



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°C (-67°F to +257°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

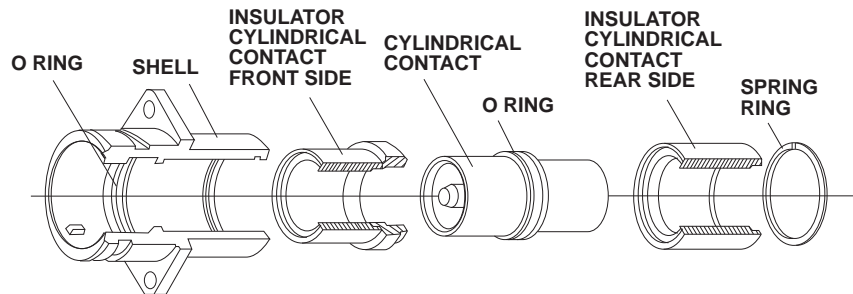


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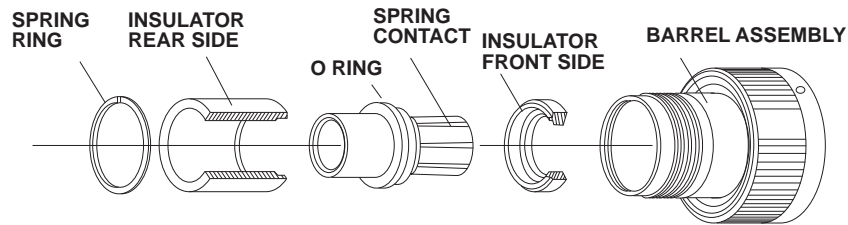
Circular

Connector Design

Receptacle CGE2...B-04



Plug CGE6...B-03





A

Circular

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 mm²
 H5 - 50 mm²
 H9 - 95 mm²
 H15 - 150 mm²
 H24 - 240 mm²

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



A

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

Dimensions shown in inches (mm)
 Specifications and dimensions subject to change



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

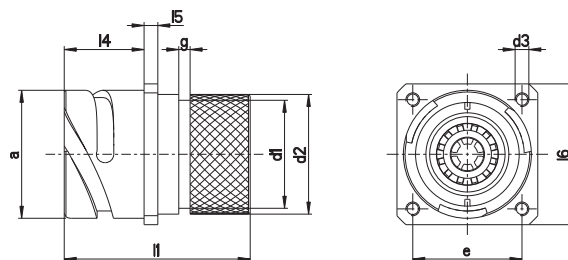
min 5000 MOhm

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

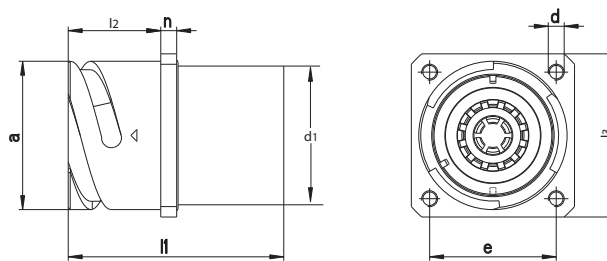


Shell size	a	d ₁	d ₂	d ₃	e	g	l ₁	l ₄	l ₅	l ₆
	-0,15	±0,15	±0,3		±0,1	±0,1	±0,3	±0,3	±0,15	±0,3
16	27,4	20,3	22,7	M4	24,6	3,5	41,0	20,0	3,2	32,5
18	30,8	25,8	28,4	M4	27,0	3,5	50,0	23,05	4,0	35,0
22	37,4	33,0	35,3	M4	31,8	3,5	55,0	23,05	4,0	41,0
28	46,6	41,3	44,8	M5	39,7	3,5	65,3	24,05	4,0	50,8
32	53,4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

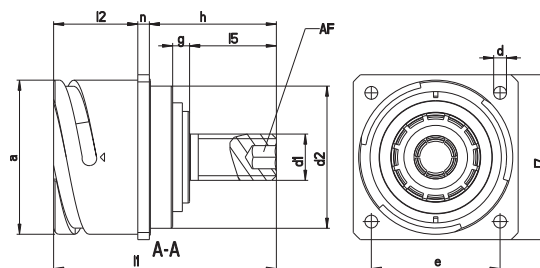


Shell size	a	d ₁	d		e	l ₁	l ₂	l ₃	n
	-0,15	±0,15	Mod 04	Mod 05	±0,1	±0,3	±0,2	±0,3	±0,1
16	27,4	22,1	M4	4,3	24,6	41,0	20,0	32,5	3,2
18	30,8	27,0	M4	4,3	27,0	50,0	23,15	35,0	4,0
22	37,4	34,9	M4	4,3	31,8	54,0	23,15	41,0	4,0
28	46,6	44,4	M5	4,3	39,7	65,3	24,15	50,8	4,0
32	53,4	49,2	M5	5,3	44,5	66,8	29,0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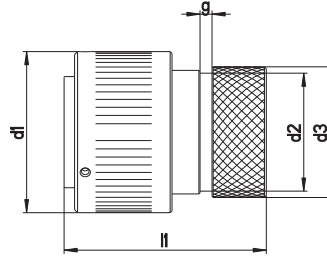
Circular

CGE6E – B-03

Straight Plug

Acc. to VG 96929G

Adapter for heat shrink boots



Shell size	d1 max	d2 -0,1	d3 max	g	l ₁ 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

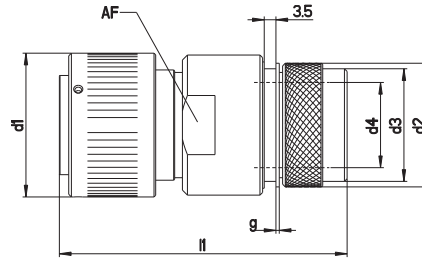
CGE6E – B-14

Straight Plug

Acc. to VG 96929F

360° HG shielding by
grounding fingers,

Shielded endbell for heat shrink boots



Shell size	d1 max	d2 ±0,15	d3 max	d4 ±0,1	g ±0,1	l ₁ 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

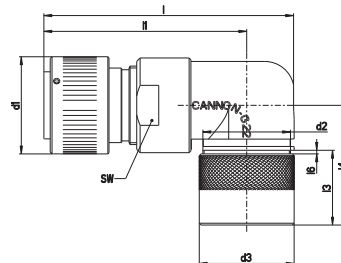
CGE8E – B-03 / CGE8E – B-14

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	d ₁ max	d ₂ max	d ₃ max	l ₁ ±1,0	l ₃ max	l ₄ max	l ₆ ±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



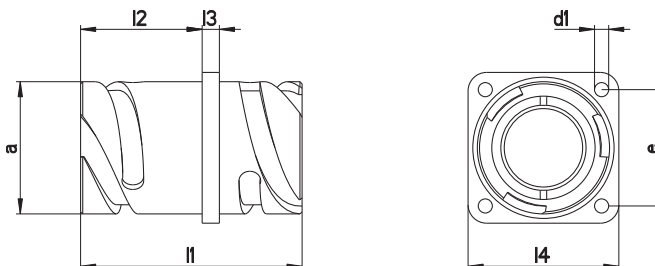
CGE9E – X-B-04

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

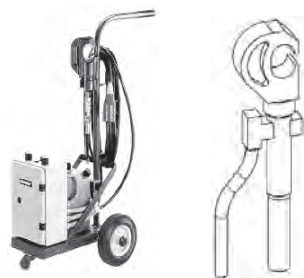
Metal Dust caps for CGE plugs and receptacles

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-240mm ²	121586-5248

Dimensions shown in inches (mm)
 Specifications and dimensions subject to change

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