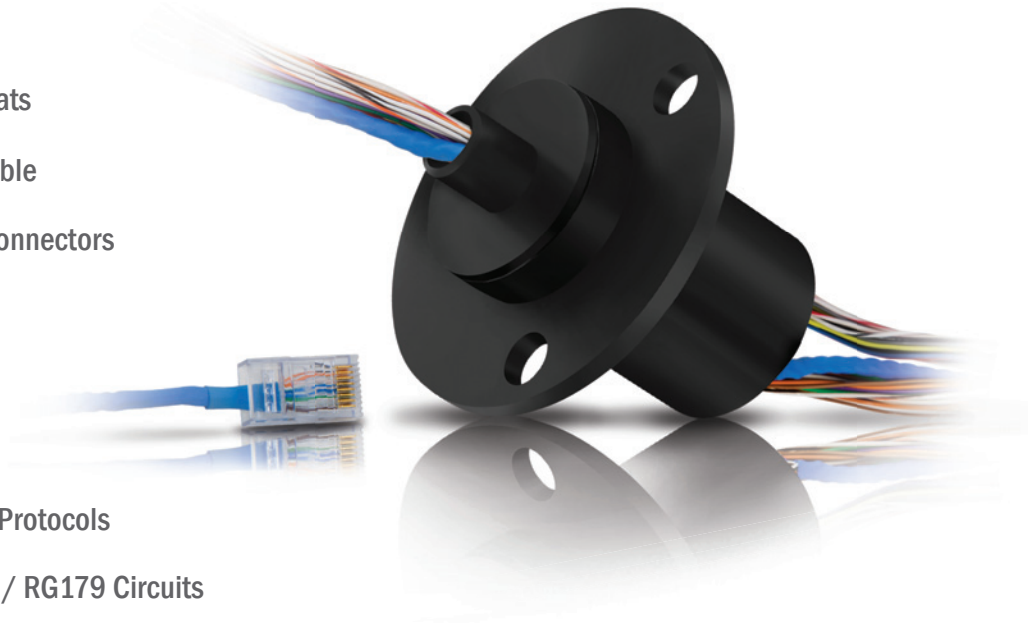


# ESE SERIES

## 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.

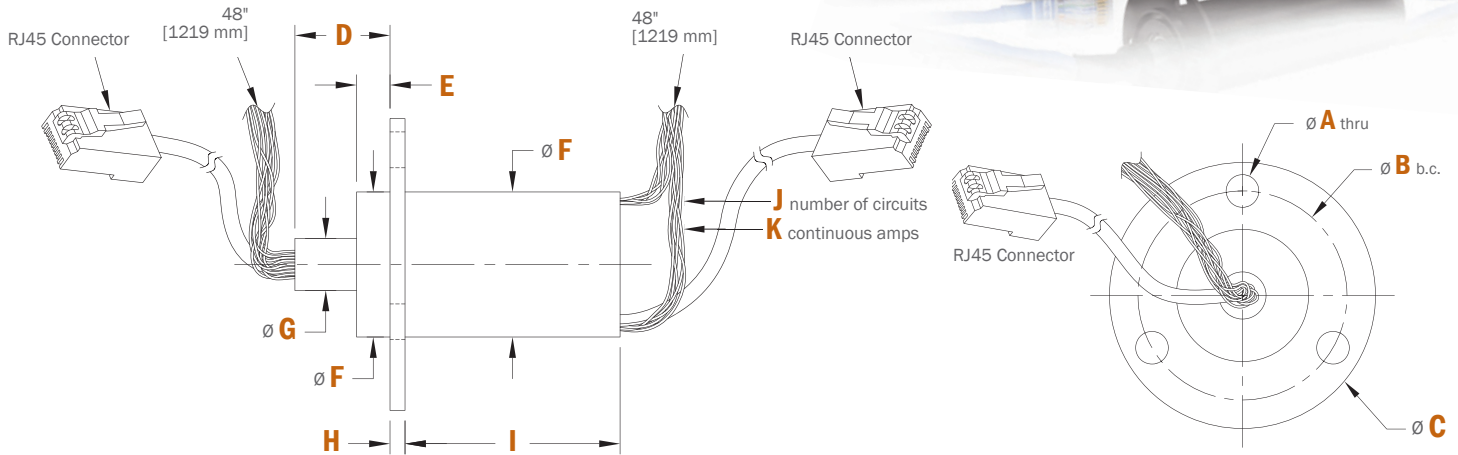
ESE Series slip rings provide 100Base-T or 1000Base-T Ethernet connections with a combination of 2, 5, and 10 amp power connections. Utilizing high performance gold-on-gold contacts, the ESE Series features low electrical noise and Ethernet cables terminated with RJ45 connectors. Standard models are 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)

# ESE SERIES

## Dimensions



	ESE64	ESE264	ESE224	ESE2124	ESE284
<b>A</b>	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]	.215" [5.46mm]
<b>B</b>	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]	1.375" [34.93mm]
<b>C</b>	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
<b>D</b>	.57" [14.40mm]	.57" [14.48mm]	.57" [14.48mm]	.57" [14.48mm]	.57" [14.48mm]
<b>E</b>	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]	.25" [6.35mm]
<b>F</b>	.87" [22.1mm]	.87" [22.10mm]	.87" [22.10mm]	.87" [22.10mm]	.87" [22.10mm]
<b>G</b>	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]	.31" [7.87mm]
<b>H</b>	.09" [2.4mm]	.09" [2.36mm]	.09" [2.36mm]	.09" [2.36mm]	.09" [2.36mm]
<b>I</b>	.75" [19.05mm]	1.02" [25.91mm]	1.02" [25.91mm]	1.29" [32.77mm]	1.29" [32.77mm]
<b>J</b>	10 Circuits	12 Circuits	8 Circuits	18 Circuits	14 Circuits
<b>K</b>	(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
<b>A</b>	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]	.220" [5.58mm]
<b>B</b>	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]	1.410" [35.80mm]
<b>C</b>	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]	1.75" [44.45mm]
<b>D</b>	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]	.48" [12.19mm]
<b>E</b>	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]	.11" [2.80mm]
<b>F</b>	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]	1.00" [25.40mm]
<b>G</b>	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]	.38" [9.52mm]
<b>H</b>	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]	.06" [1.9mm]
<b>I</b>	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]	2.96" [75.3mm]
<b>J</b>	51 Circuits	47 Circuits	45 Circuits	43 Circuits	41 Circuits
<b>K</b>	(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*

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

# ESE SERIES

## 100Base-T Ethernet\* Wire Color Codes

\*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 SERIES

## 1000Base-T Ethernet\* Wire Color Codes

\*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
	BRN	
	RED	
18	ORN	2A/26
	BLK	
	BRN	
	RED	
	ORN	
	YEL	
	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
25	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	



# ESE SERIES

## 1000Base-T Ethernet\* Wire Color Codes

\*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	
	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
21	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 SERIES

## 1000Base-T Ethernet\* Wire Color Codes

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

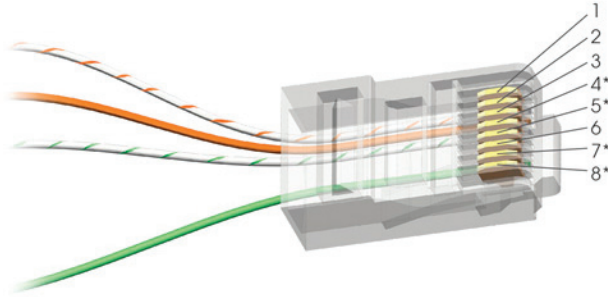
ESE24278					
Tag #	Color	Description/Awg			
1	BLK	5A/20			
2	BRN				
3	RED				
4	ORN				
5	BLK	2A/26			
6	BRN				
7	RED				
8	ORN				
9	YEL				
10	GRN				
11	BLK	10A/16			
12	BRN				
13	BLK	2A/26			
14	BRN				
15	RED				
16	ORN				
17	YEL				
18	GRN				
19	ORN	1000_T/28/ Twisted Pair	27	BLK	2A/26
	WHT-ORN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



# ESE SERIES

## 4-Wire Ethernet Plug Wiring\*

Color	Pin #
WHT-ORN	1
ORN	2
WHT-GRN	3
N/A	4
N/A	5
GRN	6
N/A	7
N/A	8



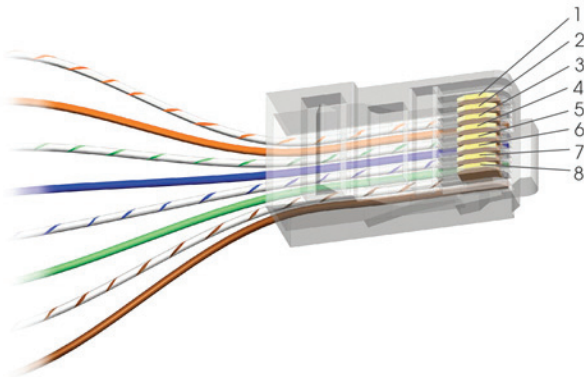
### ATTENTION

Ethernet Plug PIN Numbers shown on this page are different than Wire Tag Numbers.

\*RJ45 Plug

## 8-Wire Ethernet Plug Wiring\*

Color	Pin #
WHT-ORN	1
ORN	2
WHT-GRN	3
BLU	4
WHT-BLU	5
GRN	6
WHT-BRN	7
BRN	8



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