



Hybrid Expanded Beam Fibre Optic System

HYBRID EXPANDED BEAM SYSTEM



- 2x Singlemode Fibre Optic Channels
- 2x Size 16 MIL-C-39029 Power Contacts
- 2x Size 20 MIL-C-39029 Signal Contacts
- Rugged SMPTE Specification Cable
- Fully Sealed Ruggedised Hermaphroditic Connectors
- Available as Patchcords & Pigtailed Bulkheads.

The PMD hybrid expanded beam fibre optic system has been designed for use in the most demanding harsh environments including television outside broadcast, mobile CCTV systems, military tactical communications and many other industrial applications.

The system consists of a ruggedised hybrid electrical / fibre optic cable assembly supplied on a high quality deployable reel terminated with free plugs, and pigtailed D-hole mount bulkhead connectors. The connectors utilise advanced expanded beam technology to ensure reliable optical performance in the most extreme environmental conditions, and feature hermaphroditic coupling, fully sealed shell and rubber covered grip ring. The connector is easily cleaned and requires no maintenance.

Electrical connections are made via standard gold plated MIL-Specification contacts.

The PMD hybrid expanded beam system offers high performance, flexibility and cost effectiveness for all critical external applications where electrical power is required in addition to high performance singlemode optical transmission.

Ein Vertriebsprodukt von:

VIDELCO – Professionelle Audio-, Video-, Medien-Technik!

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VIDELCO
Europe Limited



Hybrid Expanded Beam System Outline Specifications

HYBRID EXPANDED BEAM SYSTEM

Connector Performance: All tests compliant with BS EN 186000-1

Optical: Insertion Loss	9/125 Fibre at 1310nm / 1550nm : Maximum -1.5dB
Optical: Return Loss	>-30dB
Electrical: Power Contacts	Size 16 MIL-C-39029. Max 600Vrms, 10 Amp. Contact resistance <4m Ω
Electrical: Signal Contacts:	Size 20 MIL-C-39029. Max 42Vrms, 3 Amp. Contact resistance <5m Ω
Durability	2000 Matings minimum
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +85°C
Water Immersion	1m
Free Fall Resistance	500 Falls from 1.2m height
Crush Resistance	3000N
Corrosion Resistance	500 Hours salt spray
Cable Retention	700N Minimum, Cable Dependant

Cable Performance: SMPTE 311M-1998

Diameter	8mm Nominal
Weight	75kg/km
Tensile Load (short term)	700N Minimum (FOTP-33)
Operating Temperature	-40°C to +75°C
Crush Resistance	180kg (FOTP-41)
Impact Resistance	20 cycles @ 5.88N (FOTP-25)
Minimum Bend Radius	7X Sheath Diameter (FOTP-37)
Auxiliary Conductors	DC Loop Resistance: <43 Ω/km / Insulation Resistance: >10,000M Ω/km Dielectric strength: 1750Vrms (60Hz, 1 min). Conductor diameter 1.65mm
Signal Conductors	DC Loop Resistance: <184 Ω/km / Insulation Resistance: >10,000M Ω/km Dielectric strength: 1750Vrms (60Hz, 1 min). Conductor diameter 0.7mm
Braid Shield	DC Resistance: <20 Ω/km

Fibre Characteristics:

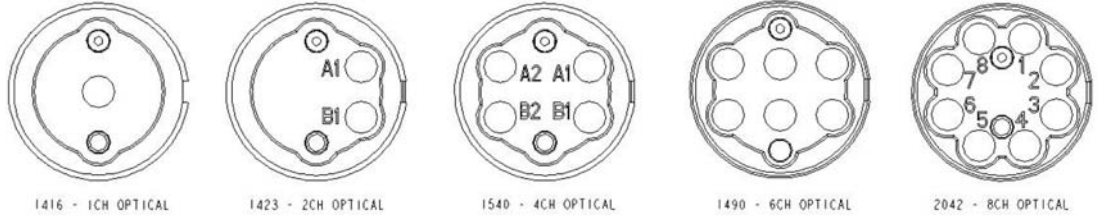
Fibre Type	Attenuation dB/km		Dispersion ps/nm.km		RI
	1310nm	1550nm	1310nm	1550nm	
9/125 OS1	0.38	0.25	3.5	18.0	1.470



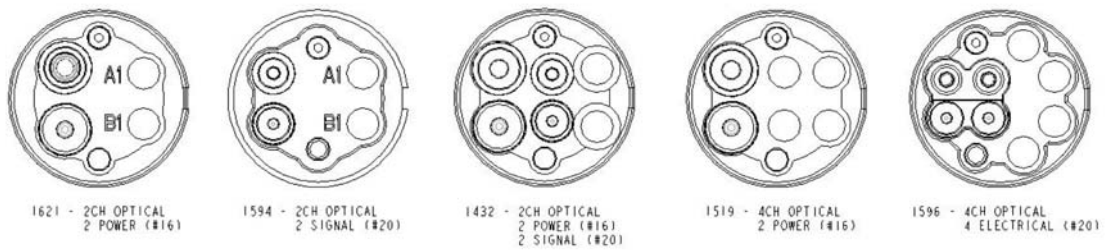
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Connector Options:



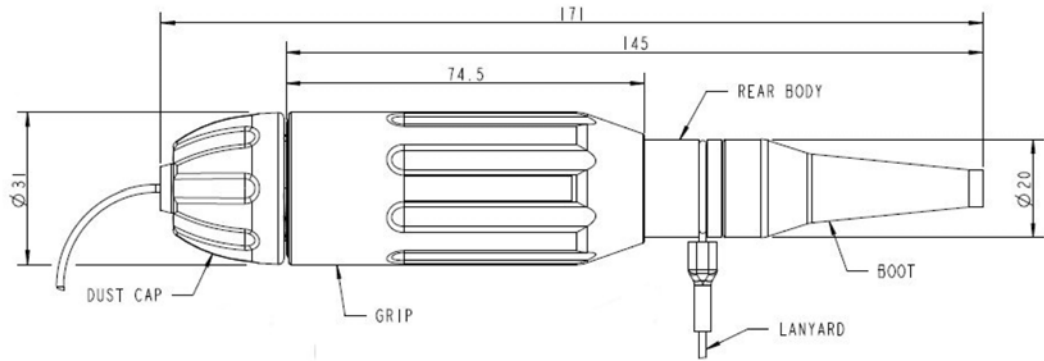
OPTICAL INSERT ARRANGEMENTS



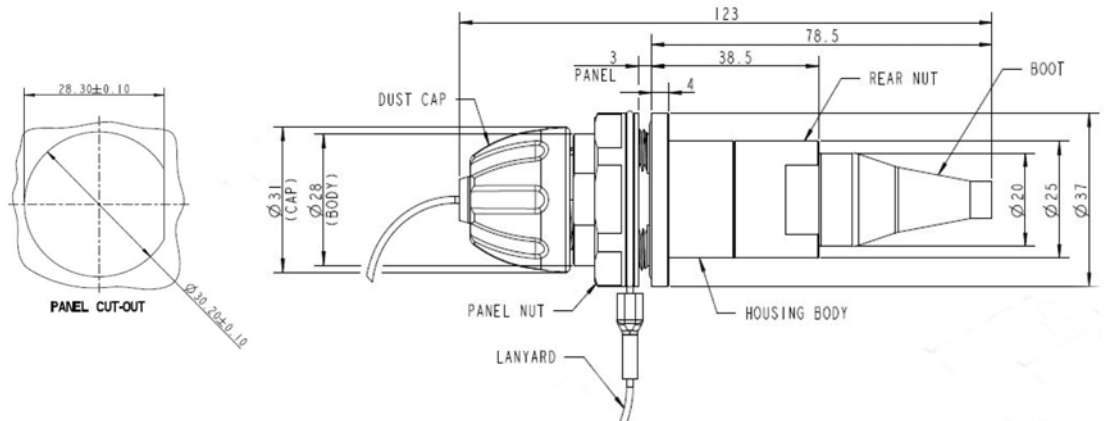
NOTE: SIZE 16 & 20 CONTACTS TO MIL C 39029

HYBRID INSERT ARRANGEMENTS

Plug Connector:



Bulkhead Connector D-Hole Mount:



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