

XI Low Cost 4~20mA Isolator Series

XI-P Input Powered Isolators



XI-P1
One Isolator



XI-P2
Dual Isolators



XI-P4
Quad Isolators

Features:

- No Power Supply Needed - Input Powers Transmitter.
- Ideal for isolating a typical 4~20mA loop.
- Input to Output Isolation 1kV.
- High Accuracy.
- Reverse Polarity Protected.
- Compact DIN Rail Mount Enclosure.
- Available with 1, 2 or 4 Transmitters per enclosure.
- Easy to Install.
- Low Cost.

XI-P1
Single Isolator

4~20mA Input → → 4~20mA Output

XI-P2
Dual Isolator

4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output

XI-P4
Quad Isolator

4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output

PLC's

Indicators Including
Loop Powered
Indicators

Intech Multiplexers

Telemetry

SCADA

Recorders

XI-L Input Powered Isolators



XI-L1
One Isolator



XI-L2
Dual Isolators



XI-L4
Quad Isolators

Features:

- Input to Output Isolation 1kV.
- High Accuracy 0.1%.
- Reverse Polarity Protected.
- Compact DIN Rail Mount Enclosure.
- Available with 1, 2 or 4 Transmitters per enclosure.
- Easy to Install.
- Low Cost.

XI-L1
Single Isolator

4~20mA Input → → 4~20mA Output

XI-L2
Dual Isolator

4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output

XI-L4
Quad Isolator

4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output
4~20mA Input → → 4~20mA Output

PLC's

Indicators Including
Loop Powered
Indicators

Intech Multiplexers

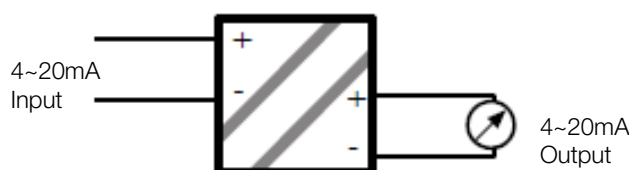
Telemetry

SCADA

Recorders

XI - Isolator Series

Typical Hookup XI-P



XI-P Input Powered Isolators

Ordering Information

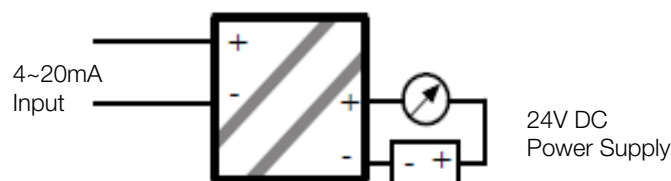
XI-P1 One Unit per Enclosure
 XI-P2 Two Units per Enclosure
 XI-P4 Four Units per Enclosure

XI-P Specifications

Note: Specifications unless stated otherwise are based on a XI-P with a 250Ω load on the output.

Input	4~20mA or 0~20mA. Must be inserted in a current loop. Maximum current $\leq 50\text{mA}$. Output current tracks Input Current.
	Minimum XI-P Loop Resistance @ 20mA is 200Ω (4V) with 0Ω Output load. Maximum XI-P Loop Resistance @ 20mA is 800Ω (16V) with 600Ω Output load.
Output	4~20mA or 0~20mA. Output Current tracks Input Current. Output Load = Input Effective Loop Resistance - 200Ω(4V) Minimum Output Load = 0Ω at 20mA(0V) Maximum Output Load = 600Ω at 20mA(12V)
Accuracy	$<\pm 0.15\%$ Typical at 250Ω Output Load. $<+0.1\%/100\Omega$ Typical for Output Load $<250\Omega$ $<-0.1\%/100\Omega$ Typical for Output Load $>250\Omega$
EMC Emissions Compliance	EN 55022-A
EMC Immunity Compliance	EN 50082-1
Safety Compliance	EN 60950
Linearity & Repeatability	$<\pm 0.1\%$ FSO Typical
Ambient Drift	$<\pm 0.01\%/^{\circ}\text{C}$ FSO Typical
Noise Immunity	125dB CMRR Average (1.0kVdc Limit.)
R.F. Immunity	$<1\%$ Effect FSO Typical
Isolation Test Voltages	-Between Input and Output: 1000Vdc for 1min. -Between the separate XI-P transmitters: 1000Vdc for 1min.
Response Time	100msec Typical. (From 10 to 90% 25msec Typical.)
Operating Temperature	0-70C.
Storage Temperature	-20~80C.
Operating Humidity	5~85%RH Max. Non-Condensing.
Mounting	35mm Symmetrical Mounting Rail.
Dimensions	L=100, W=22.5, H=100mm.

Typical Hookup XI-L



XI-L Input Powered Isolators

Ordering Information

XI-L1 One Unit per Enclosure
 XI-L2 Two Units per Enclosure
 XI-L4 Four Units per Enclosure

XI-L Specifications

Input	4~20mA
Input Resistance	500Ω
Output	2 wire 4~20mA. (Loop Powered)
Output Load Resistance	800Ω @ 24Vdc. (50Ω/V Above 8Vdc.)
Power Supply	8-33Vdc.
Supply Voltage Sensitivity	$<\pm 0.005\%/V$ FSO.
Maximum Output Current	Limited to $<28\text{mA}$.
EMC Emissions Compliance	EN 55022-A
EMC Immunity Compliance	EN 50082-1
Safety Compliance	EN 60950
Accurate to	$<\pm 0.1\%$ FSO Typical.
Linearity & Repeatability	$<\pm 0.1\%$ FSO Typical
Ambient Drift	$<\pm 0.01\%/^{\circ}\text{C}$ FSO Typical
Noise Immunity	125dB CMRR Average (1.0kVdc Limit.)
R.F. Immunity	$<1\%$ Effect FSO Typical
Isolation Test Voltages	-Between Input and Output: 1000Vdc for 1min. -Between the separate XI-L transmitters: 1000Vdc for 1min.
Response Time	100msec Typical. (From 10 to 90% 25msec Typical.)
Operating Temperature	0-70C.
Storage Temperature	-20~80C.
Operating Humidity	5~85%RH Max. Non-Condensing.
Mounting	35mm Symmetrical Mounting Rail.
Dimensions	L=100, W=22.5, H=100mm.

Product Liability. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

Quality Assurance Program:

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument.

This instrument has been designed and built to comply with EMC and Safety Standards requirements.