

Model 912 Datasheet

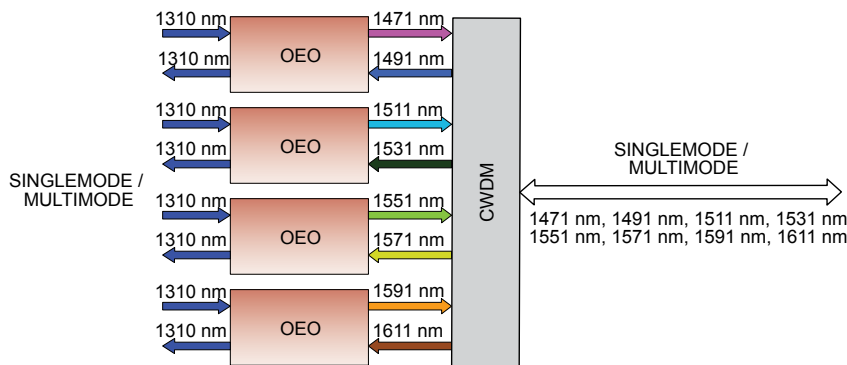
912-OEO-8

8-Channel OEO Wavelength Converter

Description

The 912-OEO-8 is an Optical-Electrical-Optical (OEO) signal converter that provides several functions, including optical wavelength conversion, optical signal boosting, and optical multiplexing. Although many configurations are possible, the standard card combines optical signals from eight separate fibers into a single fiber, often with increased optical power budget to significantly extend the range of the original signals or pass the signals through higher loss cabling systems. The signals are converted back to their original wavelengths at the other end of the fiber link, thus providing a transparent, bidirectional system.

The form-factor and proven reliability of Moog products make the Model 912-OEO-8 ideal for applications such as FPSO (Floating Production, Storage and Offloading) units, optical data and telemetry networks, specialized industrial machines, advanced work class ROVs, tactical and industrial security networks, and armored vehicle platforms.



Wavelength Conversion With Optical Multiplexing

Features

- Modular design (3U Eurocard)
- Wide range of supported data formats including 10/100/1000 Base-T(X) Ethernet, ATM, SONET, Fibre Channel, SDI/HD-SDI
- Basic link diagnostics via front panel LEDs
- 20 year MTBF
- Custom enclosures available on request

Benefits

- Easy extension of the maximum operating distance of standard optical telemetry equipment
- Reduced number of fibers required in cables and rotary joints
- Increased optical power budgets and robustness of optical links
- Modular format allows future upgrades or augmentation in card-cage systems



Typical Applications

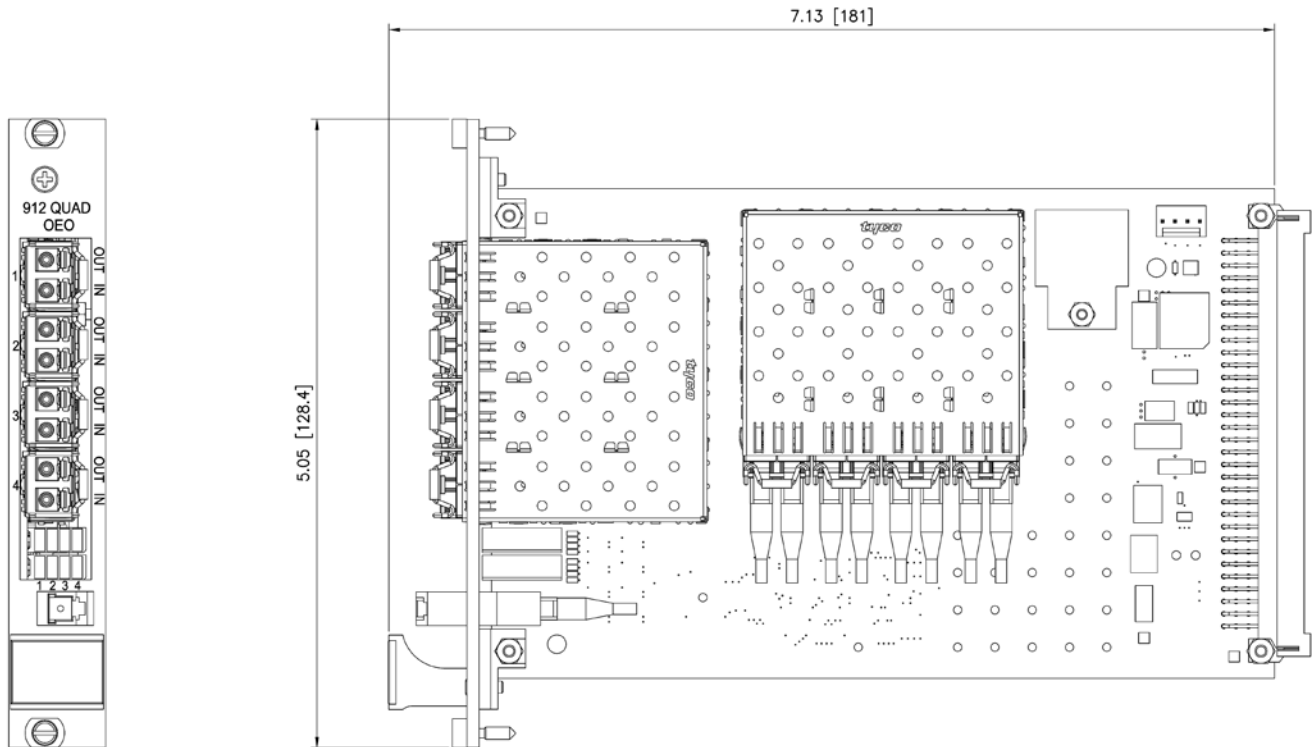
- Industrial process control
- Rotating test stations
- FPSO data systems
- Telemetry extenders

Model 912 Datasheet

Data		Mechanical	
No. Channels	8 wavelengths (i.e. 4 bidirectional channels)	Dimensions	Eurocard Format: 100 mm x 160 mm 4 HP Wide
Baud Rate	125 – 3125 Mbaud	Enclosures	Custom card cages and enclosures available, including explosion-proof enclosures for use in Class 1 hazardous locations
Format	10/100/1000 Optical Ethernet, 8b/10b, or other encoding formats	Environmental	
Latency	<10 ns (not including fiber, ~5 µs/km)	Temperature	0°C to +50°C (operational) -18°C to +70°C (extended operation option) -40°C to +85°C (storage)
Optical		Humidity	85% RH, non-condensing
Optical Fiber	Singlemode (9/125 µm) Multimode (optional)	Vibration	5 g, 25 1000 Hz, 3 axes
Wavelength	Input: 850, 1310/1550 nm standard Output: CWDM, 1471 – 1611 nm standard	Shock	30 g, 11 ms half sine, 3 axes
Connectors	LC standard, other types optional	Options	stress screening
Electrical		Reliability	
Power Voltage	+5.0 VDC ±10%, regulated Other voltages optional	MTBF	200,000 hours minimum
Power Used	5 W typical (10 W max.)		

Model 912

912-OEO-8 Dimensions



Dimensions in inches [millimeters]

Note: These are standard commercial products that are available with many options or configurations not explicitly shown.