

Ratings and Certifications



Underwriters Laboratories. Class I, Groups C & D at 480 Vac, 60/400 Hz, Circuit-Breaking.



CSA International, U.S. and Canadian Standards: Class I, Groups B, C & D and Class II, Groups F & G at 600 Vac, 60/400 Hz, Circuit-Breaking.



0344 Ex II 2 G D, EEx d IIC T6; -20°C ≤ Ta ≤ +50°C; IP 66/67 T70°. For Standard and Reverse Service, 50/60/400 Hz; 500 Vdc, 1000 Vac.

Operation

The plug features a quick make and break design. To engage, align plug to receptacle and turn coupling sleeve clockwise. Plug will be injected automatically & close circuit. Continue turning coupling sleeve to solid to provide environmental seal. To disengage, rotate coupling sleeve counter (c.c.w.) clockwise. Plug will eject automatically. Continue turning coupling sleeve to extract the plug. Caution: Do not interfere with cable housing. Note: In reverse service applications, for safety from shock hazard, the plug cover must be threaded onto plug when plug not in use.

Materials (See Tables 5 and 6 for Material Composition data)

GD Series, Copper free (0.15-0.40% by weight) wrought Aluminum 6061-T6 with hardcoating per Mil-A-8625 Type III, black finish.

SD Series, Stainless Steel Type 316.

Assembly

Plugs are designed for easy field termination. Wires are pressure terminated to contacts using a standard hex wrench provided with each plug. A special plug assembly tool and instructions are included. A vise, strap wrench, and blade screw driver are required.

Maintenance

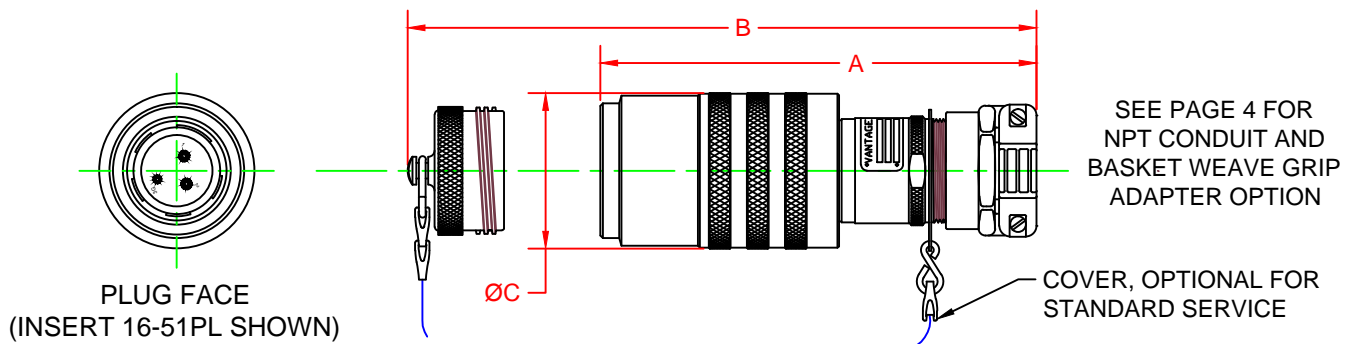
Periodic maintenance consists of inspection for termination integrity and contamination. When conditions require, lubricate coupling threads with silicone oil, Vantage Part Number VT-9400-21D.

Before Ordering

Insert: Table 2 lists the available insert configurations. The insert selection dictates the shell size of the plug. Diagrams are available for each insert configuration. See document PDS-GD-SD-INSERTS.

Grommet: To provide safe environmental sealing, a correctly sized grommet must be selected. Reference Table 4 to determine grommet code.

Options: Attachment plugs are available with threaded environmental covers, basket weave grips, and NPT threaded conduit backshells. Table 7 lists the available NPT sizes for each shell size. Table 9 lists color coding options.



SHELL SIZE	TABLE 1: GENERAL DIMENSIONS				Weights shown for aluminum. Multiply by factor of 2 for stainless steel.
	A IN INCHES (mm)	B IN INCHES (mm)	C IN INCHES (mm)	WEIGHT LBS (kg)	
16	9.3 (236)	10.3 (262)	2.977 (75.6)	4.0 (1.8)	
20	10.0 (254)	11.0 (279)	3.577 (90.9)	5.2 (2.4)	
24	10.4 (264)	11.4 (289)	4.182 (106.2)	7.2 (3.3)	
28	10.9 (277)	11.9 (302)	4.814 (122.3)	9.1 (4.1)	

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REVISION:	WTN BY: JOHN NORDECK	TITLE: GD AND SD ATTACHMENT PLUG	 4675 South Windermere Street Englewood, Colorado USA 80110 Phone: 303-761-2121 Email: support@vantagexp.com
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PRODUCT DATA SHEET		DOCUMENT: PDS-GD-SD-PLUG	SHEET: 1 OF 5

TABLE 2: INSERTS AND AMPERE RATINGS




CONTACTS	AMPERES			CONNECTOR PREFIX	SHELL SIZE	INSERT CODE NUMBER		KEY POSITIONS
						PIN	SOCKET	
2 POLE, 3 WIRE	30	30	32	GD or SD	16	51PL	51SL	N + 5
3 POLE, 4 WIRE	30	30	32	GD or SD	16	23PL	23SL	N + 5
4 POLE, 5 WIRE	30	30	32	GD or SD	20	36PL	36SL	N + 2
2 POLE, 3 WIRE	60	60	63	GD or SD	20	61PL	61SL	N + 7
3 POLE, 4 WIRE	60	60	63	GD or SD	20	40PL	40SL	N + 4
4 POLE, 5 WIRE	60	60	63	GD or SD	24	29PL	29SL	N + 3
2 POLE, 3 WIRE	100	100	125	GD or SD	24	60PL	60SL	N + 7
3 POLE, 4 WIRE	100	100	125	GD or SD	24	39PL	39SL	N + 5
4 POLE, 5 WIRE	100	100	125	GD or SD	28	23PL	23SL	N + 3
2 POLE, 3 WIRE	200	200	260	GD or SD	28	30PL	30SL	N + 9
3 POLE, 4 WIRE	200	200	260	GDU or SDU	28	31PL	31SL	N + 10
5 POLE, 6 WIRE	200	200	260	GDT or SDT	28	42PL	42SL	N + 3

TABLE 3: ATTACHMENT PLUGS PART NUMBER CODE LOGIC

GD	-	D	10	16	-	23	P	L	01	-	XX
1		2	3	4		5	6	7	8		9

1	CLASSIFICATION	GD = ALUMINUM SD = STAINLEES STEEL
2	COVER	D = PLUG COVER BLANK = NO COVER
3	SHELL STYLE	10 = PLUG, ATTACHMENT STYLE
4	SHELL SIZE	16 = SHELL SIZE 16 24 = SHELL SIZE 24 20 = SHELL SIZE 20 28 = SHELL SIZE 28
5	INSERT	SEE INSERT TABLE, TABLE 3
6	GENDER	P = MALE (PIN) INSERT S = FEMALE (SOCKET) INSERT
7	CONTACT PLATING	L = SILVER PLATE (STANDARD) GROUND CONTACTS ARE GOLD OVER SILVER
8	INSERT KEYING	BLANK = NORMAL KEY NUMBERED = ALTERNATE KEY
9	ACCESSORY	XX = CABLE DIAMETER CODE, SEE TABLE 4 TC = TAPPED CONDUIT, SEE TABLE 5 B = BASKET WEAVE GRIP, INSERT AFTER 'XX'

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TABLE 4: CABLE DIAMETER GROMMET CODES						
CODE NUMBER	CABLE DIAMETER, INCHES (mm)		SHELL SIZE			
	MINIMUM	MAXIMUM	16	20	24	28
06	0.250 (6.35)	0.375 (9.53)	X			
08	0.375 (9.53)	0.500 (12.70)	X			
10	0.500 (12.70)	0.625 (15.88)	X	X		
12	0.625 (15.88)	0.750 (19.05)	X	X		
14	0.750 (19.05)	0.875 (22.23)	X	X		
16	0.875 (22.23)	1.000 (25.40)	X	X	X	
18	1.000 (25.40)	1.125 (28.58)	X	X	X	
20	1.125 (28.58)	1.250 (31.75)	X	X	X	
22	1.250 (31.75)	1.375 (34.93)	X	X	X	
23	1.375 (34.93)	1.437 (36.50)	X	X	X	
24	1.375 (34.93)	1.500 (38.10)		X	X	X
26	1.500 (38.10)	1.625 (41.28)		X	X	X
28	1.625 (41.28)	1.750 (44.45)		X	X	X
30	1.750 (44.45)	1.875 (47.63)		X	X	X
31	1.875 (47.63)	1.937 (49.20)		X	X	X
32	1.875 (47.63)	2.000 (50.80)			X	X
34	2.000 (50.80)	2.125 (53.98)			X	X
36	2.125 (53.98)	2.250 (57.15)			X	X
38	2.250 (57.15)	2.375 (60.33)			X	X
39	2.375 (60.33)	2.437 (61.90)			X	X
40	2.375 (60.33)	2.500 (63.50)				X
42	2.500 (63.50)	2.625 (66.68)				X
44	2.625 (66.68)	2.750 (69.85)				X
46	2.750 (69.85)	2.875 (73.03)				X

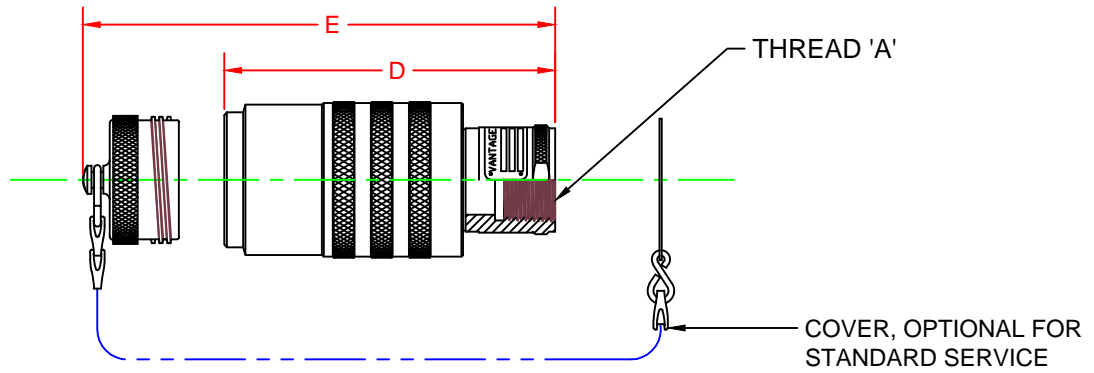
ELEMENTAL COMPOSITIONS

TABLE 5: ELEMENTAL COMPOSITION OF ALUMINUM 6061-T6 PERCENTAGE BY WEIGHT											
	Al	Cr	Cu	Fe	Mg	Mn	Si	Ti	Zn	Other Each	Other Total
MIN	REM	0.04	0.15	-	0.80	-	0.40	-	-	-	-
MAX	REM	0.35	0.40	0.70	1.20	0.15	0.80	0.15	0.25	0.05	0.15

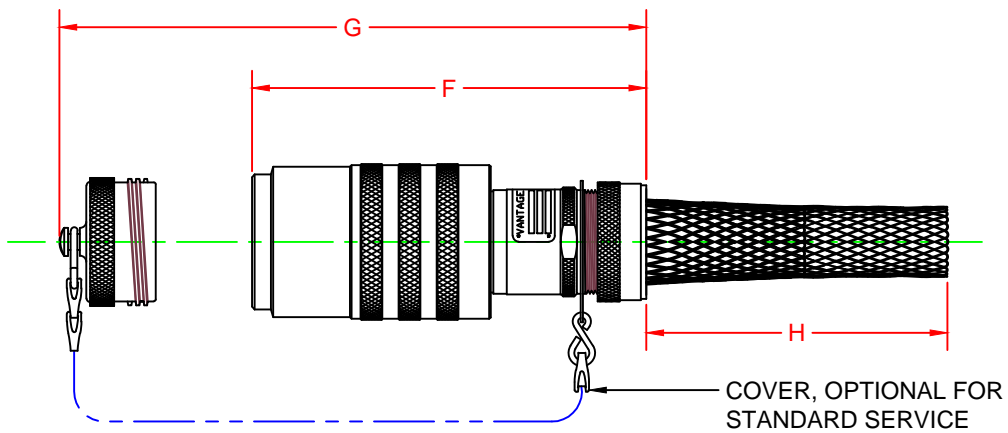
TABLE 6: ELEMENTAL COMPOSITION OF STAINLESS STEEL TYPE 316 PERCENTAGE BY WEIGHT											
	Fe	C	Mn	Si	P	S	Cr	Mo	Ni	N	Other
MIN	REM	-	-	-	0	-	16.0	2.0	10.0	-	-
MAX	REM	0.08	2.0	0.75	0.045	0.03	18.0	3.0	14.0	0.10	-

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SHELL SIZE	THREAD 'A'	D IN INCHES (mm)	E IN INCHES (mm)
16	1 1/4 -11 1/2 NPT	6.9 (175)	7.9 (201)
20	1 1/2 -11 1/2 NPT	7.2 (183)	8.2 (208)
24	2 -11 1/2 NPT	7.4 (188)	8.4 (213)
28	2 1/2 - 8 NPT	7.8 (198)	8.8 (224)



SHELL SIZE	F IN INCHES (mm)	G IN INCHES (mm)	H IN INCHES (mm)
16	9.5 (241)	10.5 (267)	3.75 - 10.25 (95 - 260)
20	10.2 (259)	11.2 (285)	5.75 - 14.25 (146 - 362)
24	10.5 (267)	11.5 (292)	8.25 - 17.25 (210 - 438)
28	10.9 (277)	11.9 (302)	13.75 - 19.75 (349 - 502)



NOTE: UL 1203, *Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations*, REQUIRES THE USE OF A "MECHANICAL CORD CLAMP" STRAIN RELIEF ON CABLE ATTACHMENT CONNECTORS. CONNECTORS WITH BASKET WEAVE GRIPS ARE AVAILABLE WITH CSA AND ATEX CERTIFICATION.

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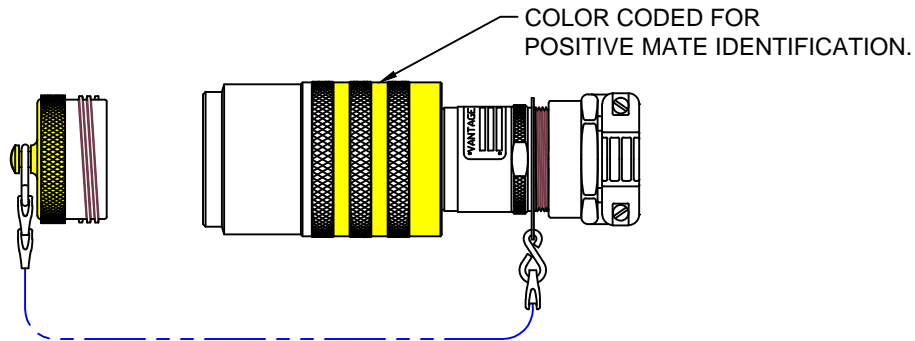
Color Coding

Plugs and receptacles are available with color coding variations for specific application identification. For plugs, the coding includes the plug coupling nut and cover. The mating receptacle's components to be painted to match.

Table 9 lists the available color options and the code designator used with the connector part number.

COLOR	PART NUMBER CODE
RED	RED
GREEN*	GRN
ORANGE	ORG
LIGHT BLUE	LTB
DARK BLUE	BLU
YELLOW	YEL
WHITE	WHT
PURPLE	PUR
BROWN	BRN

*CAUTION: GREEN TO BE USED FOR GROUND SERVICE ONLY.



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