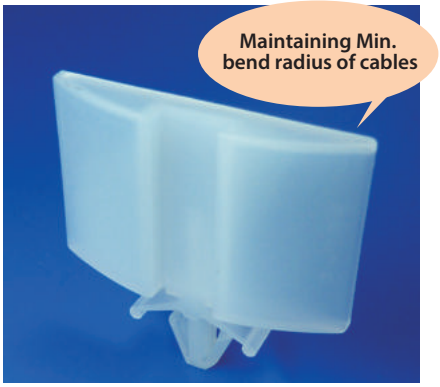


Part No.	Std. Package
OFHR-1716R	50 pcs.
OFHR-1716L	

(Unit：mm)

WIRE SADDLE WING / WSW-3

OPTICAL



Snap-mount winding guide for optical fiber cables

Features

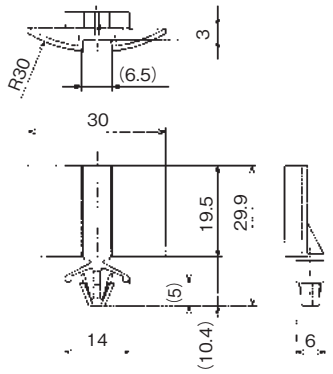
- Long optical fiber cables are kept in place by bending with no damage applied.
- Can be used in combination with WS and/or LWS.

Snap Mounting

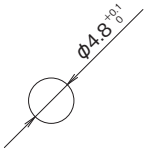
Round hole

Material

- Nylon 66（Color：Natural） UL94 V-2

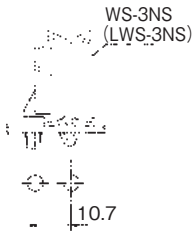


Specification drawing



Panel thickness：0.8～2.0

Reference specification

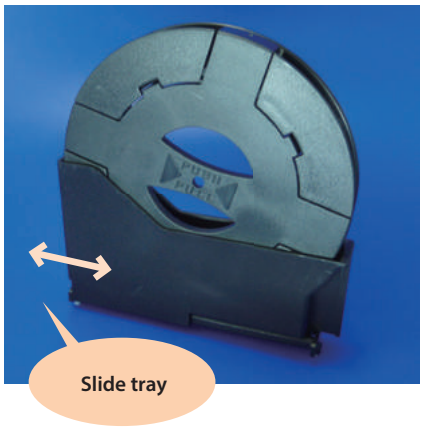


Part No.	Mounting hole size	Panel thickness	Std. Package
WSW-3	ϕ4.8 +0.1 0	0.8～2.0	100 pcs.

(Unit：mm)

STORAGE BOBBIN / OFSB-8010

OPTICAL



Optical fiber cable reel

Features

- Reels up fiber cables with the bend radius in R30.
- Bobbin cover can open and close.
- Easy maintenance by the bobbin tray.

Snap Mounting (Storage tray)

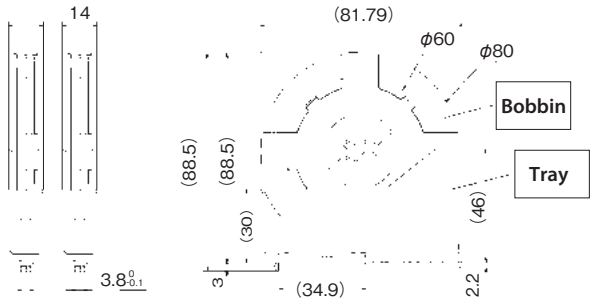
(Bobbin can be mounted with screw)

Odd-shaped hole

Material

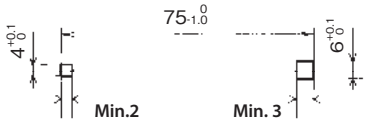
- ABS（Color：Black） UL94 V-2

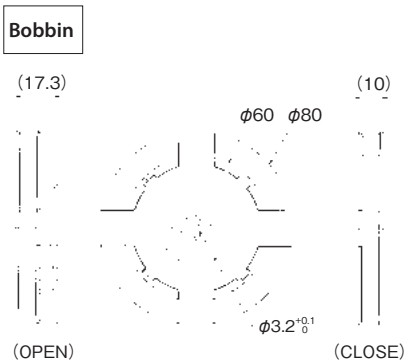
Reel up amount : Max.ϕ2×2M



Specification drawing

Panel thickness：1



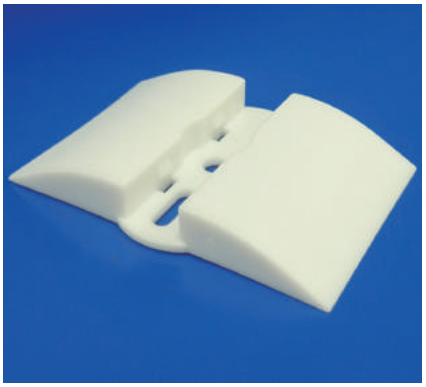


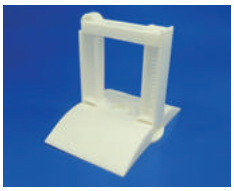
Part No.	Configuration	Mounting hole size	Panel thickness	Std. Package
OFSB-8010S	Bobbin + tray	Refer to Specification drawing	1±0.1	10 set.
OFSB-8010	Bobbin	—	—	10 pcs.

(Unit：mm)

FXC WING / FXCW

OPTICAL





Winding optical fiber cable guide that combines with FXC

Features

- In combination with FXC, maintains minimum bend radius of cables when wiring.

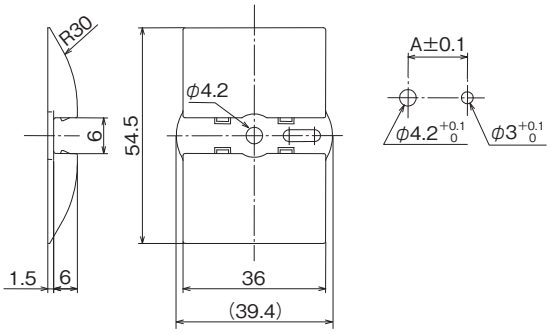
FXC
Dedicated clamp for FXCW-6040-V0
▶ P72

Material

UL94 V-0

- Nylon 66（Color：Natural）

Specification drawing



FXC Part No.	A
FXC-2030-V0	9
FXC-3240	15

(Unit：mm)

※ For details, please contact our sales department.

For Cables
For Flat cables
Removal prevention for connectors
For Optical fibres

FLEXIBLE CLAMP / FXC

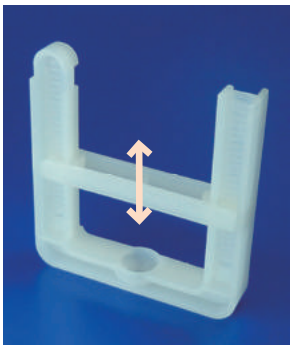
▶ P72

- Number of cables can be adjusted over a wide range.
- Quick operation with one hand.

Material

- Nylon 66（Color：Natural）

UL94 V-2
UL94 V-0



FK DUCT / FKD

▶ P120

- Holds cables and allows them to bend in all 3D directions without causing damage.

Material

- FKD-10 / Nylon 6（Color：Light gray）
- FKD-10K / Nylon 66（Color：Black）

UL94 V-2

CABLE TIES

Plastic Type

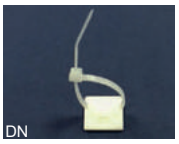
Wide ranging lineup of cable ties

Bundling and securing wire / cable bundles

P95
RE-USE BAND

P96
SNAP BAND

P96
SCREW-LESS BAND



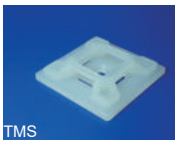
P97
CABLE TIE MOUNT

P97
CABLE TIE MOUNT

P97
CABLE TIE MOUNT

P98
OMEGA LOCK

P98
WIRE LOCK



P99
CABLE TIE MOUNT

P99
ALUMINIUM FRAME FASTENER

P100
SCREW-LESS CABLE TIE MOUNT

P100
BUNDLE BAND

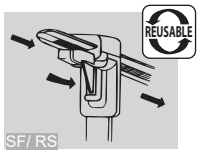
P101
BEADS BAND

P101
SOFT TIE

Bundling and securing wire / cable bundles (SK Binder)

P102
STANDARD TYPE

P102
OPEN HEAD TYPE



P103
REUSABLE TYPE

P103
SCREW MOUNT TYPE

P103
PUSH MOUNT TYPE

RE-USE BAND / RSG

Releasable snap-mount band that allows for easy access and maintenance of cables

Features

- Detachable snap and un-lockable band allow easy maintenance and disassembling.

Reusable Snap Mounting

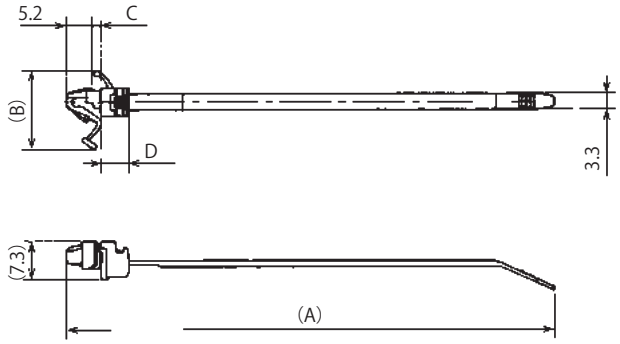
Round hole

Material

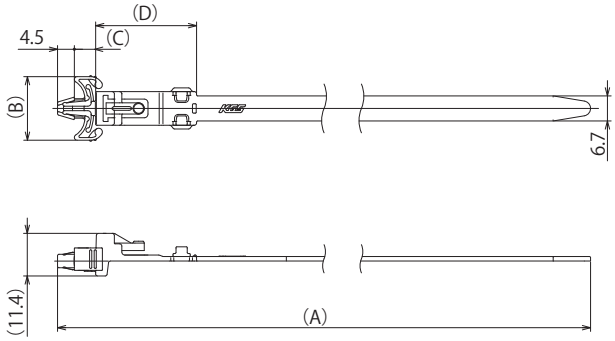
- Nylon66（Color：Black / RSG-150E-BK, -190E-BK)
- Nylon66（Color：Natural / RSG-100 V0, -130 V0)

UL94 V-2
UL94 V-0

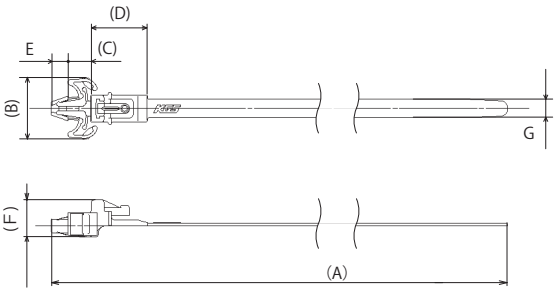
RSG-100V0,130V0



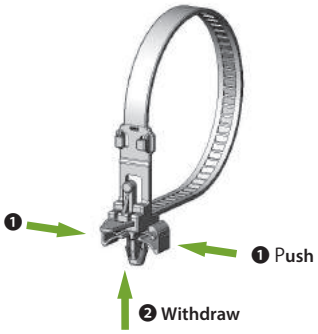
RSG-190E-BK



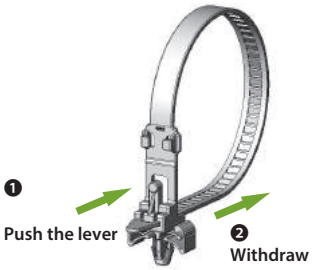
RSG-150E-BK



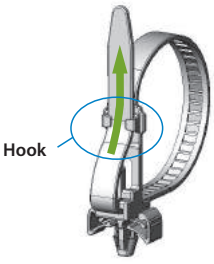
Snap removal



Bundle release



Holding remaining part



※RSG-190E-BK only

	Part No.	(A)	(B)	(C)	(D)	E	(F)	G	Mounting hole size	Panel thickness	Bundle diameter	Std. Package
UL	RSG-100 V0	100.0	16.2	1.8	5.9	5.2	7.3	3.3	$\phi 4.8^{+0.2}_{0}$	0.5~1.6	ϕ1~20	500 pcs.
UL	RSG-130-V0	133.5	17.9	2.7	6.2	5.2	7.3	3.3		0.6~2.4	ϕ1~24	
	RSG-150E-BK	149.3	16.0	5.9	15.0	4.4	9.5	4.7		0.5~2.3	ϕ7~30	100 pcs.
	RSG-190E-BK	195.2	17.0	5.7	27.0	4.5	11.4	6.7		0.5~2.3	ϕ10~47	

UL ···UL62275 recognized product

(Unit：mm)

SCREW-LESS BAND / VLSG

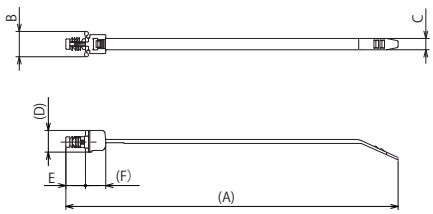
Screw-mount band that allows for easy bundling of cables

Features

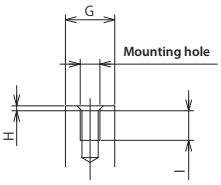
- Plug-in mounting in screw hole is available without tool.
- Screw hole of M4 and M5 are available.
- Applying heat resistant aging material for M4 type, both heat resistance and durability are performed.

Material

- Nylon 66（Color：Black / VLSG-100-M4-AM-HT-BK）UL94 V-2
- Nylon 66（Color：Natural / VLSG-130-M5）UL94 V-2



Installation specifications



Recommended mounting specifications

Part No.	(A)	B	C	(D)	E	(F)	G	H	I	Mounting hole size	Bundle diameter	Std. Package
VLSG-100-M4-AM-HT-BK	99.9	7.6	3.4	6.5	5.9	6.1	ϕ10	1	7	M4 screw hole (Thread pitch:0.7)	ϕ1～20	100 pcs.
VLSG-130-M5	130.7	8.5	3.6	6.5	6.7	6.1	ϕ12	1	8	M5 screw hole (Thread pitch:0.8)	ϕ1～24	500 pcs.

(Unit：mm)

SNAP BAND / SG

UL 62275

Snap-mount band that allows for easy bundling of cables

Features

- Simultaneous securing and bundling of cables.

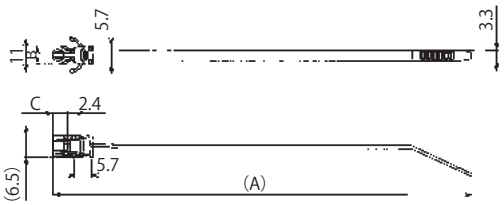
Snap Mounting

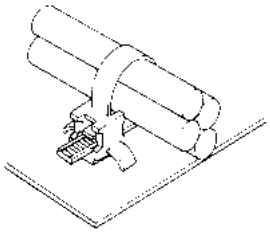
Round hole

Material

- Nylon 66（Color：Natural） UL94 V-2（V-0※）

※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

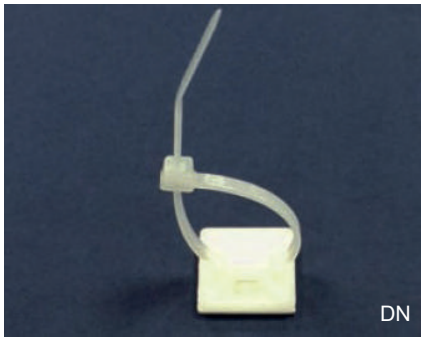




	Part No.	(A)	B	C	Mounting hole size	Panel thickness	Bundle diameter	Std. Package
	SG-110	110	6.2	3.5	$\phi 4.8^{+0.2}_{0}$	0.5～2.0	ϕ1～20	500 pcs.
UL	SG-130	132	5.4	4.5	$\phi 4.0^{+0.2}_{0}$		ϕ1～24	

UL …UL62275 recognized product

CABLE TIE MOUNT / DN•DDNF•DDNX



Cable tie mount with adhesive tape

Features

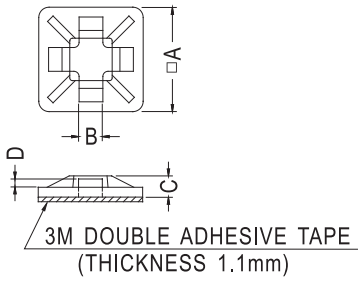
- Can be mounted with adhesive tape

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

Std. Package: 1000 pcs.



Part No.	A	B	C	D
DN-13	13	3.2	3.2	1.3

(Unit: mm)

Snap-mount cable tie

Features

- Can be mounted with snap on PCB

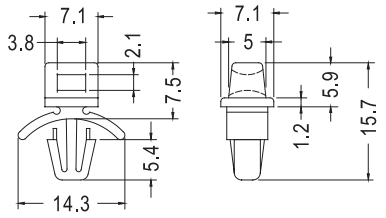
Snap Mountin g

Round hol e

Material

- Nylon 66 (Color: Natural) **UL94 V-2 (V-0*)**

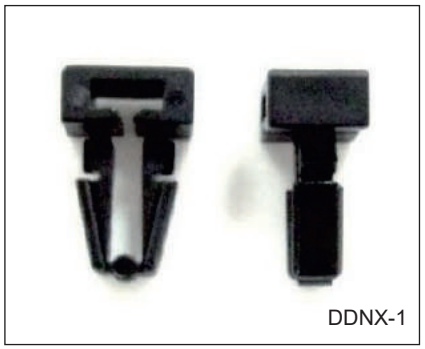
* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



CHASSIS Ø4.8
THICKNESS 0.8~2.0

(Unit: mm)

Std. Package: 1000 pcs.



Snap-mount cable tie

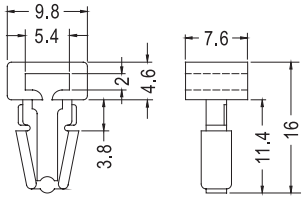
Features

- Can be mounted with snap on PCB

Material

- Nylon 66 (Color: Black) **UL94 V-2 (V-0*)**

* For V0 type, “V0” is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)

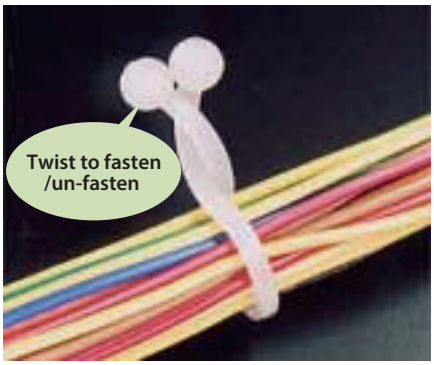


PANEL HOLE DIA 6.4
PANEL THICKNESS 3.17 MAX

(Unit: mm)

Std. Package: 1000 pcs.

OMEGA LOCK / OLS



Twist locking fastener

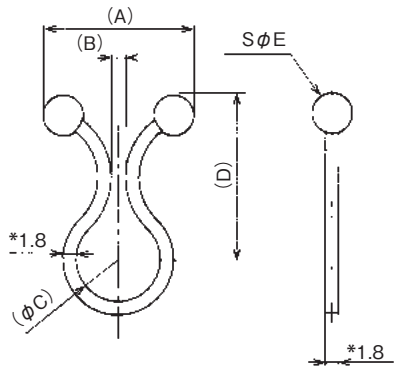
Features

- Cost saving and easy locking /un-locking.

Material

- Nylon 66 (Color: Natural*) UL94 V-2

* Color of OLS -150 BK is black.



* 1.9 mm for OLS-115 and OLS-150BK.

Part No.	(A)	(B)	(φC)	(D)	SφE	Std. Package
OLS-50	15.0	1.0	5.2	15.5	5.0	500 pcs.
OLS-80	20.2	1.1	8.2	20.1	5.7	
OLS-115	20.6	2.0	11.5	22.4	5.5	
OLS-150BK	21.0	2.0	15.0	23.75		

(Unit: mm)

WIRE LOCK / UM

Twist locking fastener

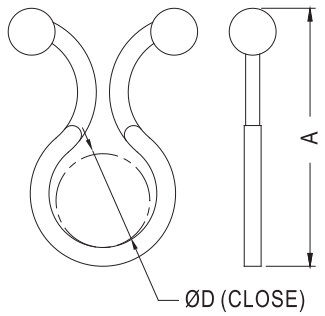
Features

- Cost saving and easy locking/un-locking

Material

- Nylon 66 (Color: Natural) UL94 V-2 (V-0*)

* For V0 type, "V0" is added to the end of the part No.
(With regard to lot size and lead time, please contact us.)



Part No.	A	D	CLOSED (D)	Std. Package
UM-5	35.0	18.8	17.2	1000
UM-6	41.4	25.8	24.2	500
UM-7	42.0	22.0	19.5	
UM-8	16.5	5.6	5.0	
UM-9	30.0	11.0	9.7	
UM-13	32.5	13.2	11.5	
UM-28	55.5	29.0	26.8	

(Unit: mm)

ALUMINIUM FRAME FASTENER / ALFF

Accessory that mounts onto aluminum frame for band, clamp, and fastener

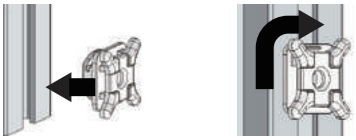
Features

- It enables fixing by being inserted into aluminum frame and rotated.
- Fixing is performed by cable tie inserted into back and forth and around it.
- Installation of fastener such as clamp is possible onto the top face.

Material

- Polypropylen （Color：Natural）

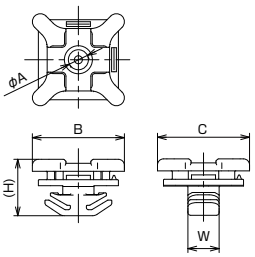
How to mount onto Aluminium frame



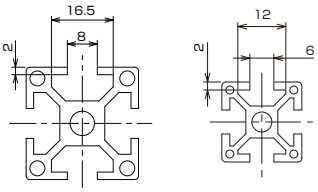
① Product is inserted into Aluminium frame groove.

② Installation by a 90-degree rotation

※Rotating installation around clockwise and counter clockwise are available.



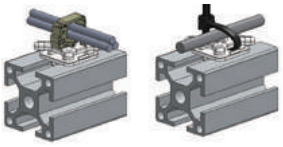
Installation Specifications (Applicable frame profile)



ALFF-0802-4.8　　ALFF-0602-3.5

■ Aluminium frame length : 30mm and over Cable tie

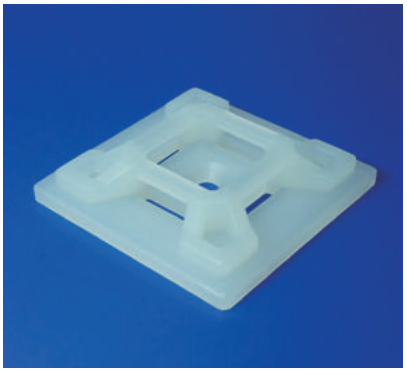
Application



Part No.	A	B	C	(H)	W	Applicable fastener specifications			
						Cable tie Width	Cable tie Thickness	Mounting hole diameter	Panel thickness
ALFF-0802-4.8	5	23	23	14.1	7.8	≦7.4mm	≦1.9mm	φ4.8	2.0
ALFF-0602-3.5	3.5	16	16	11.1	5.8	≦5.2mm	≦1.6mm	φ3.5	1.6

(Unit：mm)

CABLE TIE MOUNT / TMS



Cable tie mount with adhesive or screw-mount options

Features

- Can be mounted with either screw or adhesive tape.
- Cable tie can enter from any of four directions.

Adhesive tape mounting

Screw mounting

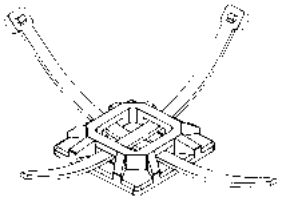
(Screw type has "No adhesive backing" at the end of Part No.)

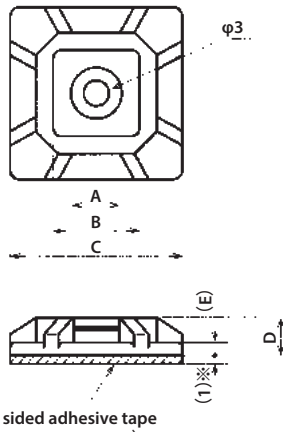
Material

- Nylon 66 （Color：Natural）

UL94 V-2

(Resin portion of the body)





Double sided adhesive tape
（TMS-20-R・TMS-30-R）　※ 1.3mm for TMS-30-R.

Part No.	A	B	C	D	(E)	Screw (Small flat head screw)	Cable tie	Std. Package
TMS-20-R	5.2	10.0	20.0	4.5	1.5	——	Width Max 5.0 Thickness Max. 1.5	200 pcs.
TMS-20 No adhesive backing						M2.5		
A TMS-30-R	8.2	12.0	30.0	6.0	2.0	——	Width Max 8.0 Thickness Max. 2.0	
A TMS-30 No adhesive backing						M2.5～M3		

(Unit：mm)

SCREW-LESS CABLE TIE MOUNT / VLTMS

Snap-mount cable tie mount that insets into screw holes

Features

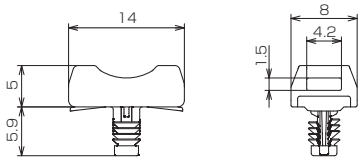
- Plug-in mounting in screw hole is available without tool.

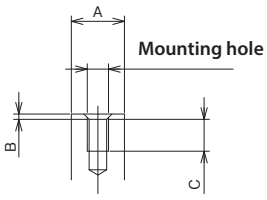
Material

- Nylon 66（Color：Natural）

UL94 V-2

Installation specifications





Recommended mounting hole

Part No.	A	B	C	Bundle diameter / Cable tie size	Mounting hole size	Std. Package
VLTMS-1408-M4	≧φ15	≦1	≧7	Max thickness 1.3×Width 4	M4 screw hole (Thread pitch:0.7)	100 pcs.

(Unit：mm)

BUNDLE BAND / KB

Adjustable band that can be cut to a desired length

Features

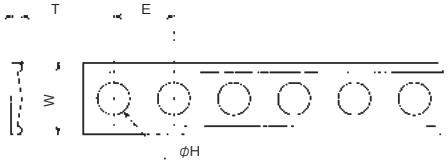
- Can be cut to required length out of a rolled band. Economical and minimizes waste.
- Available in four band widths, as well as four kinds of mounting accessories.

Material

- Nylon 6※（Color：Black）

※ Mount B is made of PP (Color: Black).

KB-07 ～16

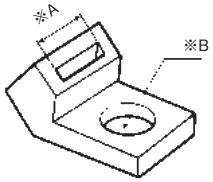


Part No.	W	T	E	φH	Stopper and Mount	Std. Package
KB-07 / Black	7.1	0.9	6.0	3.2	Snap button,Mount A	2m×50 pcs.
KB-13 / Black	13.0	1.6	10.0	5.5	Snap button,Mount A	5m×10 pcs.
KB-16 / Black	16.0	1.9	12.5	6.5	Buckle	

(Unit：mm)

Stopper and Mounts for KB

■ Mount A / For KB-07・KB-13

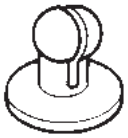


Secures bundled wires/cables on a panel or wall.
※Dimension A ※Dimension B

KB-07 8.5㎜ KB-07 φ4.2㎜
KB-13 16㎜ KB-13 φ5.2㎜

Std. Package :100pcs.

■ Snap button (Stopper) / For KB-07・KB-13

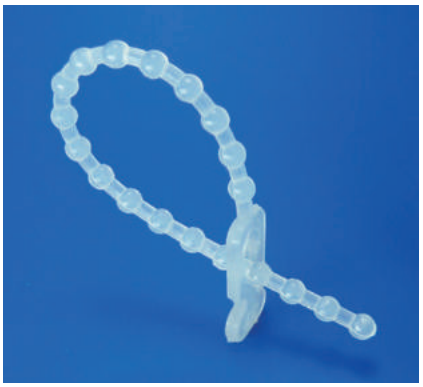


Easy and fast mount/dismounting. One end of the band is fixed on the button, and a wire/cable bundle is secured by snapping the hole into the button.

Std. Package :100pcs.

BEADS BAND / NS•N•P

REUSABLE



Releasable beaded tie for easy bundling and removal of cables

Features

- Reusable beaded tie, easy fastening and releasing.

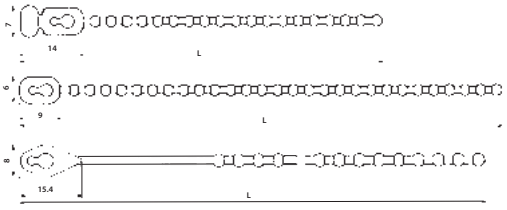
Material

- Refer to the table below since the material varies for each Part No.
  Only nylon type is UL94 V-2 recognized. **UL94 V-2**

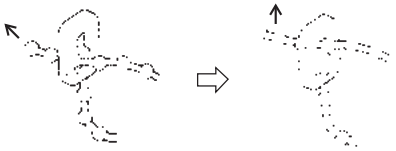
NS-80

N-108, P-108

N-255



How to handle



Part No.	L	Material	Bundle diameter	Color	Std. Package
NS-80	81	Nylon 66	ϕ 2～26	Natural	1,000 pcs
N-108	108	Nylon 6		Black	500 pcs
N-255	255		ϕ12～73	Natural	1,000 pcs
P-108	108	Polyethylene	ϕ 2～26		500 pcs

(Unit: mm)

SOFT TIE / FX-200

REUSABLE

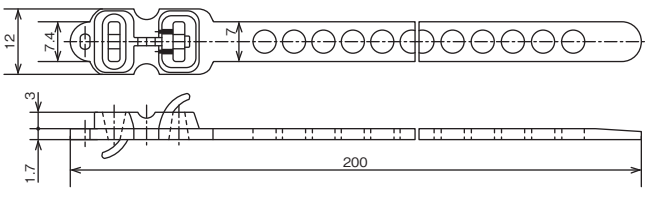
Releasable beaded tie for easy bundling and removal of cables

Features

- Elastic material secures bundle wires/cables softly.
- Easy bundling and releasing. Double loop fastening is possible.
- Applicable to bundle diameters 3-45mm.

Material

- Polyester elastomer（Color：Dark blue,Black） **UL94 HB**



(Unit：mm)

Std. Package: Dark blue：1000
: Black： 5,000

Application example

Can secure in double loops

Securing optical fiber cables

- Elastomer fastens optical fiber cables safely and securely.
- Supports a wide range of bundle diameters and accommodates adjustment of the number of cables.

SK BINDER

Features

- Various application use for bundling wires, cables and hoses (tubes) etc.
- A range of variations are available to meet requirements.

Plenty of the variations are available in addition to the products in this catalog, as well as in other materials and colors.

● Please contact our sales department for details.

Standard type

Material

● Nylon 66 (Color: Natural) UL94 V-2

A type

B type

	Part No.	Configuration type	Max bundle diameter	Length	Width	Loop tensile strength (kgf)	Std. Package
UL	SKB-85mm	A	ϕ 18	85	2.2	10	1,000 pcs.
UL	SKB-80M			80	1.9		
UL	SKB-1M		ϕ 21	100	2.5	9	
UL	SKB-1.5M		ϕ 35	145			
UL	SKB-2M		ϕ 37		3.4	12	
UL	SKB-2.2M		ϕ 58	200			
UL	SKB-2.5M		ϕ 70	275			100 pcs.
UL	SKB-2.8M	B	ϕ 75	282	2.6	12	1,000 pcs.
UL	SKB-3M		ϕ 50	185	4.5	30	
UL	SKB-3.5M		ϕ 70	250	4.8	42	
UL	SKB-4M		ϕ 100	365	5.0	32	100 pcs.
UL	SKB-5M				7.8	55	

UL ···UL1565 recognized product (Unit: mm)

Open head type

Material

● Nylon 66 (Color: Natural) UL94 V-2

Easy operation!
Insert the end of the strip into the open head to bundle.

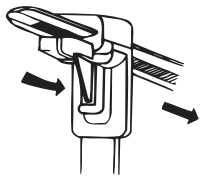
	Part No.	Max bundle diameter	Length	Width	Loop tensile strength (kgf)	Std. Package
UL	SKB-2	ϕ32	154	3.4	14	1,000 pcs.
UL	SKB-3	ϕ44	186	4.0	20	

UL ···UL1565 recognized product (Unit: mm)

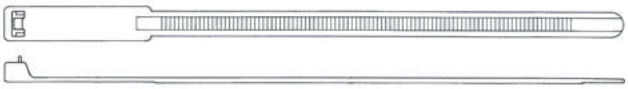
Reusable type

Material

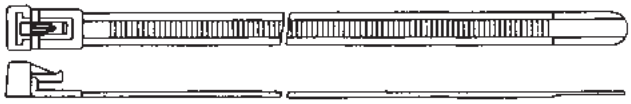
● Nylon 66 (Color: Natural) UL94 V-2



SF-150R



RS



	Part No.	Max bundle diameter	Length	Width	Loop tensile strength (kgf)	Std. Package
UL	SF-150R	ϕ40	150	6.9	30	3,000 pcs.
	RS-145	ϕ38	145	7.3	35	1,000 pcs.
	RS-250	ϕ70	250			

UL ···UL1565 recognized product (Unit: mm)

Screw mount type

Material

● Nylon 66 (Color: Natural) UL94 V-2

	Part No.	Max bundle diameter	Length	Width	Loop tensile strength (kgf)	Mounting hole size	Std. Package
UL	SKB-145F	ϕ32	145	3.5	16	ϕ4.5	1,000 pcs.

UL ···UL1565 recognized product (Unit: mm)

Push mount type

Material

● Nylon 66 (Color: Natural) UL94 V-2

	Part No.	Max bundle diameter	Length	Width	Loop tensile strength (kgf)	Mounting hole size	Std. Package
UL	SKB-145P	ϕ32	157	3.5	16	ϕ4.8	1,000 pcs.

UL ···UL1565 recognized product (Unit: mm)

GROMMETS & BUSHINGS

Edge protection

Protects cables against sharp edges of chassis

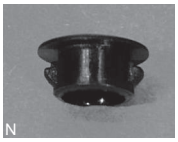
P105
FLEXIBLE INSULATING BUSHING

P105
GROMMET

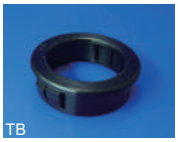
P106
FLEXIBLE INSULATING BUSHING WITH ADHESIVE

P106
EDGING

P107-110
LOCK EDGING SADDLE



P113
HOLE PLUGS



P113
ONE-TOUCH BUSHING

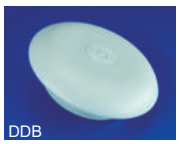
Securing with protection against dust, water, damage

Cables passing through panels are protected against dust, water, damage and held firmly

Protection and securing

P111
YK BUSHING

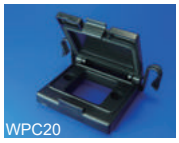
Securing with protection against dust, water, damage



P112
DUST PROOF BUSHING

P112
DUST PROOF BUSHING

Securing with protection against dust, water, damage (For cables, passing through panels)



P114
WATER PROOF COVER

FLEXIBLE INSULATING BUSHING / KG

Flexible bushing to protect cables from edges of panel

Features

- Protects cables against sharp edges of panels and chassis.
- Flexibility allows installation on a variety of shaped holes.

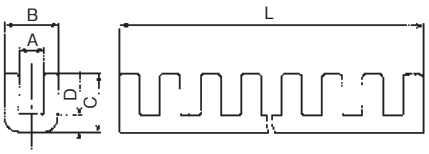
Insertion Mounting

Cutting available
Please contact our sales department for details.

Material

- Nylon 6（Color：Natural）

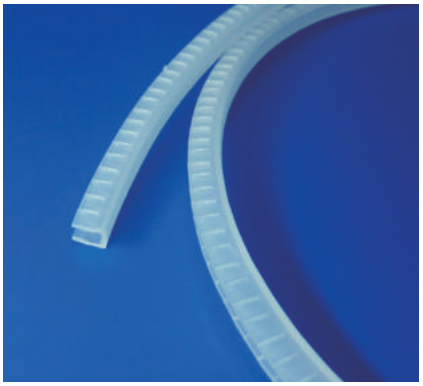
UL94 V-2 ：KG-008 -032
UL94 HB ：KG-045 ~ -132



Part No.	Panel thickness	A	B	C	D	L	Std. Package
KG-008	0.8±0.1	0.9	2.9	4.0	1.2	250.6	100 pcs.
KG-010	1.0±0.1	1.1	3.1				
KG-012-2	1.2±0.1	1.3	3.3				
KG-016	1.6±0.1	1.7	3.7				
KG-024	2.4±0.1	2.4	4.4				
KG-032	3.2±0.1	3.4	5.5				
KG-045	4.9±0.1	5.0	8.2	6.0	2.0	320.0	
KG-062	6.4±0.1	6.5	9.7				
KG-082	8.1±0.1	8.2	11.4	6.5			
KG-107	10.6±0.1	10.7	13.9				
KG-132	13.1±0.1	13.2	16.4				

(Unit：mm)

GROMMET / CSG



100-m grommet strip that protects cables from edges of panel

Features

- Protects cables from chafing against sharp edges of panels and chassis.
- Economical long type.
- Fits well even to corners.

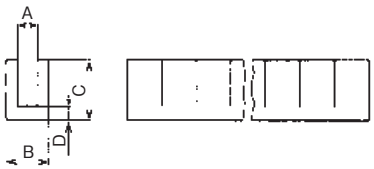
Insertion Mounting

Cutting available
Please contact our sales department for details.

Material

- Nylon 6（Color：Natural）

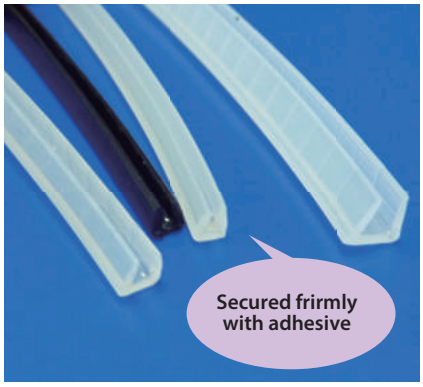
UL94 HB



Part No.	Panel thickness	A	B	C	D	Std. Package
CSG-012	1.2	1.3	3.3	5.0	1.0	100m pcs.
CSG-016	1.6	1.7	3.7			
CSG-024	2.3	2.4	4.4	5.2	1.2	
CSG-032	3.2	3.3	5.3			

(Unit：mm)

FLEXIBLE INSULATING BUSHING WITH ADHESIVE / GEE・GES



Grommet and edging strip with adhesive

Features

- Easy and fast installation with adhesive, previously atached in the groove.
- Firm and easy securing .

Insertion Mounting

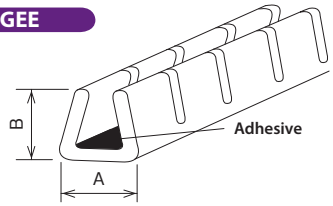
Cutting available
Please contact our sales department for details.

※ Please refer to the specifications below.

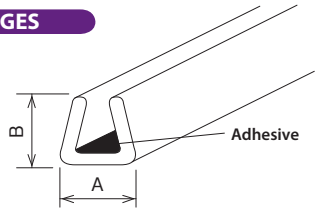
Material

- Polyethylene（Color：Natural） UL94 HB
- Weather-resistant Polyethylene（Color：Black） UL94 HB

GEE



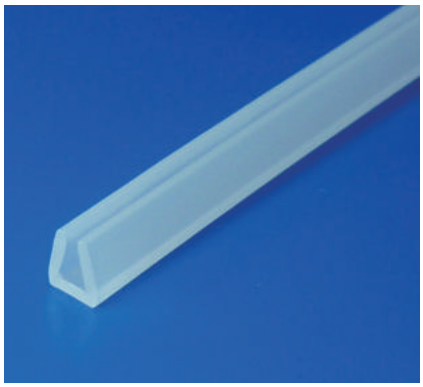
GES



Part No.	Panel thickness	A	B	Material	Std. Package
GEE62F-A-C	0.9~1.6	3.3	4.1	Polyethylene	30.48m
GEE99F-A-C	1.57~2.5	4.3	4.7		
GEE144F-A-C	2.5~3.7	5.4	5.7		
GEE62F-A-CO	0.9~1.6	3.3	4.1	Weather-resistant Polyethylene	
GEE99F-A-CO	1.6~2.5	4.3	4.7		
GEE144F-A-CO	2.5~3.7	5.4	5.7		
GES62F-A-C	0.9~1.6	3.3	4.1	Polyethylene	30.48m
GES99F-A-C	1.6~2.5	4.3	4.7		
GES144F-A-C	2.5~3.7	5.4	5.7		
GES62F-A-CO	0.9~1.6	3.3	4.1	Weather-resistant Polyethylene	
GES99F-A-CO	1.6~2.5	4.3	4.7		
GES144F-A-CO	2.5~3.7	5.4	5.7		

(Unit：mm)

EDGING / CE



Edge protection for cable at panel edges

Features

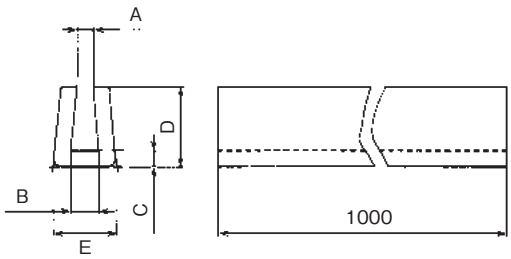
- Protects cables against sharp edges of panels and chassis.
- Economical long type.
- For straight edges and square holes.

Insertion Mounting

Cutting available
Please contact our sales department for details.

Material

- Nylon 6（Color：Natural） UL94 HB



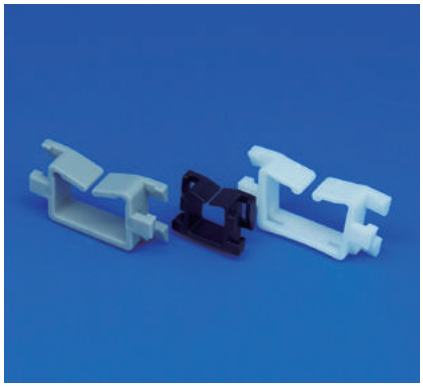
Part No.	Panel thickness	A	B	C	D	E	Std. Package
CE-010L	0.6~0.8	0.3	1.0	1	5	3.0	100 pcs.
CE-012SN		0.5	1.3			3.3	
CE-012N	1.0~1.2	0.6					
CE-016N	1.2~1.5	0.9	1.7			3.7	
CE-024N	1.6~2.3	1.2	2.4			4.4	
CE-032N	2.3~3.2	1.5	3.3			5.3	

(Unit：mm)

※ For products designated with "N" at the end of the part No, the "N" will be eliminated when they are custom-cut. For non-standard products, please contact our sales department

EDGING SADDLE / EDS,-M

UL 1565



Edge protection cable clamp

Features

- Easy insertion of cables through openings and protection of cables from sharp edges of chassis etc.

Insertion Mounting

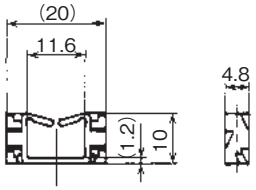
Material

- Nylon 66（Color：Natural）

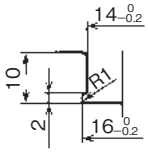
UL94 V-2 ：EDS-1~3
UL94 V-0 ：EDS-4, -0607M

※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

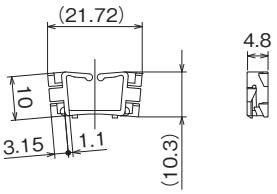
EDS-1～3



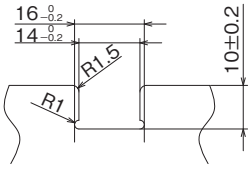
Specification drawing



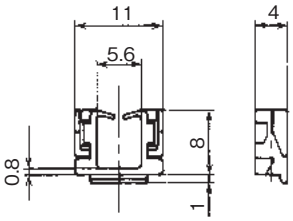
EDS-4



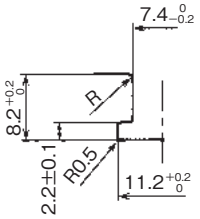
Specification drawing



EDS-0607M



Specification drawing



	Part No.	Panel thickness	Color	Std. Package
UL	EDS-1	0.8～1.2	Black	100 pcs.
UL	EDS-2	1.2～1.6	Natural	
UL	EDS-3	1.6～2.0	Gray	
UL	EDS-4	0.8～2.0	Natural	1,000 pcs.
UL	EDS-0607M	0.8～1.2	Black	

UL ···UL1565 recognized product

(Unit：mm)

EDGING SADDLE / EDS-U

UL 1565

Edge protection cable clamp

Features

- Easy insertion of cables through openings and protection of cables from sharp edges of chassis etc.

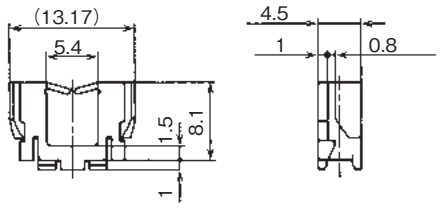
Insertion Mounting

Material

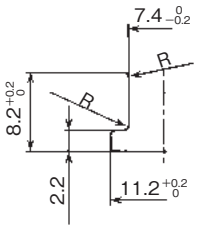
- Nylon 66（Color：Natural）　UL94 V-2（V-0※）

※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

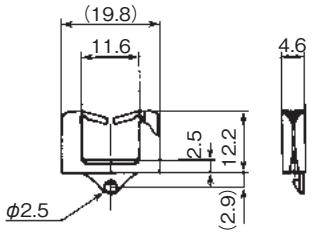
EDS-0607U



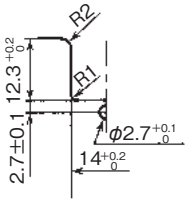
Specification drawing



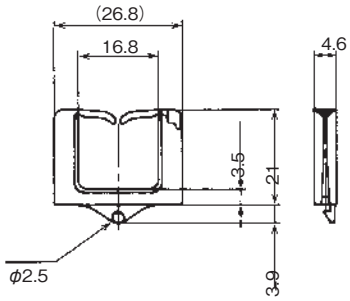
EDS-1208U



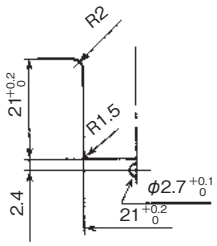
Specification drawing



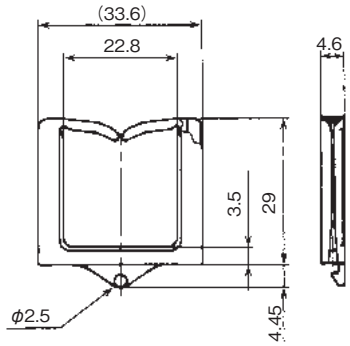
EDS-1717U



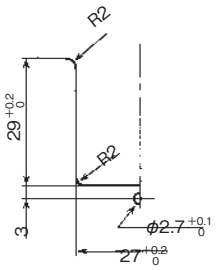
Specification drawing



EDS-2323U



Specification drawing



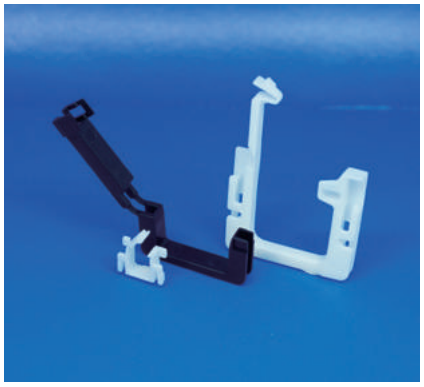
	Part No.	Panel thickness	Color	Std. Package
	EDS-0607U	0.8～2.0	Natural	100 pcs.
UL	EDS-1208U	0.8～1.6		
UL	EDS-1717U			
UL	EDS-2323U			500 pcs.

UL …UL1565 recognized product

(Unit：mm)

LOCK EDGING SADDLE / EDS-L

UL 1565



Edge protection locking cable clamp

Features

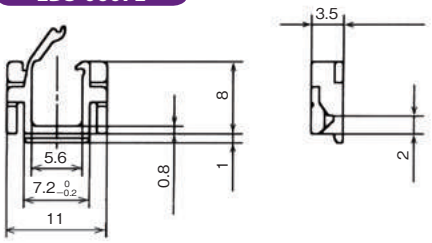
- Lock prevents cable bundles from release.
- Original structure of EDS-〜L-V0 protect cables from damage.

Insertion Mounting

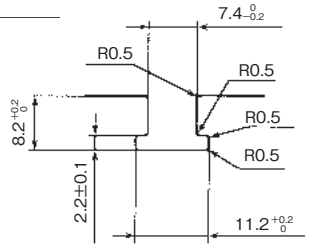
Material

- Nylon 66 (Color : Natural) UL94 V-0
  (Color : Black) UL94 V-0 : EDS-17L, -25L

EDS-0607L



Specification drawing

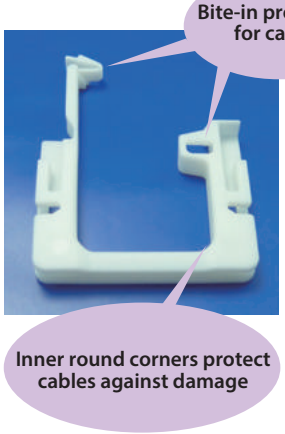


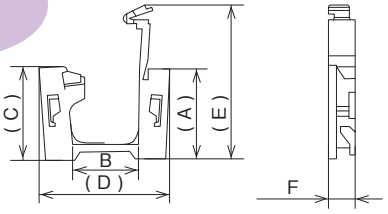
	Part No.	Mounting hole size	Panel thickness	Std. Package
UL	EDS-0607L	Refer to Specification drawing	0.8〜1.6	1,000 pcs.

UL ··· UL1565 recognized product

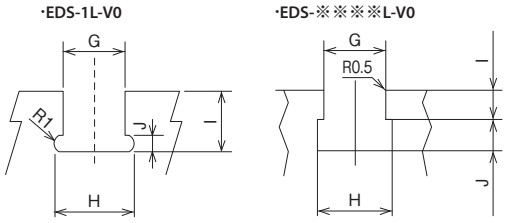
(Unit : mm)

EDS-〜L-V0





Specification drawing



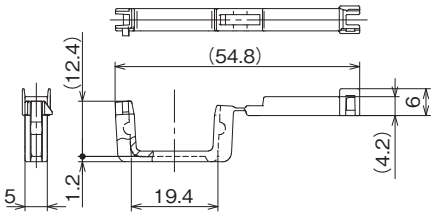
※ EDS-1L-V0 has a slightly different configuration from the others

	Part No.	(A)	B	(C)	(D)	(E)	F	Panel thickness	G	H	I	J	Std. Package
	EDS-1L-V0	10.0	11.6	10.0	20.0	18.6	4.8	0.6〜1.2	14 0 -0.2	16 0 -0.2	10	2	500 pcs.
UL	EDS-0704L-V0	7.1	7.0	7.8	17.9	16.9	3.8	0.6〜2.0	12.8±0.1	13.8±0.1	2.7±0.1	3.4 +0.2 0	
UL	EDS-1010L-V0	15.2	10.5	15.9	21.2	25.7	4.2		14±0.1	17±0.1	6.5±0.1	7.5 +0.2 0	
UL	EDS-1710L-V0	15.1	17.8	15.9	29.1	32.9			22±0.1	25±0.1	6.0±0.1	8.0 +0.2 0	
UL	EDS-1720L-V0	24.6	17.8	26.3	31.5	42.6			22±0.1	25±0.1	16±0.1	8.0 +0.2 0	

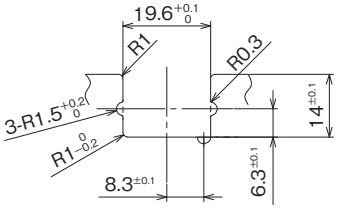
UL ··· UL1565 recognized product

(Unit : mm)

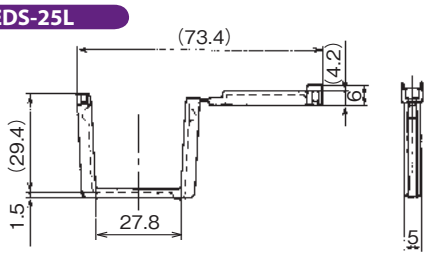
EDS-17L



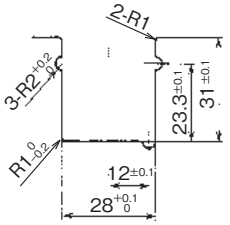
Specification drawing



EDS-25L



Specification drawing



	Part No.	Panel thickness	Std. Package
UL	EDS-17L	0.8〜2.2	500 pcs.
UL	EDS-25L		

UL ···UL1565 recognized product

(Unit : mm)

LOCK EDGING SADDLE / EDS-LS

Edge and slot protection locking cable clamp

Features

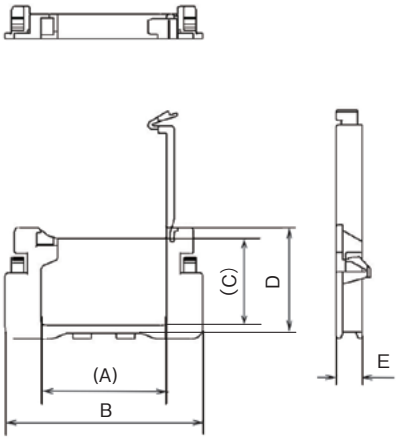
Insertion Mounting

- Available for protection of through hole edge.
- Making easier to fix (Refer to how to install).
- Simplified fixing hole (Refer to Assembly drawing).
- Space-saving design so that protruded part is small when fixing.
- UL94 V-0 recognized materials are used.
- Prevent product removal from fitted panel caused by cable load.

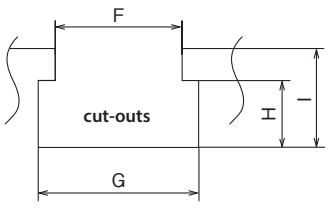
Material

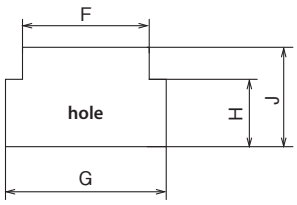
- Nylon 66（Color：Natural） **UL94 V-0**

Specification drawing



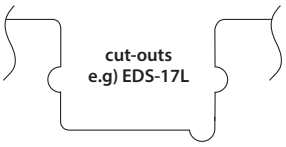
new products





(t0.6～2.0mm)
(panel thickness：t0.6～2.0mm)

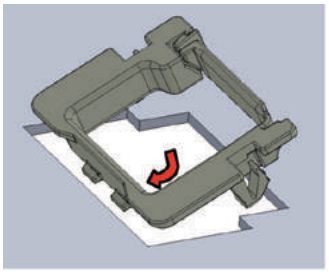
conventional products



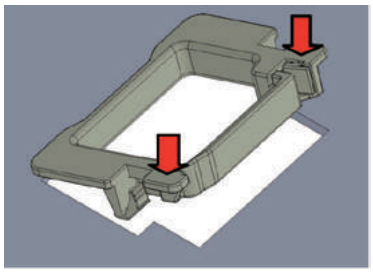
Part No.	(A)	B	(C)	D	E	Fixing hole size				
						F	G	H	I	J
EDS-0305LS-V0	3.7	15.8	5.8	8.8	4.2	10	16.5	3.5	8.5	9.0
EDS-1005LS-V0	10.2	22.3	5.8			16.5	23	3.5		
EDS-2005LS-V0	20.2	32.3	5.8			26.5	33	4.2		
EDS-3005LS-V0	30.2	42.8	5.8		3.4	36.5	43.5	4.2		
EDS-4505LS-V0	45.2	57.8	5.7			51.5	58.5	4.2		
EDS-1015LS-V0	10.2	21.8	15.1	18.3	4.2	14.5	20.5	12.6	18.5	19.0
EDS-2015LS-V0	20.2	31.8	15.1			24.5	30.5	12.7		

(Unit：mm)

How to install



STEP.1 **Hooked claw on the back of fixing panel**



STEP.2 **Press the arrow points**

YK BUSHING / YK

Bushing for power cord that provides a secure grip

Features

- Flexible YK can hold cables in a Min. bend radius to protect wires/cables from damaging by sharp bend.

Insertion Mounting

Odd-shaped hole

Material

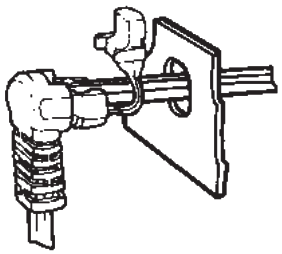
- Nylon 6 (Color : Black, White※)

UL94 V-2

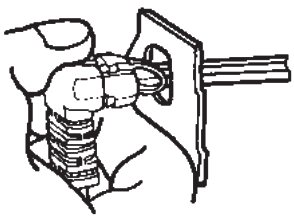
※ With regard to lot size and lead time for the white type, please contact us.

How to install

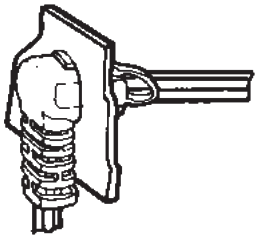
①



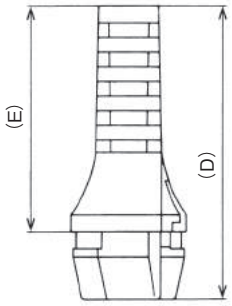
②



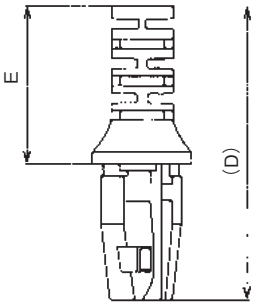
③



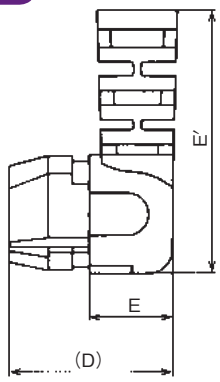
YK-



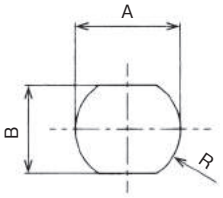
YKA-1



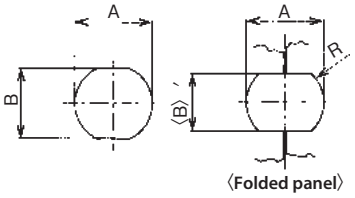
YKL-1



Specification drawing

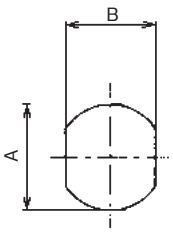


Specification drawing



〈Folded panel〉

Specification drawing



Part No.	Applicable wire (dimensions)	Mounting hole specifications				(D)	(E)	Std. Package
		A	B 〈B'〉	R	Panel thickness			
YK-1	NNFF0.75mm² (3.3×6.6)	$14.4^{+0.1}_{0}$	$12.0^{+0.2}_{0}$	$7.2^{+0.1}_{0}$	2.0	40.0	30.8	500 pcs.
	NNFF1.25mm² (3.6×7.2)	$14.8^{+0.1}_{0}$						
YK-2	Vinyl wire 0.75mm² (2.8×5.6)	ϕ10.9±0.1	9.5	—	2.4	23.0	14.0	100 pcs.
YKA-1	VCTFK0.75mm² (4.5×6.2)	14.0	13.4 〈10.9〉	7.2	2.3 〈1.2〉	56.0	30.0	
	VCTFK1.25mm² (5.4×8)	14.5	13.3 〈10.9〉	7.25				
YKL-1	NNFF0.75mm² (3.3×6.6)	12.7	11.1	$6.6^{+0.1}_{0}$	$2.0^{+0.05}_{-0.1}$	20.4	10.4(E'=32.8)	500 pcs.
	NNFF1.25mm² (3.6×7.2)	13.2						

※ Dimensions in 〈 〉 are for folded panel.

(Unit : mm)

※ Since outside diameter and hardness varies in wire manufacture, please confirm the mounting fitness befor the purchase.

DUST PROOF BUSHING / DDB

Dust resistant plug that can be pierced with round cables

Features

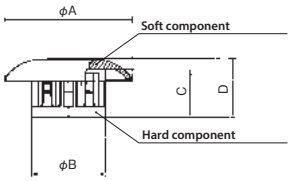
- Consists of soft and hard components for tight hold and secure fixation.
- Can be used as a blind bushing.

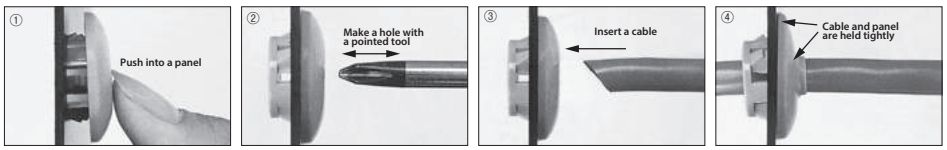
Insertion Mounting

Round hole

Material

- Soft component : Polyurethane Elastomer（Color：Gray）
- Hard component : Polyurethane Resin（Color：Gray）

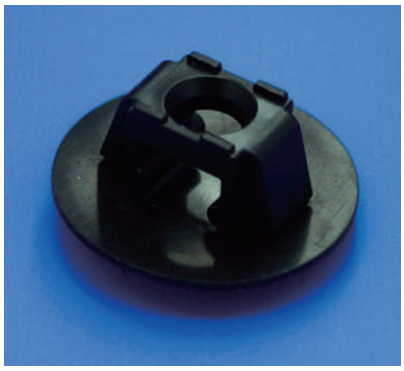




Part No.	ϕA	ϕB	C	D	Mounting hole size	Panel thickness	Applicable wire	Std. Package
DDB-1216	26.5	15	9.2	11.6	$\phi 16^{+0.2}_{0}$	1.0～3.2	ϕ3～6	100 pcs.
DDB-1520	30.0	19	9.0	12.4	$\phi 20^{+0.2}_{0}$		ϕ3～9	
DDB-2428	38.0	27	9.2	11.8	$\phi 28^{+0.2}_{0}$		ϕ3～16	

(Unit：mm)

WATER PROOF BUSHING / WPB



Water resistant bushing for snap-mount clamp and spacer

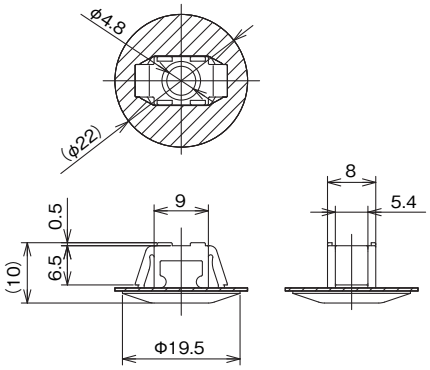
Features

- Combination of resin and elastomer is reslized water proof perfomance of IP X5 equivalent.
- Outdoor application is available with weather resistant material.
- Installation of fastener such as clamp, spacer, etc. are available.

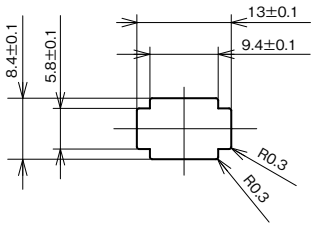
Material

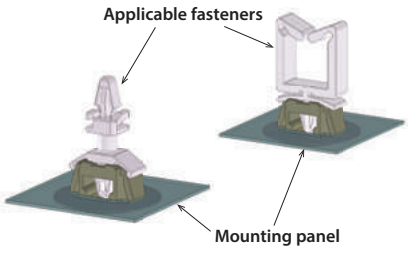
- Resin part : Nylon 66（Color：Black）
- Sealing gasket : EPDM（Color：Black）

UL94 V-2



Installation specifications

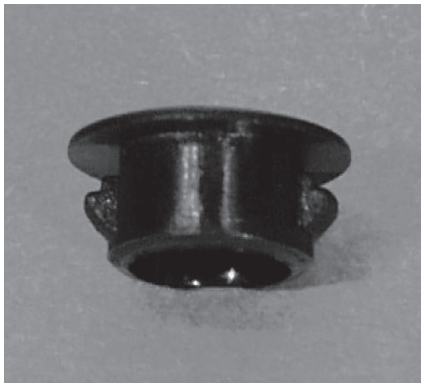




Part No.	Panel thickness	Clamp, spacer, etc.		Std. Package
		Mounting hole size	Panel thickness	
WPB-20-BK	0.8～1.0	ϕ4.8	2.0	100 pcs.

(Unit：mm)

HOLE PLUGS / N



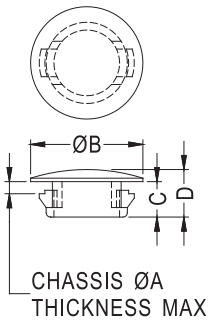
Edge protection bushing for round slots

Features

- Snapped on PCB

Material

- Nylon 66 (Color: Black) UL94 V-2



Part No.	A	B	C	D	Thickness	Std. Package
N04	4.8	6.35	4.5	5.5	1.6	2000
N06	6.4	7.6	4.5	5.6	1.6	2000
N09S	9.5	13.0	4.1	5.5	1.4	1000
N13,5	13.5	15.2	5.0	6.2	2.2	500
N16S	15.9	20.0	6.5	7.7	2.0	500

(Unit: mm)

ONE-TOUCH BUSHING / TB

Edge protection bushing for round slots

Features

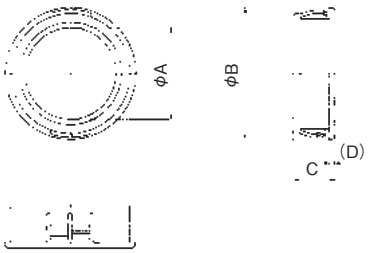
- Firm cable protection with quick installation by snapping in a hole from one side.
- Four locks hold a wide range of panel thickness.

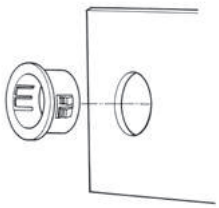
Insertion Mounting

Round hole

Material

- Nylon 6（Color：Black） UL94 V-2





Part No.	φA (Inner diameter)	φB (Head diameter)	C	(D)	Mounting hole size	Panel thickness	Std. Package
TB-0813	8.0	15.0	10.4	1.4	$\phi 13.0^{+0.2}_{0}$	0.8~3.2	100 pcs.
TB-9513	9.5	14.5	5.3	1		$1.6^{+0.15}_{0}$	1,000 pcs.
TB-1116	11.0	19.0	11.0	1.4	$\phi 16.0^{+0.2}_{0}$	0.8~3.2	100 pcs.
TB-1216	12.0	19.0	6.4	1.5	$\phi 16.0^{+0.1}_{0}$	0.8~1.2	1,000 pcs.
TB-1520	15.0	23.0	11.0		$\phi 20.0^{+0.2}_{0}$	0.8~3.2	100 pcs.
TB-1926	19.0	29.0	12.0		$\phi 26.0^{+0.2}_{0}$		
TB-2533	25.0	36.0	11.5		$\phi 33.0^{+0.2}_{0}$		
TB-2938	29.0	41.4	12.0		$\phi 38.0^{+0.2}_{0}$		
TB-3140	31.0	44.0	12.5		$\phi 40.0 \pm 0.1$	2.3~4.5	
TB-3545	35.0	48.0	12.0		$\phi 44.5^{+0.2}_{0}$	0.8~3.2	
TB-4049	40.0	49.0	10.0	2	$\phi 45.0 \pm 0.1$	$2.6^{0}_{-0.1}$	

(Unit：mm)

WATER PROOF COVER / WPC20

Water and dust resistant cover for USB connectors

Features

- Water sealing cover of a socket.
- Cover with clamp portion prevents cables from releasing.

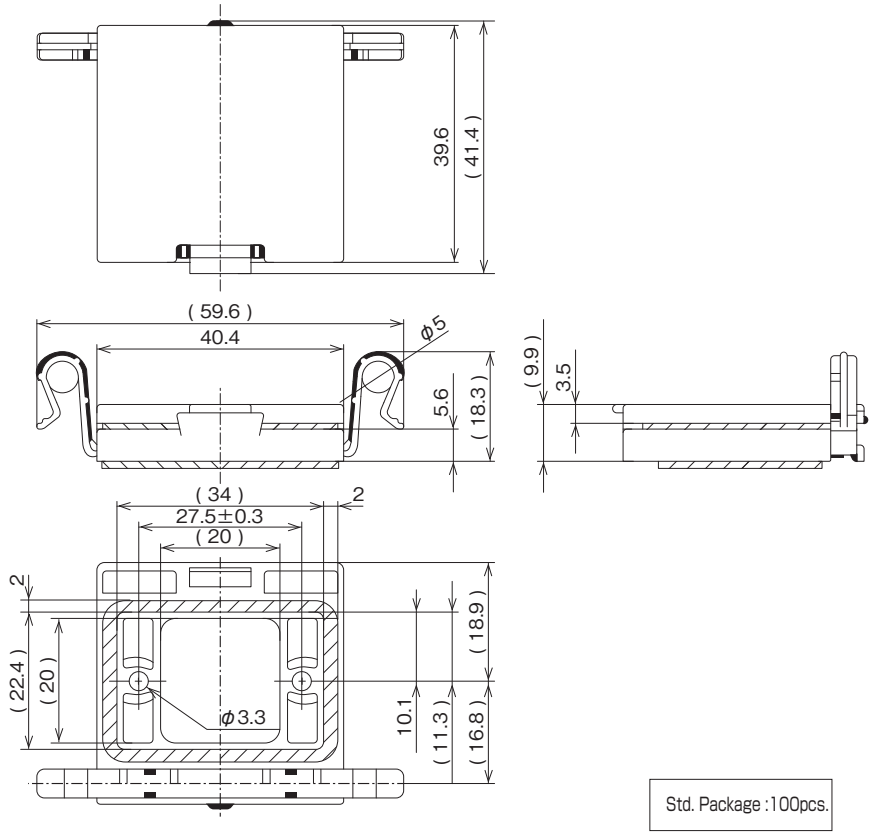
Screw mounting

(Applicable screw : M3 Pan head screw

Material

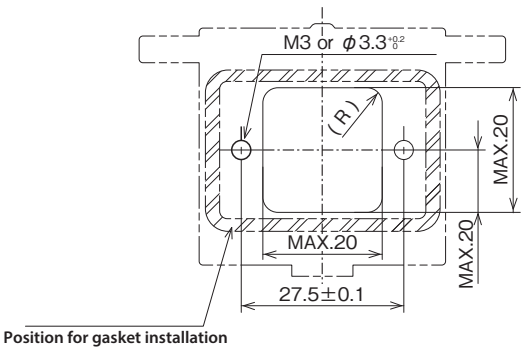
- Body / Polyacetal（Color：Black）
- Gasket / EPDM（Color：Black）

UL94 HB



Std. Package :100pcs.

Specification drawing

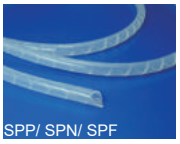


(Unit：mm)

WIRING TUBES & DUCTS

Tube

Covering cables to bundle and protect

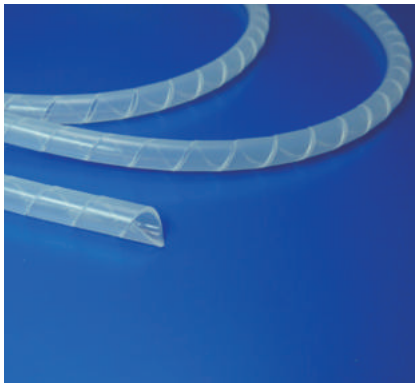


P116
SPIRAL TUBE

Ducts

A line of connected ducts holds cables and allows them to move in 3-dimensions

P117
FK DUCT



Spiral tube to bundle and protect cables

Features

- Bundles and protects cables simultaneously.
- Easy cable bundling by twisting TUBE. Can be used to join or divide cable bundles.

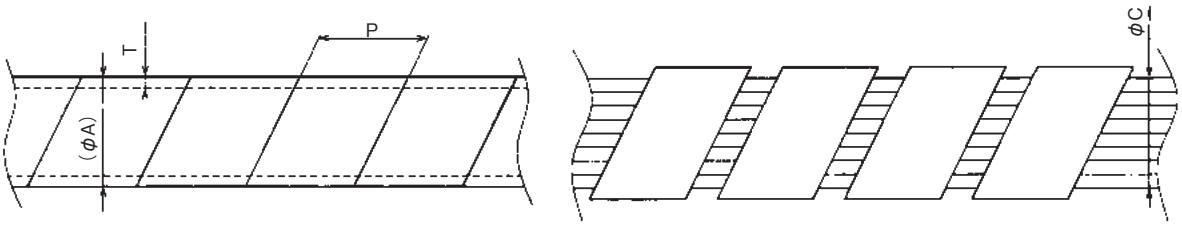
Cutting available
Please contact our sales department for details.

Material

- Polyethylene（Color：Natural）
- Nylon 6（Color：Natural）
- Fluorocarbon resin（Color：Natural）

: SPP UL94 HB
: SPN UL94 HB(V-0※)
: SPF UL94 V-0

※ For V0 type, "V0" is added to the end of the part No.
（With regard to lot size and lead time, please contact us.）

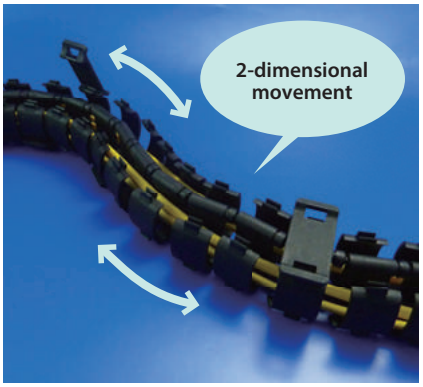


Material	Part No.	Outer diameter φA	Thickness T	Pitch P	Bundle diameter φC	Std. Package
Polyethylene	SPP-04L	4.2	0.8	6.0	φ 3～ 7	100m
	SPP-06L	6.0	1.0	8.0	φ 4～12	
	SPP-08L	8.0	1.0	10.0	φ 6～18	
	SPP-11L	11.0	1.5	12.0	φ 8～25	50m
	SPP-12L	12.0	1.5	12.0	φ 9～28	
	SPP-13L	13.0	1.5	12.0	φ10～30	
	SPP-15L	15.0	1.5	15.0	φ12～35	
	SPP-18L	18.0	1.5	20.0	φ15～45	25m
	SPP-24L	24.0	2.0	22.0	φ20～60	
	SPP-29L	29.0	2.0	28.0	φ25～75	
Nylon	SPN-04L	3.6	0.5	6.0	φ 3～ 7	100m
	SPN-06L	5.5	0.75	8.0	φ 4～12	
	SPN-08L	7.6	0.8	10.0	φ 6～18	
	SPN-11L	10.6	0.8	12.0	φ 9～28	50m
	SPN-15L	13.6	0.8	15.0	φ12～35	
	SPN-18L	16.6	0.8	20.0	φ15～45	25m
	SPN-24L	21.6	0.8	22.0	φ20～60	
	SPN-29L	27.0	1.0	28.0	φ25～75	
Fluorocarbon resin	SPF-04	4.2	0.8	6.0	φ 3～ 7	100m
	SPF-06	6.0	1.0	10.0	φ 4～10	
	SPF-12	12.0	1.5	12.0	φ 9～20	50m

※ **Fluorocarbon resin SPIRAL TUBE is only made to order.**

(Unit：mm)

FK DUCT / FKD



Flexible cable duct

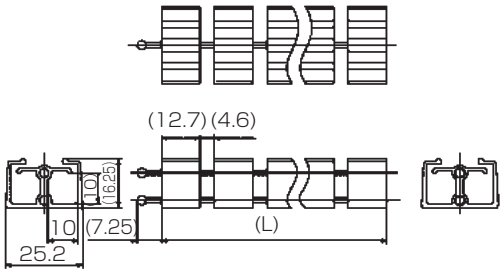
Features

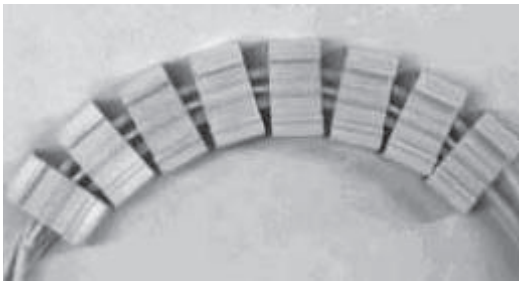
- Allows cables to bend in all 3D directions.
- Maintains Min. bend radius for optical fiber cables.
- Can be connected in unit of one piece.

Material

- Nylon 6（Color：Light grey） UL94 V-2 : FKD-10
- Nylon 66（Color：Black） UL94 V-2 : FKD-10K

FKD-10



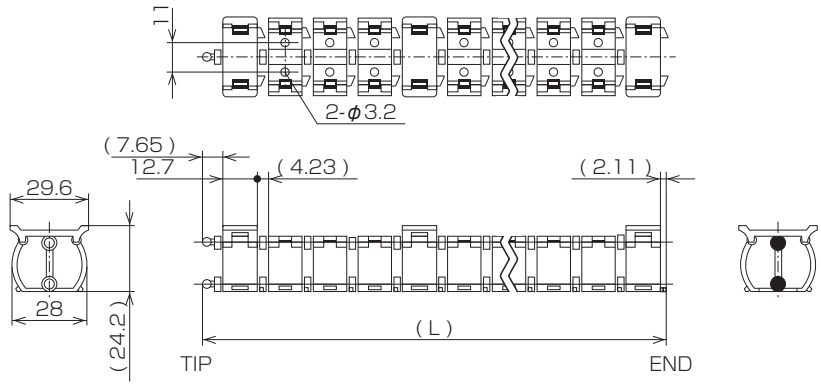


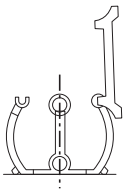
Part No.	Connection number n	Total length : L	Std. Package
FKD-10	58	(998.8)	10 pcs.
FKD-10-n※	n	(12.7+4.6) ×n−4.6	※

(Unit : mm)

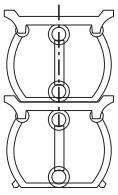
※ Required connection numbers available, please contact our sales department for details.

FKD-10K





Lid can open to insert cables.



Can be connected vertically.

Part No.	Connection number n	Total length : L	Std. Package
FKD-10K	59	(1004.4)	50 pcs.
FKD-10K-n	n	(L)=16.93n−5.53	※

(Unit : mm)

※ Required connection numbers available, please contact our sales department for details.

MEMO

OTHERS

Round & Rivetted Feet

P120
ROUND &
RIVETTED FEET

Rotary Damper

P121
ROTARY DAMPER

Door Latch

P121
DOOR LATCH

Fig. 1, 3

Riveted Feet with permanent fixation by simply pushing

Features

- Permanent fixation by simply pushing

Fig. 2

Material

- Fig. 1 Foot: TPE, Rivet: Nylon 6, Pin : POM
  Fig. 2 Foot: TPE, Rivet: Nylon 6
  Fig. 3 Foot: TPE, Pin: PP

Std. Package: Fig 1&3 200 pcs., Fig 2 500 pcs.

Fig. 1

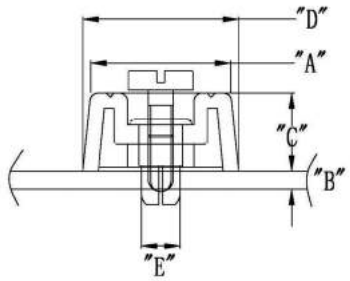


Fig. 2

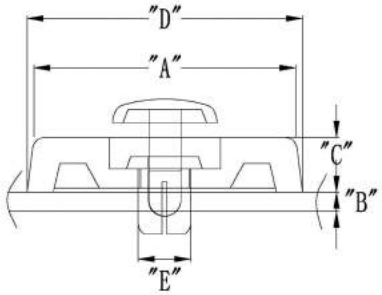
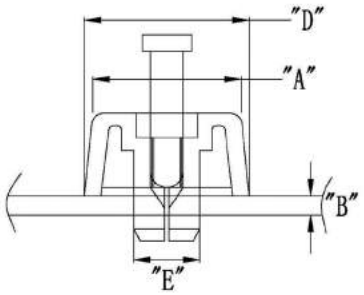


Fig. 3



Part No.		"A"	„B“ Panel Thickness	„C“	„D“	„E“ Hole dia.	Fig.
HG-101		20	1.0~2.3	14	24	5.0~5.1	1
HG-104		18		10	20		
HG-115		28		15	30		
HG-117		18	0.8~1.5	10	20	8.0~8.1	3
HG-118				10			
HG-120				5			
HG-121		20	5.0~8.0	6	21	7.9~8.0	
HG-123		23	0.8~1.5	5	25	8.1~8.2	
HG-124		18	0.5~1.2	12	20	8.1~8.2	
HG-125			0.8~1.8	15		8.0~8.1	
HG-126			0.5~1.2	18		8.1~8.2	
HG-128			0.8~1.5	15		8.0~8.1	
HG-129		28	2.5~3.2		30	10.1~10.2	
HG-103	-R3055	13.5	0.8~1.8	5.5	14.2	3.1~3.2	2
	-R3065		1.8~2.8				
HG-105	-R4050	20.0	0.8~1.8	4.2	21.0	4.1~4.2	
	-R4060		1.8~2.8				
	-R4070		2.9~3.7				
	-R4080		3.8~4.8				
HG-106	-R4050	14.0	Max 0.6	6.0	15.0		
	-R4060		0.6~1.0				
	-R4070		1.0~2.0				
	-R4080		2.0~3.1				
	-R5065		0.8~1.2			5.1~5.2	
	-R5075		1.3~2.3				
HG-108	-R4060	20.0	0.8~1.8		21.0	4.1~4.2	
	-R4070		1.9~2.8				
	-R4080		2.9~4.0				
HG-109	-R4060		Max 0.8	8.0			
	-R4070		1.0~2.0				
	-R4080		2.1~3.0				
HG-110	-R4060	14.0	0.6~1.0	9.0	15.0		
	-R4070		1.0~2.0				
	-R4080		2.0~3.1				
	-R5065		0.8~1.2			5.1~5.2	
	-R5075		1.2~2.2				
HG-113	-R3545	10.0	0.5~1.2	4.0	10.8	3.6~3.7	
	-R3555		1.2~2.0				
	-R3560		1.5~2.5				
	-R3570		2.5~3.2				
	-R3580		3.5~4.5				

(Unit: mm)

ROTARY DAMPER / GD

Fig. 1

Fig. 2

Rotary Damper with various torque

Features

- Rotary Damper with various torque
- Tooth Profile: Involute Gear
- Pressure Angle: 20°
- Number of Teeth: 13

Material

- Body and Cao: ABS, gear and shaft: POM (Color: Black)

Std. Package: 1000 pcs.

Part No. (Fig 1)	Part No. (Fig 2)	Torque (gf.cm)	Identification Paint Mark
GD-101	GD-201	25±8	White
GD-102	GD-202	40±10	Yellow
GD-103	GD-203	60±10	Purple
GD-104	GD-204	80±15	Green
GD-105	GD-205	120±15	Black
GD-106	GD-206	130±15	Blue

(Unit: mm)

Fig. 1

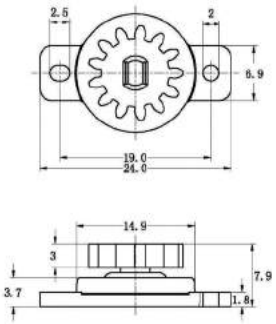
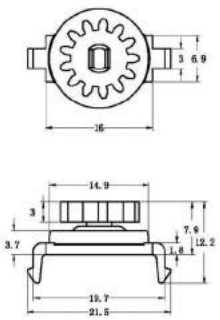


Fig. 2



DOOR LATCH / EM

EM-1 EM-4

Compact Door Latch

Features

- Compact door latch

Material

- POM, Nylon PC (Color: Color: Black, White, Grey)

Std. Package: 500 pcs.

Part NO.	Fig.No
EM-1	1
EM-4	2

Fig. 1

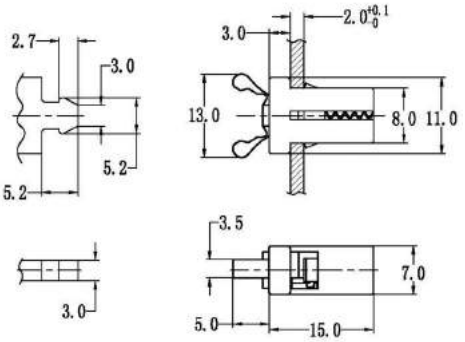
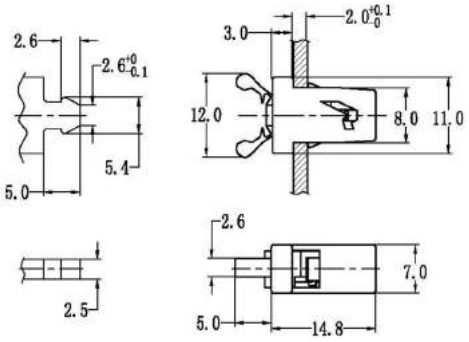


Fig. 2

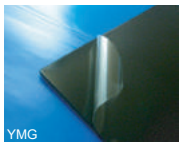


(Unit: mm)

Material / KG-GEL

Silicone free material, excellent in impact buffering, vibration control and isolation

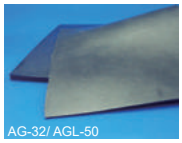
Super soft type for vibration and impact management



P123

Super-low hardness elastomer

High-vibration damping type improved in heat-resistance



P125

High-Vibration damping elastomer (Heat resistant type)

High-vibration damping type also for impact buffering

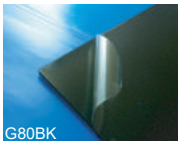
P126

High-Vibration damping elastomer

Sheets / KG-GEL

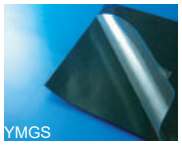
High-performance products for impact buffering, vibration and noise control using KGS' original sheets

Gel sheet



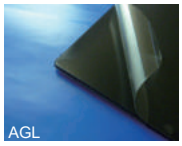
P127

Low hardness gel sheet



P127

Low hardness gel sheet (Heat resistant type)



P127

High-Vibration damping rubber sheet

Standard products

Bushings

P128-129

BUSH VIBRATION ISOLATOR

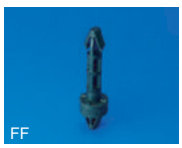
P128-129

SY DAMPER
• HIGH-END DAMPER

P132

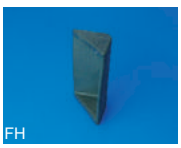
ONE TOUCH VIBRATION DAMPER

Acoustic noise control for fans



P130

FAN FIXER



P131

FAN HOLDER

MIC HOLDER

P131

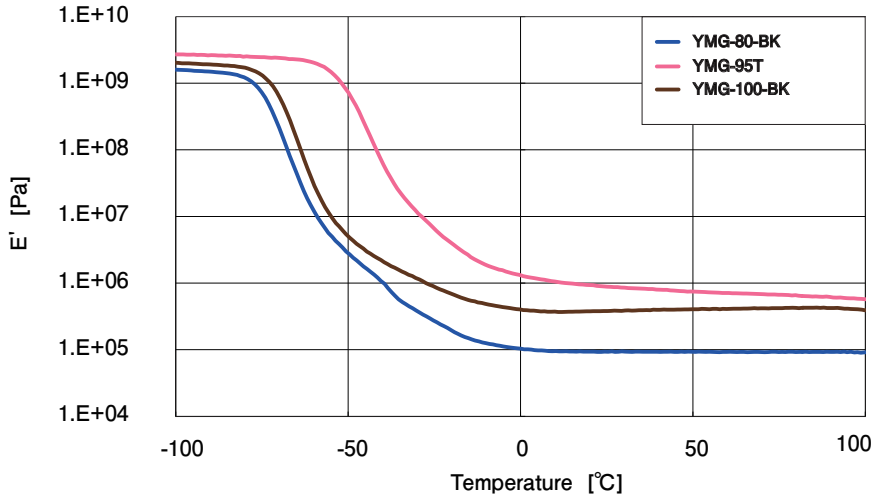
MIC HOLDER

⚠ 【ANNOTATION】

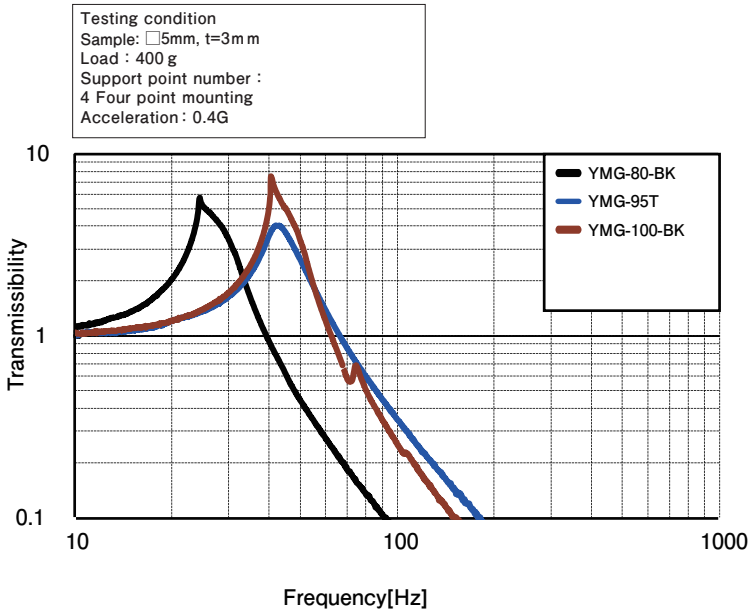
1. All specifications and characteristics shown herein are typical value, but are not guaranteed.
2. All description shown herein is based on available document, information, data etc. Right now but is not guaranteed and subjects to change without notice.
3. Products shown herein are mainly developed for general industry use. In case of safety-conscious application such as medical or vehicle use, prior consent is necessary.
4. Requirement for safety, durability, compatibility or industrial property, etc. should be identified prior to use of Products herein.
5. Because gel/elastmer products shown herein have tackiness, it is likely to adhere dust on the surface.
6. Gel/elastmer products shown herein remains possible to cause shrink, weld, short-shot or flow-mark, etc. During molding process without performance problem of the products.
7. Gel/elastmer products shown herein remains possible to bleed out oil element when contact with paper or cloth in long term. Please do not contact with copper and copper alloy or the other soft materials such as rubber, gel or elastmer, etc.
8. Please do not use the products under environment of organic solvent, oil element or ozone, etc. Please do not explosure the products to direct sunlight and ultraviolet.
9. Poly ethylene bag is used for packing gel/elastmer products shown herein which may have ruffling without any effect for the product performance.
10. Products may cause deformation under the own weight during packing and transportation. In case it is gross deformation, please do not use the products.
11. Please do not place the products under direct sunlight and ultraviolet during storage.
12. It is prohibited reprint of the article in this brochure without prior written consent by Kitagawa Industries Co., Ltd.

Dynamic Viscoelastic Property

E' : Storage elastic modulus -- It is shown hardness of specimen and the larger number is meant the larger hardness.

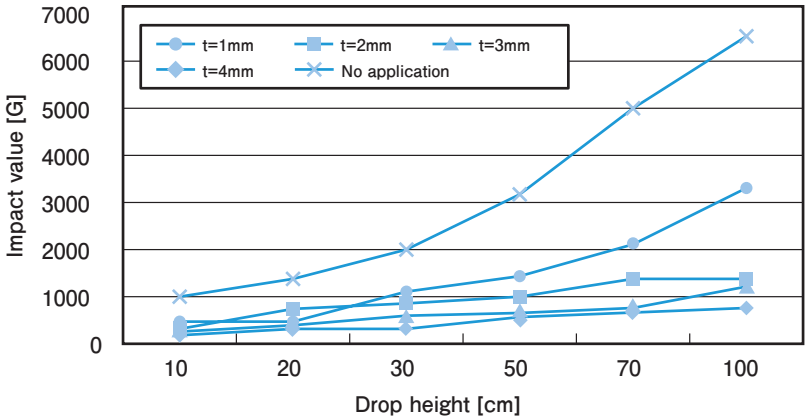


Vibration Transmission



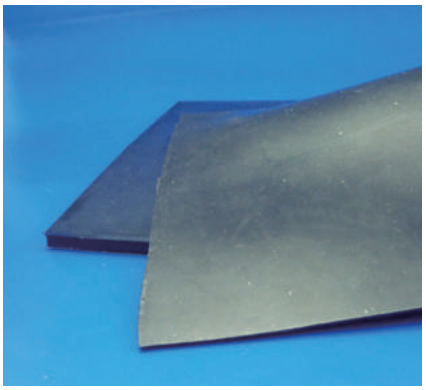
Impact Property

2.5mm HDD with YMG-80BK(□20mm) applied at 4 corners was dropped.



Please contact our sales department for installation instructions (precautions) before use.

High-Vibration damping elastomer (Heat resisitant type)／LOSTOMER AG



Wide range of applications with high-vibration damping and heat resistance.

High-vibration damping

Attenuated vibration energy by conversion into thermal energy.

"LOSTOMER AG" has excellent damping properties

Improved heat resistance

Up to 100℃ heat resistance by special acrylic rubber

"LOSTOMER AG" performs wider range of applications in combination with improved heat resistance.

UL94HB recognized

"LOSTOMER AG" (AGL-32) is UL94HB recognized for thickness 1.5mm or more (Black)
(AGL-50 is equivalent of UL94HB)

Specifications

Molded components

Required shaped components can be produced by transfer molding. KGS offers total support system from design to prototype and mass production to meet your requirement.

Properties

Typical Properties

Item	Unit	AGL-32	AGL-50
Hardness	Durometer Type A ※	A 32	A 53
Tensile strength	MPa	4.33	6.25
Elongation	%	580	420
Compression set	%	31.8	67.9

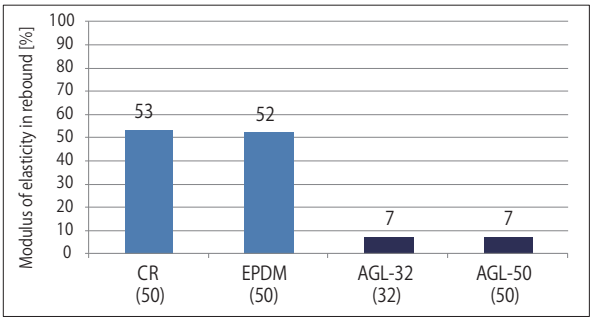
※In conformity to JIS K 6253

Vibration Properties

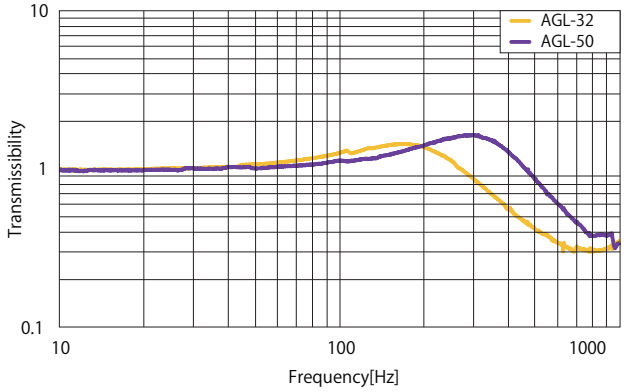
Item	AGL-32	AGL-50
Vibration transmissibility	1.4	1.6
(Hz) Resonance frequency	158.9	311.3
Loss factor	1.44	0.95

Testing condition
Sample:□5mm,t=3mm
Load：400 g
Support point number：
Four point mounting
Acceleration：0.4G

Elastic property in rebound

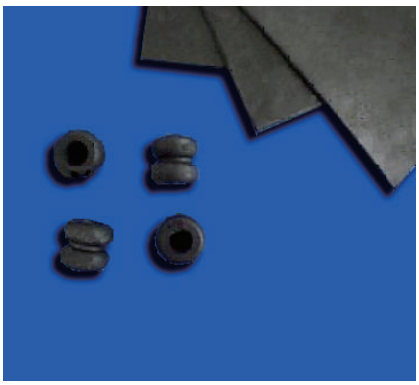


LUPKE TYPE REBOUND RESILIENCE TEST / According to JIS K 6255:1966



Please contact our sales department for installation instructions (precautions) before use.
Also please confirm precautions described on the begining page of the brochure

High-Vibration damping elastomer／LOSTOMER TPS



Damps vibration energy effectively

High-vibration damping

By converting vibration energy into thermal energy.

LOSTOMER TPS provides high vibration damping, as well as impact buffering using its softness.

Eco-friendly Halogen-free material

Generates No chlorine gas when burned.

LOSTOMER TPS employs reusable Halogen-free thermoplastic elastomer.
Available in two types of TPS(Styrene elastomer), hardness JIS A 6, 20 and 37.

Specifications

■ Molded components

Required shaped components can be produced by injection molding.
KGS offers total support system from design to prototype and mass production to meet your requirement.

Properties

■ Typical Properties

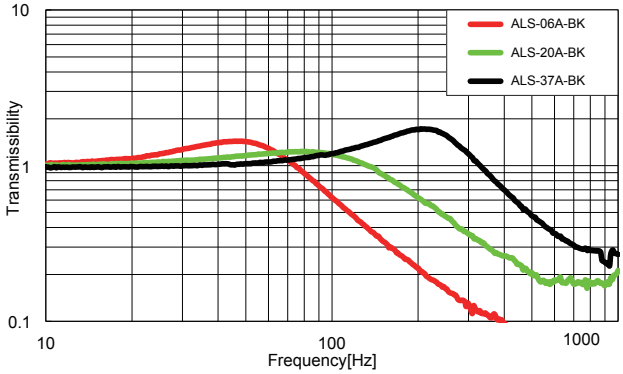
Item	Unit	TPS		
		ALS-06A-B K※3	ALS-20A-B K	ALS-37A-BK
Hardness	Durometer Type A ※2	A 6	A 20	A 37
Tensile strength	MPa	4.5	6.6	5.54
Elongation	%	1300	1119	870
Compression set※1	%	28.5	1.3	33.2

※1 JIS K 6262（Room temperature×168hrs）
※2 In conformity to JIS K 6253
※3 ALS-06A-BK is manufactured Made-to Order.

■ Vibration Properties

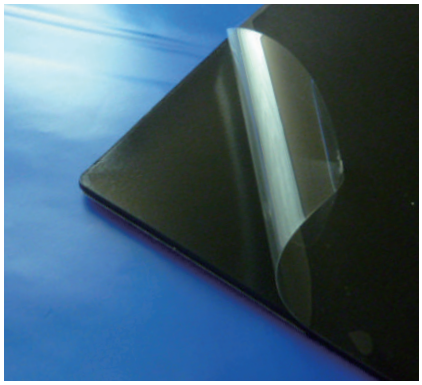
Item	ALS-06A-BK	ALS-20A-BK	ALS-37A-BK
(Hz) Resonance frequency	46.1	78.3	204.2
Maximum vibration transmissibility	1.4	1.2	1.7
Loss factor	1.38	1.87	0.96

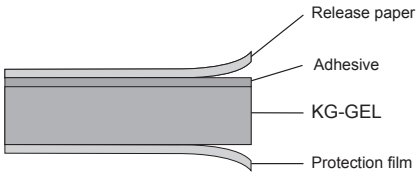
Testing condition
Sample：□5mm, t=3mm
Load：400g
Support point number：
Four point mounting
Acceleration：0.4G



Please contact our sales department for installation instructions (precautions) before use.
Also please confirm precautions described on the begining page of the brochure.

Low hardness gel sheet／KG-GEL 80 SHEET



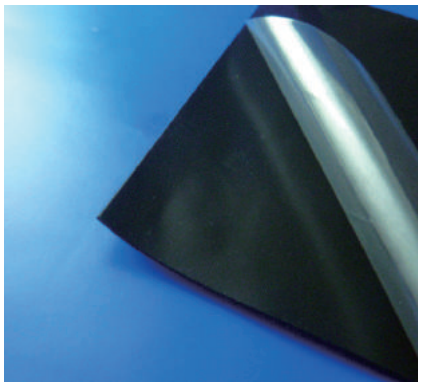


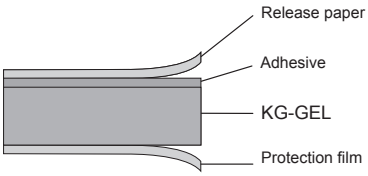
Part No.	Material	(mm) Thickness	(mm) Original sheet	Color
G80BK1-1.0-T1	TPS (YMG-80-BK)	1	30 5× 213	Black
G80BK1-2.0-T1		2		
G80BK1-3.0-T1		3		
G80BK1-4.0-T1		4		
G80BK1-5.0-T1		5		

Thickness does not include release paper, adhesive and protection film.

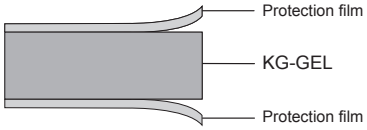
Please contact our sales department for installation instructions (precautions) before use. Also please confirm precautions described on the begining page of the brochure.

Low hardness gel sheet (Heat resisitant type)／KG-GEL 95T SHEET





YMGS-95T-0.5T

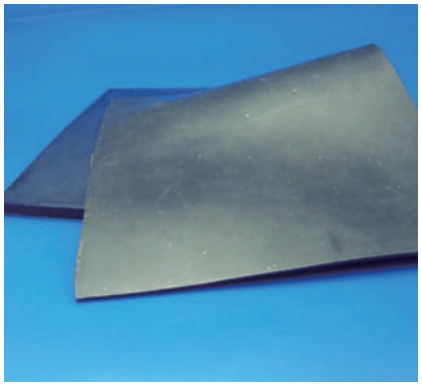


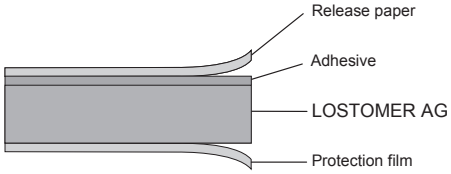
YMGS-95T-1.0

Part No.	Material	(mm) Thickness	(mm) Original sheet	Color
YMGS-95T-0.5T	TPS (YMG-95T)	0.5	400×140	Black
YMGS-95T-1.0		1		

Thickness does not include release paper, adhesive and protection film.

High-Vibration damping rubber sheet／LOSTOMER AG SHEET





Part No.	Material	(mm) Thickness	(mm) Original sheet	Color
AGL-32-0.5T	ACM (AGL-32)	0.5	200×200	Black
AGL-32-1.0(T)		1	350×350	
AGL-32-2.0(T)		2		
AGL-32-3.0(T)		3		
AGL-50-1.0T	ACM (AGL-50)	1		
AGL-50-2.0T		2		
AGL-50-3.0T		3		

Thickness does not include release paper, adhesive and protection film.

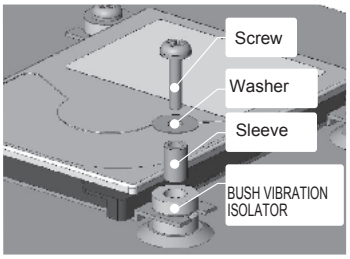
Please contact our sales department for installation instructions (precautions) before use. Also please confirm precautions described on the begining page of the brochure.

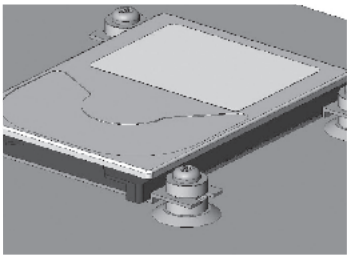
BUSH VIBRATION ISOLATOR／VB

High-performance damper using extremely low-hardness material with high damping performance.

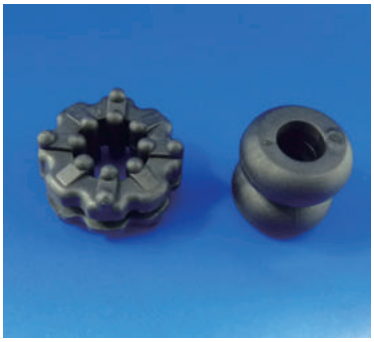
- Extremely low-hardness version and high damping performance version are available.
- Using silicone free material.
- UL 94 certified material version is also available.

Application example





SY DAMPER・HIGH-END DAMPER／SYD ・HED



Low resonance damper using high damping material.

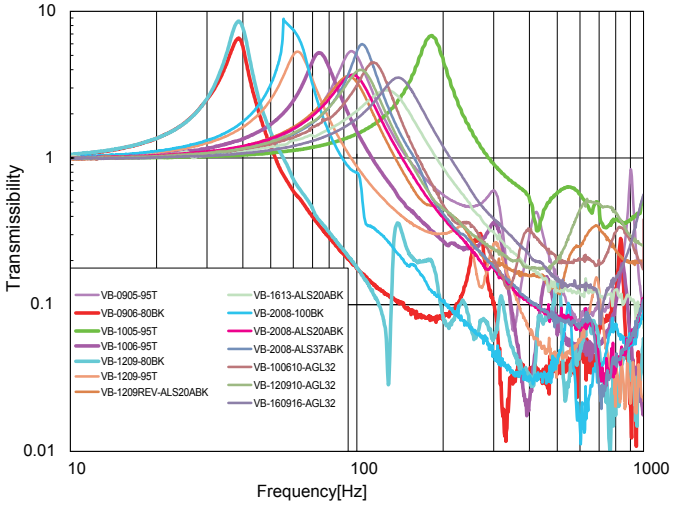
- Low resonance is achieved by high damping material.
- Higher damping performance lead to instant damping of vibration and impact.
- Using silicone free material.

Properties

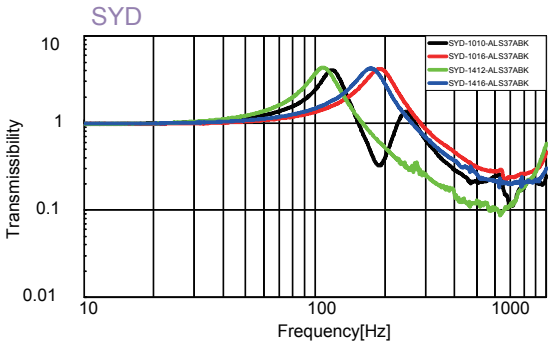
■ Vibration transmission

Testing condition
Load：400 g
Support point number：
Four point mounting
Acceleration：0.4G

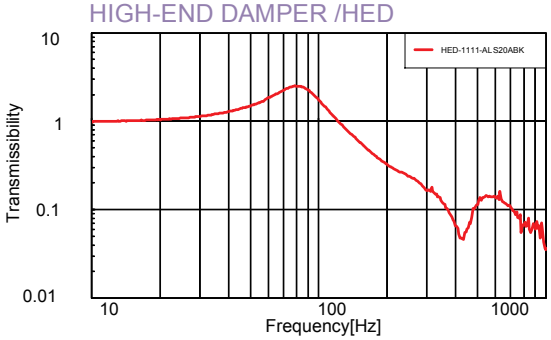
VB



SYD



HIGH-END DAMPER /HED

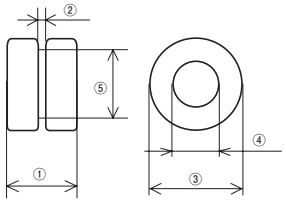


Please contact our sales department for installation instructions (precautions) before use.
Also please confirm precautions described on the begining page of the brochure.

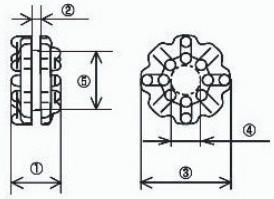
Specifications

Product drawing

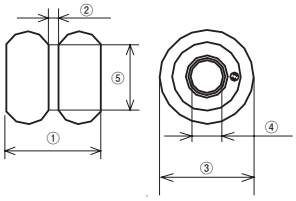
VB



SYD



HIGH-END DAMPER／HED



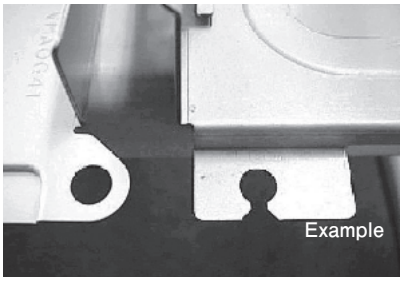
(Unit : mm)

Part No.	Material	Hardness	Color	①	②	③	④	⑤
VB-0905-95T ※	TPS (KG-GEL/YMG-95T)	ASKER FP 95	Black	5.2	1.2	φ9.6	φ4.0	φ7.0
VB-0906-80 BK	TPS (KG-GEL/YMG-80-BK)	ASKER FP 80	Black	6.4	1.2	φ9.6	φ4.0	φ7.0
VB-1005-95T	TPS (KG-GEL/YMG-95T)	ASKER FP 95	Black	4.8	1.6	φ10.0	φ4.0	φ6.2
VB-1006-95T	TPS (KG-GEL/YMG-95T)	ASKER FP 95	Black	6	1	φ10.0	φ5.3	φ8.3
VB-1209-80 BK	TPS (KG-GEL/YMG-80-BK)	ASKER FP 80	Black	9	1	φ12.0	φ6.0	φ9.0
VB-1209-95T	TPS (KG-GEL/YMG-95T)	ASKER FP 95	Black	9	1	φ12.0	φ6.0	φ9.0
VB-1209REV-ALS20ABK	TPS (LOSTOMER TPS/ALS-20A-BK)	Durometer A 20	Black	9	1	φ12.0	φ6.0	φ9.0
VB-1613-ALS20ABK	TPS (LOSTOMER TPS/ALS-20A-BK)	Durometer A 20	Black	13.6	1.6	φ16.0	φ8.0	φ12.0
VB-2008-100 BK ※	TPS (KG-GEL/YMG-100-BK)	ASKER FP 100	Black	8	3	φ20.0	φ5.3	φ15.0
VB-2008-ALS20ABK ※	TPS (LOSTOMER TPS/ALS-20A-BK)	Durometer A 20	Black	8	3	φ20.0	φ5.3	φ15.0
VB-2008-ALS37ABK ※	TPS (LOSTOMER TPS/ALS-37A-BK)	Durometer A 37	Black	8	3	φ20.0	φ5.3	φ15.0
VB-100610-AGL32	ACM (LOSTOMER AG/AGL-32)	Durometer A 32	Black	6	1	φ10	φ5.3	φ8.3
VB-120910-AGL32	ACM (LOSTOMER AG/AGL-32)	Durometer A 32	Black	9	1	φ12	φ6	φ9
VB-160916-AGL32	ACM (LOSTOMER AG/AGL-32)	Durometer A 32	Black	9	1.6	φ16	φ8	φ12
SYD-1010-ALS37ABK	TPS (LOSTOMER TPS/ALS-37A-BK)	Durometer A 37	Black	5.8	1	φ10.0	φ4.3	φ6.4
SYD-1016-ALS37ABK	TPS (LOSTOMER TPS/ALS-37A-BK)	Durometer A 37	Black	5.8	1.6	φ10.0	φ4.3	φ6.4
SYD-1412-ALS37ABK	TPS (LOSTOMER TPS/ALS-37A-BK)	Durometer A 37	Black	8	1.2	φ14.5	φ5.3	φ9.9
SYD-1416-ALS37ABK	TPS (LOSTOMER TPS/ALS-37A-BK)	Durometer A 37	Black	8	1.6	φ14.5	φ5.3	φ9.9
HED-1111-ALS20ABK	TPS (LOSTOMER TPS/ALS-20A-BK)	Durometer A 20	Black	10.8	1	φ11.1	φ3.8	φ7.7

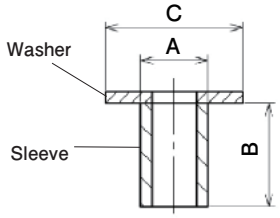
VB-0905 and VB-2008 have slightly different configurations from the others,please contact for details.
Please confirm the specifications with formal drawings before use.

Installation Specifications

Mounting hole



Recommended Sleeve



Sleeves are not our products.

Recommended Installation Specifications (Unit : mm)

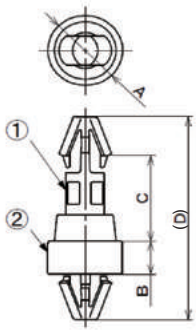
Part No.	Installation Specifications		Recommended Sleeve (Reference)		
	Mounting hole size	Panel thickness	A	B	C
VB-0905-***	φ7.0	1.2±0.1	φ3.9	5.2	≧φ 9.6
VB-0906-***	φ7.1	1.2±0.1	φ3.9	6.4	≧φ 9.6
VB-1005-***	φ6.2	1.6±0.1	φ3.9	4.8	≧φ10.0
VB-1006-***	φ8.3	1.0±0.1	φ5.2	6.0	≧φ10.0
VB-1209-***	φ9.0	1.0±0.2	φ5.9	9.0	≧φ12.0
VB-1209REV-***	φ9.0	1.0±0.2	φ5.9	9.0	≧φ12.0
VB-1305-***	φ10.4	0.8±0.1	φ5.9	5.0	≧φ13.6
VB-1613-***	φ12.0	1.6±0.1	φ7.9	13.6	≧φ16.0
VB-2008-***	φ15.1	3.0±0.1	φ5.2	8.0	≧φ20.0
VB-100610-***	φ8.3	1.0±0.1	φ5.2	6.0	≧φ10.0
VB-120910-***	φ9.0	1.0±0.1	φ5.9	9.0	≧φ12.0
VB-160916-***	φ12.0	1.6±0.2	φ7.9	9.0	≧φ16.0
SYD-1010-***	φ6.5	1.0±0.2	φ4.2	5.8	≧φ10.0
SYD-1016-***	φ6.5	1.6±0.1	φ4.2	5.8	≧φ10.0
SYD-1412-***	φ10	1.2±0.1	φ5.2	8.0	≧φ14.5
SYD-1416-***	φ10	1.6±0.1	φ5.2	8.0	≧φ14.5
HED-1111-***	φ7.7	1.0±0.2	φ3.8	10.8	≧φ11.1

Please contact our sales department for installation instructions (precautions) before use.
Also please confirm precautions described on the begining page of the brochure.

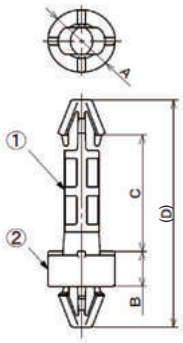
The Fan Fixer is a fixture which reduces the vibrations and noise of cooling fan.It enables to install the fan without screws.

- Resonance and fluttering noise are reduced by damping the vibrations transmitted from the cooling fan. A snap structure enables simple one-touch installation.Screws and tools are not necessary.

Specifications



FF-10H-43-95T



FF-**F-43-95T

Part No.	A	B	C	(D)	Panel thickness	Mounting hole size	Color
FF-10H-43-95T	ϕ8	3.8	9.8	23.4	t0.8～1.0	ϕ4.3±0.1	Black
FF-15F-43-95T		4.5	15.0	29.3	t1.0～1.2		
FF-25F-43-95T		4.5	25.0	39.1	t0.8～1.0		

Material：①PP (Snap portion and support portion) ②TPS (flexible portion)

FF-10H-43-95T is dedicated for use with the D05X series made by Nidec Corporation.

- Recommended fan specifications

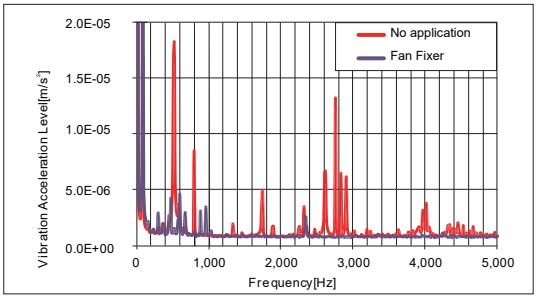
Part No.	(mm) Thickness	(mm) Screwhole diameter	Weight(g)
FF-10H-43-95T	t10 +0.2 -0.6	ϕ4.3	～40
FF-15F-43-95T	t15 +0.3 -0.5		
FF-25F-43-95T	t25 +0.3 -0.5		

Properties

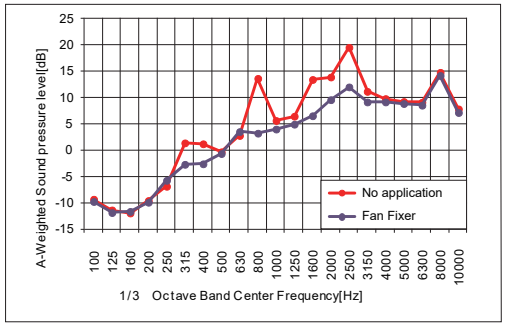
■ Example for vibration suppression of vibration and acoustic noise

Testing condition：Measuring vibration and noise with bladeless fan on chassis.

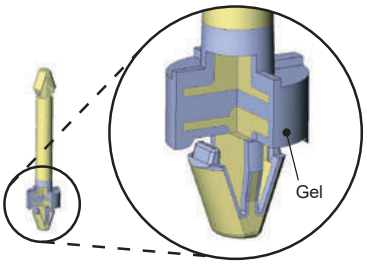
Transmitted vibration



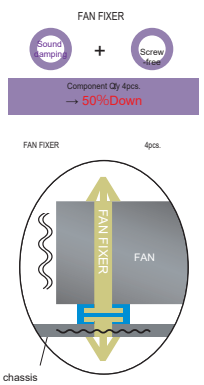
Acoustic noise

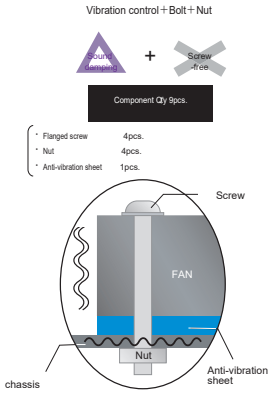


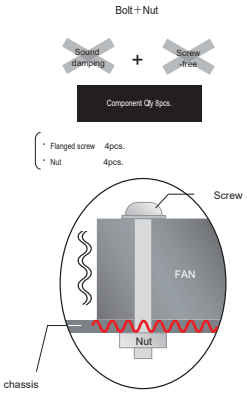
Structure



KG GEL Sandwich configuration







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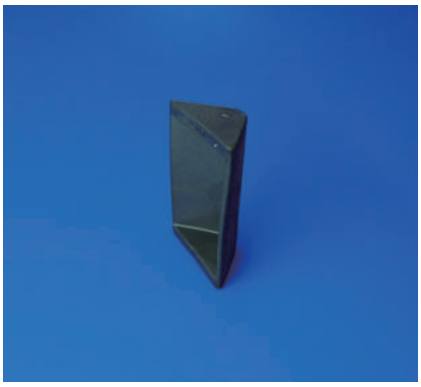
Also please confirm precautions described on the begining page of the brochure.

FAN HOLDER／FH



Suppresses noise for cooling fans

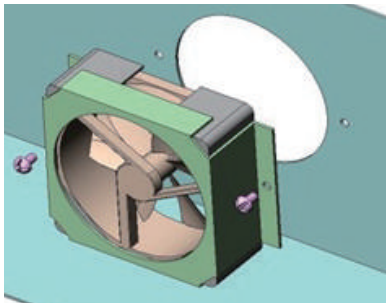
Especially for controlling fan noise

- Excellent noise suppression is provided with selection of appropriate material according to vibration frequency which causes fan noise.

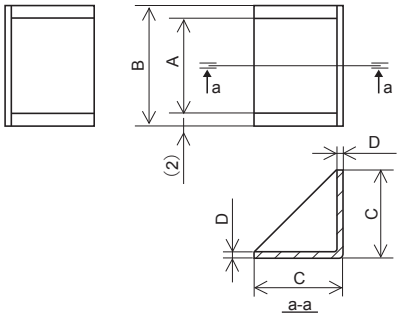
Fit to fans

- 3 designs are available to fit fans.

■ Application image



Specifications



Part No.	A	B	C	D	Color
FH-10M-95T	10.0	12.4	9.0	1.2	Black
FH-15M-95T	14.6	18.6	13.0	1.0	
FH-25M-95T	24.0	28.0	13.0	1.0	

Part No.	Material	Applicable fan
FH-10M-95T	TPS (KG-GEL/YMG-95T)	Thickness 10mm
FH-15M-95T		Thickness 15mm
FH-25M-95T		Thickness 25mm

This product may not be installed on some manufacturers fans. Please contact us for details such as required size, material and property etc.

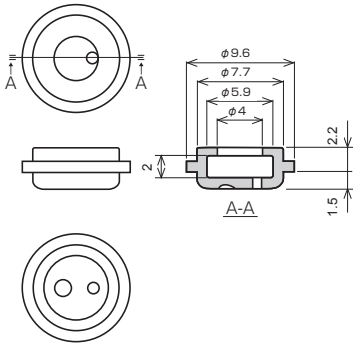
MIC HOLDER／MH

Improved sound quality for microphone

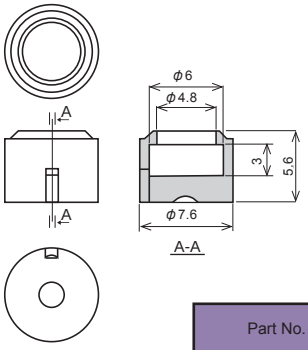
- Propagated external vibration of mechanical noise from motors, enclosures and so on is suppressed.
- Easy to assemble for microphone with connector because of material characteristic of high elongation rate.
- Silicon-free and sulfur-free material, solves electrical contact failures.

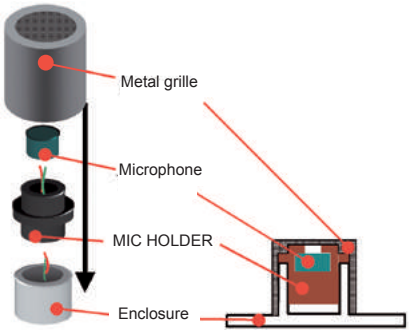
Specifications

MH-62-100BK



MH-6022-100BK





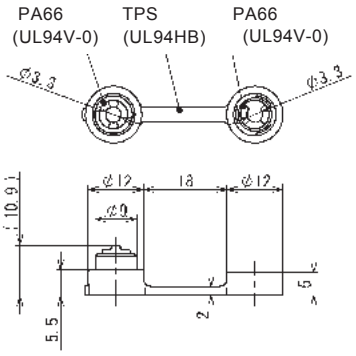
Part No.	Material	Applicable microphone size
MH-62-100BK	TPS (KG-GEL/YMG-100-BK)	ϕ6mm ／Thickness 1.5～1.9mm
MH-6022-100BK		ϕ6mm ／Thickness 2.2～2.9mm

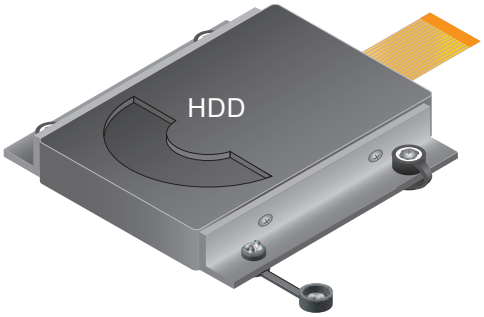
Please contact our sales department for installation instructions (precautions) before use.
Also please confirm precautions described on the begining page of the brochure.

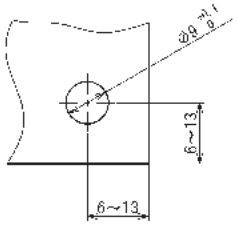
One touch Vibration Damper effective for Low-frequency

- It is effective for Low-frequency compared with an ordinary rubber damper.
- No sleeves and washers are needed. It enables to reduce the number of components.
  (Only used M3-sized screw to mount. / Shoulder screw isn't needed.)

Specifications





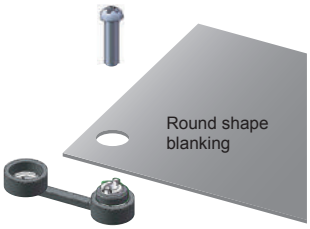


Panel thickness t=1±0.1mm

Solution

Component Qty 2pcs.
→ 50%Down

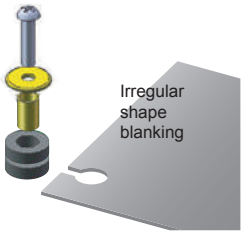
- Screw 1pcs.
- OTVD 1pcs.



Past assembly

Component Qty 4pcs.

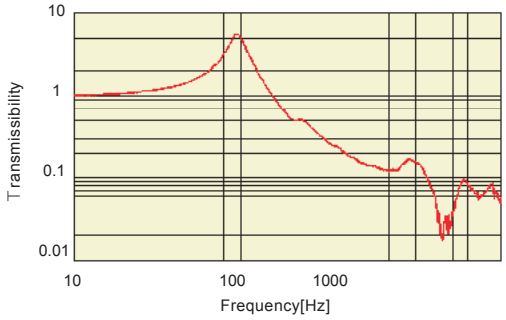
- Screw 1pcs.
- Washer 1pcs.
- Sleeve 1pcs.
- Bush 1pcs.



Properties

■ Vibration transmission

Testing condition
Sample:t=3mm
Load：400g
Support point number：
Four point mounting
Acceleration：0.4G



Please contact our sales department for installation instructions (precautions) before use.
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SGS TÜV SAAR

Certificate DE12/81839359

The management system of

KGS KITAGAWA GmbH
Birkenwaldstraße 38
D-63179 Obertshausen

has been assessed and certified as meeting the requirements of

ISO 14001:2004

For the following activities

Trading of electronic components and EMC solutions

This certificate is valid from 16/06/2015 until 15/06/2018
Issue 2. Certified since 16/06/2012

Authorised by

SGS-TÜV Saar GmbH
Am TÜV 1 66280 Sulzbach (Germany)
t +49 (0)68 97-506-60 f +49 (0)68 97-506-102 www.sgs.com

SGS TÜV SAAR ISO 14001

DAkkS Deutsche Akkreditierungsstelle D-ZM-12088-01-00

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CERTIFICATE

Certificate DE12/81839360

The management system of

KGS KITAGAWA GmbH
Birkenwaldstraße 38
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CERTIFICATE

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GENERAL TERMS OF DELIVERY AND PAYMENT

1. Scope

1.1 The following General Terms of Delivery and Payment shall be applicable – provided nothing to the contrary is stipulated in writing – to all of the deliveries and other performance effected by us.

1.2 Deviating General Terms of Business of the Purchaser shall not bind us.

1.3 Amendments and/or supplements to the following terms and to the additionally stipulated agreements upon the conclusion of the contract must be made in writing.

2. Conclusion of the Contract

2.1 The offers of Kitagawa GmbH are made without obligation.

2.2 A contract between Kitagawa GmbH and the Purchaser shall only come into effect in accordance with the contents of the written confirmation of order on the part of Kitagawa GmbH or through the delivery of the goods or the rendering of the agreed performance by Kitagawa GmbH.

2.3 The Purchaser shall be bound to its order for three weeks. Kitagawa GmbH reserves the right to deviate from the order specifications in the acceptance of the order if this is necessary for the fulfillment of the order and is acceptable for the Purchaser.

2.4. Kitagawa GmbH shall be entitled to effect an alteration to the goods at any time without prior notification insofar as this does not result in any shortfall of the contractually stipulated characteristics of the goods and the alteration is reasonable for the Purchaser. The alteration of already delivered contract cannot be subsequently demanded.

3. Delivery Terms

3.1 The delivery period of the goods shall be determined in accordance with the written confirmation of order of Kitagawa GmbH.

3.2 Indicated delivery periods shall run from the dispatch of the written confirmation or order. If the Purchaser is obliged to effect advance performance, then the delivery period shall commence with the receipt of the contractual advance performance of the Purchaser at Kitagawa GmbH.

3.3 If the Purchaser demands alterations to the contractually stipulated performance after a written confirmation of order has been effected, then Kitagawa GmbH shall be entitled to effect a reasonable extension to the delivery period if necessary.

3.4 In cases of force majeure. interventions by sovereign powers, natural disasters, war, revolts, strikes at its own company, at supply companies or at carriers, Kitagawa GmbH shall be entitled to make up the delivery after the cessation of the cause of the impediment and the delivery period shall be extended accordingly. The same applies if Kitagawa GmbH does not receive its own supplies in due time or in due form. There shall be no claims due to non-delivery or late delivery. This shall also be applicable if above indicated circumstances arise once the stipulated delivery period was already exceeded.

3.5 If a promised delivery date is not met by Kitagawa GmbH for reasons attributable to Kitagawa GmbH's fault,, then the Purchaser shall be entitled to set Kitagawa GmbH a two-week subsequent period after the expiry of the stipulated delivery period by means of registered letter. The Purchaser shall be entitled to withdraw from the agreement after the fruitless expiry of the period. Claims for damages, insofar as is legally permissible, as well as more extensive rights shall be excluded, provided the delay in delivery is neither due to intent nor gross negligence on the part of Kitagawa GmbH. This limitation of claims shall not apply in cases due to loss of life, bodily injury or damage of health. The burden of proof that intent or gross negligence is not applicable shall be borne by Kitagawa GmbH.

3.6 Kitagawa GmbH shall be entitled to effect part deliveries unless they should be unreasonable to be accepted by the Purchaser.

4. Shipment and passing of risk

4.1 Kitagawa GmbH shall undertake the shipments of the goods at the Purchaser's expense. Kitagawa GmbH shall select the forwarder/carrier to the best of its knowledge, without, however, assuming corresponding liability. Kitagawa GmbH shall award the shipping order on the customary terms in the sector in each case. Transport insurance shall only be taken out at the Purchaser's request and expense.

4.2 Risk shall pass when the goods leave the warehouse or upon the surrender of the goods to the forwarder/carrier.
The risk shall also pass to the Purchaser, if the goods are ready for shipment and delivery is delayed or fails for other reasons attributable to the Purchaser.

4.3 Any transport damage which occurs must be asserted by the Purchaser in due time to the forwarder/carrier or its insurance company.

5. Prices

The prices are indicated in the respective confirmation of order or Kitagawa GmbH and are expressed net in EURO plus the statutory rate of V.A.T. exclusive of packing, freight, postage, delivery charges etc.

6. Payment Terms

6.1 Insofar as no other payment terms are indicated in the confirmation of order of Kitagawa GmbH, the invoices are payable after the invoice date within 30 days net without any discount. Decisive for effecting payment on time is the receipt of the payment at Kitagawa GmbH. Cheques shall only be accepted on account of performance.

6.2 If the Purchaser is a businessman, then it shall be in default upon the exceeding of the due date without a separate warning. Kitagawa GmbH shall be entitled to assert default interest to the amount of 8 percentage points above the basic rate of interest.. The assertion of a more extensive loss caused by default remains reserved.

6.3 In the event that the Purchaser should be in default with payment, Kitagawa GmbH may upon its discretion request advance payment before

delivery of the goods. The same shall apply if the Purchaser's economic conditions give reason to concern regarding the due fulfillment of payment obligations.

6.4 The Purchaser shall only be entitled to set off the claims of Kitagawa GmbH against those claims which are undisputed or legally binding.

7. Warranty

7.1 Kitagawa warrants for the duration of 12 months that the goods contained not material or fabrication defects at the time the risks passes. This warranty ("Gewährleistung") commences upon delivery of the goods.

7.2 Warranty shall not be effected in the case of improper utilization, faulty installation, incorrect operation etc. No warranty shall similarly be effected for losses which arise through the operation of the goods together with such appliances whose compatibility has not been expressly confirmed in writing by Kitagawa GmbH.

7.3 The Purchaser shall notify Kitagawa GmbH of any defects of the delivery in writing as soon as such defects are detected under conditions of normal business operations. Section 377 German Trade Code applies.

7.4 In the case of defects the warranty shall be effected at the option of Kitagawa GmbH by subsequent rectification or substitute delivery free of charge. If the subsequent rectification also fails on the second attempt or in if the second substitute delivery also contains defects or if Kitagawa GmbH does not meet its subsequent delivery or substitute delivery obligation within a reasonable period, then the Purchaser shall be entitled to a reduction of the purchase price or rescission of the contract.

7.5 Claims for damages caused by defects shall be excluded. This exclusion shall not apply in case a defect has been fraudulently concealed, in the event that life, body or health is injured and acts of Kitagawa GmbH with intention or gross negligence. In the case a guaranteed characteristic of the goods should be lacking, liability shall be restricted to the loss which is to be expected in accordance with the customary course of events. More extensive claims on account of the faulty nature of the goods shall be excluded. This shall also be applicable to the reparation of consequential losses and to the violation of ancillary contractual obligations.

7.6 The afore mentioned exclusion of liability shall also be applicable to claims in tort and in connection with the initiation, conclusion and processing of a contract, not, however, in the case of claims in accordance with the Product Liability Act.

8. Retention of Title

8.1 Kitagawa GmbH shall retain title to all goods until the payment in full of all receivables resulting from the business relations with Kitagawa GmbH. If the value of the collateral which is in existence in favour of Kitagawa GmbH should exceed the claims against the contract partner by more than 10 per cent in total, then Kitagawa GmbH shall be obliged to release collateral at the request of the Purchaser

8.2 The Purchaser shall be entitled to resell the goods subject to retention of title in customary business transactions. The Purchaser shall not, however, be entitled to pledge the goods subject to retention of title or to assign all claims to which it is entitled from a future sale of the goods subject to retention of title against its purchasers to Kitagawa GmbH by way of security.

8.3 In the case of the processing or reconstruction of the goods subject to retention of title by the Purchaser, this shall always be effected for Kitagawa GmbH. If the goods subject to retention of title are processed with other articles which do not belong to Kitagawa GmbH, then Kitagawa shall acquire co-ownership to the new article in proportion to the value of the goods subject to retention of title to the other processed articles at the time of processing. If the Purchaser sells the goods subject to retention of title together with other goods which do not belong to Kitagawa GmbH, or after joining or processing, then the assignment shall only be effected to the amount of the outstanding invoices sum of the respective goods subject to retention of title.

8.4 The Purchaser shall be entitled to collect the assigned receivable in its own name. Kitagawa GmbH shall, however, be entitled to revoke this collection authority at any time, especially in the case of default in payment by the Purchaser. In the case of revocation the Purchaser shall be obliged to provide Kitagawa GmbH with or to surrender to it all necessary information and documentation for the assertion of the assigned receivables and to disclose the assignments to its purchasers. In the case of default in payment by the Purchaser Kitagawa GmbH shall be entitled to notify its purchasers of the assignment.

8.5 The Purchaser shall be obliged to provide Kitagawa GmbH with information at any time on the where-abouts of the goods subject to retention of title and on the receivables arising from their resale. The Purchaser shall be obliged to inform Kitagawa GmbH in writing of a seizure by a third party of the goods subject to retention of title or of the receivables assigned to Kitagawa GmbH and it shall be obliged to draw the third party's attention to the rights of Kitagawa GmbH. The Purchaser shall furthermore be obliged to support Kitagawa GmbH upon the assertion and enforcement of its rights against this third party, especially at its expense to lodge the necessary immediate remedies/appeals in order to safeguard the rights of Kitagawa GmbH.

8.6 In case of default in payment on the part of the Purchaser Kitagawa GmbH shall be entitled to take back the goods subject to retention of title. The Purchaser shall accordingly be obliged to surrender these goods. The taking back of the goods subject to retention of title does not constitute a withdrawal from the contract, unless Kitagawa GmbH expressly states such a withdrawal in writing.

8.7 The Purchaser shall be obliged to treat the delivered goods subject to retention of title with care. It shall especially be obliged to take out adequate insurance cover for the goods subject to retention of title at its own expense against loss or damage through fire, water, burglary or theft. The Purchaser hereby assigns its corresponding insurance claim to Kitagawa GmbH. Kitagawa GmbH hereby accepts this assignment and states the reassignment to the Purchaser with the proviso that this shall become effective if and as soon as the retention of title has expired.

9. Final Provisions

9.1 The Purchaser shall not be entitled to assign rights and obligations to third parties arising from the contract concluded with Kitagawa GmbH without the prior approval of Kitagawa GmbH.

9.2 The contractual relations between the contracting parties shall be subject to the Law of the Federal Republic of Germany. The provisions of the Convention on Contracts of the International Sale of Goods (CISG, Vienna Convention) shall not apply to the contract concluded with the Purchaser.

9.3 Venue for all disputes and types of proceedings arising from or in connection with the contractual relations between the parties shall be Darmstadt, Federal Republic of Germany, provided the Purchaser is a businessman.

9.4 Kitagawa GmbH shall be entitled to store and to use the personal data to which it has obtained access from the business relations with the Purchaser under the terms of the German Data Protection Act for its own business purposes.

9.5 If a provision of these General Terms of Business or of the contract concluded with the Purchaser should be or become ineffective, then this shall not affect the effectiveness of the remaining provisions of these General Terms of Business or of the concluded contract.

KITAGAWA GmbH
Birkenwaldstraße 38
63179 Obertshausen
Germany
Telefon +49-6104-60009-0
Telefax +49-6104-60009-40

Notice:

The specifications provided in this catalogue are believed to be accurate and reliable. Kitagawa GmbH reserves the right to make changes to specifications to improve manufacturing process performance and reliability.

This catalogue is intended for representation only and is not to form any part of any order. Engineering specifications are available upon request.

Any information/specification supplied by Kitagawa GmbH is based upon Kitagawa Industries laboratory test data and is believed to the reliable. It is recommended that our products are tested by the customer to ensure suitability for the intended application.

If any Kitagawa product is to be used in a life threatening application (such areas as Medical Automotive and Aerospace etc) the application must be discussed with Kitagawa GmbH and its written approval must be obtained.

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GLOBAL LOCATION

KITAGAWA INDUSTRIES CO.,LTD.
695-1, Higashiorido, Mukui-cho, Inazawa City,
Aichi Prefecture 492-8446, Japan
Tel: 81-587-34-3561 Fax: 81-587-34-3109
http://www.kitagawa-ind.com

KITAGAWA INDUSTRIES America, Inc.
2325 Paragon Drive, Suite 10 San Jose,
California 95131-1309 U.S.A.
Tel: 1-408-971-2055 Fax: 1-408-971-6033
http://www.kgs-ind.com

KITAGAWA GmbH
Birkenwaldstraße 38, 63179 Obertshausen, Germany
Tel: 49-6104-60009-0 Fax: 49-6104-60009-40
http://www.kitagawa.de

SHANGHAI KITAGAWA INDUSTRIES CO.,LTD.
3rd Floor, West No.8 Bldg., 308, Fen Ju Road,
Waigaoqiao Free Trade Zone, Shanghai 200131,
China
Tel: 86-21-5865-2766 Fax: 86-21-5064-4018

KITAGAWA TECHNOLOGY(SHENZHEN)CO.,LTD.
Unit G 24F, Times Fortune Building, No.88 FuHua Road 3,
FuTian District, Shenzhen City 518026, China
Tel: 86-0755-2396-3200 Fax: 86-0755-2396-3490

KITAGAWA ELECTRONICS(THAILAND)CO.,LTD.
＜Head office &Plant (IEAT Free zone)＞
Hi-Tech Industrial Estate (IEAT FREE ZONE):
126 Moo1, Bhan Lain, Bang Pa-in, Phra Nakorn,
Sri Ayutthaya 13160, Thailand
Tel: 66-35-350-201 Fax: 66-35-350-204
＜Sales office & Warehouse(BOI IPO)＞
Bangkok Free Trade Zone(BFTZ), 88/78 Moo15, Bangsaothong,
Bangsaothong, Samutprakarn10540,Thailand
Tel: 66-2-182-5264 Fax: 66-2-182-5268

KITAGAWA ELECTRONICS(SINGAPORE)PTE.LTD.
2 Bukit Batok Street 23, #04-03
Singapore 659554
Tel: 65-6560-6511 Fax: 65-6560-6211
http://www.kitagawa.com.sg

KITAGAWA INDUSTRIES (H.K.) LIMITED
Unit J, 15th Floor, Ever Gain Centre, 43-57 Wang Wo
Tsai Street, Tsuen Wan, New Territory, Hong Kong
Tel: 852-2612-1161 Fax: 852-2612-1686

KITAGAWA INDUSTRIES(TAIWAN)CO.,LTD.
7F., No. 75, Hsin Tai Wu Rd., Sec. 1,
Hsi Chih Taipei Hsien, Taiwan 221
Tel: 886-2-2698-8833 Fax: 886-2-2698-3355
http://www.kgtw.com.tw

KITAGAWA GmbH

Birkenwaldstraße 38 63179 Obertshausen Germany
Phone: +49 6104 60009-0 Fax: + 49 6104 60009-40
E-Mail: sales@kitagawa.de

http://www.kitagawa.de

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