CGE / VG96929 High Power Connectors

ΙТТ

We Connect When it matters most

For more than a century, ITT Cannon has developed innovative interconnect solutions for the world's harshest environments. With facilities in the United States, Germany, Italy, Mexico, China and Japan, each with its unique strengths, we offer our customers interconnect solutions that are truly Engineered for Life.

In addition to this truly global footprint, we offer highly specialized, segmented industry expertise. We have a proven track record as an industry leader in harsh-environment applications. This has equipped us with the knowledge needed to continue to produce the most resilient, reliable connectors for our customers' most challenging conditions.

Interconnect solutions for the harshest environments.

The ITT Cannon difference

- Global capabilities & local support
- Proven application expertise
- A century of interconnect leadership
- A committed innovator & business partner

About ITT

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life. Founded in 1920, ITT is headquartered in White Plains, N.Y., with employees in more than 35 countries and sales in a total of approximately 125 countries. For more information, visit www.itt.com.

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Commercial & Military Aerospace

Our connector portfolio remains the most extensive in the industry.

Offering a reliable and cost effective range of interconnect solutions.



How to use

This catalog is split in several sections to provide...

- A brief introduction to ITT Cannon and CGE
- A general overview of the CGE and VG 96929 product lines
- Detailed product information including contact arrangements, performance and part number data
- Detailed supporting information including accessories and tooling

| 1 | Select your product using the "ordering reference" option | 3 | Add accessories and tooling options on the related pages. A connector assembly instruction is available upon request or visit www.ittcannon.com |
|---|---|---|--|
| 2 | Use the detail pages to better understand the available options like connector styles, contact arrangements and contacts options | 4 | Use the contact information on the back cover to contact us for further questions or to get advise on where you can purchase our products |

The fastest way to find your product of choice is to follow these steps





Introduction to CGE / VG96929

ITT Cannon's CGE series of one pole connectors is derived from VG95234 reversed bayonet connectors and fully approved to the VG96929 military standard. Designed to meet high-power / low voltage requirements this series is typically used in military vehicle or heavy industrial environments.

VG96929 / CGE connectors use two PTFE insulators and a spring retention system that allows for unlimited exchange of contacts, temperature ranges from – 55°C to 150°C and in combination with sealing rings for water pressure tightness of 1 bar.

ITT Cannon's CGE / VG96929 connectors are intermateable with other connector series designed to the VG96929 standard.

Product & technical key features:

- Suitable for cables from 25mm² to 240mm² and currents of up to \sim 900 A
- Sealed to IPx8, 1 bar / 16h water pressure tight
- Operating temperature -55°C ... 150°C
- Visual, audible and tactile locking system for secure mating
- ¹/₄ turn reversed bayonet coupling for fast mating and high vibration robustness

- 500 mating cycles
- Simple assembly without special tooling
- RoHS compliant platings are available as alternative to standard Cadmium plating including the VG 1:1 Cadmium replacement "J" plating
- Versions for crimp and threaded bolt termination are offered







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CGE / VG 96929



Technical Data

Current rating: (A) at 125°C (+257 °F) ambient temperature

| Shell size | 16 | 18 | 22 | 28 | 32 |
|--|-----|------|------|------|------|
| Contact size | H2 | H5 | Н9 | H15 | H24 |
| Max Current rating (A) | 100 | 150 | 239 | 332 | 425 |
| Max Short-time load, appr 0,5 – 1 sec (A) | 750 | 1000 | 2000 | 3000 | 5000 |





Contact resistance (Millivolt test)

The contact resistance has to be tested according to VG95319 part 2, Test-No. 5.10.1

| Contact size | H2 | Н5 | Н9 | H15 | H24 |
|-----------------------------------|-----|-----|------|-----|------|
| Contact resistance $m\Omega$ max. | 0,6 | 0,3 | 0,15 | 0,1 | 0,07 |

Insulation resistance

Acc. to VG 95319 part 2, Test-No. 5.12 Insulator resistance acc. to VG 96929 Standard insulation material > 1000 MΩ

Dielectric withstanding voltage

According to VG 95319-2, Test-No.5.13 Test voltage: Ueff = 1 050 V

Operating voltage and connector usage

Operating voltage for CGE / VG96929 connectors is limited to 50VAC / 75VDC according to the safety regulations defined in the European Low Voltage Directive (LVD) 2014/35/EU.

For other uses or regions please see appropriate regional regulations.



Mechanical Features

Ambient temperature

Standard insulation material -55°/150°C (-67/302°F)

Safety provisions

Degree of protection IPX8 (1 bar for 16 h) acc. to DIN EN 60529

Vibration test

200 m/s² at 10 to 2000 Hz

Mating cycles

500 min.

Coupling torque

In wired condition acc. to VG95319, Part 2, test no. 5.8.2.

| Shell size | Allowable coupling torque Closing and opening Nm max. | Opening Nm min. |
|------------|--|--------------------|
| 16 | 5,5 | 0,5 |
| 18 | 8 | 0,6 |
| 22 | 11 | 0,8 |
| 28 | 17 | 0,9 |
| 32 | 19 | 1 |

Contact retention

Acc. To VG 95319, Part 2, test no. 5.4

| Contact size | Test force N min |
|--------------|------------------|
| H2 | 100 |
| H5 | 120 |
| Н9 | 140 |
| H15 | 160 |
| H24 | 200 |

Material

Shell Finish

Cadmium (default), VG approved, 500h / 5 days cyclic salt spray, highly conductive ZnCo Green (A233) RoHS, 200h salt spray, highly conductive ZnCo Black (A239) RoHS, VG approved, 48h salt spray, highly conductive ZnNi Blue Grey (A240) RoHS, 500h salt spray, highly conductive SnZn Matt Grey (A241), VG approved, 500h / 5 days cyclic salt spray, highly conductive

Insulator

PTFE -55°/150°C (-67/302°F)

Contact

Material: Copper or copper alloy Finish: Hard silver

0 ring

FKM

Cables

Approved cable types according to VG95218

| Shell | Wire | VG95218 T026 | VG95218 T025 | | | | |
|-------|------|-----------------|-----------------|--|--|--|--|
| Size | size | Shielded | Unshielded | | | | |
| 16 | 25 | VG95218T025H001 | VG95218T025G001 | | | | |
| 18 | 50 | VG95218T025H002 | VG95218T025G002 | | | | |
| 22 | 95 | VG95218T025H003 | VG95218T025G003 | | | | |
| 28 | 150 | VG95218T025H004 | VG95218T025G004 | | | | |
| 32 | 240 | VG95218T025H005 | VG95218T025G005 | | | | |



How to order



VG Order reference

| | VG96929 | A1 | - | 22 | F | Ν | J |
|------------------|---------|----|---|----|---|---|---|
| Series | | | | | | | |
| Shell style | | | | | | | |
| Dash | | | | | | | |
| Shell size | | | | | | | |
| Contact type | | | | | | | |
| Angular position | | | | | | | |
| Plating | | | | | | | |

Explanation Series VG96929

Shell style

A1, A2 – box mounting receptacle (no size #16) B1, B2 – wall mounting receptacle F, G – straight plug E – plug 90° (no sizes #16, #18)

Shell size

16, 18, 22, 28, 32.

Contact type

- F = Spring contact (socket)
- Z = Cylinder contact (pin)
- D = Cylinder-spring contact (Style C1 and C2 only)

Angular position

N - 180° W - 120°

Plating

Without identification = Cadmium Identification "J" = RoHS, Matt Grey SnZn plating, VG approved



Cannon Order reference

| | CGE | 6 | E | 32 | H24 | F | W | В | * |
|------------------|-----|---|---|----|-----|---|---|---|---|
| Series | | | | | | | | | |
| Shell style | | | | | | | | | |
| Class | | | | | | | | | |
| Shell size | | | | | | | | | |
| Contact size | | | | | | | | | |
| Contact type | | | | | | | | | |
| Angular position | | | | | | | | | |
| Bayonet coupling | | | | | | | , | | |
| Modification | | | | | | | | | |

Explanation

Series CGE

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 – environment, Degree of protection IPX8

Shell size 16, 18, 22, 28, 32

Contact size

H2 - 25 mm² H5 - 50 mm² H9 - 95 mm² H15 - 150 mm² H24 - 240 mm²

Contact type

- F = Spring contact (socket)
- Z = Cylinder contact (pin)
- X = Cylinder-spring contact (Style 9 only)

Angular position

no code - 180° W - 120°

Bayonet coupling

B - bayonet coupling

Modification

- 03 adapter for heat shrink boots, metric crimp contact
- 04 rear panel mounting, threaded holes in flange, metric crimp contact
- 05- rear panel mounting, through holes in flange, metric crimp contact
- 14 shielded version, metric crimp contact
- 16 thread bolt termination, front panel mounting, O ring for sealing
- A233 Zinc Cobalt Green plating
- A239 Zinc Cobalt Black plating
- A240 Zinc Nickel Blue plating
- A241 Tin Zinc Matt Grey plating



Connector Dimensions

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Box Mounting Receptacle – Rear Mount

VG96929 – Style AI (no size #16) CGE2E...B-04

Description: Box mounting receptacle, rear panel mounting

Four threaded holes in flange.





| Shell size | d1 ± 0,15 | d2 | l1 ± 0,3 | l2 ± 0,3 | l3 ± 0,1 | ا4 ± 0,3 | е ± 0,1 |
|------------|--------------|----|-------------|-------------|-------------|-------------|------------|
| 16 | 22.1 | M4 | 41,0 | 20,0 | 3,2 | 32,5 | 24,6 |
| 18 | 27,0 | M4 | 50,0 | 23,15 | 4,0 | 35,0 | 27,0 |
| 22 | 34,9 | M4 | 54,0 | 23,15 | 4,0 | 41,0 | 31,8 |
| 28 | 44,4 | M5 | 65,3 | 24,15 | 4,0 | 50,8 | 39,7 |
| 32 | 49,2 | M5 | 66,8 | 29,0 | 4,0 | 57,0 | 44,5 |

CGE2E...B-05

Description: Box mounting receptacle, rear panel mounting

Four through holes in flange.





| Shell size | d1 ± 0,15 | d2 H13* | l1 ± 0,3 | l2 ± 0,3 | l3 ± 0,1 | ا4 ± 0,3 | е ± 0,1 |
|------------|--------------|------------|-------------|-------------|-------------|-------------|------------|
| 16 | 22.1 | 4.3 | 41,0 | 20,0 | 3,2 | 32,5 | 24,6 |
| 18 | 27,0 | 4,3 | 50,0 | 23,15 | 4,0 | 35,0 | 27,0 |
| 22 | 34,9 | 4,3 | 54,0 | 23,15 | 4,0 | 41,0 | 31,8 |
| 28 | 44,4 | 4,3 | 65,3 | 24,15 | 4,0 | 50,8 | 39,7 |
| 32 | 49,2 | 5,3 | 66,8 | 29,0 | 4,0 | 57,0 | 44,5 |

*Drilling tolerances according to DIN ISO 286

Box Mounting Receptacle – Front Panel Mount

VG96929 – Style A2 CGE2E...B-16

Description: Box mounting receptacle, front panel mounting

Four through holes in flange.

1 O-Ring for sealing is part of the delivery





| Shell size | a | d H13* | d1 | d2 -0.15 | е ± 0,1 | g ± 0,3 | h Spring contact | h Cylinder contact | l1 max | l2 ± 0,4 | 15 ± 0,3 | 17 ±0,3 | n ±0,2 | AF ±0,2 |
|------------|------|-----------|-----|-------------|------------|------------|------------------------|--------------------------|-----------|-------------|-------------|------------|-----------|------------|
| 18 | 30.8 | 4.3 | M8 | 26.9 | 27.0 | 4.0 | 27.0 | 27.0 | 55 | 23.05 | 15 | 35.0 | 4 | 3 |
| 22 | 37.4 | 4.3 | M12 | 33.2 | 31.8 | 4.4 | 38.5 | 37.0 | 66 | 23.05 | 25 | 41.0 | 4 | 6 |
| 28 | 46.7 | 4.3 | M12 | 42.8 | 39.7 | 4.0 | 32.0 | 32.0 | 62 | 24.05 | 20 | 50.8 | 4 | 6 |
| 32 | 53.4 | 4.3 | M16 | 49.2 | 44.5 | 6.0 | 44.0 | 44.0 | 78 | 28.90 | 30 | 57.0 | 4 | 8 |

*Drilling tolerances according to DIN ISO 286



Wall Mounting Receptacle – Rear Mount

VG96929 – Style Bl CGE0E...B-03

Description: Wall mounting receptacle, rear panel mounting, adapter for heat shrink boot

Four threaded holes in flange.





| Shell size | а | d1 max | d2 max | d3 | е ± 0,1 | g ± 0,1 | l1 max | l4 ± 0,4 | l5 ± 0,3 | l6 ± 0,3 |
|------------|------|-----------|-----------|----|------------|------------|-----------|-------------|-------------|-------------|
| 16 | 27.4 | 20.3 | 22,7 | M4 | 24,6 | 3,5 | 41,0 | 20,00 | 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 | 54,0 | 23,05 | 4,0 | 41,0 |
| 28 | 46,7 | 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 | 66,8 | 28,90 | 4,0 | 57,0 |

VG96929 - Style B2 CGE0E...B-04-14

Description: Wall mounting receptacle, rear panel mounting, shielded

Four threaded holes in flange.



| Shell size | a -0,15 | d1 max | d2 max | d3 | d4 min | d5 max | e ± 0,1 | g ± 0,2 | l1 max | 4 ± 0,3 | 15 | l6 ± 0,3 | SW |
|------------|------------|-----------|-----------|----|-----------|-----------|------------|------------|-----------|------------|-----|-------------|-------|
| 16 | 27.4 | 24,1 | 26,0 | M4 | 15,5 | 32,0 | 24,6 | 3,5 | 68,0 | 20,0 | 3,2 | 32,5 | 26 |
| 18 | 30.8 | 28.8 | 32.0 | M4 | 20.0 | 36,5 | 27,0 | 3,5 | 73,5 | 23,15 | 4,0 | 35,0 | 32 |
| 22 | 37.4 | 34.1 | 37.0 | M4 | 25.5 | 46,0 | 31,8 | 3,5 | 84,0 | 23,15 | 4,0 | 41,0 | 38 |
| 28 | 46.7 | 40.7 | 44.0 | M5 | 32.0 | 53,0 | 39,7 | 3,5 | 99,0 | 24,15 | 4,0 | 50,8 | 50 |
| 32 | 53.4 | 47.3 | 51.6 | M5 | 38.0 | 60,0 | 44,5 | 3,5 | 99,0 | 29,0 | 4,0 | 57,0 | 52/54 |

Bulkhead Receptacle

CGE9E...B-04 Description: Bulkhead receptacle Four threaded holes in flange.





| Shell size | а | d1 | е ± 0,1 | l1 max | l2 min | l2 max | l3 ± 0,2 | l4 ± 0,3 |
|------------|------|----|------------|-----------|-----------|-----------|-------------|-------------|
| 28 | 46.7 | M5 | 39.7 | 52.1 | 20.5 | 23,6 | 4 | 50,8 |

CGE9E...B-05 Description: Bulkhead receptacle Four through holes in flange





| Shell size | а | d1 H13* | е ± 0,1 | l1 max | l2 min | l2 max | l3 ± 0,2 | ا4 ± 0,3 |
|------------|------|------------|------------|-----------|-----------|-----------|-------------|-------------|
| 28 | 46.7 | 5.3 | 39.7 | 52.1 | 20.5 | 23,6 | 4 | 50,8 |

*Drilling tolerances according to DIN ISO 286

90° Plug



VG96929 - Style E (no sizes #16, #18) CGE8E...B-14

Description: 90° plug, 360° HF shielded (grounding fingers on barrel, back shell for shielding braid and heat shrink boot)

| Shell size | d1 max | d2 max | d3 max | l1 max | l3 max | l4 max | l5 min | 16 | l6 Tol. | SW |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|------------|----|
| 22 | 43,1 | 39,0 | 42,5 | 81 | 41,5 | 57 | 6,0 | 2,9 | ± 0,5 | 38 |
| 28 | 53,5 | 43,7 | 48,0 | 79 | 41,5 | 58 | 7,5 | 3,2 | ± 0,2 | 50 |
| 32 | 60,1 | 48,6 | 52,5 | 84 | 41,5 | 65 | 6,0 | 3,2 | ± 0,2 | 52 |

CGE8E...B-03

Description: 90° plug with adapter for heat shrink boots



| Shell size | d1 max | d2 max | d3 max | l1 max | l3 max | l4 max | l5 min | 16 | l6 Tol. | SW |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|------------|----|
| 22 | 43,1 | 39,0 | 42,5 | 81 | 41,5 | 57 | 6,0 | 2,9 | ± 0,5 | 38 |
| 28 | 53,5 | 43,7 | 48,0 | 79 | 41,5 | 58 | 7,5 | 3,2 | ± 0,2 | 50 |
| 32 | 60,1 | 48,6 | 52,5 | 84 | 41,5 | 65 | 6,0 | 3,2 | ± 0,2 | 52 |

Straight Plug

VG96929 – Style F CGE6E...B-14

Description: Straight plug, 360° HF shielded (grounding fingers on barrel, back shell for shielding braid and heat shrink boot)



| Shell size | d1 max | d2 max | d3 max | d4 max | d5 max | g ± 0,7 | l1 max | AF optional |
|------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|----------------|
| 16 | 32,0 | 26,0 | 24,1 | 15,5 | 32,0 | 1,0 | 70 | 26 |
| 18 | 36,5 | 32,0 | 28,8 | 20,0 | 36,5 | 1,0 | 76 | 32 |
| 22 | 43,1 | 37,0 | 34,1 | 25,5 | 46,0 | 1,0 | 86 | 38 |
| 28 | 53,5 | 44,0 | 40,7 | 32,0 | 53,0 | 1,0 | 98 | 50 |
| 32 | 60,1 | 51,6 | 47,3 | 38,0 | 60,0 | 2,0 | 98 | 52/54 |

VG96929 – Style G CGE6E...B-03

Description: Straight plug, adapter for heat shrink boots



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



Cable Connection Plug - Straight

CGEIE...B-03

Description: Cable connecting plug, straight, adapter for heat shrink boots





| Shell size | a -0.15 | d1 max | d2 max | g ± 0,2 | l1 ± 0,3 | l2 ± 0,3 | SW |
|------------|------------|-----------|-----------|------------|-------------|-------------|----|
| 18 | 30,8 | 25,8 | 28,4 | 3,5 | 50,0 | 18,0 | 28 |
| 22 | 37,4 | 33,0 | 35,3 | 3,5 | 54,0 | 18,0 | 34 |
| 28 | 46,7 | 41,3 | 44,8 | 3,5 | 65,3 | 18,0 | 43 |
| 32 | 53,4 | 46,1 | 49,6 | 3,5 | 66,8 | 28,0 | 49 |

CGEIE...B-I4

Description: Cable connecting plug, straight, shielded version





| Shell size | a -0.15 | d2 max | d3 max | d4 min | d5 max | g ± 0,2 | l1 max | SW1 | SW2 |
|------------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----|-------|
| 16 | 27,4 | 24,1 | 26,0 | 15,5 | 32,0 | 3,5 | 72 | 23 | 26 |
| 18 | 30,8 | 28,8 | 32,0 | 20,0 | 36,5 | 3,5 | 78 | 27 | 32 |
| 22 | 37,4 | 34,1 | 37,0 | 25,5 | 46,0 | 3,5 | 87 | 34 | 38 |
| 28 | 46,7 | 40,7 | 44,0 | 32,0 | 53,0 | 3,5 | 100 | 44 | 50 |
| 32 | 53,4 | 47,3 | 51,6 | 38,0 | 60,0 | 3,5 | 103 | 50 | 52/54 |

Accessories

Dust caps



Metal Protecting Caps

For plugs with chain and end link

| Shell size | Cannon A66 | A233 | A239 | A240 | d1 max | d2 ± 0,5 | l1 ± 10 | l2 max |
|------------|-------------|--------------|--------------|--------------|-----------|-------------|------------|-----------|
| 16 | CA121004-5 | CA121004-125 | CA121004-145 | CA121004-165 | 29,9 | 4,3 | 127 | 37 |
| 18 | CA121004-6 | CA121004-126 | CA121004-146 | CA121004-166 | 33,3 | 4,3 | 127 | 37 |
| 22 | CA121004-8 | CA121004-128 | CA121004-148 | CA121004-168 | 39,9 | 4,7 | 140 | 37 |
| 28 | CA121004-10 | CA121004-130 | CA121004-150 | CA121004-170 | 49,2 | 4,7 | 197 | 37 |
| 32 | CA121004-11 | CA121004-131 | CA121004-151 | CA121004-171 | 55,9 | 5,5 | 197 | 37 |



Metal Protecting Caps

For receptacles with chain and end link

| Shell size | Cannon A66 | A233 | A239 | A240 | d1 max | d2 ± 0,5 | l1 ± 10 | l2 max |
|------------|-------------|--------------|--------------|--------------|-----------|-------------|------------|-----------|
| 16 | CA121003-5 | CA121003-125 | CA121003-145 | CA121003-165 | 32,6 | 4,3 | 113 | 24,5 |
| 18 | CA121003-6 | CA121003-126 | CA121003-146 | CA121003-166 | 36,7 | 4,3 | 113 | 24,5 |
| 22 | CA121003-8 | CA121003-128 | CA121003-148 | CA121003-168 | 43,3 | 4,3 | 127 | 24,5 |
| 28 | CA121003-10 | CA121003-130 | CA121003-150 | CA121003-170 | 52,6 | 5,5 | 169 | 24,5 |
| 32 | CA121003-11 | CA121003-131 | CA121003-151 | CA121003-171 | 59,3 | 5,5 | 169 | 24,5 |



Dummy Receptacles

Rear panel mounting (rear side closed).

Available as Style A with threaded holes and Style B with through holes





| | Cannon Part no. | Cannon Part no. | d1 | l1 | l2 | 13 | 14 | d2 | d2 |
|------------|--------------------|--------------------|------|--------|-------|------|-------|---------|---------|
| Shell size | Style A | Style B | | | | | | Style A | Style B |
| | with through holes | with through holes | | ± 0,25 | ± 0,3 | | + 0,3 | | ± 0,3 |
| 16 | 248-8517-000 | 248-8505-000 | 27,4 | 32,5 | 24,6 | 24,8 | 21,6 | M4 | 3,2 |
| 18 | 248-8518-000 | 248-8506-000 | 30,8 | 35,0 | 27,0 | 27,2 | 23,15 | M4 | 3,2 |
| 22 | 248-8520-000 | 248-8508-000 | 37,4 | 41,0 | 31,8 | 27,2 | 23,15 | M4 | 3,2 |
| 28 | 248-8522-000 | 248-8510-000 | 46,7 | 50,8 | 39,7 | 28,2 | 24,15 | M5 | 3,7 |
| 32 | 248-8523-000 | 248-8511-000 | 53,4 | 57,0 | 44,5 | 28,2 | 24,15 | M5 | 4,4 |

Sealing gaskets

For rear panel mounting only



| Shell size | Order references Polychloroprene | Order references Alu-Flex (shielded version) | ا ± 0,5 | е ± 0,2 | d1 + 1 | d2 + 0,5 |
|------------|-------------------------------------|---|------------|------------|-----------|-------------|
| 16 | 075-8504-000 | 075-8504-001 | 32,5 | 24,6 | 25,3 | 4,2 |
| 18 | 075-8505-000 | 075-8505-001 | 35,0 | 27,0 | 28,4 | 4,2 |
| 22 | 075-8507-000 | 075-8507-001 | 41,0 | 31,8 | 34,8 | 4,2 |
| 28 | 075-8509-000 | 075-8509-001 | 50,8 | 39,7 | 44,3 | 5,1 |
| 32 | 075-8510-000 | 075-8510-001 | 57,0 | 44,5 | 50,7 | 5,1 |

Mounting Holes



Mounting holes

Mounting holes for wall mounting receptacles style A1, A2 and B1 acc. to VG96929-2 or CGE2E...B-04, CGE2E...B-16 and CGE0E...B-03

| | Ø d1 (H12*) | | Ø d2 (H13*) | | | Screws to be used | | | |
|------------|-----------------------|--|-----------------------|-----------------------|------------|-----------------------|--|-------|--------|
| Shell size | Style A2 CGE2EB-16 | Style A1, B1 CGE2EB-04 CGE0EB-03 | Style A2 CGE2EB-16 | Style B1 CGE0EB-03 | e ± 0,1 | Style A2 CGE2EB-16 | Style A1, B1 CGE2EB-04 CGE0EB-03 | | |
| 16 | - | 27.7 | M4 | | 24.6 | | "ISO 1207 | | |
| 18 | 27.4 | 31.1 | | M4 | | 4.5 | 27.0 | | M4x5.8 |
| 22 | 33.7 | 37.8 | | | | 31.8 | "ISO 1207 M4x5.8 | -A2P" | |
| 28 | 43.3 | 47.1 | | | 39.7 | -A2P" | "ISO 1207 | | |
| 32 | 49.7 | 53.8 | | 5.5 | 44.5 | | M5x4.8 -A2P" | | |

*Drilling tolerances according to DIN ISO 286



Explosion view - Assembly

cannon







Tools

Crimp tools - For connector series CGE / VG96929

Version A – Hydraulic – Manual hand tool

Description: HPW400U-ITT Part number: 121586-5257

* only for contact size H2/25 and H5/50



Handle

Version B – Electro-Hydraulic Crimp set Description: HP700EL-ITT Part number: 121586-5279

* for all contact sizes





H- Crimp Head

Electro Hydraulic Crimp Tool

Foot Pedal

| Version | Description | Marking | ITT Cannon order-nr. |
|---------------|---|-------------|----------------------|
| A | Manually operated Hydraulic hand tool* | HPW400U-ITT | 121586-5257 |
| В | Electro-Hydraulic Crimp tool set with foot pedal, hand control and crimp head* | HP700EL-ITT | 121586-5279 |
| B (Accessory) | Switch-mode power supply for EHA5 230V | SNT4-ITT | 121586-5280 |
| B (Accessory) | Lithium Ion Battery 18V 3A with recharger | LGA4-ITT | 121586-5281 |

Crimp dies

| Contractoriza | | Order part no. | Hexagon wrench size | N de alcia es | Cable size | |
|---------------|--------------|----------------|------------------------|---------------|------------|-----|
| Contact size | Crimp die | | | магкіпд | AWG | mm² |
| H2 / 25 | complete set | 121586-5243 | 8.45 | 04 | | 25 |
| H5 / 50 | complete set | 121586-5245 | 12.40 | 05 | | 50 |
| H9 / 95 | lower die | 121586-5272 | 16.1 | | | 95 |
| | upper die | 121586-5273 | 10.1 | | | |
| H15/150 | lower die | 121586-5274 | 20.00 | | | 150 |
| | upper die | 121586-5275 | 20.90 | | | |
| H24 / 240 | lower die | 121586-5276 | 25.00 | | | 240 |
| | upper die | 121586-5277 | 25.00 | | | |



PRODUCT SAFETY INFORMATION

THIS NOTE MUST BE READ IN CONJUNCTION WITH THE PRODUCT DATA SHEET/CATALOG. FAILURE TO OBSERVE THE ADVICE IN THIS INFORMATION SHEET AND THE OPERATING CONDITIONS SPECIFIED IN THE PRODUCT DATA SHEET/ CATALOG COULD RESULT IN HAZARDOUS SITUATIONS.

1. MATERIAL CONTENT AND PHYSICAL FORM

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and can be divided into two groups.

a) Printed circuit types and low cost audio types which employ all plastic insulators and casings.

b) Rugged, Fire Barrier and High Reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials. Contact materials vary with type of connector and also application and are usually manufactured from either: Copper, copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

2. FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD

There is no fire hazard when the connector is correctly wired and used within the specified parameters. Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the product Data Sheet/Catalog are exceeded and can cause breakdown of insulation and hence electric shock. If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires and leakage currents through carbonization of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3. HANDLING

Care must be taken to avoid damage

to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

4. DISPOSAL

Incineration of certain materials may release noxious or even toxic fumes.

5. APPLICATION

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 V ac or 42.5 V dc are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to make certain that there are no high resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheet/Catalog. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

IMPORTANT GENERAL INFORMATION

(i) Air and creepage paths/Operating voltage. The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

(ii) Temperature

All information given are temperature limits. The operation temperature depends on the individual application.

(iii) Other important information

Cannon continuously endeavors to improve their products. Therefore, Cannon products may deviate from the description, technical data and shape as shown in this catalog and data sheets.

All data subject to change without notice.



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ITT's Cannon brand is a world leader in the design and manufacture of highly engineered connector solutions for multiple end markets.



Why ITT

ITT is a focused multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions. ITT's Cannon brand is a leading global manufacturer of connector products serving international customers in aerospace, defense, medical, industrial and transportation end markets. ITT's Connector business, which also includes the Veam and BIW Connector Systems brand, manufactures and supplies a variety of connectors and interconnects that make it possible to transfer data, signal and power in an increasingly connected world.

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