

Signal Converters & Isolators

AC Current to Process Signal Converter PXC-10



DESCRIPTION

Signal converter for the conversion of an AC current signal to an analogue process signal. A typical application would be to convert a signal from a Current Transformer measuring high current to an analogue input of a PLC. Input, output and operating voltage are isolated to 3,75kV AC.

Input range and output type and range are selected via choice of terminals - See wiring diagram.

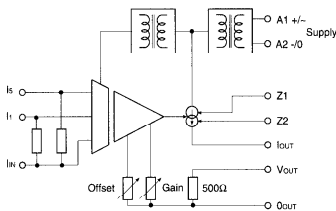
Features:

- 0-1A AC and 0-5A AC input in one version.
- Output 0-10VDC/2-10VDC/0-20/4-20mA - selected via terminals.
- Output offset and gain adjustable $\pm 5\%$.
- LED indication of input less than 5% / i.e. indication of probe failure.
- Galvanically isolation supply/input/output is 3,75kV AC 1 min.
- Operating voltage 12-48V AC/DC. 115-230VAC.

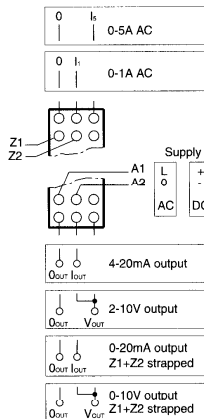
VERSIONS/ORDERING CODES

Type: Process signal converter	PXC-10	PXC-10	230
Supply voltage 12-48V AC/DC 115-230V AC		924	230

BLOCK DIAGRAM



WIRING DIAGRAM

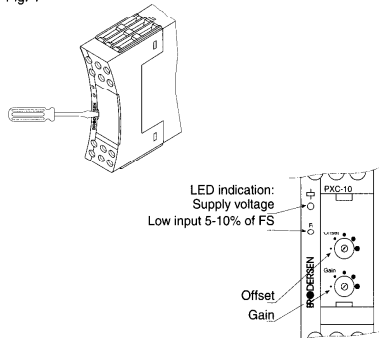


ADJUSTMENT

PXC-10 is delivered adjusted to offset = 0% and gain = 100%. To compensate for any loss in cables, etc. it is possible to adjust the output signal.

Remove the front cover. The offset (zero) and gain (span) on the output signal can be adjusted $\pm 5\%$ of max. signal. Put the cover back on to avoid any accidental adjustment of the relay. See fig. 1.

Fig. 1



TECHNICAL DATA

Input:

Input signal	Impedance	I _{max}
0-1A AC	0,10hm	3A
0-5A AC	0,0330hm	8A

Selected via choice of terminals.

Frequency at

AC-input:	45-65 Hz.	
Voltage drop:	Range:	1A:0,1V@FS. 5A:0,17V@FS

Output:

Output signal	R _{max}
4-20mA UC	500 Unm
0-20mA DC	500 Ohm
0-10V DC	via intern 500 Ohm shunt

Selected via terminals.

Offset(zero) and gain(span) are adjustable ±5%. See. fig. 1.

Accuracy:	<2%, without adjustment.
Linearity:	<0,2% of full scale.
Temp. coefficient	~0,02%/°C.
Ripple (RMS):	<0,1%.

Supply voltage:

Supply voltage	Consumption
12-48V AC/DC (10,5-60)V AC/DC	<1W.
115-230V AC (60-264)V AC	<1W.

All galvanically isolated 3,75kV AC 1 min. to input and output.

General data:

Ambient temperature:	-20 to 55°C.
Storage temperature:	-40 to 80°C.
Mounting:	35mm DIN-rail (EN50022).
Terminals:	Screw terminals with dual compartment. Terminal screws are combined crosshead/slotted. Up to 2 x 2,5mm ² wire. (2 x 1,5mm ² inc. ferrule). Recommended torque, 0,5Nm,max. 0,7Nm. (VDE0609-1).
Indicators:	Green LED = operating voltage. Yellow LED = input less than 5% of FS. (indication of cable failure).
Protection:	IP20.
Electric isolation:	3,75kVAC (1 min.) between input output and supply.
Housing:	Noryl (GE), UL94V1.
Terminal block:	Noryl (GE), UL94V0.
Weight:	170 g.

SPECIFICATIONS:

PXC-10 is designed and developed with regard to relevant specifications:

- EN60204-1 / VDE0113 electrical material on machines.
- VDE0110 / IEC664 Isolation specifications/creepage and clearance distances.
- Electrical safety in accordance with EN61010.
- IEC414 Safety regulations for control and monitoring equipment.
- EMC: Emission EN50081-1
Immunity EN50082-2
- Humidity in accordance with IEC68-2-3; RH=95%, 40°C.
- Vibration in accordance with IEC68-2-6.
- Shock when mounted, in accordance with IEC68-2-27.

PXC-10 is CE-marked in accordance with EMC-and the Low Voltage Directive.

MECHANICAL DIMENSIONS

