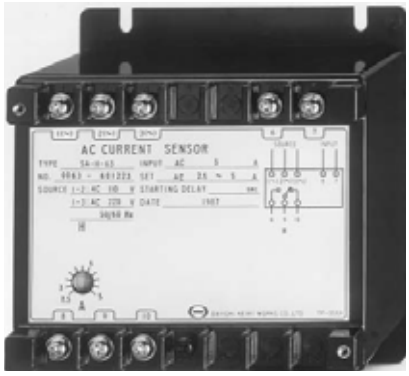
AC/DC DETECTOR COMMON SPECIFICATION

■ USE



Small sized and multi-function electronic detector for controlling to cope with automation of electric power facility, labor and energy saving.

S-63 series is used for protection in various fields such as heavy current circuit measuring, reverse power of generator in shipping industry and frequency control and overload detection of motor.

Countermeasure against damage by input line surge and false operation is implemented.

■ TYPE NAME CONSTRUCTURE

(1) (2) – (3) – (4) (5) – (6)

(1) Series

Mark	Series name
S	Still detector

(2) Input

Mark	Input
A	AC current
V	AC voltage
F	Frequency
W	AC power
RW	AC reverse power
D	DC current/voltage

(3) Setting

Mark	Setting
H	Upper limit
L	Lower limit
HL	Upper/Lower limit
HH	Upper limit 2 steps
LL	Lower limit 2 steps

(4) Outer case

Mark	Dimension (depth×width× high)
63	120×110×112mm

(5) About period

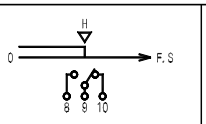
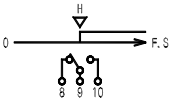
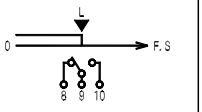
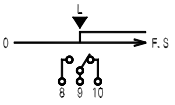
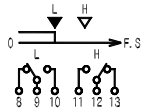
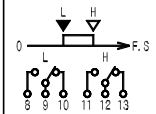
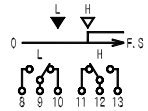
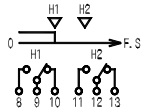
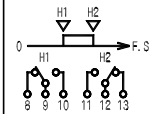
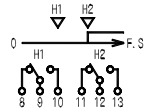
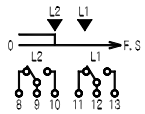
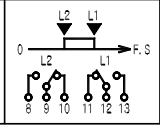
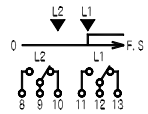
Mark	W/ or w/o period
None	No period (immediate operation)
D	With definite period
I	With inverse period

(6) Circuit

Mark	Circuit
3φ	3-phase 3-wire

■ CONTACT CONSTRUCTION

(▭ : input position /state)

Setting	Contact state			
H (upper limit)				
L (lower limit)				
HL (upper/lower limit)				
HH (2 steps of upper limit)				
LL (2 steps of lower limit)				

■ FEATURE

- ► High quality, high reliability and noise resistance design.
- ► Voltage or current detector has strong structure against distorted waveform.
- ► Detection operation can be confirmed with operation display.
- ► Definite time and inverse time can be integrated.
- ► Multi type with multi functioned to cope with various needs.

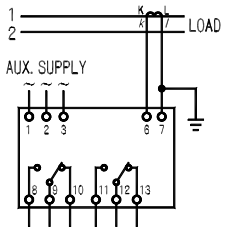
■ COMMON STANDARD SPECIFICATION

Item	Specification		
Setting stability	Operation value: % against max. input value. Frequency is Hz. Operation time: % against max. setting value.		
Error of operating value setting	% against setting range when setting range is 1/3 of max. input or more:±5% % against max. input value when setting range is below 1/3 of max. input: ±1.5% (However frequency is according to individual specification.)		
Operating time setting error	% against max. setting time.		
Temperature influence	Error at 23±20℃ change（%）. (Permissible limit is same as setting stability counterpart)		
Control power voltage influence	AC: Error at ±15% change of rating voltage DC: Error at ±20% change of rating voltage (Permissible limit is same as setting stability counterpart)		
Frequency influence	Error at 45-65Hz change.		
Waveform influence	Error against waveform including 3rd harmonics 15%		
Operating time (detector w/ time limit is excluded).	0.3 sec. or less	H type: 90→110% of operating time.	
		L type: 110→90% of operating time.	
Reset time	0.3 sec. or less	H type: 110→90% of operating time.	
		L type: 90→110% of operating time.	
Contact system	1C contact for each		
Contact capacity	AC200V, 5A (resistance load) DC30V, 5A (resistance load)		
Relay type	NTI relay (manufactured by Panasonic Electric Works Co., Ltd.)		
Overvoltage strength	AC	2 times (10 sec.), 1.2 times (continuation) of rating voltage.	
	DC	According to individual specification.	
Overcurrent strength	AC	40 times (1 sec.), 1.2 times (continuation) of rating current.	
	DC	According to individual specification.	
Control power voltage strength	AC	2 times (10 sec.), 1.2 times (continuation) of rating voltage.	
	DC	1.3 times (continuation) of rating voltage.	
Insulation resistance	DC500V 50MΩ or more between electric circuit and outer case. DC500V 20MΩ or more between input, control power supply and contact		
Withstand voltage	AC2, 000V (50/60Hz) 1 min. between electric circuit and outer case. AC1, 500V (standard) or AC2, 000V (50/60Hz) 1 min. between input, control power supply and contact.		
Impulse withstand voltage	4.5kV 1.2×50μs between electric circuit and outer case, positive/negative polarity。		
vibration (false operation)	Frequency: 16.7Hz, peak to peak: 1mm, 10 min. each for X, Y and Z directions.		
Shock	False operation: 98m/s², endurance: 294m/s², 2 times each for X, Y and Z directions.		
External color	Black (Munsell N 1.5)		
Mass	1kg or less		
Operating temperature/ humidity range	-10-50℃, 40-85% RH		
Storage temperature range	-30～60℃		
Altitude	1000m or less		

■ CONNECTION DIAGRAM

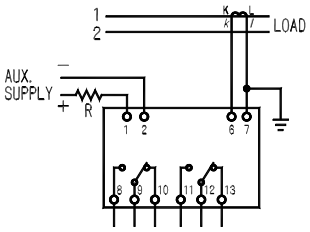
●AC Current detector

AC control power



AC100/110V: No.1-2
AC200/220V: No.1-3

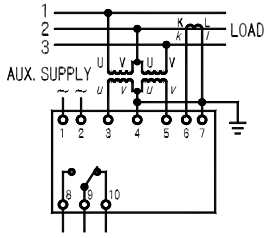
DC control power



DC24V: (R) with built-in multiplier
DC48V: (R) with built-in multiplier
DC110V: (R) with built-in multiplier

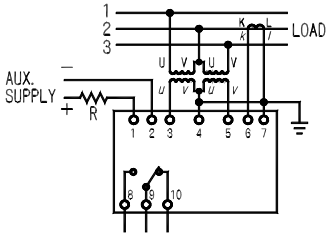
●AC Power/Reverse power detector

AC control power



DC24V: (R) with built-in multiplier
DC48V: (R) with built-in multiplier

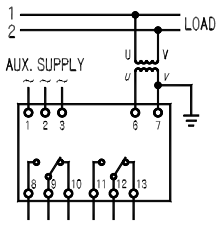
DC control power



DC110V: (R) with built-in multiplier

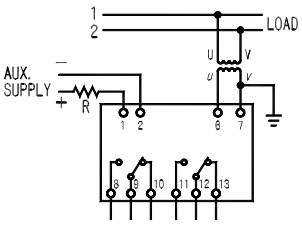
●AC Voltage/Frequency detector

AC control power



AC100/110V: No.1-2
AC200/220V: No.1-3

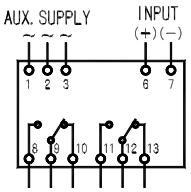
DC control power



DC24V: (R) with built-in multiplier
DC48V: (R) with built-in multiplier
DC110V: (R) with built-in multiplier

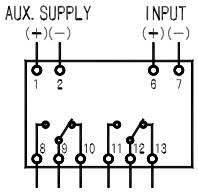
●DC Voltage/Current detector

AC control power



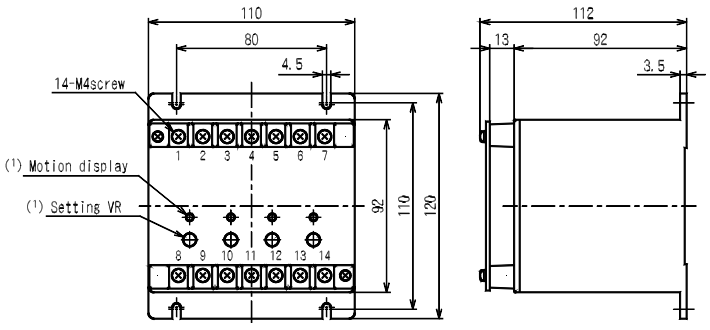
AC100/110V: No.1-2

DC control power



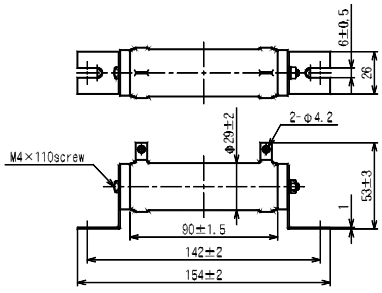
AC200/220V: No.1-3

■ DIMENTIOAN

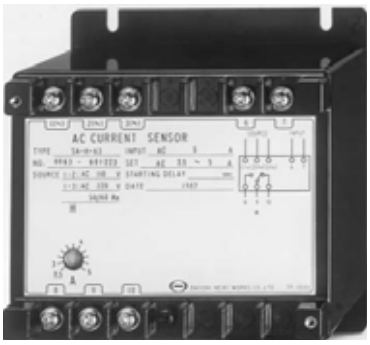


*SVPR-63 is unequipped

Multiplier for DC110V (RWH60G)



AC/DC DETECTOR 63 SERIES



SA-H-63
(120×110×112mm/0.7kg)

■ SPECIFICATION

Product	Type name	Setting method					Rating current	Setting range example (VR changeable)	Frequency	Operating time (VR changeable)	Control power	Operation display	Notes
		H	L	HL	HH	LL							
AC current	SA- □ - 63	○	○	○	○	○	5A (consumption VA:1VA)	0.5-5A 2.5-5A 0.25-2.5A 1.5-4A	50/60Hz	-	AC110/220V (50/60Hz) 2.5VA or less DC24V (3W) DC48V (5W) *DC110V (10W)	Specify	*When control power is DC 110V, multiplier is externally equipped.
	SA- □ - 63D (w/definite time)	○	○	○	○	○				0.5-5sec. 0.5-10sec. 0.5-50sec.		with	
	SA- □ - 63I (w/inverse time)	○						2-5A		1-5sec. 5-13sec. 10-50sec.		with	

- Operating time at 40ms or less is also manufacturable by designation.

AC current	SV- □ - 63	○	○	○	○	○	150V or 300V (consumption VA:1VA)	50/60Hz	*1	-	AC110/220V (50/60Hz) 2.5VA or less DC24V (3W) DC48V (5W) *2 DC110V (10W)	Specify	*2 When control power is DC 110V, multiplier is externally equipped.
	SV- □ - 63D (w/definite time)	○	○	○	○	○				0.5-5sec. 0.5-10sec. 0.5-50sec.		with	
Frequency	SF- □ - 63	○	○	○	○	○	110V or 220V (consumption VA:1VA)	50Hz or 60Hz	46-50Hz 50-54Hz 42-50Hz 50-58Hz 56-60Hz 60-64Hz 52-60Hz 60-68Hz	-		Specify	
	SF- □ - 63D (w/inverse time)	○	○	○	○	○				0.5-5sec. 0.5-10sec. 0.5-50sec.		with	

- Operating time at 40ms or less is also manufacturable by designation for voltage detector.
- 3-phase detector type is also manufacturable for voltage detector.

*1 Setting range example

150V	100-140V 80-120V 60-100V	300V	200-180V 160-240V 120-200V
	120-140V 110-130V 100-120V 90-110V 80-100V		240-280V 330-260V 200-240V 180-220V 160-200V

Product	Type name	Setting method		Rating current				Setting range example (VR changeable)	Operating time (VR changeable)	Control power	Operation display	Notes
		H	L	power	voltage	current	frequency					
3-phase power	SW- □ - 63– 3φ	○	○	1kW or 2kW	110V or 220V (consumption VA 1VA)	5A (consumption VA 1VA)	50/60 Hz	10-100% 50-90% 5-50% 2-20%	-	AC110V (2.5VA) (50/60Hz) AC220V (2.5VA) (50/60Hz) DC24V (3W) DC48V (5W) *DC110V (10W)	Specify	*When control power is DC 110V, multiplier is externally equipped.
3-phase reverse power	SRW – H – 63 – 3φ	○										
3-phase power	SW- □ - 63D– 3φ (w/definite time)	○	○						0.5-5sec. 0.5-10sec. 0.5-50sec.		with	
3-phase reverse power	SRW – H – 63D – 3φ (w/definite time)	○										
	SRW – H – 63I – 3φ (w/inverse time)	○						1-20%	0.5-10sec. 0.5-20sec.		with	

• 3-phase balance type 1-wattmeter method.

Product	Type name	Setting method					Setting range example (VR changeable)	Continuous withstand over input	Input resistance	Operating time (VR changeable)	Control power	Operation display
		H	L	HL	HH	LL						
DC voltage or DC current	SD- □ - 63	○	○	○	○	○	DC4-20mA 0.2-1A 1-5A DC5-10mA 10-60mA	 ±10V ±10V	10Ω 60mV 60mV 100kΩ 100kΩ	-	AC110/220V (50/60Hz) 2.5VA (50/60Hz) DC12V (3W) DC24V (3W) DC48V (3W) DC110V (5W)	specify
	SD- □ - 63D (w/definite time)	○	○	○	○	○	20-100mA DC0.2-1V 1-5V 5-15V 10-30V 30-70V 50-150V	±10V ±250V ±250V ±250V ±250V ±250V ±250V	100kΩ 500kΩ 500kΩ 500kΩ 500kΩ 500kΩ 500kΩ	0.5-5sec. 0.5-10sec. 0.5-50sec.		with

• Setting range and operation time of each product is changeable by specification.

AC TACHOGENERATOR REVOLUTION SPEED DETECTOR

COMMON SPECIFICATION

■ USE

This product receives output voltage signal or output frequency signal of AC tachogenerator and detects starting operation signal, control signal, over speed stop signal and outputs contact signal. As this product is all electronized, detection with high sensitivity, high speed is possible. No influence of various factors such as external noise.

■ FEATURES

- ► High quality, high reliability and noise resistance design.
- ► 3-step detection level equipped.
- ► Easy setting adjust from exterior by screwdriver adjustor.

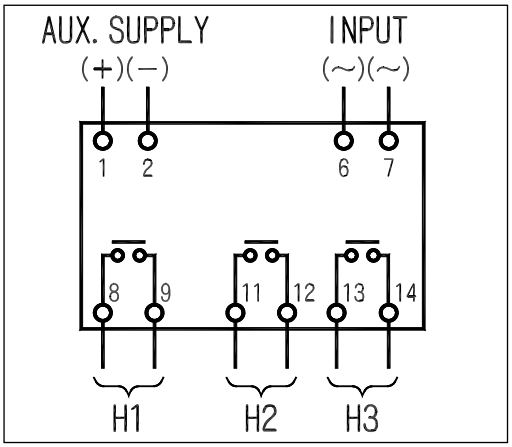
■ COMMON STANDARD SPECIFICATION

Item	Specification	
Setting stability	Operation value: % against max. input value.	
Error of operating value setting	% against max. input value	
Temperature influence	at 23±20℃ (Permissible limit is same as setting stability counterpart)	
Waveform influence	Error against waveform including 3rd harmonics 15% (except SFTG)	
Contact system	1a contact for each	
Contact capacity	AC220V, 0.5A, DC100V 0.5A, resistance load	
Relay type	NTI relay (manufactured by Panasonic Electric Works Co., Ltd.)	
Overvoltage strength	2 times (10 sec.), 1.2 times (continuation) of rating voltage.	
Control power voltage strength	STG	1.3 times (continuation) of rating voltage.
	SFTG	DC: 1.3 times (continuation) of rating voltage.
		AC single phase full wave rectifier waveform: 1.1 times (continuation) of rating voltage.
Influence of noise	Error when noise is applied (800ms, 1000V), % against max. input value (normal mode noise/common mode noise)	
Operation time	0.3sec. or less against setting value 90→110% input.	
Insulation resistance	DC500V 50MΩ or more between electric circuit and outer case. DC500V 20MΩ or more between input, power supply and contact	
Withstand voltage	AC2, 000V (50/60Hz) 1 min. between electric circuit and outer case. AC1, 500V (50/60Hz) 1 min. between input, power supply and contact.	
Vibration (false operation)	Frequency: 16.7Hz, peak to peak: 1mm, 10 min. each for X, Y and Z directions.	
Shock	False operation: 98m/s², endurance: 294m/s², 2 times each for X, Y and Z directions.	
External color	Black (Munsell N 1.5)	
Operating temperature/humidity range	-10～+50℃, 40～85% RH	
Storage temperature range	-30～+60℃	

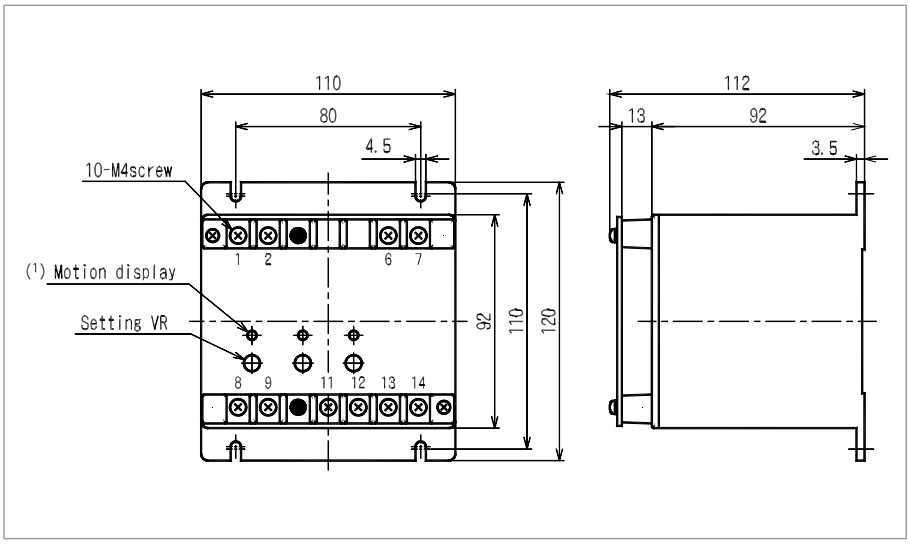
■ CONTROL OUTPUT CONDITION

Input state　Input : ▨		Contact state H1	Contact state H2	Contact state H3
Auxiliary supplyr OFF Not based on input	0 F·S H1 H2 H3	8 9	11 12	13 14
Auxiliary supplyr ON input ＜ H1	0 INPUT F·S H1 H2 H3 (SET)	8 9	11 12	13 14
Auxiliary supplyr ON H1 ≦ input ＜ H2	0 INPUT F·S H1 H2 H3 (SET)	8 9	11 12	13 14
Auxiliary supplyr ON H2 ≦ input ＜ H3	0 INPUT F·S H1 H2 H3 (SET)	8 9	11 12	13 14
Auxiliary supplyr ON H3 ≦ input	0 INPUT F·S H1 H2 H3 (SET)	8 9	11 12	13 14

■ CONNECTION DIAGRAM



■ DIMENSIONS (Unit: mm)



AC TACHOGENERATOR REVOLUTION SPEED (FREQUENCY) DETECTOR

SFTG-HHH-63

SFTG-HHH-63
(120×110×112mm/0.7kg)

■ STANDARD SPECIFICATION

Item	Description	
Type name	SFTG- □ - 63	
Setting method	H, HH, HHH	
Input voltage	Refer to kinds of input voltage →	
Max. input frequency	Refer to setting range example.→	
Control supply	Refer to kinds of control power.→	
Setting range	H1 □Hz ～□Hz H2 □Hz ～□Hz H3 □Hz ～□Hz	(Refer to setting range example)

■ FUNCTION

Item	characteristics
Setting stability	±1%
Error of operating value setting	±5%
Dead band	3% or less
Waveform influence	±1%
Temperature influence	±1%
Control power voltage influence	±1%
Noise influence	±2%
Mass	0.7kg

●Kinds of input voltage

Input voltage	Input impedance
AC50V	Approx. 60kΩ
AC75V	Approx. 80kΩ
AC100V	Approx. 100kΩ
AC150V	Approx. 150kΩ
AC200V	Approx. 200kΩ
AC300V	Approx. 300kΩ

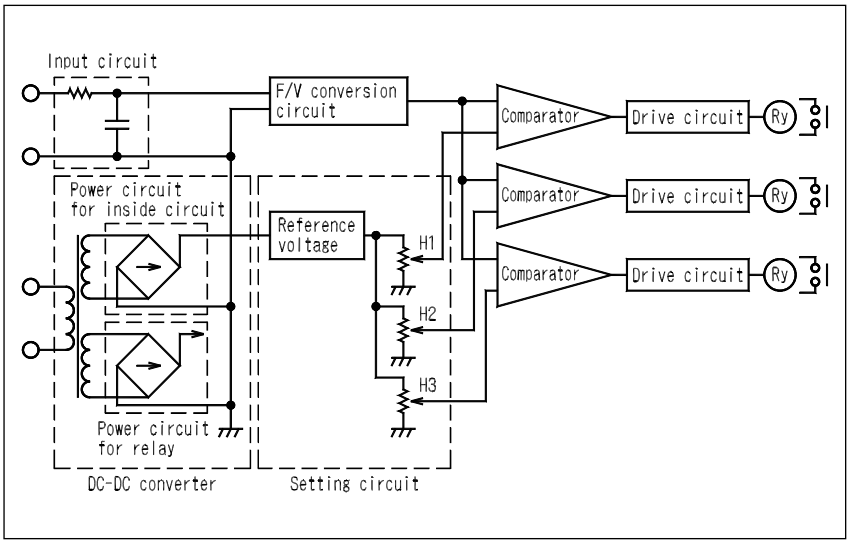
●Kinds of control supply power

Control power voltage	Fluctuation range
DC24V	DC24V±20% 3.5W Single phase full wave rectifier waveform of AC24V±15% 5VA
DC100V	DC80V-140V 5W Single phase full wave rectifier waveform of AC100/110V (85V-121V) 7VA

●Setting range example

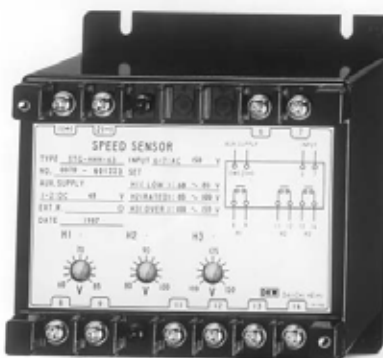
H1 (LOW)	H2 (RATED)	H3 (OVER)	Max. input
30-150Hz	240-330Hz	330-430Hz	430Hz
20-100Hz	160-220Hz	220-290Hz	290Hz
15-75Hz	120-170Hz	160-220Hz	220Hz

■ BLOCK DIAGRAM



AC TACHOGENERATOR REVOLUTION SPEED (VOLTAGE) DETECTOR

STG-HHH-63



STG-HHH-63
(120×110×112mm/0.7kg)

■ STANDARD SPECIFICATION

Item	Description	
Type name	STG- □ - 63	
Setting method	H, HH, HHH	
Input voltage	Refer to kinds of input voltage	
Control supply	DC24V/48V/100V 5W or less Specify, please.	
Setting range	H1 □V ～□V H2 □V ～□V H3 □V ～□V	(Refer to setting range example)

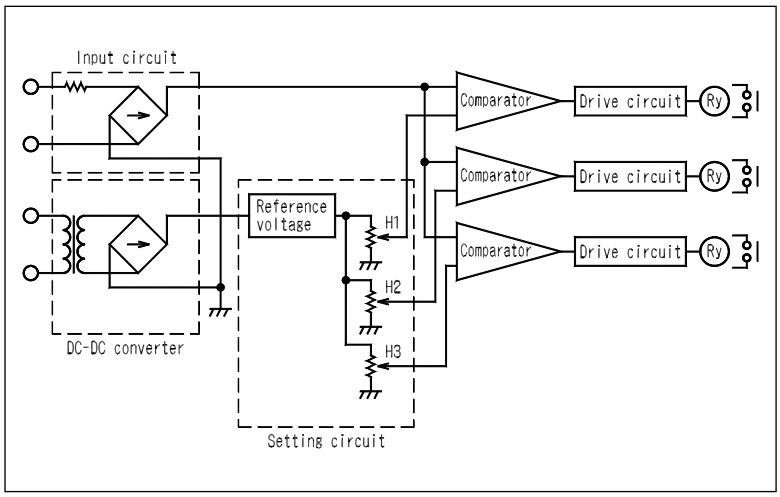
■ FUNCTION

Item	characteristics
Setting stability	±1%
Error of operating value setting	±5%
Dead band	2% or less
Temperature influence	±1%
Control power voltage influence	±1%
Frequency influence	±1%
Noise influence	±2%
Mass	0.7kg

●Setting range example

Max.input voltage	Setting range example	Input impedance
AC50V	10-20V, 20-30V, 20-40V, 30-50V	Approx.50kΩ
AC75V	10-60V, 20-40V, 30-50V, 55-75V	Approx.100kΩ
AC100V	10-30V, 50-70V, 40-90V, 75-95V	Approx.100kΩ
AC150V	35-55V, 60-80V, 80-100V, 100-150V	Approx.160kΩ
AC200V	40-60V, 95-115V, 70-120V, 150-200V	Approx.160kΩ
AC300V	80-130V, 120-170V, 200-250V, 250-300V	Approx.210kΩ

■ BLOCK DIAGRAM

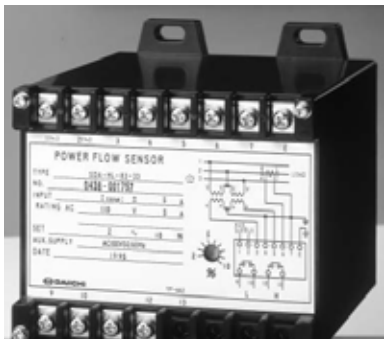


Items for specifying

1, type name	2, rating	3, setting range
4, control supply power	5, quantity	6, others

POWER FLOW DETECTOR

SDA-HL-83-33



SDA-HL-83-33
(120×110×130mm/1.0kg)

■ USE

This product is detector to detect power flow and control/protect AC equipment.

■ FEATURES

► High quality, high reliability and noise resistance design.
► Conformed to IEC standard.
► Response time is 60mS or less.
► Incoming/outgoing current can be detected by 2% of rated value.
► Use relay of Au-plated cross bar twin contact, arc-barrier for switching of low power circuit.

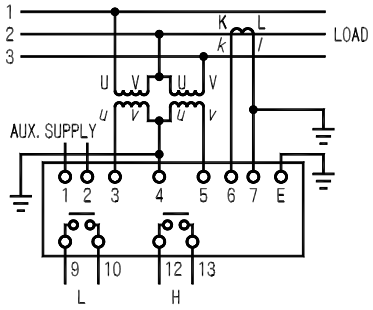
■ STANDARD SPECIFICATION

Item	Standard specification
Type name	SDA-HL-83-33
Conversion method	I cosφ conversion
Max. input	I cosφ; ±5A (or ±1A)
Input voltage	line voltage 110V±15% 1VA
Input current	S-phase current: 5A (or 1A) 1VA *1
Input frequency	50/60Hz
Control supply	AC100V/200V or DC110V (90-140V) 5W
Neutral zone setting range	2-10% (setting VR changeable)
Dead band	1% or less (% against max. input value.)
Setting stability	±1% (% against max. input value.)
Neutral zone setting error	±1% (% against max. input value.)
Response speed	60ms or less (0-200% of setting value.)
Contact output	H; 1a L;1a
Contact capacity	DC110V L/R=7ms, 90mA *2
Insulation resistance	DC500V 50MΩ or more between electric circuit and outer case. DC500V 20MΩ or more between input, power supply and contact terminal.
Withstand voltage	AC2, 000V 1min. (50/60Hz) between electric circuit and outer case. AC2, 000V 1min. (50/60Hz) between input, power supply and contact terminal.
Impulse withstand voltage	5kV, 1.2/50μs (positive/negative) 10 times each between electric circuit and outer case.
Operating temperature/ humidity range	-10～+50℃; 40-85% RH
Storage temperature range	-30～+60℃
External color	Black (Munsell N 1.5)
Mass	Approx. 1kg.

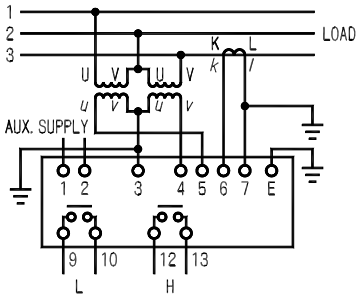
*1: T-phase or R-phase can be measured when doing wire-connecting change though S-phase measurement on the standard issue. (Measure it as an example of T-phase.)
*2: It is possible to produce from being in a large contact capacity relay by designation (MY-2Z-2, DC100V, 0.2A L/R=7ms) though MY-4Z-4 and CBG are used for the relay on the standard specification.

■CONNECTION DIAGRAM

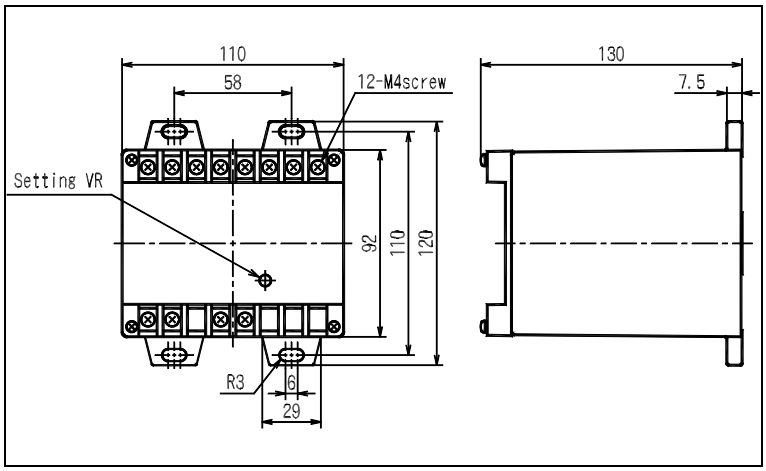
2nd phase (S-phase) current measuring (standard)



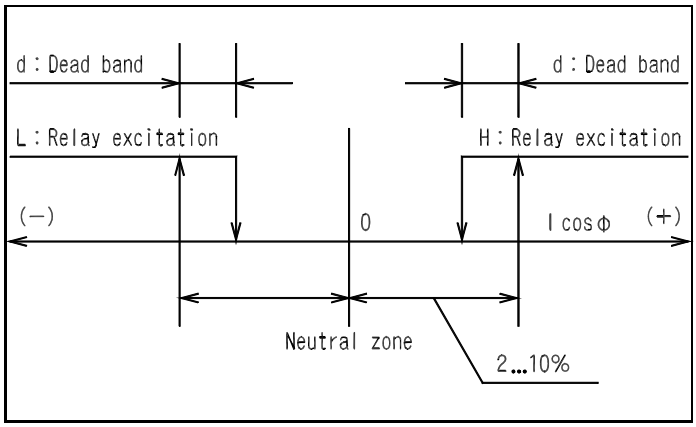
3rd phase (T-phase) current measuring connection



■DIMENSION (Unit: mm)



■ OPERATION



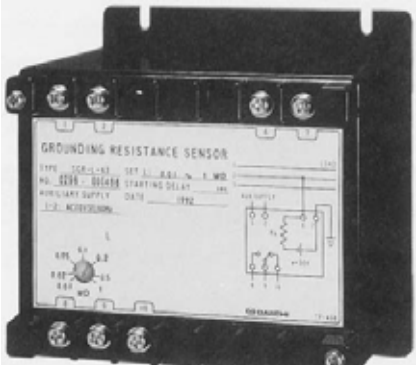
Items for specifying

1, type name 2, rating 3, setting range 4, input 5, control supply power 6, quantity and others

GROUND RESISTANCE DETECTOR

SGR-L- 63

SDGR-L-63



SGR-L-63
(120×110×112mm/1.0kg)

■ USE

This product detects grounding resistance of isolated neutral system DC power circuit and outputs contact signal. As DC bus voltage of measuring circuit is used as it is and grounding resistance is sought in bridge detection circuit, influence such as stray capacity generated upon wiring circuit such as ship can be removed. As circuit composition has no influence of power voltage fluctuation, stable performance can be realized with possible high sensitivity setting.

■ FEATURES

► Influence of measuring circuit power voltage fluctuation can be compensated.
►Stray capacitance between lines upon measuring circuit can be removed.

■ STANDARD SPECIFICATION

Item	Standard specification		
Product	AC earth resistance detector		DC earth resistance detector
Type name	SGR-L-63		SDGR-L-63
Input	Identical to setting range.		
Measuring circuit voltage	AC110/220/440V		DC24V+30%, -20%
Control supply	AC100/110V±15%, 5VA or AC200/220V±15%,5VA	AC400/440V±15% (50/60Hz)	identical to measuring circuit voltage (power consumption 3W)
Contact output	L;1C		
Contact capacity	AC200V 5A, DC24V 5A　resistance load/DC125V 80mA L/R=30mS		
Starting delay (S/D)	Fixed: 0.5 sec.		
Setting range	Refer to setting range example.		
External color	Black (Munsell N 1.5)		
Operating temperature/ humidity range	-10～+50℃; 40-85% RH		
Storage temperature range	-30～+60℃		
Mass	1kg		Approx. 500g
Setting stability	±5% (% against setting value.)		
Operating value setting error	±10% (% against setting value.)		
Dead band	10% or less (% against setting value.)		
Temperature influence	5% (% against setting value.) (23℃±20℃)		
Measuring circuit voltage influence	5% (% against setting value.) (24V±30%, -20%)		

■ CONTROL OUTPUT CONDITION

Input state Input : ▨		Contact state
Auxiliary supply OFF Not based on input	0 → Resistance high L	8 9 10
Auxiliary supply ON input ≦ L	0 → Resistance high L	8 9 10
Auxiliary supply ON L ＜ input	0 → Resistance high L	8 9 10

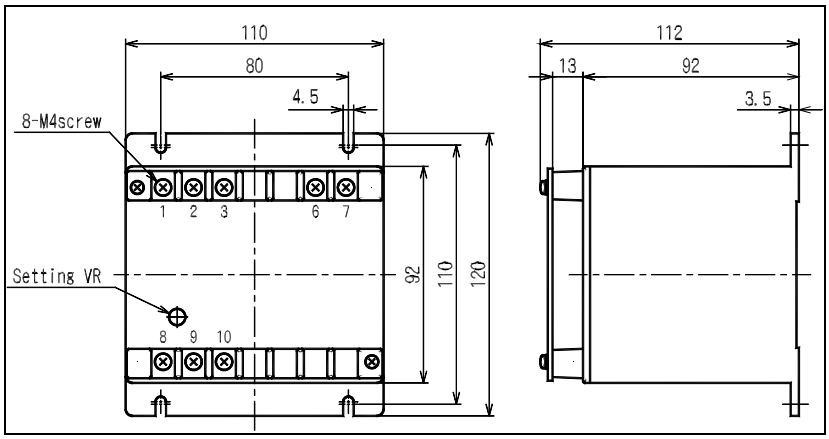
●Setting range eg.(SGR-L-63)

	Setting range	Internal impedance
L	0.01-1MΩ	100kΩ
	0.05-5MΩ	500kΩ
	0.1-10MΩ	1MΩ

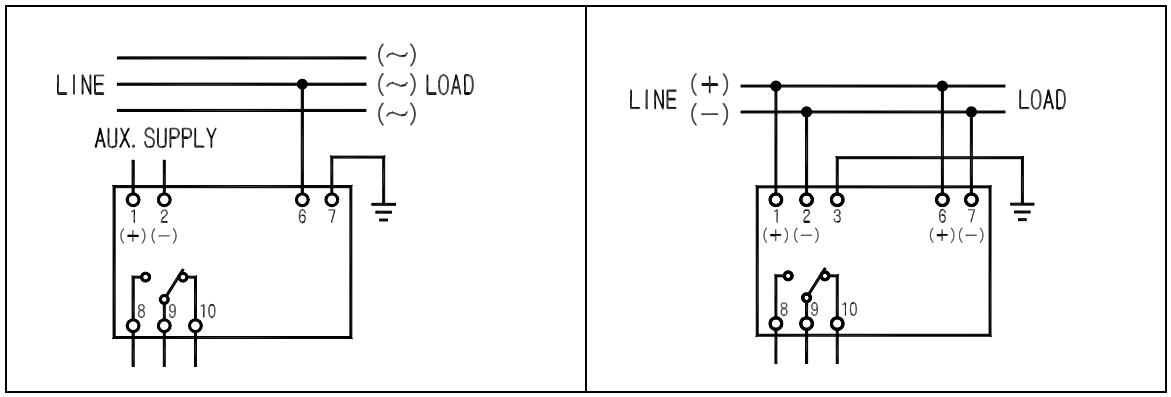
●Setting range eg.(SDGR-L-63)

	Setting range
L	1k- 5k- 25kΩ
	2k- 10k- 50kΩ
	4k- 20k- 100kΩ

■ CONNECTION DIAGRAM

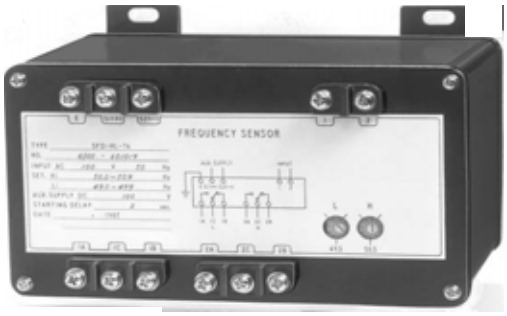


■ DIMENSION



HIGH ACCURACY FREQUENCY DETECTOR

SFD-HL- 74



SFD-HL-74
(120×165×130mm/0.7kg)

■ USE

This product receives frequency signal, detects excess or deficiency and outputs contact signal. As this product is all electron, setting with high sensitivity is possible. Stable performance because of no influence by various factors such as vibration/external noise.

■ FEATURES

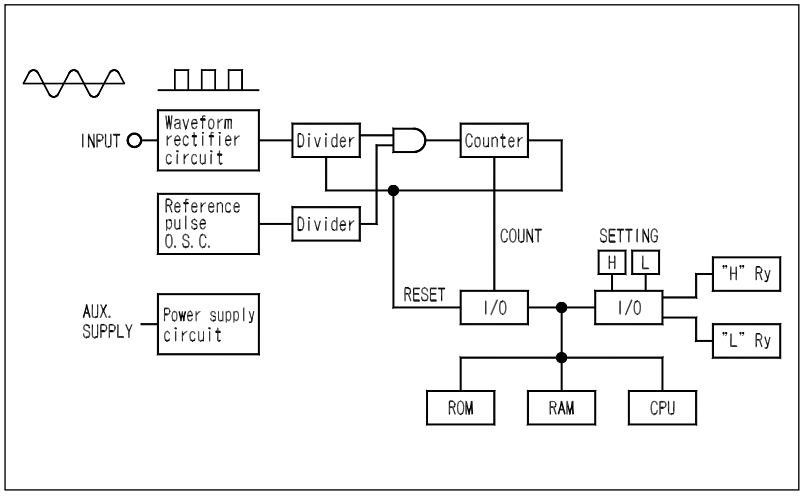
► High quality, high reliability and noise resistance design.
► High accuracy (0.01Hz) can be realized with frequency detection by CPU.
► Accurate setting is possible by digital switch.

■ STANDARD SPECIFICATION

Item		Standard specification
Type name		SFD-HL-74
Input	Rating frequency	50Hz or 60Hz (specify)
	Rating voltage	AC100/110V or AC200/220V (specify)
Control supply		AC100V±15% (3VA or less) *
Contact output		H: 1C L:1C
Contact capacity		AC220V 5A, DC24V 5A resistance load
50Hz setting range example		L: 49.0-49.9Hz H: 50.0-50.9Hz
External color		Black (Munsell N 1.5)
Operating temperature/humidity range		-10～+50℃, 40-85% RH
Storage temperature range		-30～+60℃
Mass		0.7kg

* DC110V, DC24V, AC200V are manufacturabile by specify.

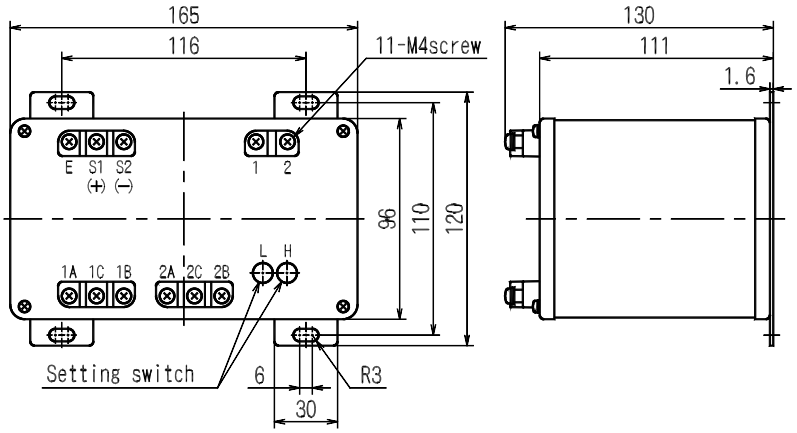
■ BLOCK DIAGRAM



■ FUNCTION

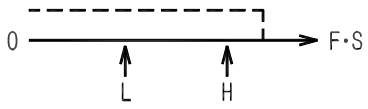
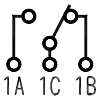
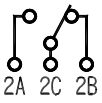
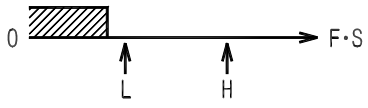
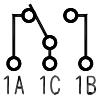
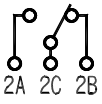
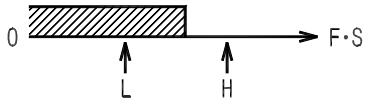
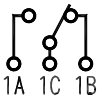
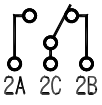
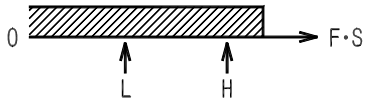
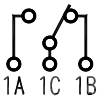
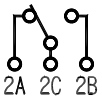
Item	Condition	Permissible limit
Setting stability	Operating value against setting value.	±0.01Hz
Temperature influence	operating value against setting value (23℃±20deg).	±0.01Hz
Control power voltage influence	operating value against setting value (±15% of rating value).	±0.01Hz
Overvoltage strength	2 times (10 sec.) of rating voltage.	no abnormality
Control power voltage strength	AC: 2 times (10 sec.), 1.2 times (continuation) of rating voltage. DC: 1.2 times (continuation) of rating voltage.	no abnormality
Insulation resistance	DC500V between electric circuit and outer case. DC500V between input, control power supply and contact	50MΩ or more
Withstand voltage	AC2, 000V (50/60Hz) 1 min. between electric circuit and outer case. AC2, 000V (50/60Hz) 1 min. between input, power supply and contact.	no abnormality
Impulse withstand voltage	5kV 1.2/50 μ s between electric circuit and outer case, positive/negative polarity。	no abnormality
Vibration (false operation)	Frequency: 16.7Hz, peak to peak: 1mm, 10 min. each for X, Y and Z directions.	no abnormality
Sock	294m/S² 2 times for X, Y and Z directions	no abnormality
Response time	Time for relay to operate after input changes.	0.5sec. or less

■ DIMENSION



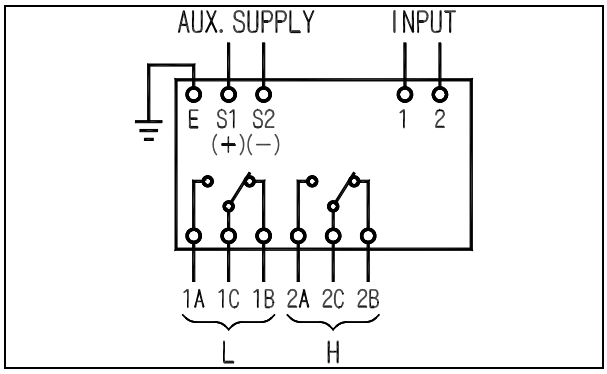
Mark	Name	Material
①	box	SPCC
②	Terminal board	SPCC
③	Terminal block	PM-GE

■ CONTROL OUTPUT CONDITION

Input state Input : ▨		Contact state L	Contact state H
Auxiliary supply OFF Not based on input			
Auxiliary supply ON input ≦ L			
Auxiliary supply ON L < input < H			
Auxiliary supply ON H ≦ input			

*HH type and LL type are also manufacturable by specifying.

■ CONNECTION DIAGRAM



Items for specifying

1, type name	2, rating	3, setting range
4, control supply power	5, quantity	