



# Multimode Expanded Beam System

MULTIMODE EXPANDED BEAM SYSTEM



- Fully Sealed Ruggedised Hermaphroditic Connectors
- Multimode 50/125 & 62.5/125 Versions.
- 1 to 4 Channel Configurations.
- Rugged Military Specification Deployable Cable.
- Available as Patchcords and Pigtailed Bulkheads.
- Accessories include Patchpanels, Cable Reels & Loopbacks



The PMD expanded beam fibre optic system has been designed for use in the most demanding harsh environment applications including military tactical communications, outside broadcast, petrochemical plant, mining, and offshore systems.

The system consists of a ruggedised 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.

Standard cable lengths are 50m, 100m and 150m. These can be daisy-chained for longer transmission distances. Custom cable lengths can also be supplied.

The PMD expanded beam system offers high performance, flexibility and cost effectiveness for all critical field deployable harsh environment communication systems.

Ein Vertriebsprodukt von:

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

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# Multimode Expanded Beam System Outline Specifications

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## Connector Performance:

|                       |   |
|-----------------------|---|
| Insertion Loss        | 50/125 & 62.5/125 at 850nm / 1300nm: -1.0dB |
| 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       | 2000N                                       |

All tests compliant with BS EN 186000-1

## Cable Performance:

|                           |   |
|---------------------------|---|
| Diameter                  | 2 Core: 5.0mm / 4 Core: 5.5mm                         |
| Weight                    | 2 Core: 25kg/km / 4 Core: 28kg/km                     |
| Tensile Load (short term) | 2000N Maximum   |
| Operating Temperature     | -55°C to +85°C DEF STAN 60-1 (Part 3) Clause 16.13    |
| Storage Temperature       | -70°C to +85°C  |
| Crush Resistance          | 200N/cm DEF STAN 60-1 (Part 3) Clause 15.1            |
| Impact Resistance         | 1Kg / 100 Impacts DEF STAN 60-1 (Part 3) Clause 15. 2 |
| Minimum Bend Radius       | 10X Sheath Diameter                                   |
| Sheath Colour             | Matt Black  |

## Fibre Characteristics:

| Fibre Type | Attenuation dB/km |        | Bandwidth MHz/km |        | NA   |
|------------|-------------------|--------|------------------|--------|------|
|            | 850nm             | 1300nm | 850nm            | 1300nm |      |
| 62.5/125   | 3.0               | 1.0    | 200              | 500    | 0.27 |
| 50/125     | 2.8               | 0.8    | 500              | 500    | 0.20 |

Other fibre specifications upon request.

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