A RUGGEDIZED AND VIBRATION PROOF OPTICAL FEEDTHROUGH TO MATE FLAT SURFACE IN LABORATORY, INDUSTRIAL AND AEROSPACE APPLICATION

M14 Optical Feedthrough

Neoptix's M14 optical feedthrough connector has been specifically designed for installation onto flat surfaces. It is designed to withstand the most harsh environments, including high vibrations.

The Neoptix M14 type feedthrough provides a long-term leak-free interface and requires absolutely no maintenance. Based on high technology glass-to-metal bonding techniques, it overcomes all the disadvantages of other mechanical feedthroughs caused by unreliable epoxy bonding.

The optical feedthrough connector has standard ST connectors on both sides and has absolutely no inner moving parts or loose optical components. It is specifically designed to mate with all Neoptix's fiber optic temperature probes, including the general purpose T1™ model and the T2™ model for oil-filled transformers. It can be used with any of our complete range of optical signal conditioners (Nomad, Reflex, OmniFlex, T/Guard, T/Guard+ and T/Guard2).

Moreover, Neoptix's M14 optical feedthrough connector is a stand-alone part designed to mate with any of our temperature sensors and extension cables. Simply connect the ST connector of your sensor on one side and an extension cable on the other and it is then optically mated.

The M14 optical feedthrough has a key-way slot that allows the use of a tab-lock washer: a perfect combination for using the feedthrough in challenging environments. It uses a standard aeropsace AS568A O'ring. While it comes with a Viton® O'ring, it is possible to get the feedthrough with different O'ring materials, such as Buna-N (Nitrile), perfluoro-elastomer, Teflon® (PTFE), fluoro-silicone, polyurethane or Neoprene.

The M14 is a metric (ISO 261) hex cap bolt made out of stainless steel 316 and has a diameter of 14 mm and a 2 mm thread pitch. It comes standard with a Viton® O'ring and a matching tab-lock washer. The M14 complies with the most stringent specifications set by aerospace industry, including vibrations and crash tests.

Key Features

- Uses no epoxy
- Standard M14 threads
- No moving part
- Support vacuum or pressure
- Includes a tab-lock washer
- Specifically designed for harsh and vibration environments

Specifications

Operating temperature:
-80 to 200°C (maximum, O'ring dependent)

Maximum pressure:
16 bar (200 PSI)

Size:
Metric M14/2 bolt size

Threads:
- Metric Straight thread (ISO 261, JIS B0205, ANSI B1.13M)
- Truncation of roots and crests are flat
- 60° flank angle
- Threads are measured in millimeters

Key way slot:
3.18 mm (.125 inch) thickness Key way slot

Casing and nut material:
Stainless steel 316

Wall thickness:
3 to 10 mm (other length available on request)

O'ring material:
Standard: Viton®

Optional: Buna-N (nitrile), perfluoro-elastomer, Teflon® (PTFE), fluoro-silicone, polyurethane or neoprene

O'ring contact surface:
32 rms (16 rms optional)

Tab-lock washer:

Standard: carbon steel

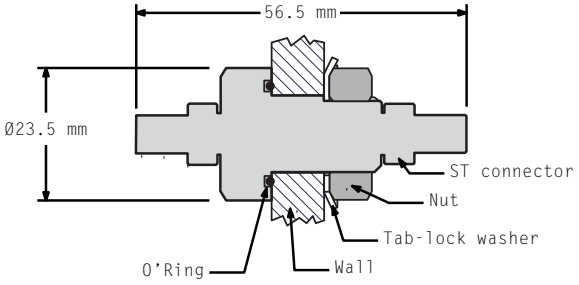
Optional: Cadnium plated (QQ-P-416A Type 2/Class 2)

Probes compatibility:
All Neoptix temperature sensors and extension cables

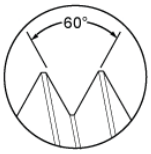
Ordering Code:

M14-□

O'Ring:
1 = Viton (standard)
2 = Buna-N
3 = Teflon
4 = Neoprene



Metric threads (standard)



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