



ITT

Interconnect Solutions
Cannon, VEAM, BIW

Defining innovative
aviation, military, and
industrial circulars since the DC-1,
over 70 years ago



Engineered for life

These connectors are used to transmit very high current at low voltage, as for example in the electrical equipment of military land and sea-borne vehicles and in industrial facilities. The connectors meet the mating dimensions, mechanical features and rear panel installation requirements of VG 95234. These CGE connectors are in accordance with VG 96929 spec and CVG95218.

These high power connectors feature one contact in a two-piece rigid insulator. The aluminum shell has a chrome finish over cadmium. The operating temperature ranges from -55°C to $+125^{\circ}\text{C}$ (-67°F to $+257^{\circ}\text{F}$). The contacts of copper or copper alloy with hard silver finish are designed for crimping* or termination to solid copper conductors with threaded bolts. The mechanical durability is a minimum of 500 mating cycles. The crimp contacts accept wires per DIN 46438 (25-240 sq. mm).

Contact retention is achieved by the two-piece insulator, which is fixed to the shell with a snap-in ring. This allows unlimited exchange of the crimp contacts. The bayonet coupling assures fast coupling and uncoupling. Color-coded snap-in points indicate positive mating. Plugs and receptacles are waterproof in mated conditions up to 1 bar (35 feet of water).

* Of untraflexible shielded cables

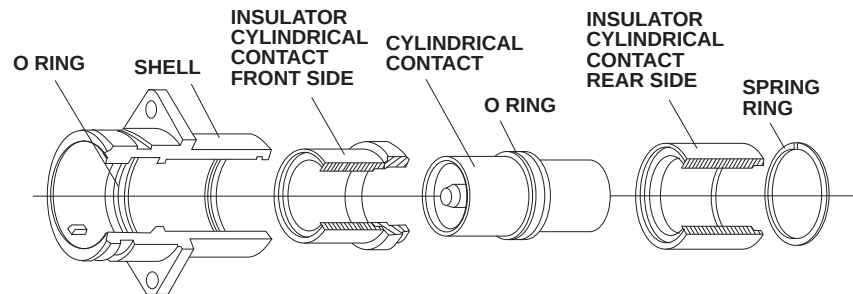


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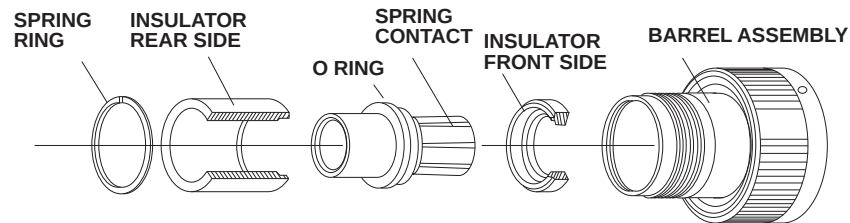
Circular

Connector Design

Receptacle CGE2...B-04



Plug CGE6...B-03





How to Order

	CGE	6	E	32	H	24	F	-	B	*
Series _____										
Cannon Designation										
Shell style _____										
0 - wall mounting receptacle with flange										
1 - cable connecting plug										
2 - box mounting receptacle with flange										
6 - straight plug										
8 - plug 90°										
9 - bulkhead										
Class _____										
E - environmental, JP67 acc to DIN 40050										
Shell size _____										
16 - 18 - 22 - 28 - 32										
Contact arrangement _____										
16H2 - shell size 16, 1 contact H2										
18H5 - shell size 18, 1 contact H5										
22H9 - shell size 22, 1 contact H9										
28H15 - shell size 28, 1 contact H15										
32H24 - shell size 32, 1 contact H24										
Contact size _____										
H2 - 25 mm ²										
H5 - 50 mm ²										
H9 - 95 mm ²										
H15 - 150 mm ²										
H24 - 240 mm ²										
Contact type _____										
F - spring contact										
X - CYL - Spring cont. (CGE9)										
Z - cylindrical contact										
Keyway polarization										
Standard - 180°										
W - 120°										
Bayonet coupling										
B - Bayonet Coupling										
Modification										
05 - through-holes in flange										
03 - adapter for heat-shrink boots										
04 - rear panel mounting, threaded holes										
05 - same as -04, however, with through-holes										
14 - shielded version										
16 - thread bolt termination, front panel mounting, O ring for sealing between wall and receptacle (for CGE2EB only)										

How to Order



Circular

	VG96929	F	28	F	N
Series					
Basic Part Number					
Connector Style					
A1 -Wall mounting receptacle; rear mounting flange with through holes					
A2 -Wall mounting receptacle ; rear mounting flange with threaded contact terminal					
B1 - Wall mounting bulkhead receptacle					
C - Wall mounting receptacle; rear mounting square flange with heat shrink boot adaptor					
E - Plug with 90; shielded with heat shrink boot adaptor					
F - Straight plug with heat shrink book adaptor					
G - Straight plug; shielded with heat shrink book adaptor					
Connector Size					
16					
18					
22					
28					
32					
Contact Number					
F - Socket					
Z - Pin					
Keyway Position					
N - 180°					
W - 120°					

Note: For detailed contact info please see page B-3





A

Circular

Performance and Material Specifications

Mechanical Data

Admissible ambient temperature	-55° C to +125° C
Class	JP 67 according to DIN 40050 Test pressure: 1 bar over pressure Test duration: 16 hours
Vibration	200 m/s ² for 16 to 2000 Hz
Mechanical Durability	500 mating cycles

Electrical Data

Contact Rating

Shell Size	16	18	22	28	32
Contact Size	H2	H5	H9	H15	H24
Max Current rating (amps at 125° C ambient temperature)	250	300	500	650	1000
Max short-time load approximate 0,5 - 1 sec. (amps)	750	1000	2000	3000	5000

Air and Creepage Paths

Air path	.118 (3.00) min.
Creepage path	.197 (5.00) min.

Contact Resistance

Contact Size	H2	H5	H9	H15	H24
Contact Resistance (mOhm max)	0,6	0,3	0,15	0,1	0,07

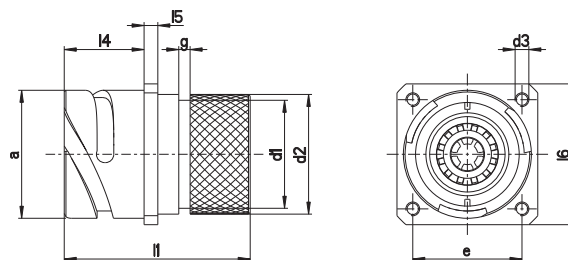
Insulator Resistance

min 5000 MOhm

Materials and Finishes

Shell	Aluminum Alloy
Finish	Olive Chromate over cadmium
Insulator	PTFE
Contact	Copper and copper alloy
Finish	Hard Silver
O-Rings	Viton

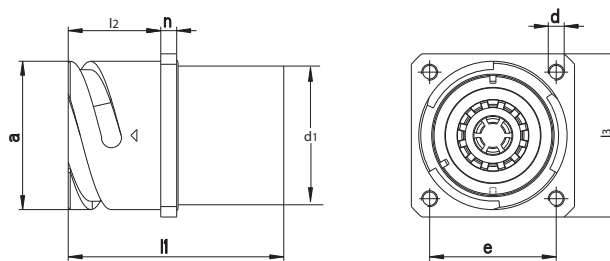
CGE0E – B-03

Acc. to **VG 96929B1**Threaded holes in flange,
adapter for heat shrink boot

Shell size	a	d ₁	d ₂	d ₃	e	g	l ₁	l ₄	l ₅	l ₆
	-0,15	±0,15	±0,3		±0,1	±0,1	±0,3	±0,3	±0,15	±0,3
16	27,4	20,3	22,7	M4	24,6	3,5	41,0	20,0	3,2	32,5
18	30,8	25,8	28,4	M4	27,0	3,5	50,0	23,05	4,0	35,0
22	37,4	33,0	35,3	M4	31,8	3,5	55,0	23,05	4,0	41,0
28	46,6	41,3	44,8	M5	39,7	3,5	65,3	24,05	4,0	50,8
32	53,4	46,1	49,6	M5	44,5	3,5	29,0	4,0	57,0	

CGE2E – B-04 / CGE2E – B-04 / -05

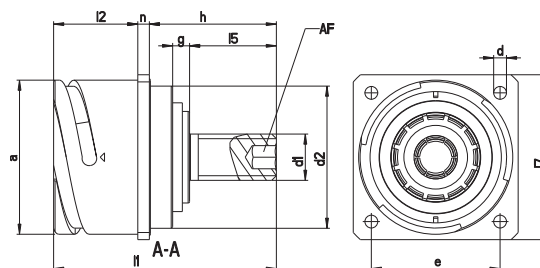
Box Mounting Receptacle

Acc. to **VG 96929A1**Box mounting receptacle,
rear panel mounting,
-04 - Threaded holes in flange,
-05- Through holes in flange

Shell size	a	d ₁	d		e	l ₁	l ₂	l ₃	n
	-0,15	±0,15	Mod 04	Mod 05	±0,1	±0,3	±0,2	±0,3	±0,1
16	27,4	22,1	M4	4,3	24,6	41,0	20,0	32,5	3,2
18	30,8	27,0	M4	4,3	27,0	50,0	23,15	35,0	4,0
22	37,4	34,9	M4	4,3	31,8	54,0	23,15	41,0	4,0
28	46,6	44,4	M5	4,3	39,7	65,3	24,15	50,8	4,0
32	53,4	49,2	M5	5,3	44,5	66,8	29,0	57,0	4,0

CGE2E – B-16

Box Mounting Receptacle

Acc. to **VG 96929A2**Front panel mounting,
Through holes in flange,
threaded bolt termination for
solid copper rail

Shell size	a	d ₁	d ₂	d	e	g	h	l ₁	l ₂	l ₅	l ₇	n	AF
	-0,15		-0,15	+0,2	±0,1	±0,3		max	±0,3	±0,5	±0,3	±0,15	
18	30,8	M8	26,9	4,3	27,0	4,0	27,5	55,0	23,15	15,0	35,0	4,0	3
22	37,4	M12	33,2	4,3	31,8	4,4	38,0	66,0	23,25	25,3	41,0	4,0	6
28	46,6	M12	42,8	4,3	39,7	4,0	32,0	62,0	24,15	20,0	50,8	4,0	6
32	53,4	M16	49,2	4,3	44,5	6,0	44,5	78,0	29,0	22,0	57,0	4,0	8



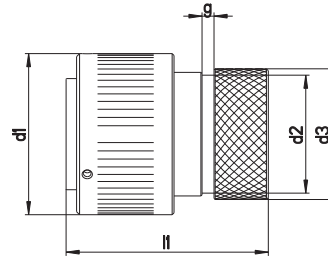
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Circular

CGE6E – B-03

Straight PlugAcc. to **VG 96929G**

Adapter for heat shrink boots

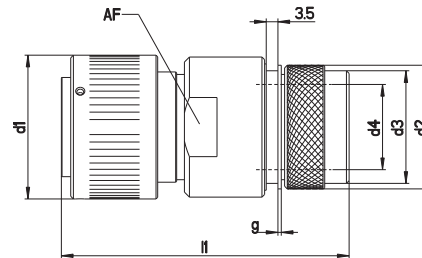


Shell size	d1 max	d2 -0,1	d3 max	g	l1 max
16	32,2	20,2	22,7	3,5	44,0
18	36,5	25,8	28,4	3,5	53,0
22	43,1	31,5	35,3	3,5	57,0
28	53,5	41,3	44,8	3,5	65,0
32	60,1	46,1	49,6	3,5	65,0

CGE6E – B-14

Straight PlugAcc. to **VG 96929F**360° HG shielding by
grounding fingers,

Shielded endbell for heat shrink boots



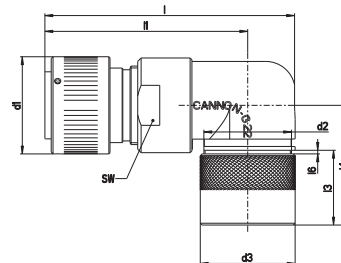
Shell size	d1 max	d2 $\pm 0,15$	d3 max	d4 $\pm 0,1$	g $\pm 0,1$	l1 max	AF
16	32,0	24,0	26,0	15,5	1,0	70,0	26
18	36,5	28,7	32,0	20,0	1,0	76,0	32
22	43,1	34,1	37,0	25,5	1,0	86,0	38
28	53,5	40,7	44,0	32,0	1,0	98,0	50
32	60,1	47,3	51,6	38,0	2,0	98,0	54

CGE8E – B-03 / CGE8E – B-14

90° Plug Acc to **VG 96929 E**With grounding fingers,
shielded 90° adapter,
for heat shrink boots

-14 - same as VG96929 E

-03 - Adapter for heat shrink boots



Shell size	d1 max	d2 max	d3 max	l1 $\pm 1,0$	l3 max	l4 max	l6 $\pm 0,2$	l max	AF
22	43,1	39,0	42,5	81,0	41,5	57	2,9	101,0	38
28	53,0	43,7	48,0	79,0	41,5	58	3,2	102,0	50
32	60,1	48,6	52,5	84,0	41,5	65	3,2	112,0	52

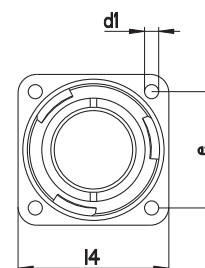
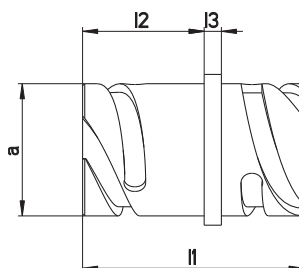
CGE9E – X-B-04

Bulkhead

acc to VG 96929C1, C2

C1- threaded holes in flange

C2 - with through holes in flange



Shell size	a	d ₁	d ₁	e	l ₁	l ₂	l ₃	l ₄
	-0,15	c2	c1	±0,1	max	±0,3	±0,1	±0,3
22	37,4	4,3	M4	31,8	52,1	24,0	4,0	41,0
28	46,6	5,3	M5	39,7	52,1	23,6	4,0	50,8
32	53,4	5,3	M5	44,5	60,5	25,2	4,0	57,0

Accessories

Metal Dust caps for CGE plugs and receptacles

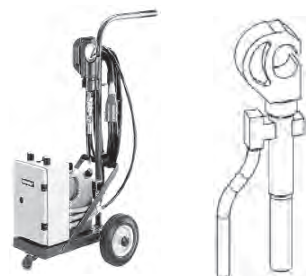
Please see page 1147 in the CA-Bayonet section

Dust caps of CA-B can be utilized for CGE in accordance iwth the relevant size

Sealing Gaskets

Shell Size	Order Reference Neoprene	Order reference shielded
16	075-8504-000	075-8504-001
18	075-8505-000	075-8505-001
22	075-8507-000	075-8507-001
28	075-8509-000	075-8509-001
32	075-8510-000	075-8510-001

Contact Crimp Tools



Crimp Tool	Designation	Order No.
Hydraulic, hand operated:	HK120	CT121586-5077
Electro-hydraulic, 230 V AC operated	HK12-EL	CT121586-5075

Crimp dies	Designation	Order Number
H2	CCT-HEX-K-CGE-25mm ²	121586-5243
H5	CCT-HEX-K-CGE-50mm ²	121586-5245
H9	CCT-HEX-K-CGE-95mm ²	121586-5246
H15	CCT-HEX-K-CGE-150mm ²	121586-5247
H24	CCT-HEX-K-CGE-240m ²	121586-5248



A

Circular

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