



RT-FLEX

Head-Transmitter for Pt100, programmable

2-, 3- and 4-wire connection

Sensor correction

Setting via PC

CE tested

GENERAL

This programmable 2-wire Pt100 transmitter is designed for mounting inside the standard connecting head of a temperature sensor. It is the continuation of the UNIFLEX T/TEX series and fulfils all the requirements regarding flexibility, reduced stocks and safety against electromagnetic effects. By means of a PC and the standard programming set, adjustment for the required measuring range and parameters is performed.

DESCRIPTION

The transmitter has an input for a Pt100 sensor.
Measurement is possible in 2-, 3- and 4-wire connection

TECHNICAL DATA

INPUT

Resolution 14 bit

Resistance thermometer Pt100

Span: 25 K up to 1050 K

Span start: -200 °C up to 825 °C

Span end: -175 °C up to 850 °C

Smallest configurable step: 0,1 K

Sensor current: < 0,3 mA,

Connection: 2-, 3- or 4-wire

Sensor monitoring: built-in

Short circuit: < - 225 °C

Break: > + 875 °C

Measuring cycle: nominal <700 ms

Damping: adjustable 0...30 s

Permissible input interferences

(to DIN IEC 770 6.2.4.2)

OUTPUT

Standard signal: 4...20 mA

Signal direction: direct, inverse

Load

$$R_{\text{load}} = \frac{U_{\text{Supply}} - 8[\text{V}]}{0,023[\text{A}]} - R_{\text{lead}}[\Omega]$$

Output signal limitation:

programmable 3,5mA / 23 mA

Loop monitoring: programmable
upscale 23 mA / downscale 3,5 mA

Characteristic: temperature linear

Resolution: 12 bit

Conformity error

(Inclusive conformity error)

Span	Error
< 250 K	± 0,25 K
> 250 K	± 0,1 % of span

POWER SUPPLY

Supply voltage: $\geq 8 \dots \leq 35$ V

Power supply effect: $\pm 0,01$ % / 10 V

Permissible ripple: $3 V_{rm}$

Time for initialisation: 10 s

Behaviour with mains failure

No loss of configuration data.

ENVIRONMENTAL CONDITIONS

Temperature limits

Operation: $-40 \dots + 85$ °C

Storage: $-35 \dots + 85$ °C

Temperature effect: $\leq \pm 0,01$ % / 10 K

Relative humidity: ≤ 98 %, condensation

Vibration

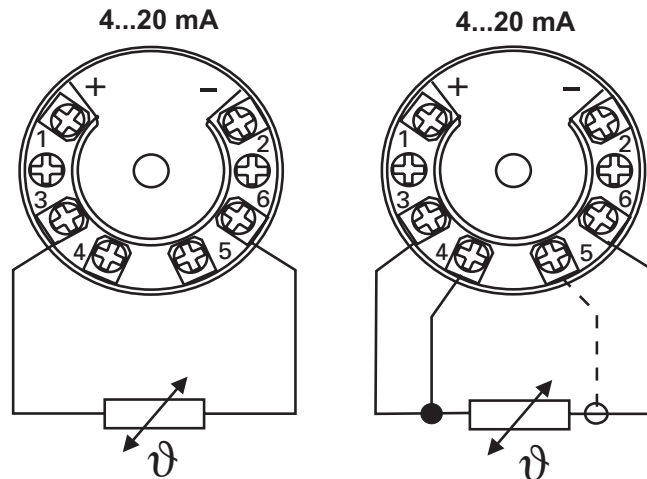
4 g 10 to 100 Hz to Lloyds register test 2

Long term drift: $\pm 0,1$ % / 10 000 h

ELECTROMAGNETIC COMPATIBILITY

Complies with EN 50 081-1 and EN 50 082-2 for unlimited use in rural and industrial areas

Electrical connection



GENERAL

Dimensions: \varnothing 44 mm, h 19 mm

Protection type: housing IP40, terminals IP10

Electrical connection: Screw terminals

Weight: 0,05 kg

Mounting: in standard connection head type B as A as also derivatives.

Mounting position: not critical

ORDERING DATA

Transmitter RT-Flex, not configured

Packing set of 10 units each

9404-202-09511

ACCESSORIES

Programming set

9404-202-09301

Adapter for connection to serial interface RS232C of a PC, compatible to IBM XT. Delivery comprises: programming unit, 3 1/2 -inch programme diskette, programme base WINDOWS, multilingual; battery plug and test cable.

Transmitter Power Supply

230 VAC, single

9404-202-08231



Deutschland

Prozess- und Maschinen- Automation GmbH
P.O Box 31 02 29
D - 34058 Kassel
Tel.: +49 - 561 - 505 1307
Fax: +49 - 561 - 505 1710
E-mail: mailbox@pma-online.de
Internet: <http://www.pma-online.de>

Your local representative