

Overview

- Specifically for Pt100
- Input: Pt100 2-, 3- or 4-conductor
- Measuring range -200 ... +850 °C
- More accurate than 0.25 °C
- ATEX explosion protection
- DIN form B housing installation



Technical data

Ambient conditions

Long-term test (transmitter)	IEC 770 6.3.2
Vibration (sinusoidal) (EN 60068-2-6)	1.6 mm p-p (2 ... 25 Hz), 4 g (25 ... 100 Hz), 1 octave / min.
Degree of protection (EN 60529)	IP 40
Humidity	< 98 % RH , condensing
Operating temperature range	-40 ... 85 °C
Storage temperature range	-55 ... 90 °C

Input signal

Connection variants	2-wire 3-wire 4-wire
Sensor element	IEC/DIN/EN 60751-2
Cable resistance	< 20 Ω/wire
Compensation for cable error	< 0.02 °C/Ω
RTD measuring current	0.3 mA , continuous
Sensor short detection	< -225 °C
Suppression	50 Hz 60 Hz
Accuracy	< 0.1 % FSR , measuring span > 250 °C < 0.25 °C , measuring span ≤ 250 °C
Error detection delay	< 10.0 s
Measuring unit	°C °F
Min. measuring span	25 °C
Offset adjustment	± 10 °C , max.
Protection	± 35 V DC
Range	-200 ... 850 °C
Resolution	14 bit
Ripple immunity	IEC 770 6.2.4.2
Sample time	≤ 0.7 s

Input signal

Repeatability	< 0.1 °C
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Output signal

Load resistance	R = (U - 8 V)/23 mA
Ripple immunity	3 Vrms
TAG No.	15 characters
Up/Down scaling limits	23 mA / 3.5 mA
Reverse polarity protection	Yes
Power-up time	≤ 10 s
Temperature drift	< 0.003 %/K , typ. < 0.01 %/K , max.
Accuracy	< 0.1 % FSR
Effect of variations in supply voltage	< 0.01 %/V
Output signal	4 ... 20 mA , 2-wire
Power supply	8 ... 35 V DC
Resolution	12 bit
Damping	0.0 ... 30 s , programmable

Housing

Overall size	ø44 x 19 mm
Style	DIN form B
Material	Silicone

ATEX II 3G Ex nA IIC T5

Current rating, I _n	< 100 mA
Voltage supply range	8 ... 30 V DC
Temperature class, T1 ... T5	-20 < T _{amb} < 60 °C

Compliance and approvals

EMC	EN 61000-6-2 EN 61000-6-3 EN 61326-1
Explosion protection	ATEX II 1 G Ex ia IIC T6...T4 Ga ATEX II 3 G Ex ec IIC T5...T4
Namur	NE21