

Geo-Beam™ EX

Expanded Beam Explosive Proof Connectors

Description:

Explosion proof series Geo-Beam™ EX has been designed in accordance to information defined within ATEX directive IECEx 60079 for use in Zone 1 and Zone 2 Hazardous Areas.

The Geo-Beam™ EX product range consists of an Inline Plug and Box Mount Bulkhead and is manufactured using Stainless Steel 316, making it able to withstand the most extreme environments. The product uses a Tri-Start Trapezoidal coupling method giving a reduce turn and an additional locking mechanism giving positive mating, and an audible click to ensure full engagement.

A standard ATEX approved metric cable gland can be used and will fit all of the Geo-Beam™ EX connector types, the cable glands used will allow termination to varied cable constructions.

The Geo-Beam™ EX Expanded Beam Connector is designed using a standard Expanded Beam insert. The insert allows up to 8 expanded beam channels, or a hybrid option, enabling a combination of power, electrical and optical connectivity in an all in one solution.

Features:

- Certified for equipment used in hazardous environments
- Required in offshore oil and gas applications
- Applicable to upstream/midstream/downstream
- ATEX is European only and regulatory to all EU countries
- IECEx is a worldwide standard (and is used in the US)
- Can be used in Zone 0 Hazardous Areas when utilized with appropriate hardware



Application:

- Explosive and hazardous environments
- Oil, Gas and Offshore
- Petrochemical refineries
- Chemical Manufacturing
- Pharmaceutical Manufacturing



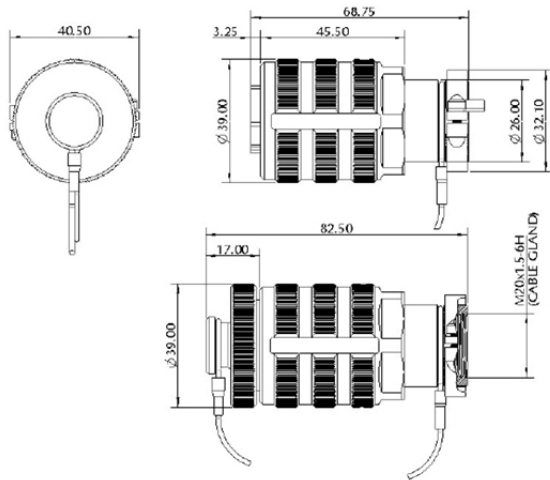
Specifications:

Insertion Loss	Single mode: 2.5 dB (typ. 1.5 dB) ¹
	Multimode: 2.0 dB (typ. 1.0 dB) ¹
Return Loss	≥ 35 dB (typical 40 dB) single mode
Temperature class	Gas: T4 (-30°C to +60°C) Dust: T135°C
Surface Temperature	60°C
Standard Coding	II 2 G D Ex db op pr IIC T4 Gb Ex tb IIIC T80°C Db
Certification	ATEX Directive 2014/34/EU & IEC 60079 ATEX Code: CML16ATEX1398X IECEx Code: CML16.0151X
IP Rating (when mated)	IP67
Free Fall Resistance	1 kg (7 Joules) at 1.2 m (Steel Plate Base)
Weight (approx)	Plug – 420 g / Bulkhead – 580 g (Additional weight with gland)
Connector Shell Material / Color	Stainless Steel 316 (shotblast finish)

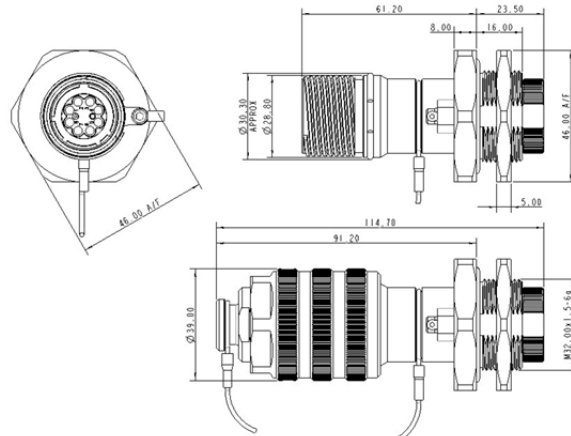
Note: 1) performance is dependent on assembly & termination; figures relate to CCS terminated harnesses.

Technical drawings:

Plug Connector:



Bulkhead Connector



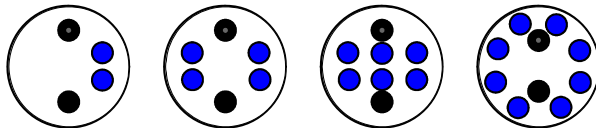
Available Insert Options:

- 2, 4, 6 and 8 Expanded Beam Channels
- 2 Expanded Beam Channels with 2 #16 MIL-C-39029
- 2 Expanded Beam Channels with 2 #20 MIL-C-39029
- 4 Expanded Beam Channels with 2 #16 MIL-C-39029
- 2 Expanded Beam Channels with 2 #16 and 2 #20 MIL-C-39029

Other Available Options:

- 8 #16 Pin or Socket Contacts (All Copper MIL-C-39029, All Fiber MIL-PRF-29504, Mixed Copper & Fibert)

Optical Inserts



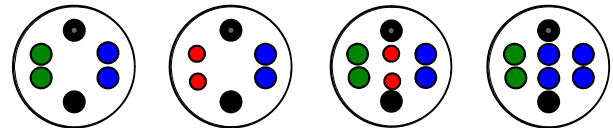
2CH OPTICAL

4CH OPTICAL

6CH OPTICAL

8CH OPTICAL

Hybrid Inserts



2CH OPTICAL
2 POWER (#16)

2CH OPTICAL
2 SIGNAL (#20)

2CH OPTICAL
2 POWER (#16)
2 SIGNAL (#20)

4CH OPTICAL
2 POWER (#16)