

847/848 Series

Power Supply up to 63A



Now Available in Black Zinc Nickel

The 847/848 bayonet Series has been especially designed for light and harsh environment. Its physical characteristics and performances are appreciated in a large range of applications including military ground equipment and heavy weapons.

Environment friendly ■ RoHS black zinc nickel: 848 Series.
500 hours salt spray.

Safety ■ DIN EN 60664-1 (VDE 0110-1) approved.

Reliable ■ Robust circular aluminum connector.
Power supply up to 63A (DC to 3 phase AC)
Large variety of backshells and wide range of
wire gauges and current carrying capabilities.

Standards ■ VG96918 approved and qualified.

Description

- Bayonet coupling connector with crimp contacts.
- Qualified as per VG96918
- Power supply (up to 63A)
- Pilot and ground contacts available.
- Contact layouts for:
 - . Mono 220 V
 - . Tri 220/440 + N + Pilot



Technical features

Materials

- **Shell & Backshell material:**
 - . Aluminum
 - . Steel
 - . Bronze (consult us)
- **Shell & Backshell plating:**
 - . Aluminum:
 - Black Zinc Nickel
 - . Steel:
 - Olive green cadmium
 - White cadmium
 - . Bronze (consult us)
- **Insulator:**
 - Neoprene
- **Contact:**
 - Crimp, machined, from brass
- **Contact plating:**
 - Silver

- **Endurance:**
 - 500 mating/unmating operations

Electrical

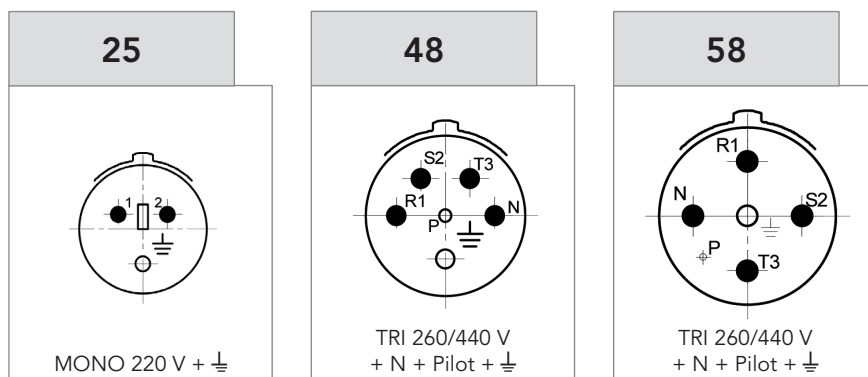
- **Operating voltage:**
 - . Contact layout 25:
 - 220 Vrms single phase current, 250 VDC
 - . Contact layouts 48 and 58:
 - 260/440 Vrms three phase current, 500 VDC
- **Current rating:**
 - . Contact layout 25: 16 A
 - . Contact layout 48: 25 A
 - . Contact layout 58: 63 A
- **Withstanding voltage:**
 - . 2000 Veff for shell sizes 2 and 4
 - . 2500 Veff for shell size 5

- **Shielding effectiveness:**
 - . 10kHz - 3MHz 70dB min.
 - . 100MHz - 1000MHz 40dB min.

Environmental

- **Temperature range:**
 - 55°C to + 85°C (125°C peak)
- **Sealing (immersion):**
 - IP68 (1 bar - 24 hours)
- **Salt spray resistance:**
 - . Cadmium: 48 hours
 - . Black Zinc Nickel: 500 hours
- **Pollution degree 3:**
 - according to DIN EN60664-1

Contact layouts



Ordering information

SOURIAU part numbers - with contacts and backshells

Basic Series	84	8	48	F	5	47	N	3	08
Shell material and plating									
7: Steel shell with cadmium plating (see specification below) or Bronze shell (see specification below)									
8: Aluminum shell with black zinc nickel plating									
Contact layout: 25, 48, 58 (see previous page)									
Shell type									
A: Square flange receptacle, smooth holes, without thread for backfitting									
B: Square flange receptacle, smooth holes, with thread for backfitting									
L: Square flange receptacle, threaded holes, without thread for backfitting									
M: Square flange receptacle, threaded holes, with thread for backfitting									
F: Plug									
P: Cable connecting receptacle									
D: Jam nut receptacle with thread for backfitting									
R: Jam nut receptacle without thread for backfitting									
Contact type									
1: Crimp male contact									
5: Crimp female contact									
Backshell type									
00: Receptacles (A, L, R types), without thread for backfitting receptacles (B, M, D) Plugs and cable connecting receptacles supplied without backshell									
21: Straight cable clamp and sealing gland backshell									
23: Elbow cable clamp and sealing gland backshell									
47: Straight backshell for shield termination and heatshrink sleeving									
48: Straight backshell for shield termination and heatshrink sleeving and tightening shield ring (for contact layout 48 & 58 only, please consult us)									
Orientation: N, W, X, Y									
Insert type									
0: Without grommet, without pilot contact. Only for contact layout 25 and 48									
1: With grommet, without pilot contact. Contact layout 58: insert is only with grommet									
2: Without grommet, with pilot contact. Only for contact layout 48									
3: With grommet, with pilot contact. Filler plug supplied. Only for contact layout 48 and 58									
Specification - 847 Series only:					Specification - 848 Series only:				
02: Steel shell with olive green cadmium plating					08: Aluminum shell with black zinc nickel plating				
03: Steel shell with olive green cadmium plating with specific contacts									
07: Bronze version (consult us)									
09: Steel shell with white cadmium plating									

VG96918 part numbers

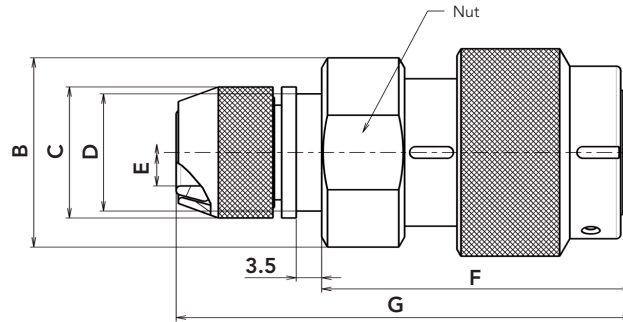
Basic Series	VG96918	A1	25	P	N	C
Shell type						
A1: Fixed connector with mounting flange						
B1: Fixed connector with mounting flange and adapter for shielding braid						
C: Fixed connector for single hole mounting						
D: Fixed connector for single hole mounting and adapter for shielding braid						
E: Cable connecting receptacle with adapter for shielding braid						
F: Free plug with adapter for shielding braid						
Contact layout: 25, 48, 58 (see previous page)						
Contact type						
P: Male contact						
S: Female contact						
Orientation: N, W, X, Y						
Plating						
None: Steel shell with olive green cadmium plating						
B: Marine bronze						
C: Aluminium shell with black zinc nickel plating						

Dimensions

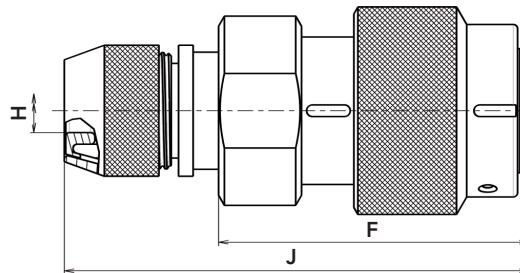
F Type - Plug

VG96918 Style F for 847/848 form F with backshell 47 type

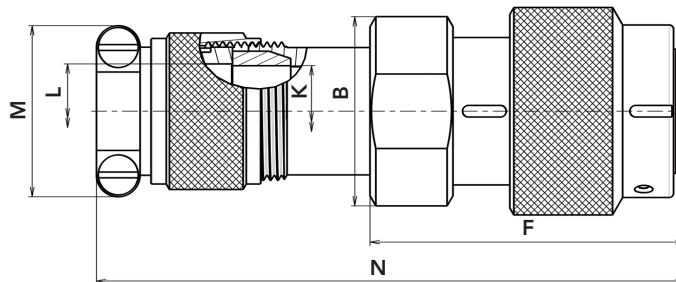
With backshell
47 type



With backshell
48 type



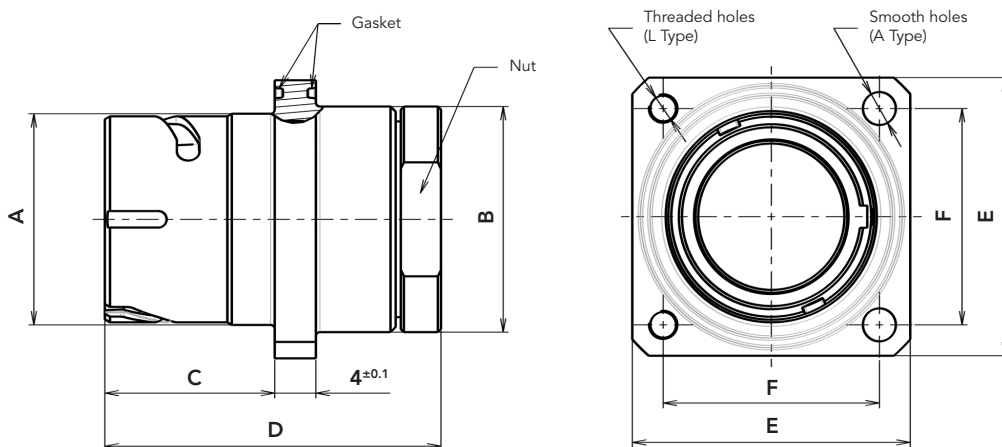
With backshell
21 type



Shell size	A Max.	B Max.	C Max.	D	E	F Max.	G Max.	H	J Max.	K Max.	L Max.	M Max.	N Max.	Nut Thickness
2	28.6	26.1	18.1	16.1	9.2	44	64.2	-	-	12.6	13.1	23.8	85.4	24
4	41.1	38.6	28.1	26.2	18.3	46.5	67.7	12.8	69.9	19.1	20.6	33.8	101.4	36
5	53.1	50.6	41.1	37.5	28.8	48.8	71.8	21.6	74.1	28.6	30.1	43.8	123	46

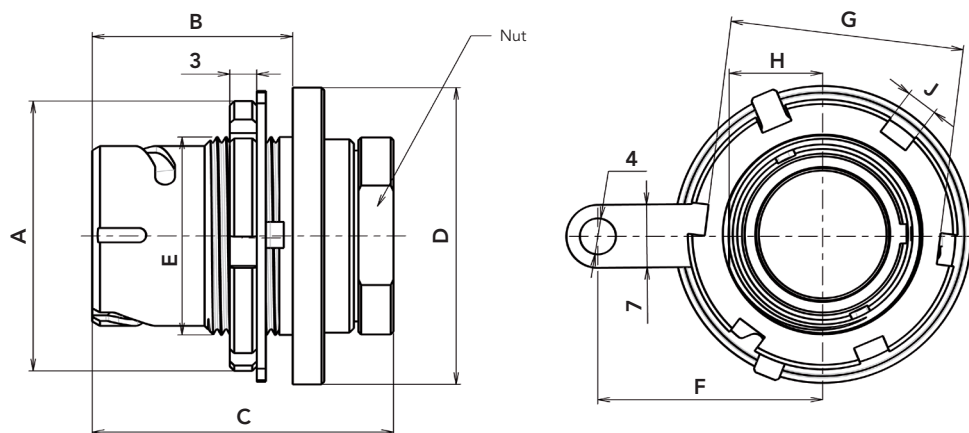
Note: All dimensions are in millimeters (mm)

A Type and L Type - Square flange receptacle without thread for backfitting
 VG96918 Style A1 for 847/848 form A



Shell size	A Max.	B Max.	C Max.	D Max.	E Max.	F	Smooth holes	Threaded holes	Nut Thickness
2	20.5	22	16.6	33.5	27	21	3.2	M3	19
4	31.5	32.8	17.5	35.6	42	33	5.5	M5	30
5	43.1	45	18.8	49	54	43	5.5	M5	42

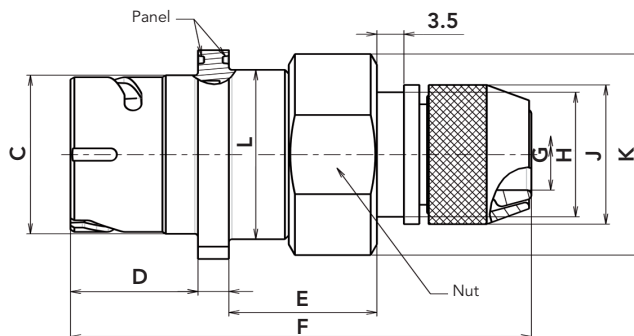
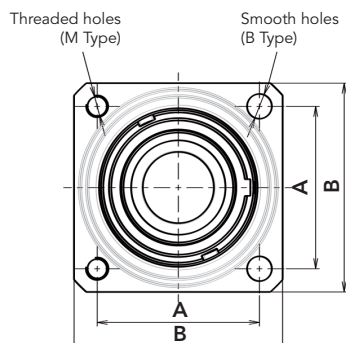
R Type - Jam nut receptacle without thread for backfitting
 VG96918 Style C for 847/848 form R



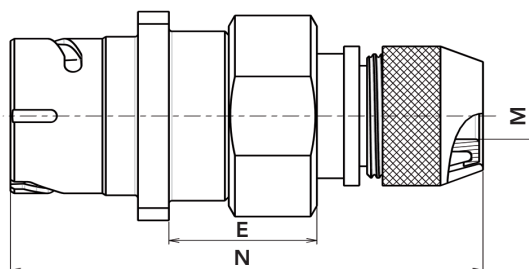
Shell size	A	B Max.	C Max.	D Max.	E	F	G Max.	H Max.	J	Nut Thickness
2	30	22.5	33.4	33	M22x1	25	26	10.4	3.5	19
4	46	23.2	35.5	48	M36x1.5	34	41	16	5	30
5	57	23.5	49	59	M48x1.5	39.5	52	22.4	5	42

Note: All dimensions are in millimeters (mm)

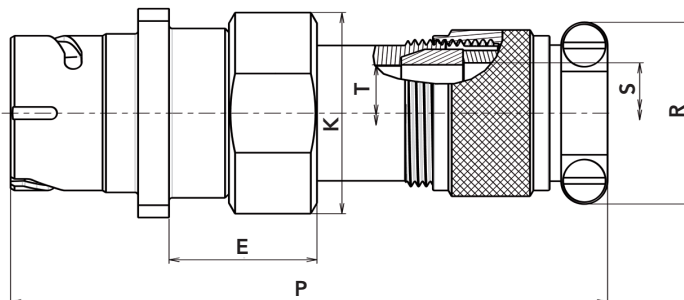
B Type and M Type - Square flange receptacle with thread for backfitting
 VG96918 Style B1 for 847/848 form B with backshell 47 type



With backshell
47 type



With backshell
48 type



With backshell
21 type

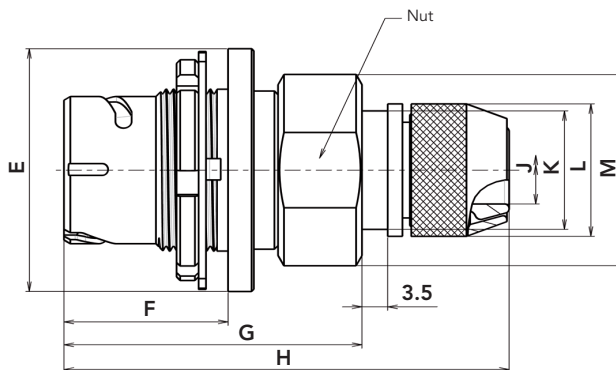
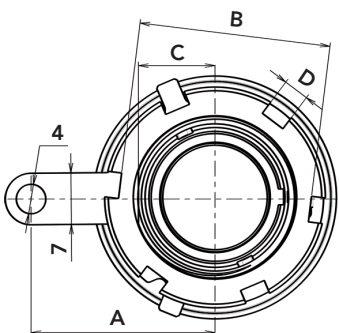
Shell size	A	B Max.	C Max.	D Max.	E Max.	F Max.	G	H	J Max.	K Max.
2	21	27	20.5	16.6	20.3	61.2	9.2	16.1	18.1	26.1
4	33	42	31.5	17.5	21.7	64.5	18.3	26.2	28.1	38.6
5	43	54	43.1	18.8	22.6	68.5	28.8	37.5	41.1	50.6

Shell size	L Max.	M	N Max.	P Max.	R Max.	S Max.	T Max.	Smooth holes	Threaded holes	Nut Thickness
2	21.5	-	-	82.3	23.8	13.1	12.6	3.2	M3	24
4	33	12.8	66.7	98.1	33.8	20.6	19.1	5.5	M5	36
5	44	21.6	70.7	119.7	43.8	30.1	28.6	5.5	M5	46

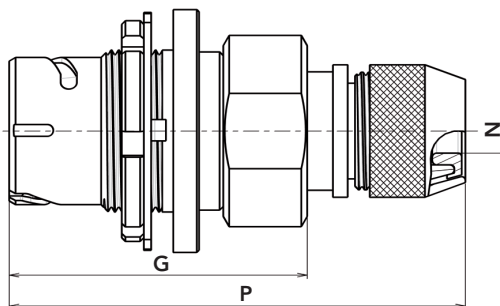
Note: All dimensions are in millimeters (mm)

D Type - Jam nut receptacle with thread for backfitting

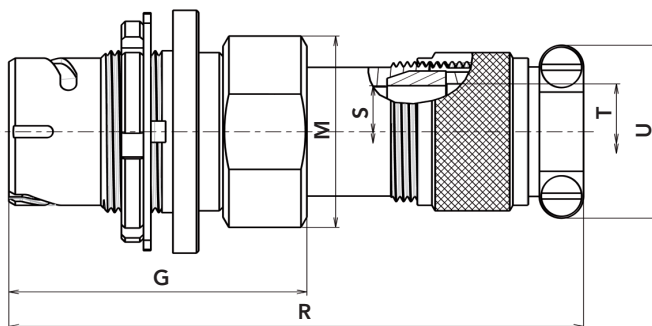
VG96918 Style D for 847/848 form D with backshell 47 type



With backshell
47 type



With backshell
48 type



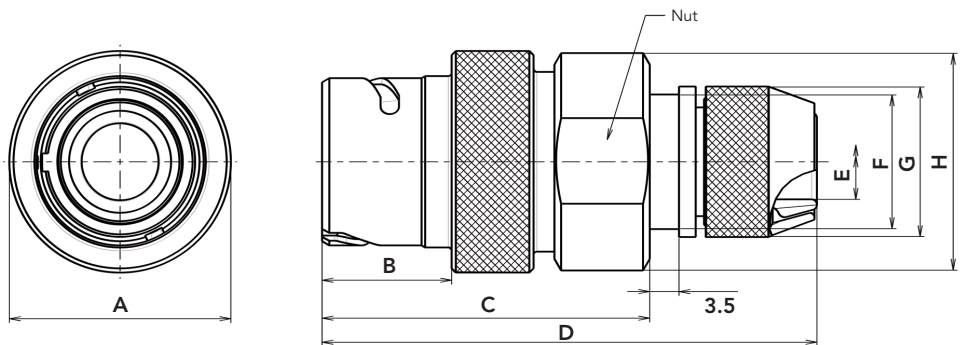
With backshell
21 type

Shell size	A	B Max.	C Max.	D	E Max.	F Max.	G Max.	H Max.	J	K
2	25	26	10.4	3.5	33	22.5	38.6	61.1	9.2	16.1
4	34	41	16	5	48	23.2	41.2	64.4	18.3	26.2
5	39.5	52	22.4	5	59	23.5	44.9	68.4	28.8	37.5

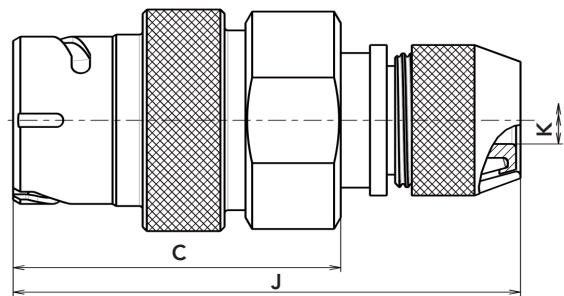
Shell size	L Max.	M Max.	N	P Max.	R Max.	S Max.	T Max.	U Max.	Nut Thickness
2	18.1	26.1	-	-	82.3	12.6	13.1	23.8	24
4	28.1	38.6	12.8	66.6	98.1	19.1	20.6	33.8	36
5	41.1	50.6	21.6	70.7	119.7	28.6	30.1	43.8	46

Note: All dimensions are in millimeters (mm)

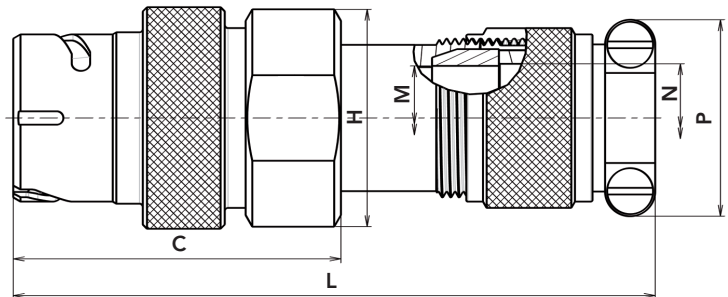
P Type - Cable connecting receptacle
 VG96918 Style E for 847/848 form P with backshell 47 type



With backshell
47 type



With backshell
48 type



With backshell
21 type

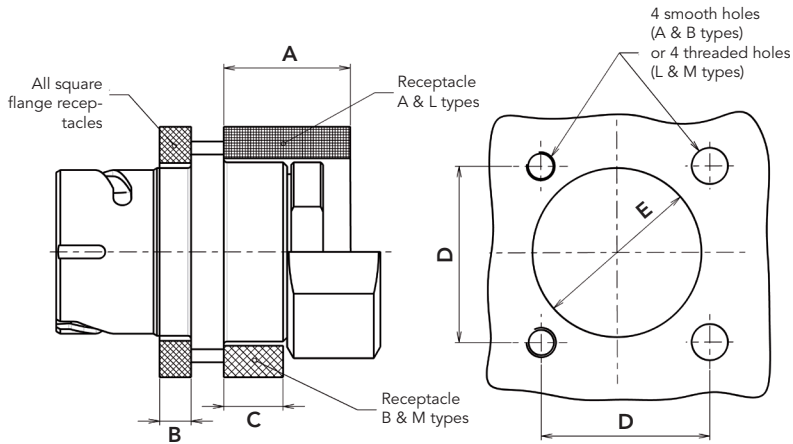
Shell size	A	B	C Max.	D Max.	E	F	G Max.	H Max.
2	26.5	15.5	40.6	60.9	9.2	16.1	18.1	26.1
4	39	16.4	42.9	63.5	18.3	26.2	28.1	38.6
5	51	13.5	45.1	68.2	28.8	37.5	41.1	50.6

Shell size	J Max.	K	L Max.	M Max.	N Max.	P Max.	Nut Thickness
2	-	-	82	12.6	13.1	23.8	24
4	65.7	12.8	97.8	19.1	20.6	33.8	36
5	70.5	21.6	119.4	28.6	30.1	43.8	46

Note: All dimensions are in millimeters (mm)

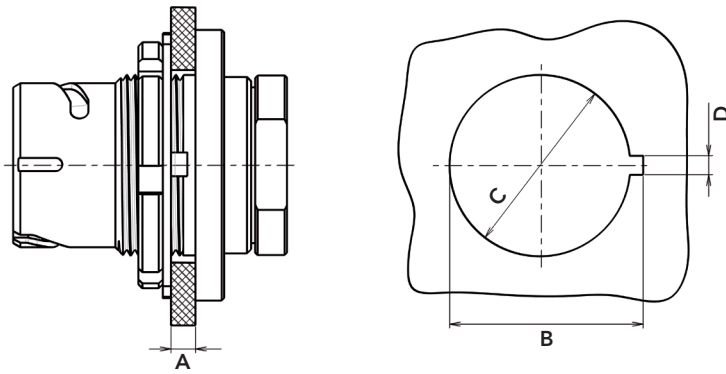
Panel cut-out

Square flange receptacle



Shell size	2	4	5
A Max.	Unlimited	Unlimited	Unlimited
B Max.	3.75	4.0	5.75
C Max.	6.5	6.5	6.5
D	21	33	43
E	23	34	46
Smooth holes	3.2	5.5	5.5
Threaded holes	M3	M5	M5

Jam nut receptacle



Shell size	2	4	5
A Max.	3	3	3
B	24.2	38.2	50.2
C	22.2	36.2	48.2
D	3	3	3

Note: All dimensions are in millimeters (mm)

Orientation

Viewed from front face of male insulator

Shell size	N	W	X	Y
25				
48				
58				

Caps for plug & receptacle

Souriau part numbers

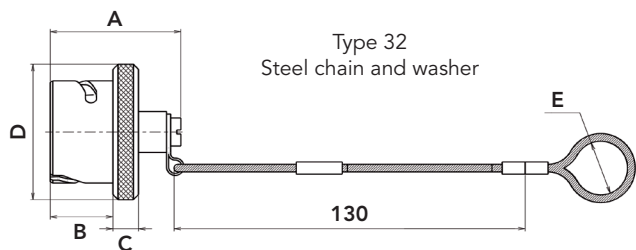
Basic series	84	8	20	0031017
Cap material & plating				
5: Cap for 847 Series connector - Steel cap				
8: Cap for 848 Series connector - Aluminum cap				
Shell size				
20: Size 2				
40: Size 4				
50: Size 5				
Type				
0031017: Cap for receptacle with steel chain and washer				
0031024: Cap for receptacle with nylon cord and ring				
0031003: Cap for receptacle with steel chain and ring				
0032017: Cap for plug with steel chain and washer				
0032024: Cap for plug with nylon cord and ring				
0032003: Cap for plug with steel chain and ring				
0048024: Cap for receptacle with nylon cord and ring lock 4				
Specification				
None: Cadmium olive green plating				
08: Black zinc nickel plating				
07: Bronze version (consult us)				

VG96918 part numbers

Basic series	VG96918	Z1	25	C
Style				
Z1: Cap for plug with washer				
Z2: Cap for plug with ring				
Z3: Cap for receptacle with washer				
Z4: Cap for receptacle with ring				
Shell size				
25: Size 2				
48: Size 4				
58: Size 5				
Material & Plating				
None: Steel shell with olive green cadmium plating				
B: Marine bronze (consult us)				
C: Aluminum shell with black zinc nickel plating				

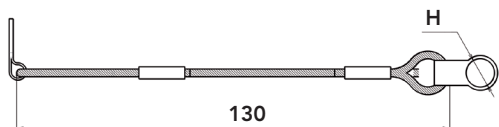
Dimensions

Cap for plug

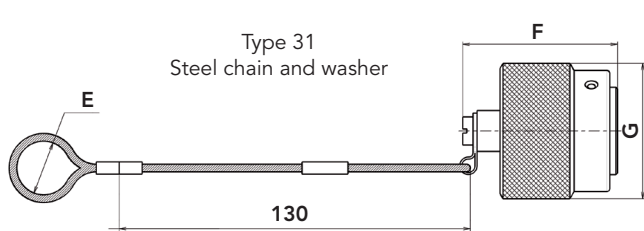


Type 32
Steel chain and washer

Type 32
Nylon cord and ring

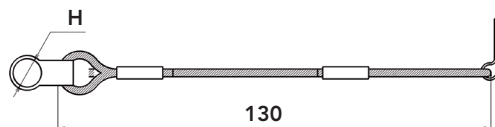


Cap for receptacle

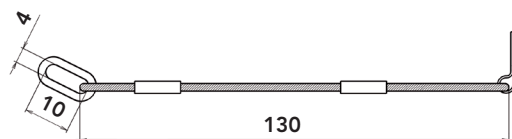


Type 31
Steel chain and washer

Type 31
Nylon cord and ring



Type 48
Nylon cord and ring lock 4 - Mounting with insulok (Hellermann) collar.



Size	A Max.	B Max.	C Max.	D Max.	E	F Max.	G Max.	H ± 0.5
2	27	12.5	5.1	26.6	23	31.5	26.6	3
4	27.2	13.2	5.1	39.1	34	31.5	39.1	5
5	27.2	13.2	5.1	50	46	34.5	51.1	5

Note: All dimensions are in millimeters (mm)

Contacts

Only for 02, 08 and 09 specification

Contact type		Contact layout		
		25	48	58
Male contact	Phase	8400.2311	8400.2182	8400.2322
	Ground	8400.2181	8400.2183	8400.2323
	Pilot	-	8400.2312	
Female contact	Phase	8400.2313	8400.2214	8400.2321
	Ground	8400.2213	8400.2215	8400.2324
	Pilot	-	8400.2216	
Filler plug		-	8522.389A	
Reducing sleeve		-	8400.3506	8400.2315 8400.2327

Contact in two parts: contact body and crimping tip.

Insure sealing for version without pilot contact to order separately.

for wire section 0.93 mm²
for wire section 5.30 mm²
for wire section 8.98 mm² } Usable for phase and ground contacts

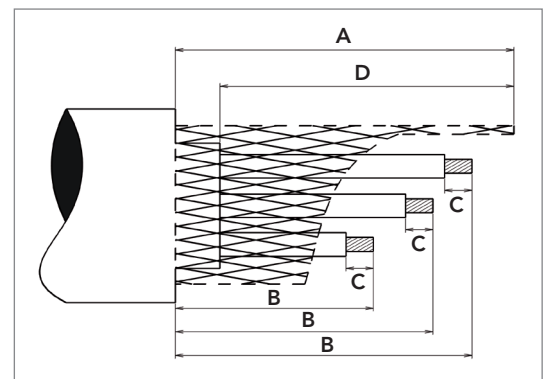
Cable

Shell size	Ø Max over insulator			Ø braid strands	Pilot wire				Ground and phase wires			
	Backshell Type				Ø over insulator		Section (mm ²)		Ø over insulator		Section (mm ²)	
	21 & 23	47	48		Min	Max	Min	Max	Min	Max	Min	Max
2	12.50	9.10	-	0.20	-	-	-	-	3.30	2.30	1.34	1.91
4	19.00	18.20	12.80	0.25	2.30	1.80	0.50	0.75	4.40	3.10	2.50	4.00
5	28.50	28.70	21.60	0.40	2.30	1.80	0.50	0.75	8.00	7.00	13.40	13.40

Cable stripping

For type 47 and 48 backshell

Shell Size	A	B			C			D
		Phase	Ground	Pilot	Phase	Ground	Pilot	
2	50	50	45	-	6.5	6.5	6.5	40
4	55	55	50	55	6.5	6.5	6.5	45
5	70	70	65	70	11	11	6.5	50



Note: All dimensions are in millimeters (mm)

Heat shrink sleeves

For type 47 and 48 backshell

Shell size	Straight sleeve	Bent sleeve
2	202 K 132 - 4	222 K 132 - 4
4	202 K 163 - 4	222 K 163 - 4
5	202 K 174 - 4	222 K 174 - 4

Crimping tools

Shell size	Plier	Turret	Contact type	Turret position	Cable section (mm ²)	Selector position
2	M22520-1/01 (8365)	8400.2281	Ground	Red	1.34 to 1.50	6
					1.91	7
			Phase	Blue	1.34 to 1.50	6
					1.91	7
4	M22520-1/01 (8365)	8400.2282	Ground	Red	2.5 to 4.0	8
			Phase	Blue	2.5 to 4.0	8
			Pilot	Yellow	0.50 to 0.75	4
5	MS3191-1 (8465)	8400.2336	Pilot	-	0.50 to 0.75	-
	M22520-1/01 (8365)	8400.2282		Yellow	0.50 to 0.75	4
	8459	8459.129	Ground	-	13.40	-
			Phase	-	13.40	-

Insertion and extraction tools

Shell size	Contact type	Insertion tool	Extraction tool	
		Male & Female	Male	Female
2	Phase	8400.1475	8400.448	8400.446
	Ground			8400.322
	Pilot (connector without grommet)	8500.29A	8500.31	8500.31
	Pilot (connector with grommet)	8400.2071		
4	Phase	8400.1475	8400.448	8400.322
	Ground			
	Pilot	8400.2071	8310.310	8310.31
5	Phase	8400.2428	8400.448	8400.980
	Phase (with cable 5.15 mm ²)	8380.02		
	Ground	8400.1549	8400.1549	8400.1549

For further information contact us at technical.emear@souriau.com (Europe - Asia - Africa)
technical.americas@souriau.com (North America)
 or visit our web site www.souriau.com