Instrument Signal Transmission — INST/INSR-3001

For Remote Sensor Signal Transmission Applications

The ***LuxLink***® INST/INSR-3001 system consists of the INST-3001 transmitter and INSR-3001 receiver. Both units transmit most common industrial sensor signals from point-to-point using interference-free fiber optic transmission technology. The system is user configurable (via DIP switch settings) and fully compatible with 0/20 analog or digital current loops as well as 0 to ±1, to ±3 or to ±10 volt analog DC voltage signals and may also be used to convert from one protocol to another.

In addition integral indicators are provided on both units to continuously indicate the presence of signals as well as operating power making system troubleshooting simple.

Technical Specifications

System Bandwidth	DC to 50 KHz (3dB)
System Response Time	5 µs typical
Rise/Fall Time	5 µs typical
Input Impedance	10K ohms (voltage mode) 50 ohms (current mode)
Voltage Modes (output load)	± 1V (50Ω), ±3V (300Ω) or ±10 V (1KΩ)
Input/Output Signal Level	±1, 3, or 10 v pp (voltage) 0 - 20mA (current) (current)
Accuracy / Linearity	± 0.25 %
Signal / Noise Ratio	60 dB typical
Output Load Capacitance	10 nF maximum
Drift	100 ppm/ºC full scale
Operating Wavelength	850, 1310 or 1550nm
Optical Loss Budget	0-13 dB
Optical Connectors	ST (multimode) FCPC (single-mode)
Signal Connectors	Removable terminal block for V or mA, BNC for V only
Operating Temperature	-35° to +75°C
Humidity	<95% non condensing
MTBF (per MIL HBK 217)	>120,000 hours
Power Requirements*	11-24 VAC/DC @350 mA
Physical Size (mm)	5.0” (127) x 3.0” (76) x 1.0” (25.4)

Note that all specifications are subject to change without prior notice.

Important Feature

- ***5 µs Response Time***
- ***50 KHz Signal Bandwidth***
- ***Protocol Conversion***
- ***Link & Power Indicators***
- ***Stand-alone, DIN or Rack Mountable (same unit)***

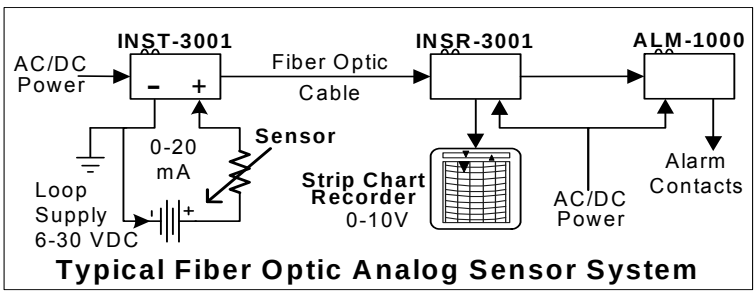
Ordering Information

Transmitter	INST-3001-X
Receiver	INSR-3001-X

“X” = Wavelength/Fiber
-1 = 850nm Multimode
-3 = 1310nm Multimode
-7 = 1310nm Single-mode
-9 = 1550nm Single-mode

***For stand-alone operation order a PS-1205 power supply for each unit.

For rack mounted operation all operating power is provided by power supply used with the rack-mounting panel.



Typical Fiber Optic Analog Sensor System

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Fiber Optic Transmission Systems
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