PX24, PXN

ISOLATED CONVERTER OF DC CURRENT OR VOLTAGE

- PX24 **loop powered 4- 20mA**
- PXN **auxiliary power supply**

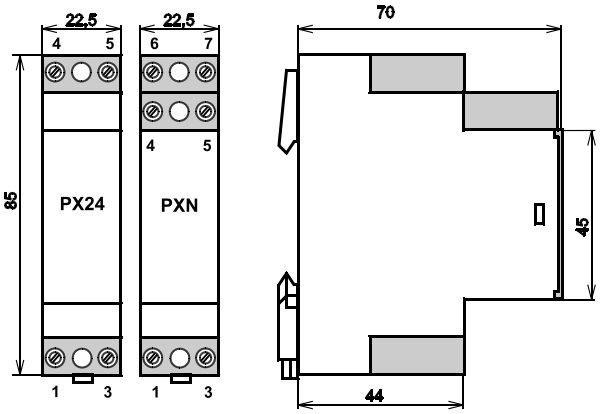
- measures and separates input DC current and voltage
- allows bipolar input and output signal
- input, output and supply circuits are isolated (4000V_{RMS} tested)
- designed for DIN 35 rail mounting
- conversion accuracy < 0.1%
- time constant typ.1ms, for order up to 300ms

The module has been designed to convert DC current (±50uA…±10A) or voltage (±10mV…±1000V) from shunt resistors and sensors into a series of unified ranges (0..10V, 0..20mA, 4..20mA, 0..± 20mA, 0..±10V). The converter output-to-input response is linear. The converter is particularly well-suited for heavy electromagnetic interference environment operation and features input-to-output isolation.

Electrical specifications:

- operating temperature range:		-25...+ 70°C
- storage temperature::		-40...+ 80°C
- supply voltage:	PX24:	12..30V DC
	PXN:	19-300VDC 90-250VAC
	for order:	20 – 60VAC
- consumption:		max. 1,5VA
- input signal:	voltage	from ±10mV to ±1000V
	current	from ±50uA to ±10A
- output signal:	PX24:	4..20mA
	PXN:	0..20mA, 4..20mA, 0..10V
		0..±20mA, 0..±10V
- output voltage amplitude:		min. 15V
- voltage output load:		max. 10mA
- input resistance of voltage input:		typ. 100kohm / V, max.13Mohm
- voltage drop of current input::		< 0,54V for 20mA, 5mV for 10A
- output current limit:		typ. 30mA (electronic fuse)
- measurement error:		< 0,1%
- linearity error:		< 0,1%
- temperature induced error:		< 0,01%/°C
- time constant:		1ms , for order up to 300ms
- enclosure (casing / terminal board):		IP40 / IP20
- weight:		90g
- working environment:		pollution level 2
- max.working voltage across isolation		isolation level:
overvoltage category instalation		basic / reinforced
I		up 1000V / up 1000V
II		up 1000V / up 600V
III		up 600V / up 300V

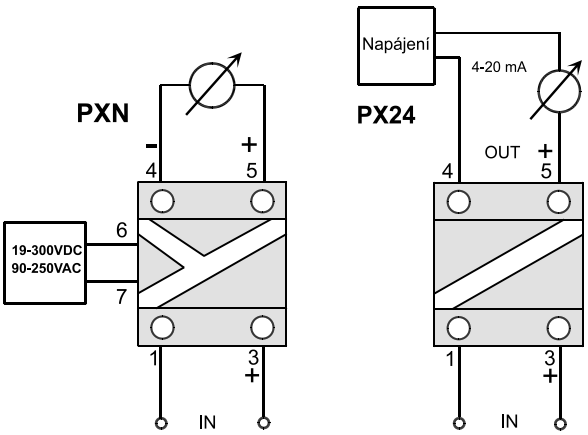
Converter dimensions:



Terminal designation:
1,3…input signal (3 is +)
4,5..output signal (5 is +)
6,7.. auxiliary power supply without polarity

Type tests:
Standard type test: to ČSN EN 60770-1
EMC: to ČSN EN 61326-1
Safety: assessed acc. to ČSN EN 61010-1

Connections: The terminals accept wires with 2,5mm². We recommend using a cable with a minimal cross 0,5mm². In the interfering environments use shielded or twisted cable.

Ordering instructions:
Your order should include:
- module type
- quantity
- input and output signal
- time response (if it is different from 1ms)

Application variants: