912

OEO Converter

Description

Moog's family of low latency OEO converters provide a range of options for repeating optical data signals, converting them to other optical or electrical formats or combining multiple fibers onto a single fiber via Coarse Wavelength Division Multiplexing (CWDM). The 912 employs high reliability design and production processes, including environmental stress screening to ensure long life, even in harsh environments.

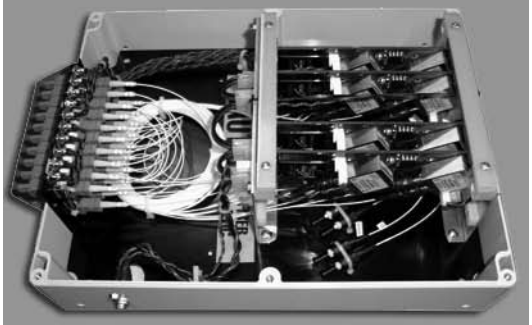
The conversion of optical wavelength or fiber type; singlemode to multimode or vice-versa; is often a cost effective solution when integrating off-the-shelf optical equipment in nonstandard configurations (e.g. operation over long distances or through mixed fiber systems). Each converter supports multiple data rates and signal formats, including Ethernet, (10 Mbps, 100 Mbps, 1 Gbps), ATM, SONET, Fiber Channel, SDI / HD-SDI and many industrial protocols. Multiple converters of differing types may be combined into single racks, boxes or explosion-proof enclosures.

Features

- Modular design
- Wide range of supported data formats
- Basic link diagnostics
- 20 year design life

Benefits

- Easy extension of maximum distances for standard optical telemetry equipment
- Reduced number of fibers required in cables and rotary joints
- Increased optical power budgets and robustness of optical links



Typical Applications

- Optical repeaters
- FPSO data links
- Wavelength or mode conversion
- Wavelength division multiplexing

Electrical Parameters	
Power Connection	Pigtail or Connector
Input Voltage	9 V to 36 VDC (Reverse Polarity Protection)
Input Current Per Transceiver	200 - 300 mA @ 12 VDC
Latency (Rx-to-Tx)	< 10 ns
Operational Temperature	0 to +60˚C or -45 to +85˚C
Reliability	MTBF = 200,000 hours min.
Optical Parameters	
Input Power Max.	0 to -7 dBm typical
Input Power Min.	34 dBm @ 155 Mbaud typical (varies with data rate)
Input Wavelength	770 to 860 nm (MMF) or 1270 - 1610 nm (MMF and SMF)
Output Power (Typical)	-5 to 0 dBm (laser), -15 to -20 dBm (LED)
Output Wavelength	850, 1310, 1550 nm, CWDM wavelengths
Optical Data Rate	DC - 32 Mbaud 5 - 300 Mbaud 50 - 700 Mbaud 100 - 1300 Mbaud, custom
Fiber Optic Connectors	ST, FC, SC, LC

Explosion Proof Enclosures	
Certifying Authority	Det Norske Veritas (DNV)
Certification (Junction Box)	CSA #C22.2 No. 30-M1986 Explosion Proof Enclosure for use in Class 1 Hazardous Locations ATEX PTB 02 ATEX 1073U
Typical Design Conditions	Design life: 20 years Marine environment Zone 1, Group IIB hazardous area· Swivel ambient operating temperature: -35 °C to +40 °C· Ingress protection: IP66
Mechanical Interface (Nominal Values)	
Overall Length	29.25” (743 mm)
Overall Width	21.25” (539.8 mm)
Mounting	See 902-0079-00 for details
Weight (Est.)	100 g (0.21 lb), dual module

OEO Systems Diagram - Typical Configurations