

Temperature measuring transducer - MCR-FL-T-LP-I - 2864561

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



MCR temperature measuring transducer: programmable, loop-powered, for resistance thermometers, thermocouples, resistance-type sensors and voltage sensors.

Product Features

- Freely programmable via MCR/PI-CONF-WIN
- Two-wire transmitter for resistance thermometers, thermocouples, resistance-type sensors, and voltage sensors



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	110.91 g
Custom tariff number	85437090
Country of origin	Germany

Technical data

Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP20

Input data

Configurable/programmable	Yes, programmable
Sensor types (RTD) that can be used	Pt, Ni (100, 500, 1000); minimum measurement range 10 K
Sensor types that can be used (TC)	B, C, D, E, J, K, L, N, R, S, T, U; minimum measurement range 50 K/500 K

Temperature measuring transducer - MCR-FL-T-LP-I - 2864561

Technical data

Input data

Linear resistance measuring range	Resistance-type sensor from 10 Ω to 400 Ω and from 10 Ω to 2000 Ω; minimum measurement range 10 Ω/100 Ω
Connection method	2, 3, 4-wire

Output data

Output name	Current output
Number of outputs	1
Current output signal	4 mA ... 20 mA
	20 mA ... 4 mA
Output current with wire break	≤ 3.6 mA or ≥ 21 mA (adjustable)
Output current with short-circuit	≤ 3.6 mA or ≥ 21 mA (adjustable, not for thermocouples)
Output current range with overrange/underrange	≤ 20.5 mA / ≥ 3.8 mA (linear increase/decrease)
Load/output load current output	Max (V _{supply} -12 V) / 0.023 A (current output)

Power supply

Designation	Loop-powered
Supply voltage range	12 V DC ... 35 V DC
Max. current consumption	< 3.5 mA

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Stripping length	8 mm
Screw thread	M3

General

Transmission error resistance thermometer	0.2 K (Pt 100, Ni 100), 0.5 K (Pt 500, Ni 500), 0.3 K (Pt 1000, Ni 1000)
Transmission error thermocouples	typ. 0.5 K (K, J, T, E, L, U), 1.0 K (N, C, D), 2.0 K (S, B, R)
Transmission error resistance-type sensor	± 0.1 Ω (10...400 Ω), ± 1.5 Ω (10...2000 Ω)
Transmission error voltage sensor	± 20 μV (-10...100 mV)
Step response (10-90%)	< 2 s
Switch-on delay	4 s
Test voltage input/output	2 kV (50 Hz, 1 min.)
Noise emission	EN 61326-1 (IEC 61326) and NAMUR NE 21
Noise immunity	EN 61326-1 (IEC 61326) and NAMUR NE 21

Temperature measuring transducer - MCR-FL-T-LP-I - 2864561

Technical data

General

Color	green
Housing material	Polyamide PA non-reinforced
Mounting position	any
Configuration	Using MCR-PI-CONF-WIN configuration software package
Conformance	CE-compliant
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

Standards and Regulations

Noise emission	EN 61326-1 (IEC 61326) and NAMUR NE 21
Noise immunity	EN 61326-1 (IEC 61326) and NAMUR NE 21
Connection in acc. with standard	CUL
Conformance	CE-compliant
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

Classifications

eCl@ss

eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200206
eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27371503

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC002568

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

Temperature measuring transducer - MCR-FL-T-LP-I - 2864561

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Recognized 

cUL Recognized 

EAC

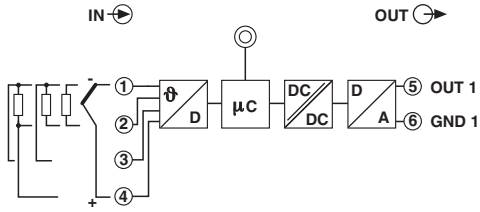
EAC

cULus Recognized 

Drawings

Temperature measuring transducer - MCR-FL-T-LP-I - 2864561

Circuit diagram



Dimensional drawing

