

Optical Monitoring System (OMS)

Model 928-OMS

The Model 928-OMS is part of Focal's Unified Diagnostics System product line and provides advanced optical fiber analysis, reducing down time, saving operating costs, and increasing working time.

Focal's Model 928-OMS offers industry leading real-time performance monitoring of fiber-optic systems, consisting of multiple fiber-optic rotary joints, tethers, and umbilical cables. The OMS has been designed to seamlessly integrate with the existing Focal multiplexer and slip ring diagnostics to provide the end user with the capability to determine, monitor and predict the overall health of electro-optic systems.

The Model 928-OMS is a combination of a modern Optical Time Domain Reflectometer (OTDR) with special software to provide advanced and simplified performance monitoring of multiple fiber-optic cables. The 928-OMS is physically installed in-line with a user's existing communication electronics (multiplexers or media converters). The software manages and optimizes the OTDR settings allowing for easy and accurate measurements.

Traditional OTDR analyzers may be unsafe to monitor active fiber communication links and often require the optical system to be powered down or require special hardware to prevent damage to sensitive optical transceivers. The 928-OMS allows users to monitor multiple live optical links with minimal or no change to the existing optical topology. Users can view performance in real time and identify problems before they become critical and cause expensive downtime. With trending built into the software, performance can be predicted and preventative maintenance carried out when advantageous to the user. The unique software provides a streamlined user interface detailing the fiber optic system performance, including fiber lengths, optical losses and fault locations using highly visible warnings and alarms.

The 928-OMS has been designed to help simplify troubleshooting and reduce downtime due to potential or existing fiber optic system issues, thus saving cost and increasing working time.

Features

- Real time performance monitoring on live fibers
- Monitor multiple fibers automatically and continuously
- Software for configuration, monitoring, trending & logging
- Factory or User configured operating modes

Benefits

- Reduce downtime and save costs with trending and analysis
- Simplify troubleshooting by pinpointing fault areas
- Intuitive user interface and setup

Applications

- Remotely Operated Vehicles (ROV)
- Floating Production Systems (FPS) equipment
- Subsea/Surface communications links
- Pipe crawlers
- Existing fiber-optic links



Specifications

Optical	
Fiber Type	Singlemode (9/125 μm)
Wavelength	1625 nm nominal
Distance Range	0.5-20 km typical
Output Power	Class III, IEC6101-1
Insertion Loss	1 dB typical
Measurement	
Sampling Resolution (R)	1-10 m
Distance Accuracy	±1.5m typical
Measurement Rate	10-30 seconds per fiber scan
Measurements	Fiber length, optical loss, fault location
Mechanical	
Dimensions	1U or 2U, 19" EIA Rackmount
Options	Customization for OEM
Power	
Consumption	10 W max.
Voltage	110 to 240 VAC
Current	0.1 A max.

Connectors	
Optical	ST/PC
Power	IEC-320 Jack
Display	HDMI
DB9	Model 903 Serial Diagnostics
M12	Model 923 RS-485 Diagnostics
RJ-45 (1)	Model 907 Diagnostics
RJ-45 (2)	Ethernet connection to Ext. PC (optional)
USB	Factory use
Environmental	
Temperature	0 °C to +50 °C (operating) -40 °C to +60 °C (storage)
Humidity	5% to 85% RH, non-condensing
Software	
Notifications	User defined warning and alarm levels, historical statistics
Configuration	Presets of custom settings
Logging	Log values to PC hard drive



Sample GUI