

DIAMOND

Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

PRELIMINARY

Diamond has developed the new rugged, MIL-83526 DM connector featuring the DM (Diamond Multipurpose) insert for superior optical performance. This connector is extremely well suited for harsh environments and other demanding applications. The MIL-83526 DM (Diamond Multipurpose) connector incorporates four (4) termini utilizing Diamond's two-component ferrules, assembled with the company's Active Core Alignment (ACA) process for unparalleled fiber core concentricity. This connector is also available with electrical contacts for hybrid E/O applications.

The MIL-83526 DM connector is available for MM, SM (PC/APC) and small-core single mode fiber, polarization-maintaining (PM) fiber, and other specialty fiber types. Furthermore, Diamond's splice-on termini can be field terminated with the Diamond ZEUS D50 HE fusion splicer, allowing for in-service repairs and custom installation.

FEATURES AND BENEFITS

- ▶ Rugged construction for highly reliable optical connections
- ▶ IP class: IP68 rated
- ▶ Easy ferrule front-face access for cleaning & inspection
- ▶ Keyed, self aligning, connector housing aides in "blind mating" applications
- ▶ Electrical pin size 20 AWG
- ▶ Easy termini insertion and removal for field termination and repair

CHARACTERISTICS OF DM INSERT

- ▶ Well dimensioned hollow guide pins insure precise and repeatable pre-alignment
- ▶ Interacting, space saving pre-alignment hollow guide pins
- ▶ Robust alignment sleeve is protected in the hollow pre-alignment guide pins
- ▶ Alignment sleeves individually removable for easy cleaning
- ▶ Full protection of the optical elements from all external influences such as rotating, bending and/or lateral stress
- ▶ Ability for mechanical keying

MIL-83526 DM

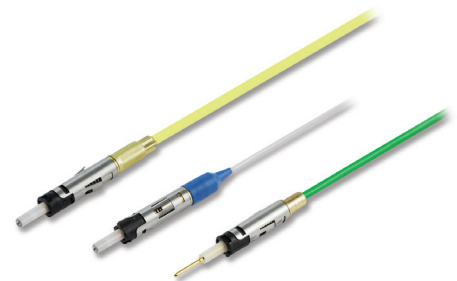
(Harsh environment)



MIL-83526 DM connector and bulkhead



Diamond Multipurpose (DM) insert



Optical - electrical termini



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*Specifications subject to change
without notice*

BDD 1951781 02_17

OPTICAL PERFORMANCES (obtained with the diamond proposed cables)

MEASUREMENT/TEST	MULTIMODE	SINGLE MODE PC/APC	STANDARDS
Insertion loss (std. version)	typ. 0.20 dB max. 0.50 dB	typ. 0.15 dB max. 0.45 dB	IEC 61300-3-4 (λ =1310 / 1550 nm)
Insertion loss (fusion version)	typ. 0.20 dB max. 0.50 dB	typ. 0.25 dB max. 0.45 dB	IEC 61300-3-4 (λ =1310 / 1550 nm)
Insertion loss (PM) version)	-	typ. 0.25 dB max. 0.45 dB	IEC 61300-3-4 (λ =1310 / 1550 nm)
Return loss	min. 40 dB	min. 75 dB (APC) min. 50 (PC)	IEC 61300-3-6 (λ = 1550 nm)
Extinction Ratio	-	typ. 23 dB min. 20 dB	Diamond validated cross polarizers method (λ = 1550 nm)

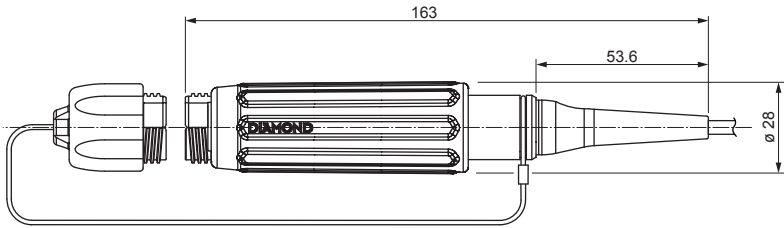
ELECTRICAL TESTS

Insulation resistant test	Resistance >200 M Ω	IEC 60512-3-1: 2002 (500V / 60 s)
Voltage Proof fest	PASS	IEC 60512-4-1: 2003 (2500V / 60 s / 50 Hz)

CONNECTOR TYPES AND DIMENSIONS

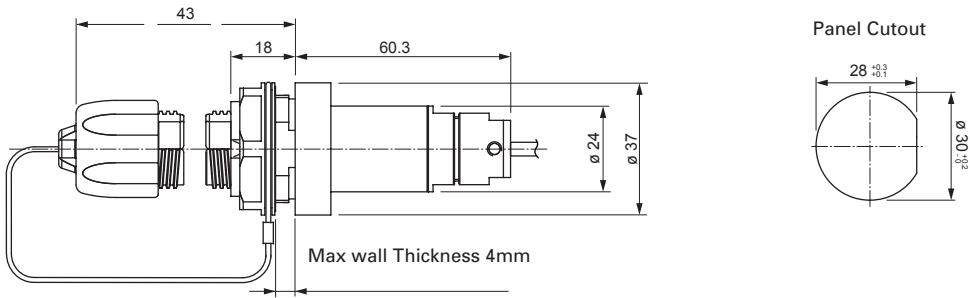
MIL-83526/20 DM (Connector)

Housing material: Metal (Black) / plastic (Orange)



MIL-83526/21 DM (Bulkhead)

Housing material: Metal (Black)



NOTE Other configuration available upon request.

ORDER INFORMATION

Please contact your nearest local Diamond representative or fill in the contact form available on the www.diamond-fo.com website.
