

CAPSULE + THRU-BORE + ETHERNET
Electrical Slip Ring Solutions



Electrical Slip Rings & Wire Color Codes

SERIES OPTIONS

ES

ESE

ESM

EST

ESET



SLIP RINGS

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About DSTI

Dynamic Sealing Technologies, Inc. (DSTI) is a global leader in rotary unions and swivel joints used to provide reliable fluid transfer and sealing for energy, defense and industrial applications.

Learn more at www.dsti.com

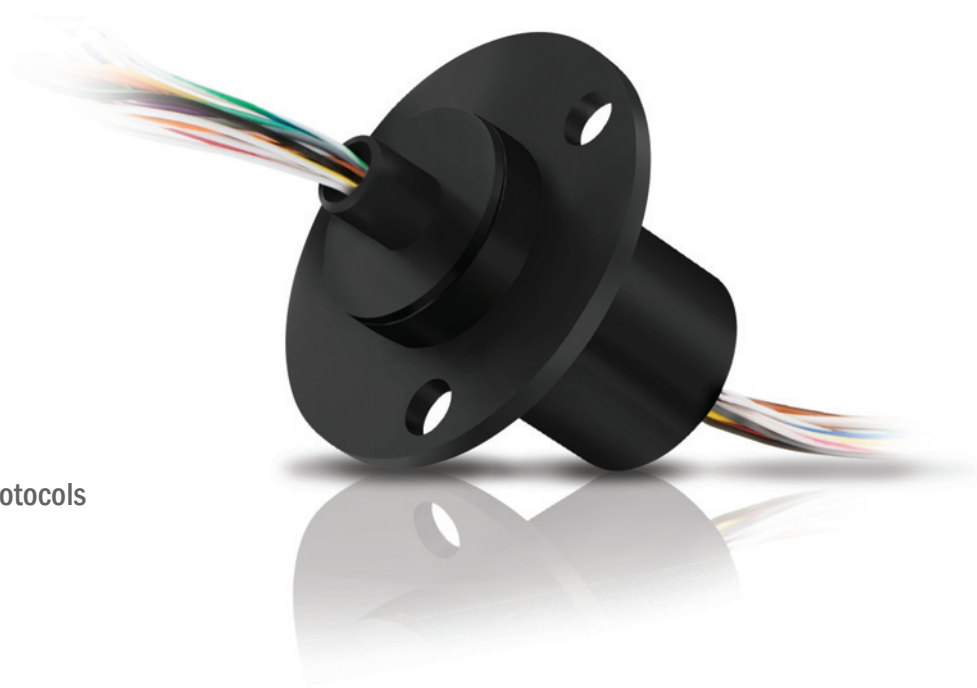
Did You Know?

» DSTI Exports Rotary Union Products to Over 50 Countries

ES SERIES

Series Overview

- + Compact Capsule Design
- + Low Torque Design
- + Suitable for Analog or Digital Signals
- + High Quality Gold on Gold Contacts
- + Low Electrical Noise
- + Precision Ball Bearings
- + Data Speeds up to 50 Megabits / Sec*
- + Compatible With a Range of Data Bus Protocols



The ES Series electrical slip ring is a rotating assembly used to transfer power, control circuits or data (analog / digital) from stationary inlets to rotating outlets.

Versatile and compact, the ES Series electrical slip rings feature a low torque design with gold-on-gold contacts and offer low electrical noise. The ES Series also includes flexible, color-coded lead wires suitable for transferring analog and digital signals. Standard models are available in 6, 12, 18, 24, 36, and 56 circuits.

Specifications

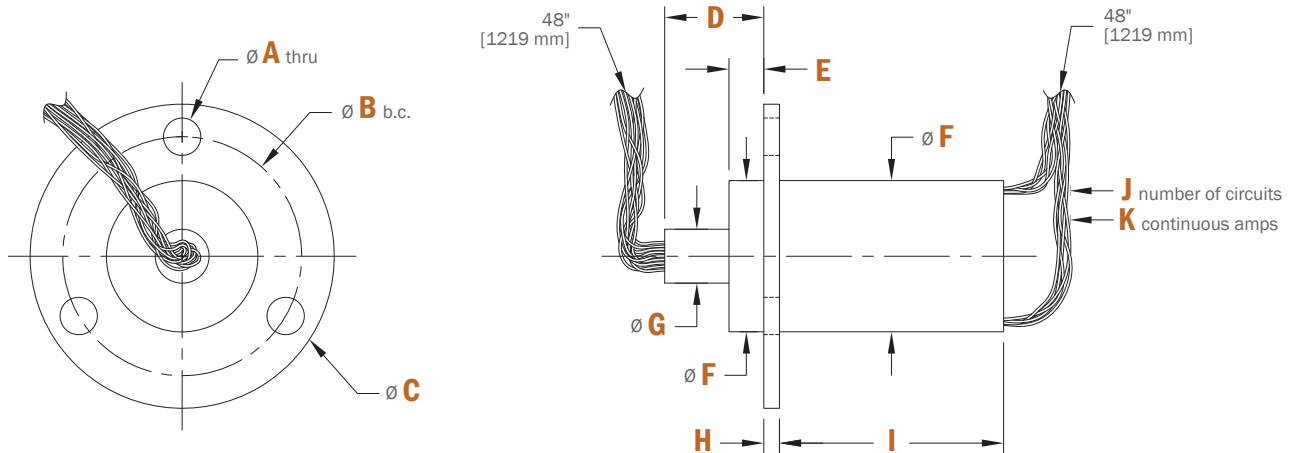
Max. Operating Speed	250 RPM Continuous**
Standard Circuit Options	6, 12, 18, 24, 36, 56
Voltage	240***
Amps / Circuit	2
Lead / Size Type	28/26 gauge silver plated copper, Teflon®****
Contact Material	Gold
Temperature Range	-40 °F to 176 °F (-40 °C to +80 °C)

* For higher data speeds see our ESE & ESET Series slip rings

** The max operating speed for models ES6A & ES12A is 100 RPM

*** Voltage for ES6A & ES12A is 120

Dimensions



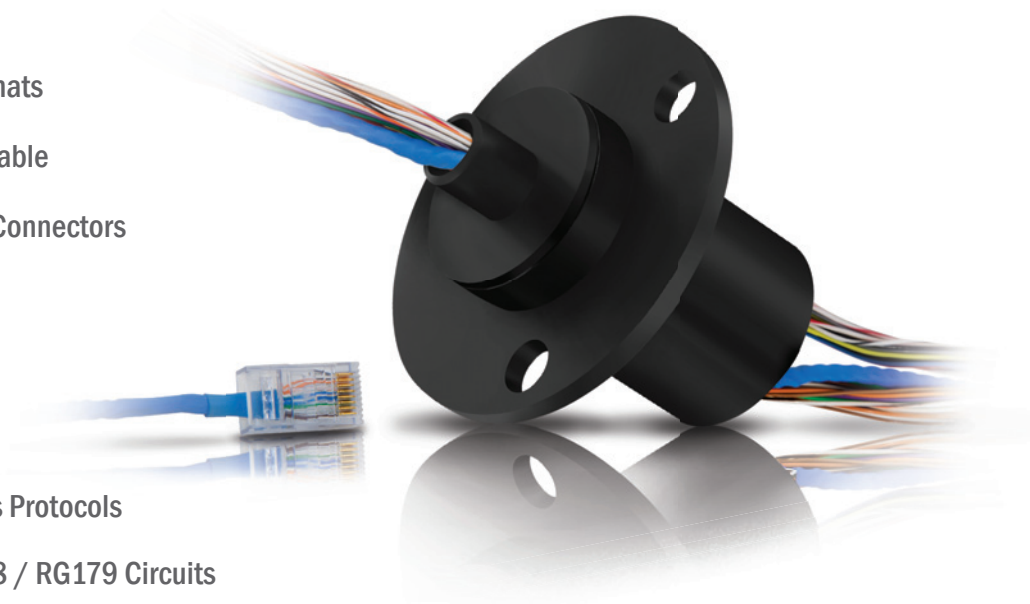
	ES6A	ES6	ES12A	ES12
A	.129" [3.28mm]	.215" [5.50mm]	.129" [3.28mm]	.215" [5.50mm]
B	.725" [18.42mm]	1.375" [34.93mm]	.725" [18.42mm]	1.375" [34.93mm]
C	.95" [24.13mm]	1.75" [44.45mm]	.95" [24.13mm]	1.75" [44.45mm]
D	.47" [11.94mm]	.57" [14.48mm]	.47" [11.94mm]	.57" [14.48mm]
E	.20" [5.08mm]	.20" [5.08mm]	.20" [5.08mm]	.20" [5.08mm]
F	.50" [12.70mm]	.87" [22.10mm]	.50" [12.70mm]	.87" [22.10mm]
G	.19" [4.83mm]	.31" [7.87mm]	.19" [4.83mm]	.31" [7.87mm]
H	.04" [1.02mm]	.09" [2.36mm]	.04" [1.02mm]	.09" [2.36mm]
I	.34" [8.64mm]	.48" [12.19mm]	.59" [14.99mm]	.75" [19.05mm]
J	6 Circuits	6 Circuits	12 Circuits	12 Circuits
K	2 Amps	2 Amps	2 Amps	2 Amps

	ES18	ES24	ES36	ES56
A	.215" [5.50mm]	.215" [5.50mm]	.220" [5.60mm]	.220" [5.60mm]
B	1.375" [34.93mm]	1.375" [34.93mm]	1.410" [35.81mm]	1.410" [35.81mm]
C	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
D	.57" [14.48mm]	.57" [14.48mm]	.48" [12.19mm]	.48" [12.19mm]
E	.20" [5.08mm]	.20" [5.08mm]	.11" [2.80mm]	.11" [2.80mm]
F	.87" [22.10mm]	.87" [22.10mm]	1.00" [25.40mm]	1.00" [25.40mm]
G	.31" [7.87mm]	.31" [7.87mm]	.38" [9.53mm]	.38" [9.53mm]
H	.09" [2.36mm]	.09" [2.36mm]	.06" [1.50mm]	.06" [1.50mm]
I	1.02" [25.91mm]	1.29" [32.77mm]	2.06" [75.30mm]	2.96" [75.30mm]
J	18 Circuits	24 Circuits	36 Circuits	56 Circuits
K	2 Amps	2 Amps	2 Amps	2 Amps

ESE SERIES

Series Overview

- + Compact Capsule Design
- + Fully Compliant With IEEE 802.3 Formats
- + 100Base-T / 1000Base-T Ethernet Cable
- + T568B Wiring Terminated With RJ45 Connectors
- + High Quality Gold on Gold Contacts
- + Transfers Analog and Digital Signals
- + Low Electrical Noise
- + Compatible With a Range of Data Bus Protocols
- + Coaxial Options Available With RG178 / RG179 Circuits



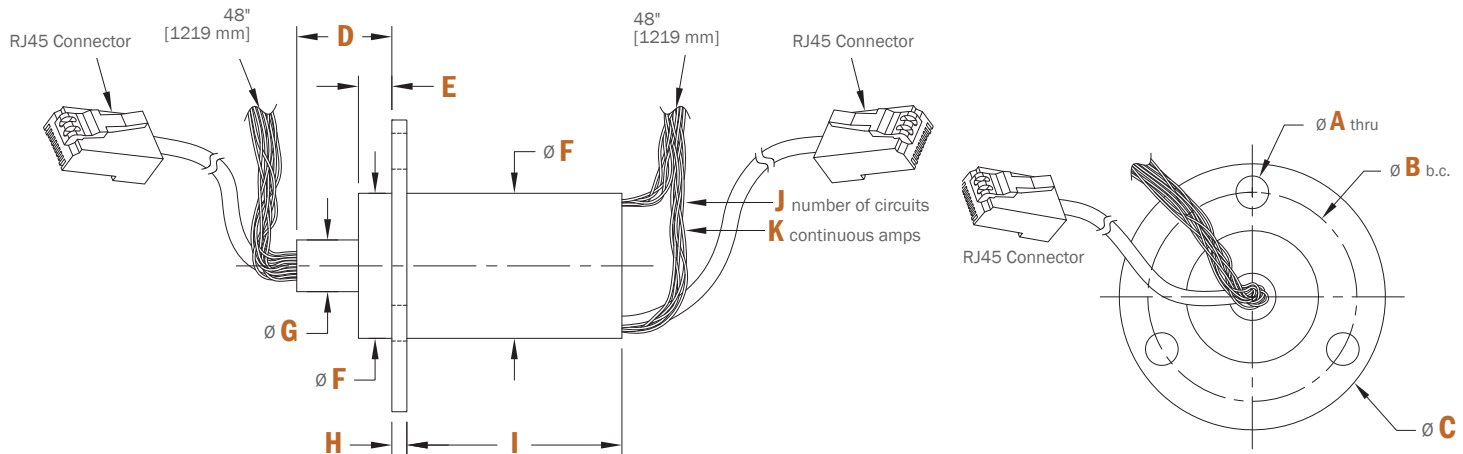
The ESE Series Ethernet slip ring is a rotating assembly used to transfer power, control circuits or data (analog / digital) from stationary inlets to rotating outlets.

ESE Series slip rings provide 100Base-T or 1000Base-T Ethernet connections with a combination of 2, 5, and 10 amp power connections. Utilizing high performance gold-on-gold contacts, the ESE Series features low electrical noise and Ethernet cables terminated with RJ45 connectors. Standard models are available in 8, 10, 12, 14, 18, 41, 43, 45, 47 and 51 circuits.

Specifications

Max. Operating Speed	250 RPM Continuous
Standard Circuit Options	8, 10, 12, 14, 18, 41, 43, 45, 47, 51
Voltage	240
Amps / Circuit	1/2/5/10
Lead / Size Type	28/26/20/16 gauge silver/tin plated copper, Teflon®
Contact Material	Gold
Temperature Range	-40 °F to 176 °F (-40 °C to +80 °C)

Dimensions



	ESE64	ESE264	ESE224	ESE2124	ESE284
A	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]
B	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]
C	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
D	.57" [14.40mm]	.57" [14.48mm]	.57" [14.48mm]	.57" [14.48mm]	.57" [14.48mm]
E	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]
F	.87" [22.1mm]	.87" [22.10mm]	.87" [22.10mm]	.87" [22.10mm]	.87" [22.10mm]
G	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]
H	.09" [2.4mm]	.09" [2.36mm]	.09" [2.36mm]	.09" [2.36mm]	.09" [2.36mm]
I	.75" [19.05mm]	1.02" [25.91mm]	1.02" [25.91mm]	1.29" [32.77mm]	1.29" [32.77mm]
J	10 Circuits	12 Circuits	8 Circuits	18 Circuits	14 Circuits
K	(6x) 2 Amps (1x) 100Base-T*	(2x) 5 Amps (6x) 2 Amps (1x) 100Base-T*	(2x) 10 Amps (2x) 2 Amps (1x) 100Base-T*	(2x) 5 Amps (12x) 2 Amps (1x) 100Base-T*	(2x) 10 Amps (8x) 2 Amps (1x) 100Base-T*

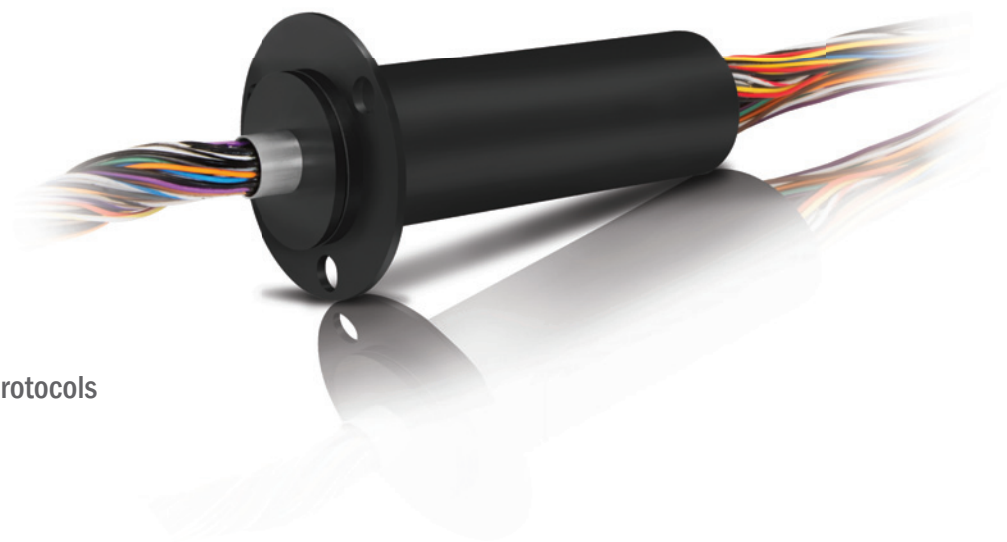
	ESE438	ESE4358	ESE2358	ESE8278	ESE24278
A	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]
B	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]
C	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
D	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]
E	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]
F	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]
G	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]
H	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]
I	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]
J	51 Circuits	47 Circuits	45 Circuits	43 Circuits	41 Circuits
K	(43x) 2 Amps (1x) 1000Base-T*	(4x) 5 Amps (35x) 2 Amps (1x) 1000Base-T*	(2x) 10 Amps (35x) 2 Amps (1x) 1000Base-T*	(8x) 5 Amps (27x) 2 Amps (1x) 1000Base-T*	(2x) 10 Amps (4x) 5 Amps (27x) 2 Amps (1x) 1000Base-T*

*100Base-T & 1000Base-T (28 gauge / twisted pair) Ethernet circuits can also be used for other data/signal types

ESM SERIES

Series Overview

- + High Quality Gold on Gold Contacts
- + Transfers Analog and Digital Signals
- + Low Electrical Noise
- + Precision Ball Bearings
- + Data Speeds up to 50 Megabits / Sec*
- + Compatible With a Range of Data Bus Protocols



The ESM Series electrical slip ring is a rotating assembly used to transfer power, control circuits or data (analog / digital) from stationary inlets to rotating outlets.

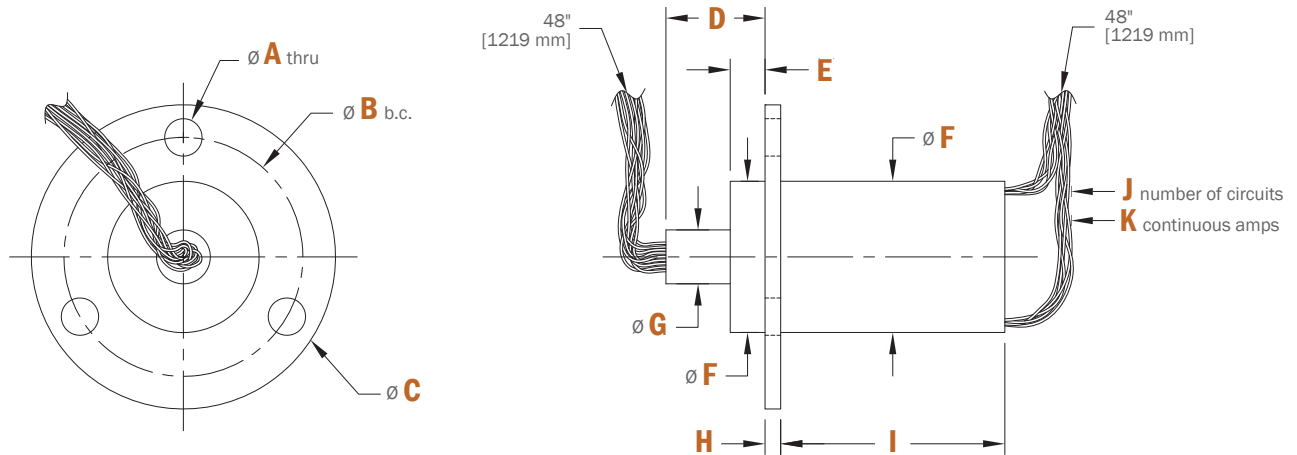
ESM Series slip rings include flexible, color-coded lead wires suitable for transferring analog and digital signals. Utilizing high performance gold-on-gold contacts, the ESM Series features low electrical noise and supports data speeds up to 50 megabits / second.* Standard models are available in 9, 15, 24, 32, 44, and 52 circuits.

Specifications

Max. Operating Speed	250 RPM Continuous
Standard Circuit Options	9, 15, 24, 32, 44, 52
Voltage	240
Amps / Circuit	2/5/10
Lead / Size Type	26/20/16 gauge silver/tin plated copper, Teflon®
Contact Material	Gold
Temperature Range	-40 ° F to 176 ° F (-40 ° C to +80 ° C)

* For higher data speeds see our ESE & ESET Series slip rings

Dimensions



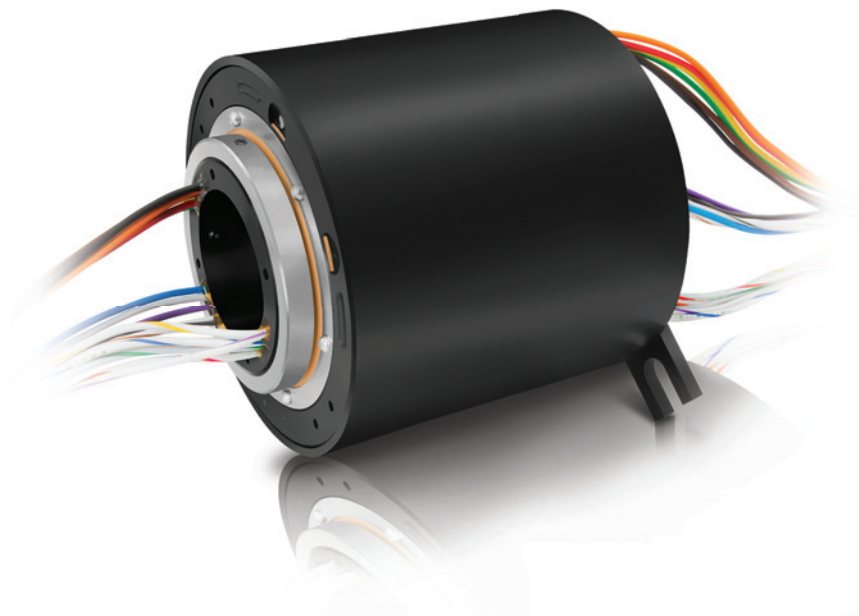
	ESM36	ESM312	ESM420	ESM428
A	.215" [5.50mm]	.215" [5.50mm]	.220" [5.60mm]	.220" [5.60mm]
B	1.375" [34.93mm]	1.375" [34.93mm]	1.410" [35.80mm]	1.410" [35.80mm]
C	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
D	.57" [14.48mm]	.57" [14.48mm]	.48" [12.19mm]	.48" [12.19mm]
E	.20" [5.08mm]	.20" [5.08mm]	.20" [5.08mm]	.20" [5.08mm]
F	.87" [22.10mm]	.87" [22.10mm]	1.00" [25.40mm]	1.00" [25.40mm]
G	.31" [7.87mm]	.31" [7.87mm]	.38" [9.53mm]	.38" [9.53mm]
H	.09" [2.36mm]	.09" [2.36mm]	.06" [1.50mm]	.06" [1.50mm]
I	1.28" [32.56mm]	1.28" [32.56mm]	2.06" [52.40mm]	2.06" [52.40mm]
J	9 Circuits	15 Circuits	24 Circuits	32 Circuits
K	(3x) 10 Amps (6x) 2 Amps	(3x) 5 Amps (12x) 2 Amps	(4x) 10 Amps (20x) 2 Amps	(4x) 5 Amps (28x) 2 Amps

	ESM440	ESM448
A	.220" [5.60mm]	.220" [5.60mm]
B	1.410" [35.80mm]	1.410" [35.80mm]
C	1.75" [44.45mm]	1.75" [44.45mm]
D	.48" [12.19mm]	.48" [12.19mm]
E	.20" [5.08mm]	.20" [5.08mm]
F	1.00" [25.40mm]	1.00" [25.40mm]
G	.38" [9.53mm]	.38" [9.53mm]
H	.06" [1.50mm]	.06" [1.50mm]
I	2.96" [75.30mm]	2.96" [75.30mm]
J	44 Circuits	52 Circuits
K	(4x) 10 Amps (40x) 2 Amps	(4x) 5 Amps (48x) 2 Amps

EST SERIES

Series Overview

- + 1.5" Inch Thru-bore for Shaft Mounting
- + Unique Fiber Brush Contact Technology
- + Low Contact Force per Fiber
- + Transfers Analog and Digital Signals
- + Low Electrical Noise
- + Data Speeds up to 50 Megabits / Sec.*
- + Compatible With a Range of Data Bus Protocols



The EST Series electrical thru-bore slip ring is a rotating assembly used to transfer power, control circuits or data (analog / digital) from stationary inlets to rotating outlets.

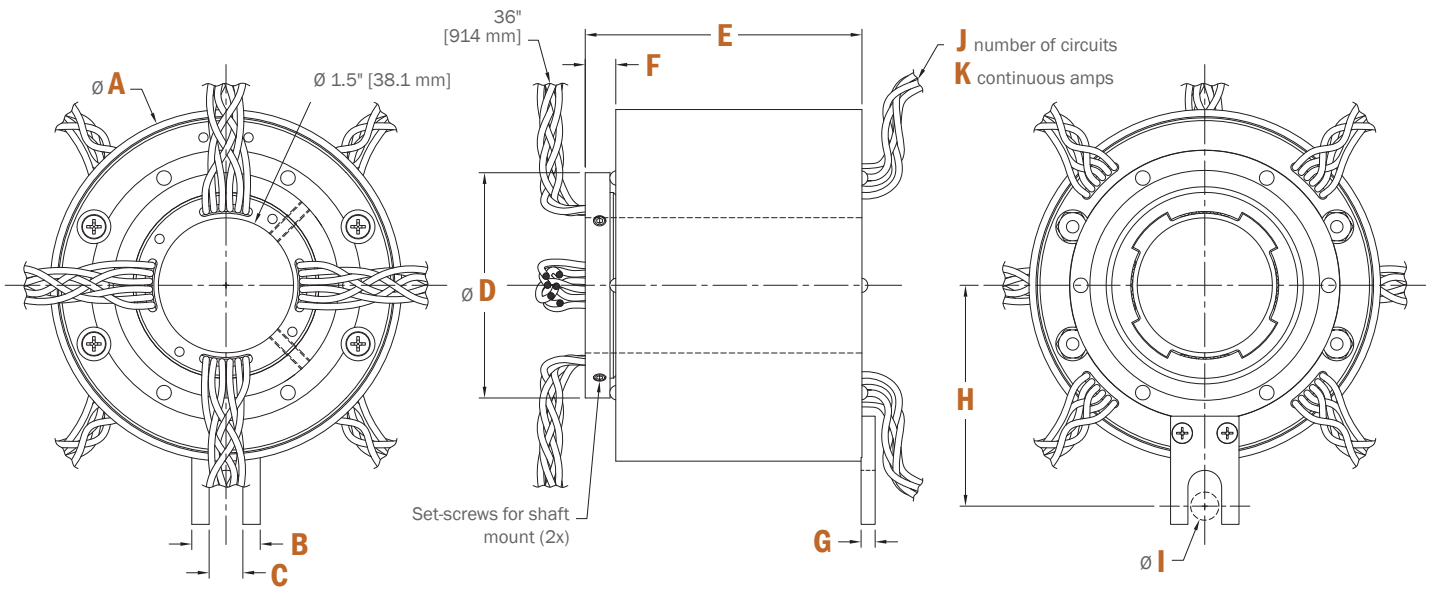
EST Series slip rings feature a 1.5 inch thru-bore for shaft mounting and incorporate low-wear, fiber brush contacts that do not require lubrication and produce virtually no wear debris. Standard models are available in 6, 12, 18, and 24 circuits.

Specifications

Max. Operating Speed	250 RPM Continuous
Standard Circuit Options	6, 12, 18, 24
Voltage	600
Amps / Circuit	10
Lead / Size Type	16 gauge silver/tin plated copper, Teflon®
Temperature Range	-40 °F to 176 °F (-40 °C to +80 °C)

* For higher data speeds see our ESE & ESET Series slip rings

Dimensions

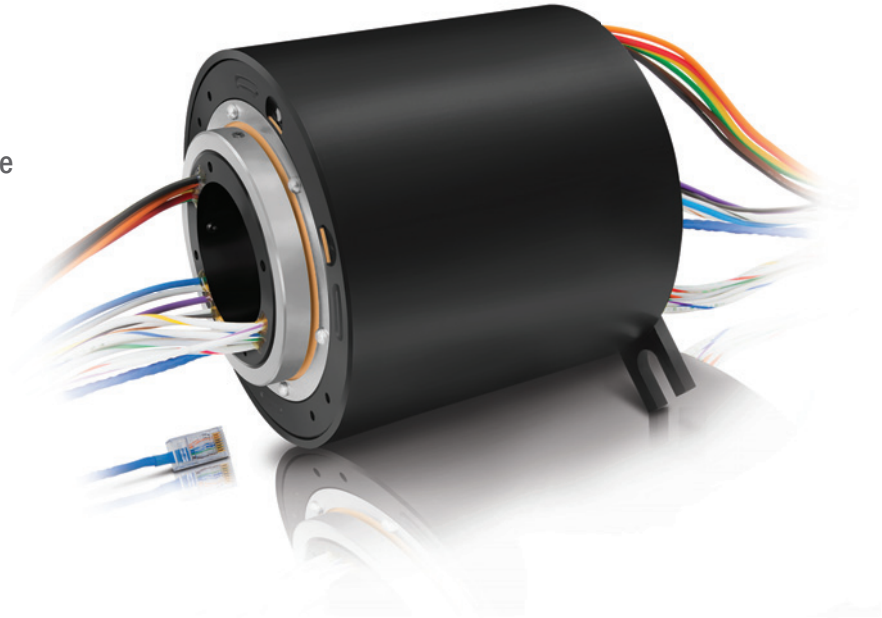


	EST6	EST12	EST18	EST24
A	3.90" [99.06mm]	3.90" [99.06mm]	3.90" [99.06mm]	3.90" [99.06mm]
B	.76" [19.30 mm]	.76" [19.30 mm]	.76" [19.30 mm]	.76" [19.30 mm]
C	.375" [9.53mm]	.375" [9.53mm]	.375" [9.53mm]	.375" [9.53mm]
D	2.5" [63.50mm]	2.5" [63.50mm]	2.5" [63.50mm]	2.5" [63.50mm]
E	2.13" [54.10mm]	3.07" [77.98mm]	4.01" [101.85mm]	4.94" [125.48mm]
F	.34" [8.64mm]	.34" [8.64mm]	.34" [8.64mm]	.34" [8.64mm]
G	.15" [3.81mm]	.15" [3.81mm]	.15" [3.81mm]	.15" [3.81mm]
H	2.45" [62.23mm]	2.45" [62.23mm]	2.45" [62.23mm]	2.45" [62.23mm]
I	.313" [7.95mm]	.313" [7.95mm]	.313" [7.95mm]	.313" [7.95mm]
J	6 Circuits	12 Circuits	18 Circuits	24 Circuits
K	10 Amps	10 Amps	10 Amps	10 Amps

ESET SERIES

Series Overview

- + 1.5" Inch Thru-bore for Shaft Mounting
- + Fully Compliant With IEEE 802.3 Formats
- + 100Base-T / 1000Base-T Ethernet Cables Available
- + T568B Wiring Terminated With RJ45 Connectors
- + Unique Fiber Brush Contact Technology
- + Low Contact Force per Fiber
- + Compatible With a Range of Data Bus Protocols



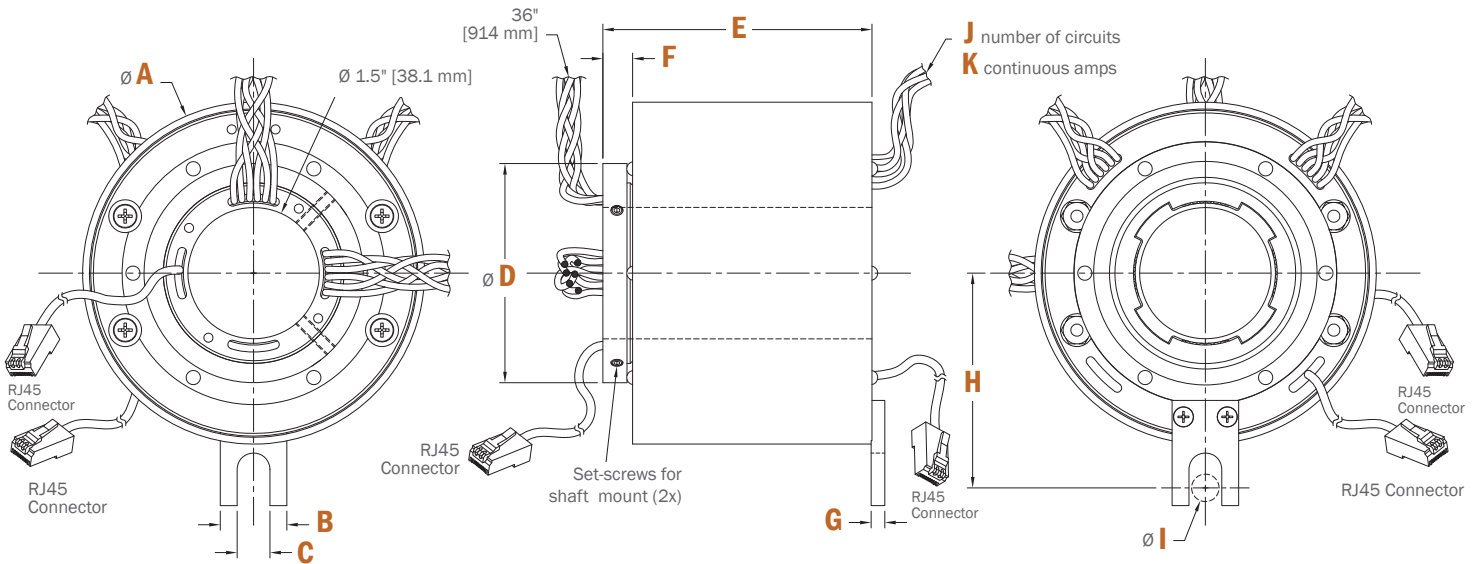
The ESET Series Ethernet thru-bore slip ring is a rotating assembly used to transfer power, control circuits, or data (analog / digital) from stationary inlets to rotating outlets.

ESET Series slip rings feature a 1.5 inch thru-bore for shaft mounting and provide 100Base-T or 1000Base-T Ethernet connections terminated with RJ45 connectors. The ESET Series incorporates low-wear, fiber brush contacts that do not require lubrication. Standard models are available in 4, 8, 14, 20 and 22 circuits.

Specifications

Max. Operating Speed	250 RPM Continuous
Standard Circuit Options	4, 8, 14, 20, 22
Voltage	600
Amps / Circuit	2/10
Lead / Size Type	24/16 gauge silver/tin plated copper, Teflon®
Temperature Range	-40 °F to 176 °F (-40 °C to +80 °C)

Dimensions



	ESET4	ESET8	ESET68	ESET128	ESET184
A	3.90" [99.06mm]	3.90" [99.06mm]	3.90" [99.06mm]	3.90" [99.06mm]	3.90" [99.06mm]
B	.76" [19.30 mm]	.76" [19.30 mm]	.76" [19.30 mm]	.76" [19.30 mm]	.76" [19.30 mm]
C	.375" [9.53mm]	.375" [9.53mm]	.375" [9.53mm]	.375" [9.53mm]	.375" [9.53mm]
D	2.5" [63.50mm]	2.5" [63.50mm]	2.5" [63.50mm]	2.5" [63.50mm]	2.5" [63.50mm]
E	2.13" [54.10mm]	3.07" [77.98mm]	4.01" [101.85mm]	4.94" [125.48mm]	4.94" [125.48mm]
F	.34" [8.64mm]	.34" [8.64mm]	.34" [8.64mm]	.34" [8.64mm]	.34" [8.64mm]
G	.15" [3.81mm]	.15" [3.81mm]	.15" [3.81mm]	.15" [3.81mm]	.15" [3.81mm]
H	2.45" [62.23mm]	2.45" [62.23mm]	2.45" [62.23mm]	2.45" [62.23mm]	2.45" [62.23mm]
I	.313" [7.95mm]	.313" [7.95mm]	.313" [7.95mm]	.313" [7.95mm]	.313" [7.95mm]
J	4 Circuits	8 Circuits	14 Circuits	20 Circuits	22 Circuits
K	(1x) 100Base-T*	(1x) 1000Base-T*	(6x) 10 Amps (1x) 1000Base-T*	(12x) 10 Amps (1x) 1000Base-T*	(18x) 10 Amps (1x) 100Base-T*

*100BaseT & 1000BaseT (24 gauge / twisted pair) Ethernet circuits can also be used for other data/signal types

WIRE COLOR CODES

ES: Connections

ES6		
Tag #	Color	Description/Awg
1	BLK	2A/28
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	

ES6A		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	

ES12		
Tag #	Color	Description/Awg
1	BLK	2A/28
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	

ES12A		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	

ES18		
Tag #	Color	Description/Awg
1	BLK	2A/28
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	WHT-YEL	
16	WHT-GRN	
17	WHT-BLU	
18	WHT-VIO	

ES: Connections (continued)

ES24			ES36			ES56		
Tag #	Color	Description/Awg	Tag #	Color	Description/Awg	Tag #	Color	Description/Awg
1	BLK	2A/28	1	BLK	2A/26	1	BLK	2A/26
2	BRN		2	BRN		2	BRN	
3	RED		3	RED		3	RED	
4	ORN		4	ORN		4	ORN	
5	YEL		5	YEL		5	YEL	
6	GRN		6	GRN		6	GRN	
7	BLU		7	BLU		7	BLU	
8	VIO		8	VIO		8	VIO	
9	GRY		9	GRY		9	GRY	
10	WHT		10	WHT		10	WHT	
11	WHT-BLK		11	WHT-BLK		11	WHT-BLK	
12	WHT-BRN		12	WHT-BRN		12	WHT-BRN	
13	WHT-RED		13	WHT-RED		13	WHT-RED	
14	WHT-ORN		14	WHT-ORN		14	WHT-ORN	
15	WHT-YEL		15	WHT-YEL		15	WHT-YEL	
16	WHT-GRN		16	WHT-GRN		16	WHT-GRN	
17	WHT-BLU		17	WHT-BLU		17	WHT-BLU	
18	WHT-VIO		18	WHT-VIO		18	WHT-VIO	
19	WHT-GRY		19	BLK		19	BLK	
20	WHT-BLK-BRN		20	BRN		20	BRN	
21	WHT-BLK-RED		21	RED		21	RED	
22	WHT-BLK-ORN		22	ORN		22	ORN	
23	WHT-BLK-YEL		23	YEL		23	YEL	
24	WHT-BLK-GRN		24	GRN		24	GRN	
			25	BLU		25	BLU	
			26	VIO		26	VIO	
			27	GRY		27	GRY	
			28	WHT		28	WHT	
			29	WHT-BLK		29	WHT-BLK	
			30	WHT-BRN		30	WHT-BRN	
			31	WHT-RED		31	WHT-RED	
			32	WHT-ORN		32	WHT-ORN	
			33	WHT-YEL		33	WHT-YEL	
			34	WHT-GRN		34	WHT-GRN	
			35	WHT-BLU		35	WHT-BLU	
			36	WHT-VIO		36	WHT-VIO	
						37	BLK	2A/26
						38	BRN	
						39	RED	
						40	ORN	
						41	YEL	
						42	GRN	
						43	BLU	
						44	VIO	
						45	GRY	
						46	WHT	
						47	WHT-BLK	
						48	WHT-BRN	
						49	WHT-RED	
						50	WHT-ORN	
						51	WHT-YEL	
						52	WHT-GRN	
						53	WHT-BLU	
						54	WHT-VIO	
						55	BLK	
						56	BRN	

WIRE COLOR CODES

ESE: 100Base-T Ethernet* Connections

*28 AWG 100_T= 1 amps max signal;
CAT 5 Cable

ESE64		
Tag #	Color	Description/Awg
1	ORN	100_T/28/ Twisted Pair
2	WHT-ORN	
3	GRN	100_T/28/ Twisted Pair
4	WHT-GRN	
5	BLK	2A/26
6	BRN	
7	RED	
8	ORN	
9	YEL	
10	GRN	

ESE224		
Tag #	Color	Description/Awg
1	ORN	100_T/28/ Twisted Pair
2	WHT-ORN	
3	GRN	100_T/28/ Twisted Pair
4	WHT-GRN	
5	BLK	10A/16
6	BRN	
7	RED	2A/26
8	ORN	

ESE264		
Tag #	Color	Description/Awg
1	ORN	100_T/28/ Twisted Pair
2	WHT-ORN	
3	GRN	100_T/28/ Twisted Pair
4	WHT-GRN	
5	BLK	5A/20
6	BRN	
7	BLK	2A/26
8	BRN	
9	RED	
10	ORN	
11	YEL	
12	GRN	

ESE284		
Tag #	Color	Description/Awg
1	ORN	100_T/28/ Twisted Pair
2	WHT-ORN	
3	GRN	100_T/28/ Twisted Pair
4	WHT-GRN	
5	BLK	10A/16
6	BRN	
7	BLK	2A/26
8	BRN	
9	RED	
10	ORN	
11	YEL	
12	GRN	
13	BLU	
14	VIO	

ESE2124		
Tag #	Color	Description/Awg
1	ORN	100_T/28/ Twisted Pair
2	WHT-ORN	
3	GRN	100_T/28/ Twisted Pair
4	WHT-GRN	
5	BLK	5A/20
6	BRN	
7	BLK	2A/26
8	BRN	
9	RED	
10	ORN	
11	YEL	
12	GRN	
13	BLU	
14	VIO	
15	GRY	
16	WHT	
17	WHT-BLK	
18	WHT-BRN	

ESE: 1000Base-T Ethernet* Connections

*28 AWG 1000_T= 1 amps max signal;
CAT 5 Cable

ESE438		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	BLK	
16	BRN	
17	RED	
18	ORN	
19	YEL	
20	GRN	
21	BLU	
22	VIO	
23	GRY	
24	WHT	
25	WHT-BLK	
26	WHT-BRN	
27	WHT-RED	
28	WHT-ORN	
29	ORN	1000_T/28/ Twisted Pair
	WHT-ORN	1000_T/28/ Twisted Pair
	GRN	1000_T/28/ Twisted Pair
	WHT-GRN	1000_T/28/ Twisted Pair
	BLU	1000_T/28/ Twisted Pair
	WHT-BLU	1000_T/28/ Twisted Pair
	BRN	1000_T/28/ Twisted Pair
	WHT-BRN	1000_T/28/ Twisted Pair

37	BLK	2A/26
38	BLK	
39	BRN	
40	RED	
41	ORN	
42	YEL	
43	GRN	
44	BLU	
45	VIO	
46	GRY	
47	WHT	
48	WHT-BLK	
49	WHT-BRN	
50	WHT-RED	
51	ESE	

ESE4358		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	BLK	5A/20
16	BRN	
17	RED	
18	ORN	
19	BLK	2A/26
20	BRN	
21	RED	
22	ORN	
23	YEL	
24	GRN	
25	ORN	1000_T/28/ Twisted Pair
	WHT-ORN	1000_T/28/ Twisted Pair
	GRN	1000_T/28/ Twisted Pair
	WHT-GRN	1000_T/28/ Twisted Pair
	BLU	1000_T/28/ Twisted Pair
	WHT-BLU	1000_T/28/ Twisted Pair
	BRN	1000_T/28/ Twisted Pair
	WHT-BRN	1000_T/28/ Twisted Pair

33	BLK	2A/26
34	BLK	
35	BRN	
36	RED	
37	ORN	
38	YEL	
39	GRN	
40	BLU	
41	VIO	
42	GRY	
43	WHT	
44	WHT-BLK	
45	WHT-BRN	
46	WHT-RED	
47	WHT-ORN	

WIRE COLOR CODES

ESE: 1000Base-T Ethernet* Connections (continued)

*28 AWG 1000_T= 1 amps max signal;
CAT 5 Cable

ESE2358		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	BLK	10A/16
16	BRN	2A/26
17	BLK	
18	BRN	
19	RED	
20	ORN	
21	YEL	
22	GRN	
23	ORN	1000_T/28/ Twisted Pair
	WHT-ORN	1000_T/28/ Twisted Pair
	GRN	1000_T/28/ Twisted Pair
	WHT-GRN	1000_T/28/ Twisted Pair
	BLU	1000_T/28/ Twisted Pair
	WHT-BLU	1000_T/28/ Twisted Pair
	BRN	1000_T/28/ Twisted Pair
	WHT-BRN	1000_T/28/ Twisted Pair

31	BLK	2A/26
32	BLK	
33	BRN	
34	RED	
35	ORN	
36	YEL	
37	GRN	
38	BLU	
39	VIO	
40	GRY	
41	WHT	
42	WHT-BLK	
43	WHT-BRN	
44	WHT-RED	
45	WHT-ORN	

ESE8278		
Tag #	Color	Description/Awg
1	BLK	5A/20
2	BRN	
3	RED	
4	ORN	
5	BLK	2A/26
6	BRN	
7	RED	
8	ORN	
9	YEL	
10	GRN	5A/20
11	BLK	
12	BRN	
13	RED	
14	ORN	2A/26
15	BLK	
16	BRN	
17	RED	
18	ORN	
19	YEL	
20	GRN	
21	ORN	1000_T/28/ Twisted Pair
	WHT-ORN	1000_T/28/ Twisted Pair
	GRN	1000_T/28/ Twisted Pair
	WHT-GRN	1000_T/28/ Twisted Pair
	BLU	1000_T/28/ Twisted Pair
	WHT-BLU	1000_T/28/ Twisted Pair
	BRN	1000_T/28/ Twisted Pair
	WHT-BRN	1000_T/28/ Twisted Pair

29	BLK	2A/26
30	BLK	
31	BRN	
32	RED	
33	ORN	
34	YEL	
35	GRN	
36	BLU	
37	VIO	
38	GRY	
39	WHT	
40	WHT-BLK	
41	WHT-BRN	
42	WHT-RED	
43	WHT-ORN	

ESE: 1000Base-T Ethernet* Connections (continued)

*28 AWG 1000_T= 1 amps max signal;
CAT 5 Cable

ESE24278		
Tag #	Color	Description/Awg
1	BLK	5A/20
2	BRN	
3	RED	
4	ORN	
5	BLK	2A/26
6	BRN	
7	RED	
8	ORN	
9	YEL	
10	GRN	
11	BLK	10A/16
12	BRN	2A/26
13	BLK	
14	BRN	
15	RED	
16	ORN	
17	YEL	
18	GRN	
19	ORN	1000_T/28/ Twisted Pair
	WHT-ORN	1000_T/28/ Twisted Pair
	GRN	1000_T/28/ Twisted Pair
	WHT-GRN	1000_T/28/ Twisted Pair
	BLU	1000_T/28/ Twisted Pair
	WHT-BLU	1000_T/28/ Twisted Pair
	BRN	1000_T/28/ Twisted Pair
	WHT-BRN	1000_T/28/ Twisted Pair
27	BLK	2A/26
28	BLK	
29	BRN	
30	RED	
31	ORN	
32	YEL	
33	GRN	
34	BLU	
35	VIO	
36	GRY	
37	WHT	
38	WHT-BLK	
39	WHT-BRN	
40	WHT-RED	
41	WHT-ORN	



WIRE COLOR CODES

ESM: Connections

ESM36			ESM312			ESM428			ESM428		
Tag #	Color	Description/Awg	Tag #	Color	Description/Awg	Tag #	Color	Description/Awg	Tag #	Color	Description/Awg
1	BLK	10A/16	1	BLK	10A/16	1	BLK	2A/26	1	BLK	2A/26
2	BLK		2	BLK		2	BRN		2	BRN	
3	BLK		3	BLK		3	RED		3	RED	
4	BLK	2A/26	4	BLK	2A/26	4	ORN		4	ORN	
5	BRN		5	BRN		5	YEL		5	YEL	
6	RED		6	RED		6	GRN		6	GRN	
7	ORN		7	ORN		7	BLU		7	BLU	
8	YEL		8	YEL		8	VIO		8	VIO	
9	GRN		9	GRN		9	GRY		9	GRY	
			10	BLU		10	WHT		10	WHT	
			11	VIO		11	WHT-BLK		11	WHT-BLK	
			12	GRY		12	WHT-BRN		12	WHT-BRN	
			13	WHT		13	WHT-RED		13	WHT-RED	
			14	WHT-BLK		14	WHT-ORN		14	WHT-ORN	
			15	WHT-BRN		15	WHT-YEL		15	WHT-YEL	
						16	WHT-GRN		16	WHT-GRN	
						17	WHT-BLU		17	WHT-BLU	
						18	WHT-VIO		18	WHT-VIO	
						19	BLK		19	BLK	
						20	BRN		20	BRN	
						21	RED		21	BLK	10A/16
						22	ORN		22	BLK	
						23	YEL		23	BLK	
						24	GRN		24	BLK	
						25	BLU	5A/20			
						26	VIO				
						27	GRY				
						28	WHT				
						29	BLK				
						30	BLK				
						31	BLK				
						32	BLK				

ESM: Connections (continued)

ESM440		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	WHT-YEL	
16	WHT-GRN	
17	WHT-BLU	
18	WHT-VIO	
19	BLK	
20	BRN	
21	RED	
22	ORN	
23	YEL	
24	GRN	
25	BLU	
26	VIO	
27	GRY	
28	WHT	
29	WHT-BLK	
30	WHT-BRN	
31	WHT-RED	
32	WHT-ORN	
33	WHT-YEL	
34	WHT-GRN	
35	WHT-BLU	
36	WHT-VIO	

37	BLK	2A/26
38	BRN	
39	RED	
40	ORN	
41	BLK	10A/16
42	BLK	
43	BLK	
44	BLK	

ESM448		
Tag #	Color	Description/Awg
1	BLK	2A/26
2	BRN	
3	RED	
4	ORN	
5	YEL	
6	GRN	
7	BLU	
8	VIO	
9	GRY	
10	WHT	
11	WHT-BLK	
12	WHT-BRN	
13	WHT-RED	
14	WHT-ORN	
15	WHT-YEL	
16	WHT-GRN	
17	WHT-BLU	
18	WHT-VIO	
19	BLK	
20	BRN	
21	RED	
22	ORN	
23	YEL	
24	GRN	
25	BLU	
26	VIO	
27	GRY	
28	WHT	
29	WHT-BLK	
30	WHT-BRN	
31	WHT-RED	
32	WHT-ORN	
33	WHT-YEL	
34	WHT-GRN	
35	WHT-BLU	
36	WHT-VIO	

37	BLK	2A/26
38	BRN	
39	RED	
40	ORN	
41	YEL	
42	GRN	
43	BLU	
44	VIO	
45	GRY	
46	WHT	
47	WHT-BLK	5A/20
48	WHT-BRN	
49	BLK	
50	BLK	
51	BLK	
52	BLK	

WIRE COLOR CODES

EST: Connections

EST6			EST12			EST18			EST24		
Tag #	Color	Description/Awg	Tag #	Color	Description/Awg	Tag #	Color	Description/Awg	Tag #	Color	Description/Awg
1	BLK	10A/16	1	BLK	10A/16	1	BLK	10A/16	1	BLK	10A/16
2	BRN		2	BRN		2	BRN		2	BRN	
3	RED		3	RED		3	RED		3	RED	
4	ORN		4	ORN		4	ORN		4	ORN	
5	YEL		5	YEL		5	YEL		5	YEL	
6	GRN		6	GRN		6	GRN		6	GRN	
7	BLU		7	BLU		7	BLU		7	BLU	
8	VIO		8	VIO		8	VIO		8	VIO	
9	GRY		9	GRY		9	GRY		9	GRY	
10	WHT		10	WHT		10	WHT		10	WHT	
11	WHT-BLK		11	WHT-BLK		11	WHT-BLK		11	WHT-BLK	
12	WHT-BRN		12	WHT-BRN		12	WHT-BRN		12	WHT-BRN	
						13	WHT-RED		13	WHT-RED	
						14	WHT-ORN		14	WHT-ORN	
						15	WHT-YEL		15	WHT-YEL	
						16	WHT-GRN		16	WHT-GRN	
						17	WHT-BLU		17	WHT-BLU	
						18	WHT-VIO		18	WHT-VIO	
									19	WHT-GRY	
									20	WHT-BLK-BRN	
									21	WHT-BLK-RED	
									22	WHT-BLK-ORN	
									23	WHT-BLK-YEL	
									24	WHT-BLK-GRN	

ESET: 100Base-T Ethernet*

Connections

*24 AWG 100_T= 2 amps max signal;
CAT 6 Cable

ESET4			ESET184		
Tag #	Color	Description/Awg	Tag #	Color	Description/Awg
1	WHT-ORN	100_T/24/ Twisted Pair	1	WHT-ORN	100_T/24/ Twisted Pair
2	ORN		2	ORN	
3	WHT-GRN	100_T/24/ Twisted Pair	3	WHT-GRN	100_T/24/ Twisted Pair
4	GRN		4	GRN	
			5	BLU	10A/16
			6	VIO	
			7	GRY	
			8	WHT-BLK	
			9	WHT-BRN	
			10	WHT-RED	
			11	WHT-ORG	
			12	WHT-YEL	
			13	WHT-GRN	
			14	WHT-BLU	
			15	WHT-VIO	
			16	WHT-GRY	
			17	WHT-BLK- BRN	
			18	WHT-BLK- RED	
			19	WHT-BLK- ORG	
			20	WHT-BLK- YEL	
			21	WHT-BLK- GRN	

WIRE COLOR CODES

ESET: 1000Base-T Ethernet*

Connections

*24 AWG 1000_T= 2 amps max signal;
CAT 6 Cable

ESET8		
Tag #	Color	Description/Awg
1	WHT-ORN	1000_T/24/ Twisted Pair
2	ORN	
3	WHT-GRN	1000_T/24/ Twisted Pair
4	GRN	
5	BLU	1000_T/24/ Twisted Pair
6	WHT-BLU	
7	BRN	1000_T/24/ Twisted Pair
8	WHT-BRN	

ESET68		
Tag #	Color	Description/Awg
1	WHT-ORN	1000_T/24/ Twisted Pair
2	ORN	
3	WHT-GRN	1000_T/24/ Twisted Pair
4	GRN	
5	BLU	1000_T/24/ Twisted Pair
6	WHT-BLU	
7	BRN	1000_T/24/ Twisted Pair
8	WHT-BRN	
9	WHT-RED	10A/16
10	WHT-ORN	
11	WHT-YEL	
12	WHT-GRN	
13	WHT-BLU	
14	WHT-VIO	

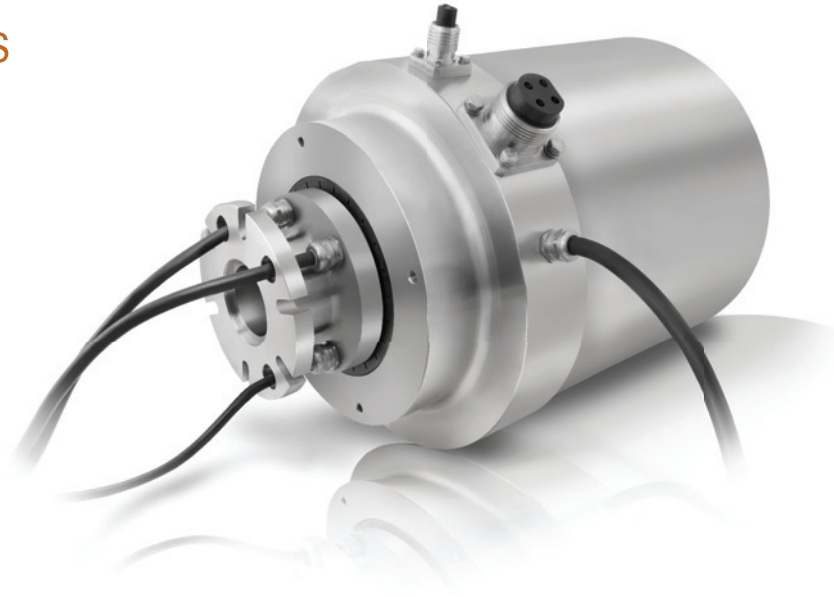
ESET128		
Tag #	Color	Description/Awg
1	WHT-ORN	1000_T/24/ Twisted Pair
2	ORN	
3	WHT-GRN	1000_T/24/ Twisted Pair
4	GRN	
5	WHT-BLU	1000_T/24/ Twisted Pair
6	BLU	
7	WHT-BRN	1000_T/24/ Twisted Pair
8	BRN	
9	WHT-RED	10A/16
10	WHT-ORN	
11	WHT-YEL	
12	WHT-GRN	
13	WHT-BLU	
14	WHT-VIO	
15	WHT-GRY	
16	WHT-BLK- BRN	
17	WHT-BLK- RED	
18	WHT-BLK- ORG	
19	WHT-BLK- YEL	
20	WHT-BLK- GRN	

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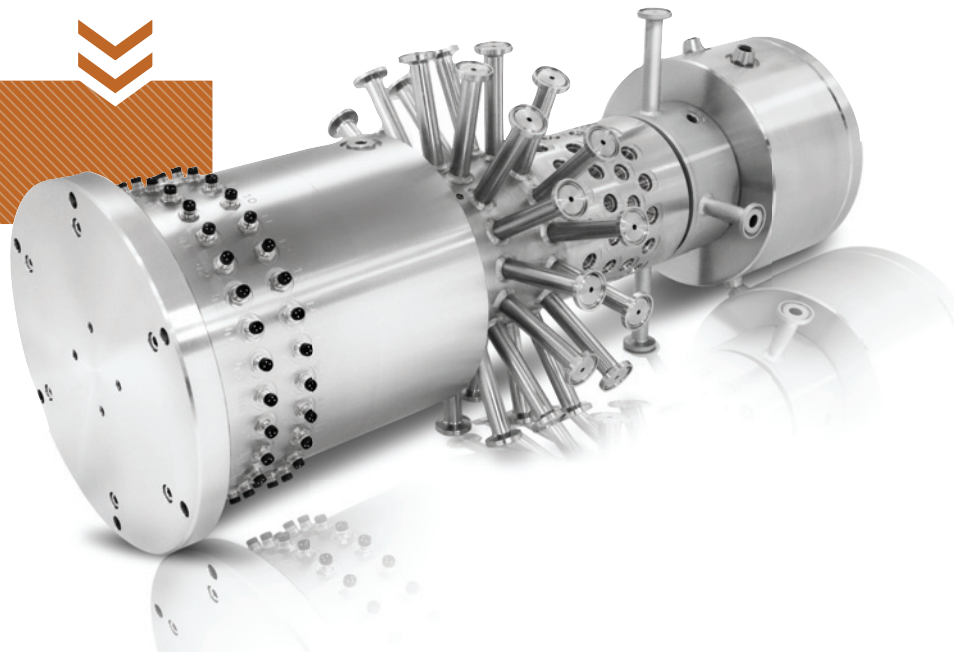
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- 7) Connection types (1/2 " NPT / flying leads (length))
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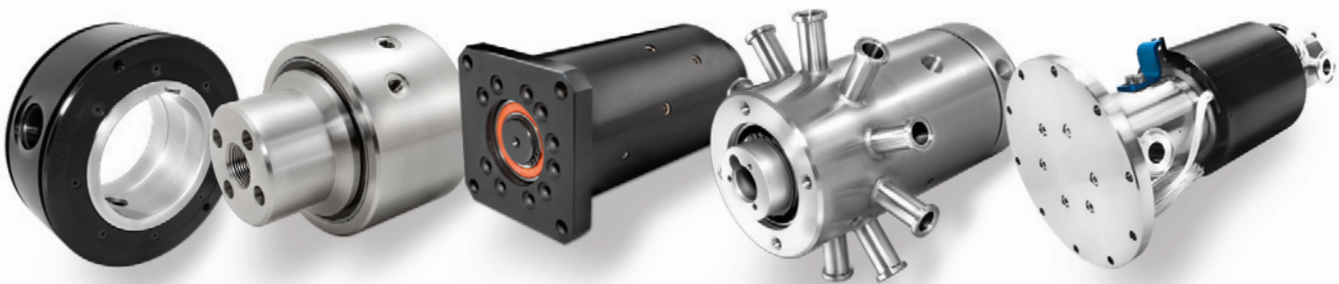
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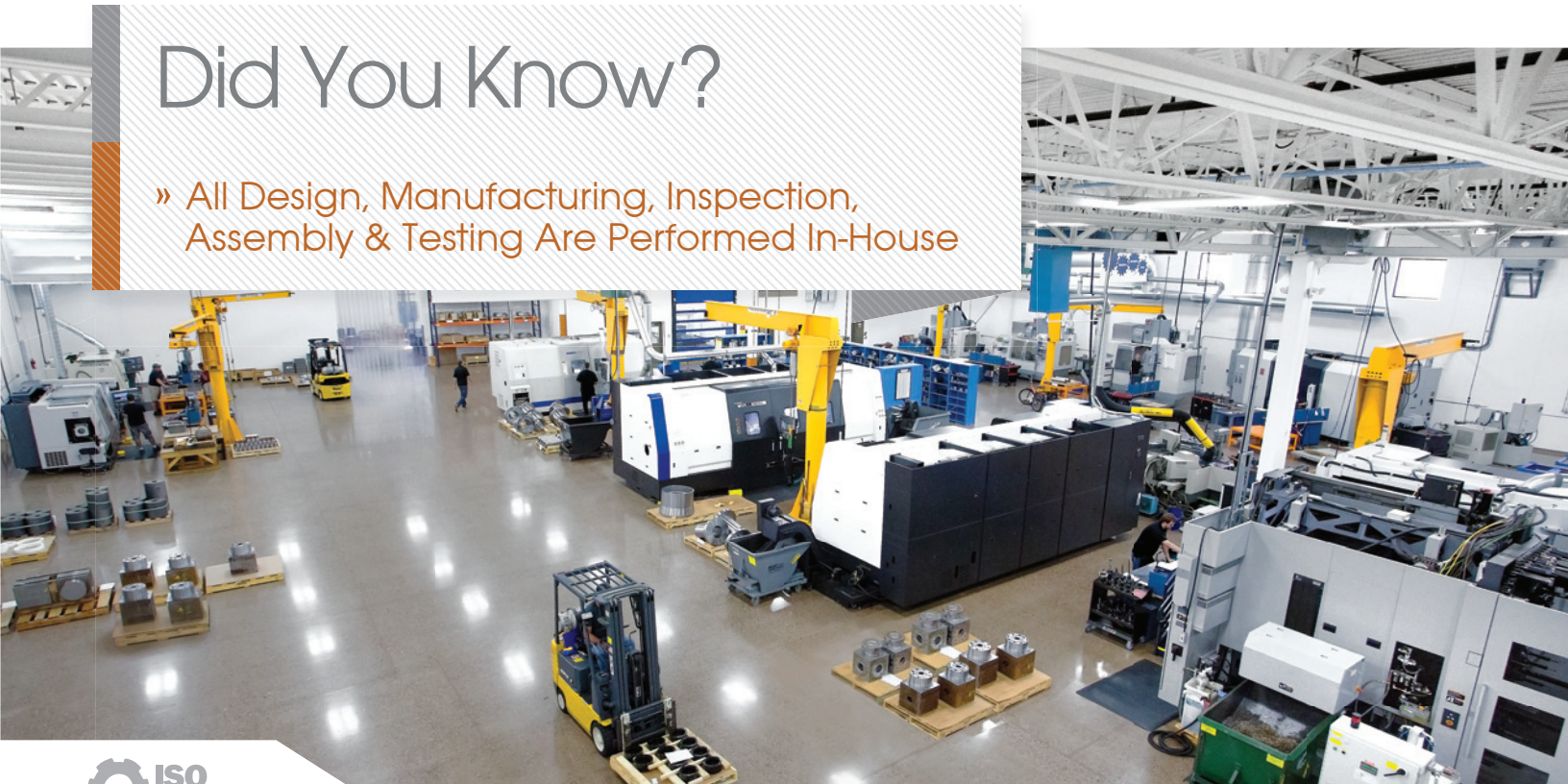
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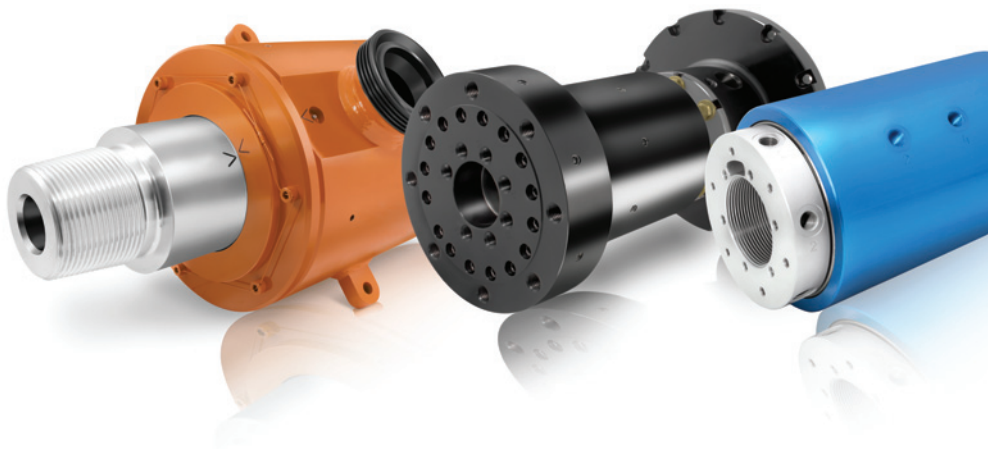


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