

# CONNECTORS

EXPLOSIONPROOF STARLINE



FEATURES • STAINLESS STEEL MILLENNIUM SD POWER & SF CONTROL SERIES



**Ratings & Certifications:**

**CS** US Class I, Div 1 & 2, Groups B, C & D  
 Class II, Div.1, Groups F & G, 60/400 Hz,  
 Circuit-Breaking.  
 Power: 1000VAC, 500VDC  
 Control: 250VAC, 125VDC  
 Select inserts 480VAC non-circuit  
 breaking.  
 AEx d IIC T6  
**CE** **Ex** II 2 GD Ex d IIC T6 IP 66/67 70°C.  
 KEMA 04ATEX2179X 50/60/400 Hz

**PRODUCT FEATURES**

**Corrosion Resistance**

Designed for corrosive environments, junction boxes are sand cast, copper-free aluminum, protected by our VanGuard baked polymer finish system. Plug and receptacle shells are machined from stainless steel, alloy 316.

**Control Inserts**

There are over 15 - with as few as 10 and as many as 100 contacts. Grounding and non-grounding types are available. Multi-pin inserts can be crimp or solder terminated. Inserts with the highest contact density per shell size are:

Shell 16	61 - #18 AWG contacts
Shell 20	90 - #18 AWG contacts
Shell 24	100 - #16 AWG contacts

**Circuit-Breaking**

CSA lists the Millennium Series to make/break at full rated load. These connectors were required to pass an overload test of 50 cycles at 150% of their ampere rating in a chamber filled with a mixture of hazardous vapors. ATEX listings certify a higher amperage rating because in the CENELEC scheme circuits are not to be made or broken under load.

PIN - SOCKET WIRE SIZE	AMPS	
	<b>CS</b> US	<b>Ex</b>
18 AWG (.75 mm <sup>2</sup> )	3.5	10
16 AWG (1.5 mm <sup>2</sup> )	6.5	15
12 AWG (4.0 mm <sup>2</sup> )	10	20
8 AWG / (10 mm <sup>2</sup> )	30	32
4 AWG / (25 mm <sup>2</sup> )	60	63
1/0 AWG / (55 mm <sup>2</sup> )	100	125
4/0 (120 mm <sup>2</sup> )	200	260

**Contact Plating Options**

Control contact plating options include: silver, gold over silver and gold over nickel. Thermocouple contacts are also available.

**Color Coding**

Plugs and receptacles are available with color coding variations for specific application identification. This coding could include the plug coupling nut and cover with matching colors on various receptacle components.

**Power Inserts**

30/32, 60/63, 100/125 and 200/260 amp rated for service through 1000 VAC and designed for Class I and II Areas, per the U.S. and Canadian electrical codes and Zone 1 Areas per the ATEX Directive.

**Voltage**

Control connectors tested for service through 250 VAC / 125 VDC, select inserts through 480 VAC non-circuit breaking. Power connectors have been tested for service through 600 VAC (CSA) & 1000 VAC / 500 VDC (KEMA)

**Frequency**

Tested at both 60 and 400 Hz. This feature is of paramount importance at airports and aircraft maintenance facilities around the world. Users include Boeing, Lockheed Martin, McDonnell Douglas, United, TWA, Delta, Air Canada, El Al and the C5A Military Program.

**Factory Sealing**

Junction box, NPT and panel-mounted receptacles are pre-wired and factory sealed. No external seals are required.

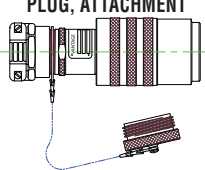
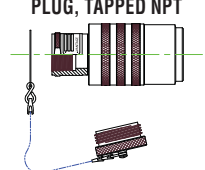
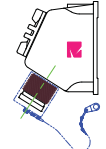
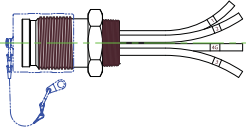
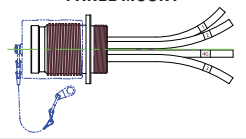
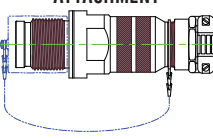
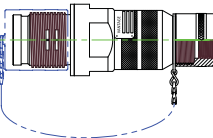
**Reverse Service**

This feature, available with all connectors, ensures electrical safety where lineside power is carried from the plug to a receptacle.





## SD PART NUMBERS

	AMPERES		2 POLE, 3 WIRE	3 POLE, 4 WIRE	3 POLE, 4 WIRE + 2 RELAY	4 POLE, 5 WIRE
	UL	Ex				
<b>PLUG, ATTACHMENT</b> 	30 / 32		SD-D1016-51PL-XX	SD-D1016-23PL-XX		SD-D1020-36PL-XX
	60 / 63		SD-D1020-61PL-XX	SD-D1020-40PL-XX	SD-D1020-56PL-XX	SD-D1024-29PL-XX
	100 / 125		SD-D1024-60PL-XX	SD-D1024-39PL-XX	SD-D1024-32PL-XX	SD-D1028-23PL-XX
	200 / 260		SDU-D1028-30PL-XX	SDU-D1028-31PL-XX	SDT-D1028-42PL-XX	
<b>PLUG, TAPPED NPT</b> 	30 / 32		SD-D1016-51PL-TC	SD-D1016-23PL-TC		SD-D1020-36PL-TC
	60 / 63		SD-D1020-61PL-TC	SD-D1020-40PL-TC	SD-D1020-56PL-TC	SD-D1024-29PL-TC
	100 / 125		SD-D1024-60PL-TC	SD-D1024-39PL-TC	SD-D1024-32PL-TC	SD-D1028-23PL-TC
	200 / 260		SDU-D1028-30PL-TC	SDU-D1028-31PL-TC	SDT-D1028-42PL-TC	
<b>RECEPTACLE, JUNCTION BOX</b> 	30 / 32		SD-B1716-51SL-FH	SD-B1716-23SL-FH		SD-B1720-36SL-FH
	60 / 63		SD-B1720-61SL-FH	SD-B1720-40SL-FH	SD-B1720-56SL-FH	SD-B1724-29SL-BK
	100 / 125		SD-B1724-60SL-BK	SD-B1724-39SL-BK	SD-B1724-32SL-BK	SD-B1728-23SL-BL
	200 / 260		SDU-B1728-30SL-BL	SDU-B1728-31SL-BL	SDT-B1728-42SL-BL	
<b>RECEPTACLE, NPT</b> 	30 / 32		SD-B1916-51SL-L48	SD-B1916-23SL-L48		SD-B1920-36SL-L48
	60 / 63		SD-B1920-61SL-L48	SD-B1920-40SL-L48	SD-B1920-56SL-L48	SD-B1924-29SL-L48
	100 / 125		SD-B1924-60SL-L48	SD-B1924-39SL-L48	SD-B1924-32SL-L48	SD-B1928-23SL-L48
	200 / 260		SDU-B1928-30SL-L48	SDU-B1928-31SL-L48	SDT-B1928-42SL-L48	
<b>RECEPTACLE, PANEL MOUNT</b> 	30 / 32		SD-B1716-51SL-L36	SD-B1716-23SL-L36		SD-B1720-36SL-L36
	60 / 63		SD-B1720-61SL-L36	SD-B1720-40SL-L36	SD-B1720-56SL-L36	SD-B1724-29SL-L36
	100 / 125		SD-B1724-60SL-L36	SD-B1724-39SL-L36	SD-B1724-32SL-L36	SD-B1728-23SL-L36
	200 / 260		SDU-B1728-30SL-L36	SDU-B1728-31SL-L36	SDT-B1728-42SL-L36	
<b>RECEPTACLE, ATTACHMENT</b> 	30 / 32		SD-B1516-51SL-XX	SD-B1516-23SL-XX		SD-B1520-36SL-XX
	60 / 63		SD-B1520-61SL-XX	SD-B1520-40SL-XX	SD-B1520-56SL-XX	SD-B1524-29SL-XX
	100 / 125		SD-B1524-60SL-XX	SD-B1524-39SL-XX	SD-B1524-32SL-XX	SD-B1528-23SL-XX
	200 / 260		SDU-B1528-30SL-XX	SDU-B1528-31SL-XX	SDT-B1528-42SL-XX	
<b>RECEPTACLE, TAPPED NPT</b> 	30 / 32		SD-B1516-51SL-TC	SD-B1516-23SL-TC		SD-B1520-36SL-TC
	60 / 63		SD-B1520-61SL-TC	SD-B1520-40SL-TC	SD-B1520-56SL-TC	SD-B1524-29SL-TC
	100 / 125		SD-B1524-60SL-TC	SD-B1524-39SL-TC	SD-B1524-32SL-TC	SD-B1528-23SL-TC
	200 / 260		SDU-B1528-30SL-TC	SDU-B1528-31SL-TC	SDT-B1528-42SL-TC	

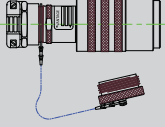
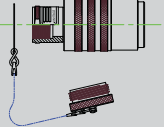



Replace 'XX' with cable diameter code number from Page CN66  
 Pre-wired lead length can be specified to suit application. Consult factory  
 See pages CN71 and CN72 for Part Number Code Logic

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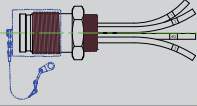
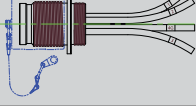
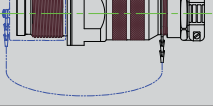
## SF PART NUMBERS

PIN QUANTITY	PIN SIZE AWG (MM <sup>2</sup> ) 'G' = WITH GROUND PIN	AMPS @ 250 VAC <sup>1</sup>		PLUG, ATTACHMENT 	PLUG, TAPPED CONDUIT 	RECEPTACLE, JUNCTION BOX 
						
10	#12 (4.0)	10.0	20	SF-D1016-681PL-XX	SF-D1016-681PL-TC	SF-B1716-681SL-FH
10	#12 G (4.0)	10.0	20	SF-D1016-676PL-XX	SF-D1016-676PL-TC	SF-B1716-676SL-FH
19	#12 G (4.0)	10.0	20	SF-D1016-612PL-XX	SF-D1016-612PL-TC	SF-B1716-612SL-FH
19	#12 (4.0)	10.0	20	SF-D1016-677PL-XX	SF-D1016-677PL-TC	SF-B1716-677SL-FH
19	#12 (4.0)	10.0 <sup>1</sup>	20	SF-D1020-676PL-XX	SF-D1020-676PL-TC	SF-B1720-676SL-FH
19	#12 G (4.0)	10.0 <sup>1</sup>	20	SF-D1020-688PL-XX	SF-D1020-688PL-TC	SF-B1720-688SL-FH
19	#16 (1.5)	6.5	15	SF-D1016-655PL-XX	SF-D1016-655PL-TC	SF-B1716-655SL-FH
20	#12 (4.0)	10.0	20	SF-D1020-632PL-XX	SF-D1020-632PL-TC	SF-B1720-632SL-FH
20	#12 G (4.0)	10.0	20	SF-D1020-687PL-XX	SF-D1020-687PL-TC	SF-B1720-687SL-FH
37	#12 (4.0)	10.0	20	SF-D1020-686PL-XX	SF-D1020-686PL-TC	SF-B1720-686SL-FH
37	#12 G (4.0)	10.0	20	SF-D1020-650PL-XX	SF-D1020-650PL-TC	SF-B1720-650SL-FH
37	#16 (1.5)	6.5	15	SF-D1016-621PL-XX	SF-D1016-621PL-TC	SF-B1716-621SL-FH
55	#18 (.75)	3.5	10	SF-D1016-640PL-XX	SF-D1016-640PL-TC	SF-B1716-640SL-FH
61	#18 (.75)	3.5	10	SF-D1016-633PL-XX	SF-D1016-633PL-TC	SF-B1716-633SL-FH
68	#16 (1.5)	6.5	15	SF-D1020-613PL-XX	SF-D1020-613PL-TC	SF-B1720-613SL-FH
100	#16 (1.5)	5.0	15	SF-D1024-613PL-XX	SF-D1024-613PL-TC	SF-B1724-613SL-BK

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 See pages CN73 and CN74 for Part Number Code Logic  
<sup>1</sup> = Insert is also rated 480 VAC non-circuit breaking.



SF PART NUMBERS CONTINUED

PIN QUANTITY	PIN SIZE AWG (MM <sup>2</sup> ) 'G' = WITH GROUND PIN	AMPS @ 250 VAC <sup>1</sup>		RECEPTACLE, NPT	RECEPTACLE, PANEL MOUNT	RECEPTACLE, ATTACHMENT
						
10	#12 (4.0)	10.0	20	SF-B1916-681SL-L48	SF-B1716-681SL-L36	SF-B1516-681SL-XX
10	#12 G (4.0)	10.0	20	SF-B1916-676SL-L48	SF-B1716-676SL-L36	SF-B1516-676SL-XX
19	#12 G (4.0)	10.0	20	SF-B1916-612SL-L48	SF-B1716-612SL-L36	SF-B1516-612SL-XX
19	#12 (4.0)	10.0	20	SF-B1916-677SL-L48	SF-B1716-677SL-L36	SF-B1516-677SL-XX
19	#12 (4.0)	10.0 <sup>1</sup>	20	SF-B1920-676SL-L48	SF-B1720-676SL-L36	SF-B1520-676SL-XX
19	#12 G (4.0)	10.0 <sup>1</sup>	20	SF-B1920-688SL-L48	SF-B1720-688SL-L36	SF-B1520-688SL-XX
19	#16 (1.5)	6.5	15	SF-B1916-655SL-L48	SF-B1716-655SL-L36	SF-B1516-655SL-XX
20	#12 (4.0)	10.0	20	SF-B1920-632SL-L48	SF-B1720-632SL-L36	SF-B1520-632SL-XX
20	#12 G (4.0)	10.0	20	SF-B1920-687SL-L48	SF-B1720-687SL-L36	SF-B1520-687SL-XX
37	#12 (4.0)	10.0	20	SF-B1920-686SL-L48	SF-B1720-686SL-L36	SF-B1520-686SL-XX
37	#12 G (4.0)	10.0	20	SF-B1920-650SL-L48	SF-B1720-650SL-L36	SF-B1520-650SL-XX
37	#16 (1.5)	6.5	15	SF-B1916-621SL-L48	SF-B1716-621SL-L36	SF-B1516-621SL-XX
55	#18 (.75)	3.5	10	SF-B1916-640SL-L48	SF-B1716-640SL-L36	SF-B1516-640SL-XX
61	#18 (.75)	3.5	10	SF-B1916-633SL-L48	SF-B1716-633SL-L36	SF-B1516-633SL-XX
68	#16 (1.5)	6.5	15	SF-B1920-613SL-L48	SF-B1720-613SL-L36	SF-B1520-613SL-XX
100	#16 (1.5)	5.0	15	SF-B1924-613SL-L48	SF-B1724-613SL-L36	SF-B1524-613SL-XX

Replace 'XX' with cable diameter code number from Page CN66  
 Pre-wired lead length can be specified to suit application. Consult factory  
 See pages CN73 and CN74 for Part Number Code Logic  
<sup>1</sup> = Insert is also rated 480 VAC non-circuit breaking.