

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

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 head-mounted temperature transducers: Programmable loop-powered temperature transducers. Resistance thermometers, thermocouples, resistance-type sensors and voltage sensors.

Your advantages

- ✓ Input for resistance thermometers, thermocouples, and linear mV signals, Ex ia IIC
- ✓ Configuration via software
- ✓ Can be installed in zone 1
- ✓ 2-way electrical isolation
- ✓ 1-channel
- ✓ Loop-powered
- ✓ HART-compatible (MCR-FL-TS-LP-I-EX)
- ✓ Output: 4 mA ... 20 mA/20 mA ... 4 mA



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4017918907273

Technical data

Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C
Degree of protection	IP20

Input data

Configurable/programmable	Yes, programmable
---------------------------	-------------------

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

Technical data

Input data

Sensor types (RTD) that can be used	Pt, Ni (100, 500, 1000); min. measurement range 10 K
Sensor types that can be used (TC)	B, C, D, E, J, K, L, N, R, S, T, U; min. measurement range 50 K/500 K
Connection technology	2, 3, 4-wire
Input signal range	10 Ω ... 400 Ω (min. measurement range 10 Ω)
	10 Ω ... 2000 Ω (min. measurement range 100 Ω)
	-10 mV ... 100 mV (min. measurement range 5 mV)

Output data

Signal output	Current output
Configurable/programmable	Yes
Current output signal	4 mA ... 20 mA
	20 mA ... 4 mA
Max. current output signal	≤ 23 mA
Output current with short-circuit	≤ 3.6 mA or ≥ 21 mA (adjustable, not for thermocouples)
Output current with wire break	≤ 3.6 mA or ≥ 21 mA (adjustable)
Output current range with overrange/underrange	3.8 mA ... 20.5 mA
Load/output load current output	≤ 520 Ω (At $U_V = 24\text{ V}$; $U_{\text{supply}} = 12\text{ V} / 0.023\text{ A}$)
Configurable/programmable	no

Power supply

Designation	Loop-powered
Supply voltage range	12 V DC ... 30 V DC
Max. current consumption	< 3.5 mA

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm
pluggable	no

General

Step response (10-90%)	< 2 s
Switch-on delay	4 s
Configuration	Using MCR-PI-CONF-WIN configuration software package
Standards/regulations	NAMUR recommendation NE 21
Housing material	Polyamide PA non-reinforced
Color	green
Line monitoring	NE 43

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

Technical data

Safety data

Max. output voltage U_o	4.4 V DC
Max. output current I_o	9.6 mA
Max. output power P_o	10.6 mW
Max. ambient temperature	T4 = 85 °C, T5 = 65 °C, T6 = 50 °C
Group	IIA
Max. external inductivity L_o	100 mH
Max. external capacitance C_o	12 µF
Group	IIB
Max. external inductivity L_o	100 mH
Max. external capacitance C_o	12 µF
Group	IIC
Max. external inductivity L_o	100 mH
Max. external capacitance C_o	2.4 µF
Safety-related maximum voltage U_m	250 V

Standards and Regulations

Standards/regulations	NAMUR recommendation NE 21
Conformance	CE-compliant
ATEX	# II 2(1) G Ex ia IIC T4...T6
UL, USA/Canada	cULus
Group	IIA
	IIB
	IIC

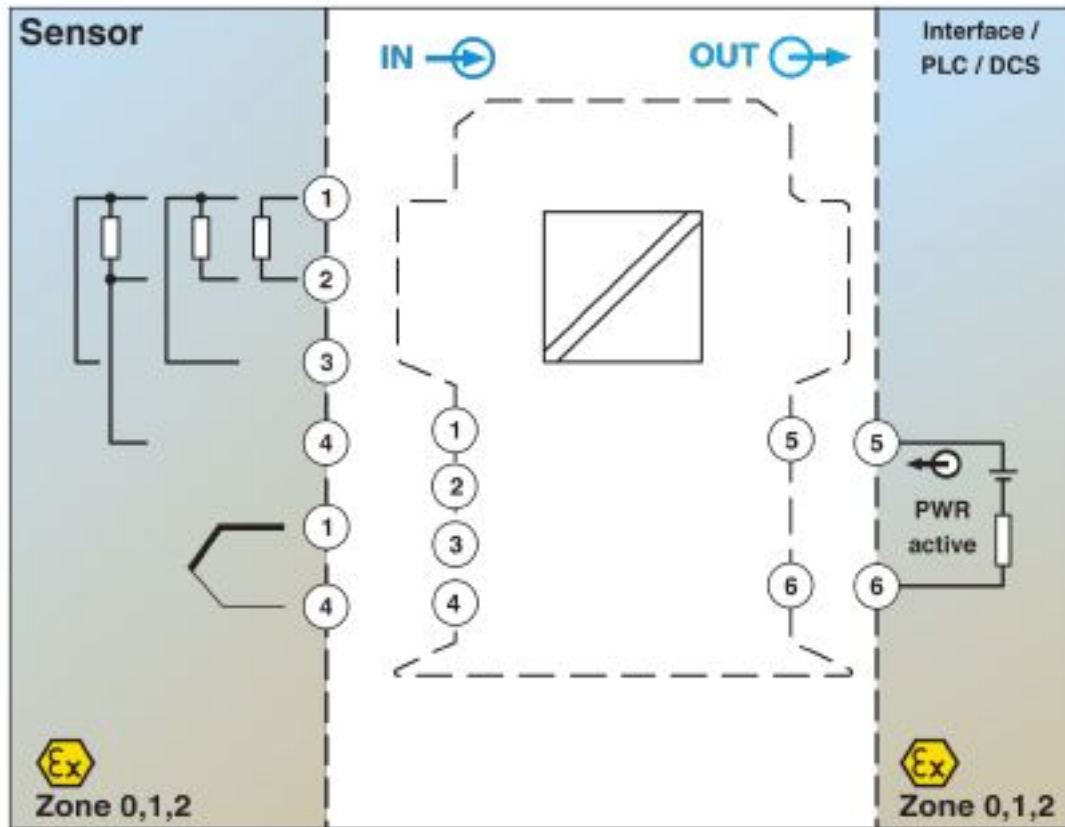
Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

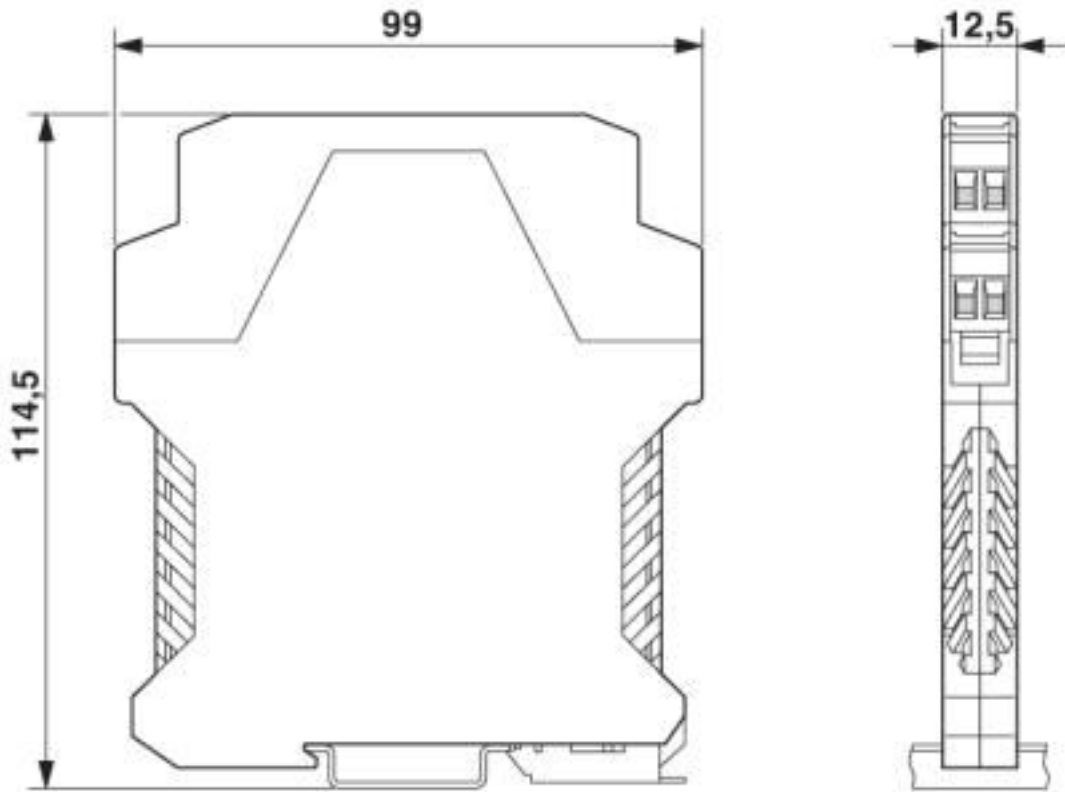
Block diagram



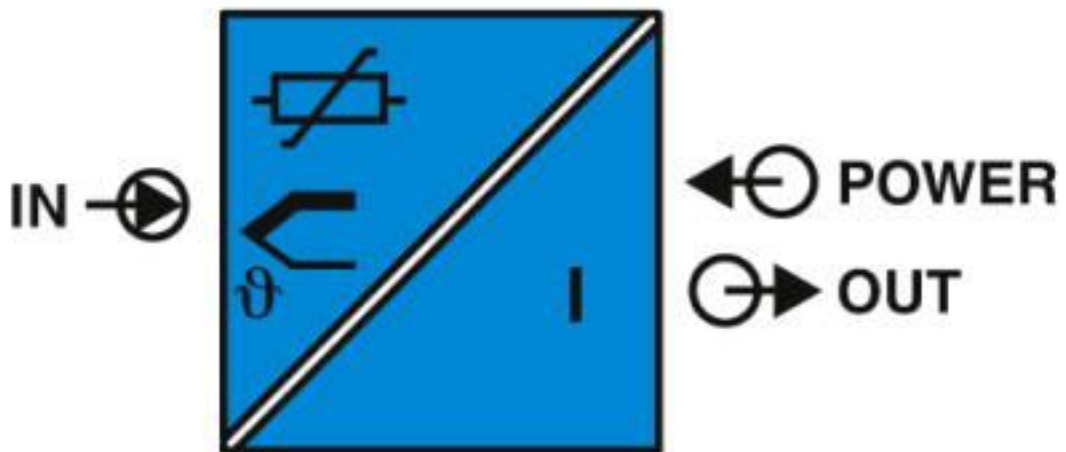
Block diagram MCR-FL-T-LP-I-EX

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

Dimensional drawing



Pictogram



Classifications

eCl@ss

eCl@ss 10.0.1	27210129
eCl@ss 4.0	27200200
eCl@ss 4.1	27200200

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

Classifications

eCl@ss

eCl@ss 5.0	27200200
eCl@ss 5.1	27200200
eCl@ss 6.0	27200200
eCl@ss 7.0	27200206
eCl@ss 8.0	27200206
eCl@ss 9.0	27210129

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC001446
ETIM 6.0	EC002919
ETIM 7.0	EC002919

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	41112105
UNSPSC 18.0	41112105
UNSPSC 19.0	41112105
UNSPSC 20.0	41112105
UNSPSC 21.0	41112105

Accessories

Accessories

Adapter cable

Adapter cable - MCR-PAC-T - 2864590



Software adapter cable, 2.4 m for programming MCR-...-LP-...- and MCR-...-HT-... modules

Programming adapter

Temperature measuring transducer - MCR-FL-T-LP-I-EX - 2864574

Accessories

Programming adapter - MCR-PAC-T-USB - 2309000

Programming adapter with USB and T port interface, 2.4 m for programming FA MCR-..., MCR-...-LP-..., and MCR-...-HT-... modules



Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Temperature Sensor Modules](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[084Z6042](#) [TX4L-14S](#) [084Z6041](#) [QP99](#) [CP-02](#) [CP82](#) [CP99](#) [R38-LAOO](#) [R38-LARR](#) [72-11304023-0150.0050](#) [72-11304027-0150.0050](#) [72-23304003-0150.0050.GGP](#) [72-23904001-0300.0040.TM](#) [72-34904001-0300.0040.TM](#) [TEM 73 A](#) [AT403-414-1000](#) [AT403-614-1000](#) [AT-503-1141-000](#) [AT-503-1161-000](#) [AT-503-6140-000](#) [AT-603-1141-000](#) [AT603-414-1000](#) [ATR121-AD](#) [TPMC-5](#) [TPMC-8W](#) [K39-HCRR](#) [K39T-HCRR](#) [K49-HCRR](#) [K49P-HCRR](#) [K85-HERR](#) [KR1-LCRR-D](#) [LHI968](#) [ZAD-1V2-24](#) [ZAD-ECO-V2](#) [RO](#) [E5CB-Q1P 100-240AC](#) [E5CB-Q1TCD 24AC/DC](#) [E5CB-R1PD 24AC/DC](#) [E5CSV-R1T-500 100-240AC](#) [E5CSV-R1TD-500 24AC/DC](#) [RT-4 SONDA DS18S20](#) [RTM-01](#) [RTM-02](#) [RTM-30](#) [RTM-30/S](#) [72-11301001-0300.0045.PP](#) [72-11301002-0300.0045.SS](#) [72-11301002-1000.0050.SS](#) [72-23304001-0150.0100.GGP](#) [CP82C](#)