Measuring transducer

Features

- For Pt100
- Analog output 4 to 20 mA
- Fault detector
- Ex ia/ib
- Galvanically isolated
- Two-, three-wire senors
- EMV according to DIN EN 61000-6-3: 2005; DIN EN 61000-6-4: 2002; DIN EN 61000-6-1: 2002; DIN EN 61000-6-2: 2006

Description

The MODEX series includes a temperature measuring transducer mounted on-site in the same way as a modular terminal. The module transforms the signal received from the Pt100 temperature sensor into a proportional, load-in-dependent 4 to 20 mA output signal. The sensor circuit is intrinsically safe according to Ex protection type Ex ia.

An output current exceeding the 4 to 20 mA range signals a senor fault (open/short circuit). The Pt100 temperature sensor can be operate in 2- or 3-wire circuits within Zone 0 or 1.

Explosion protection

Ex protection type
Ⓔx II 2(1) G/I M2
Ex d e [ia Ga] IIC/IIB Gb
Ex d e [ia Ma] I Mb
Class I Zone 1 IIC
A/Ex d e [ia] IIC Gb

Certification
PTB 97 ATEX 1068 U
IECEx PTB 11.0083U
TÜV 97 ATEX 1204 X
IECEx TUN 11.0030X
CSA 2011-2484303U

Fitting
Pt100 measuring transducer
Type 17-6582-1.../....
Ⓔx II (1)G [Ex ia Ga] IIC/IIB
Ⓔx II (1)D [Ex ia Da] IIIC/IIIB
For further data see verification certificates.

Safety data
U_m = 253 V
I_0 = 12 mA
U_0 = 17.3 V
P = 51.9 mW

Ex ia	IIC	IIB
L_0 (mH) ≤	200	800
C_0 (nF) ≤	341	2048

Technical data

Enclosure material
High-quality thermoplastic

Protection class

Module	IP 66/IEC 60529
Terminals	IP 20/IEC 60529

Terminals
2.5 mm², fine stranded

Mounting rail
TH 35 x 15 (7.5) EN 60715

Terminal designation
written marking labels

Ambient temperature
-40 °C to +60 °C

Stockage temperature
-40 °C to +60 °C

Weight
0.250 kg

Electrical data

Operating voltage
DC 24 V -10 %/+20 %

Power consumption
1.6 W

Sensor
Pt100 temperature sensor
2- or 3-wire circuits

Output
Load independent current: 4 to 20 mA
Max. load: ≤ 400 Ω

Temperaturmessbereich
-50 °C to +100 °C
-50 °C to +200 °C
0 °C to +150 °C
0 °C to +200 °C
0 °C to +400 °C

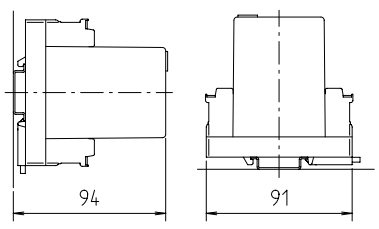
Accuracy
± 1 % of upper value

Function test
Connect 100 Ω resistance to terminal 15-16 and bridge terminals 16 and 17. Apply current between terminal + and terminal -.

Guidelines
Directive 2004/108/EC
Directive 94/9/EC

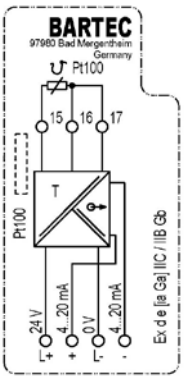
Note: Observe terminal assignment.

Dimensions/mounting positions



Module width: 30 mm

Wiring diagram/terminal assignment



Selection chart

Temperature range			Code no.
-50 °C	to	+100 °C	**5**
-50 °C	to	+200 °C	**C**
0 °C	to	+200 °C	**7**
0 °C	to	+400 °C	**9**
0 °C	to	+150 °C	**A**

Complete order no.
07-7311-93T5/ ☐ 350
Please insert correct code.
Technical data subject to change without notice.

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