



## DESCRIPTION

Temperature converter for converting a temperature to an analogue process signal. The temperature converter has an Pt100/Pt1000 input in two ranges -50-300°C and -50-100°C. A typical application is where temperature measurement is required and when a PLC/Controller only has analogue inputs. The temperature range for input and type of analogue output are selected via choice of terminal - see connection diagram.

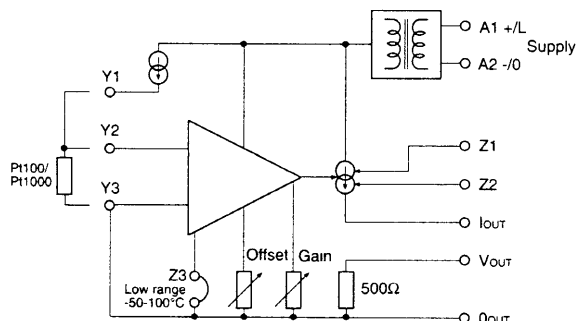
### Features

- Pt100/Pt1000 probe input with/without compensation for cable resistance in two ranges -50 to 300°C and -50-100°C.
- Output 0-10VDC/0-20/4-20mA - selected via terminals.
- Output offset and gain adjustable  $\pm 5\%$ .
- LED indication of input less than 5%.
- Galvanically isolated supply/output is 3,75kV AC 1 min.
- Operating voltage 24VDC, 24VAC, 115VAC or 230VAC.

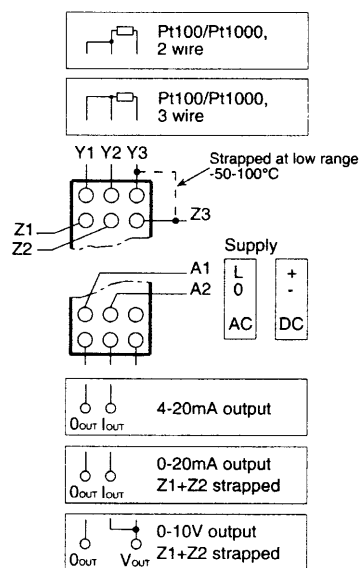
## VERSIONS/ORDERING CODES

|                              |        |        |     |
|------------------------------|--------|--------|-----|
| Type:                        |        |        |     |
| Temperature converter Pt100  | PXT-10 | PXT-10 | 924 |
| Temperature converter Pt1000 | PXT-11 |        |     |
| Supply Voltage               |        |        |     |
| 24V DC                       |        | 924    |     |
| 24V AC                       |        | 024    |     |
| 115V AC                      |        | 115    |     |
| 230V AC                      |        | 230    |     |

## BLOCK DIAGRAM



## WIRING DIAGRAM

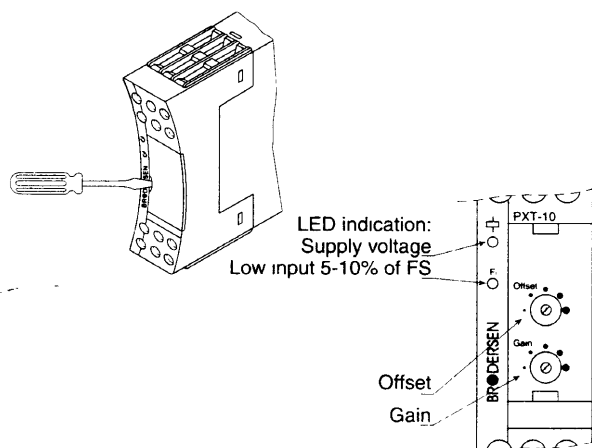


## ADJUSTMENT

PXT-10/11 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 signal

Pt100/Pt1000 probe (DIN43760/IEC751), 2 or 3 wire with compensation for cable resistance.

Temperature range.

-50-300°C

-50-100°C

### Output:

|                         |                           |
|-------------------------|---------------------------|
| Output signal           | $R_{MAX}$                 |
| 4-20mA DC               | 500 Ohm                   |
| 0-20mA DC               | 500 Ohm                   |
| 0-10V DC                | via intern 500 Ohm shunt. |
| Selected via terminals. |                           |

Offset (zero) and gain (span) are adjustable  $\pm 5\%$ . See. fig. 1.

|                   |                          |
|-------------------|--------------------------|
| Accuracy:         | <1%, without adjustment. |
| Linearity:        | <0,05% of full scale.    |
| Temp. coefficient | 0,02%/°C.                |
| Ripple (RMS):     | <0,1%.                   |

### Supply voltage:

|                        |             |
|------------------------|-------------|
| Supply voltage         | Consumption |
| 24V DC (20,4-27,6)V DC | 2W          |
| 24V AC (20,4-27,6)V AC | 3VA         |
| 115V AC (98-132)V AC   | 3VA         |
| 230V AC (196-264)V AC  | 3VA         |

All galvanically isolated 3,75kV AC 1 min. to 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.<br>Terminal screws are combined crosshead/slotted. Up to 2 x 2,5mm <sup>2</sup> wire (2 x 1,5mm <sup>2</sup> inc. ferrule).<br>Recommended torque, 0,5Nm., max. 0,7 Nm. (VDE0609-1). |
| Indicators:          | Green LED = operating voltage.<br>Yellow LED = input less than 5% of FS.                                                                                                                                                    |
| Protection:          | IP20.                                                                                                                                                                                                                       |
| Electric isolation:  | 3,75kVAC (1 min.) between supply and input/output (EN60950).<br><b>Note:</b> No galvanic isolation between sensor input and analogue output.                                                                                |
| Housing:             | Noryl (GE), UL94V1.                                                                                                                                                                                                         |
| Terminal block:      | Noryl (GE), UL94V0.                                                                                                                                                                                                         |
| Weight:              | 170 g.                                                                                                                                                                                                                      |

## SPECIFICATIONS:

PXT-10/11 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.

PXT-10/11 is CE-marked in accordance with EMC and the Low Voltage Directive.

## MECHANICAL DIMENSIONS

