

# MCR-FL-HT-T-I-EX

Order No.: 2864532




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2864532>

MCR head-mounted temperature transducers, programmable, intrinsically safe, for resistance thermometers, thermocouples, resistance-type sensors and voltage sensors. For Pt 100 resistance thermometers



<http://www.download.phoenixcontact.com>  
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## Commercial data

GTIN (EAN)	 4 017918 893231
sales group	H516
Pack	1 pcs.
Customs tariff	85437090
Catalog page information	Page 464 (IF-2011)

## Technical data

### Input data

Configurable/programmable	Yes, programmable
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 method	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

Configurable/programmable	Yes, programmable
Current output signal	4 mA ... 20 mA
	20 mA ... 4 mA
Max. current output signal	≤ 25 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 (linear increase/decrease)
Load/output load current output	≤ 720 Ω (For $U_V = 24\text{ V}$ ; $U_{\text{supply}} = 8\text{ V} / 0.025\text{ A}$ )

#### Power supply

Name	Loop-powered
Supply voltage range	8 V DC ... 30 V DC
Max. current consumption	< 3.5 mA

#### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	1.75 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	1.75 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	15
Stripping length	8 mm
Screw thread	M3
Connection method	Screw connection
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

#### General data

Step response (10-90%)	< 2 s
Pickup delay	6 s
Configuration	Using MCR-PI-CONF-WIN configuration software package
Inflammability class acc. to UL 94	V0
Standards/regulations	NAMUR recommendation NE 21
Housing material	Polycarbonate, PC
Degree of protection	IP00, IP66 (integrated in the connecting head)
Color	green

Line monitoring	NE 43
Conformance	CE-compliant
ATEX	Ex II 1 G Ex ia IIC T6/T5/T4
UL, USA / Canada	cULus

#### Safety data

Max. voltage $U_o$	8.2 V DC
Max. current $I_o$	4.6 mA
Max. power $P_o$	9.35 mW
Max. ambient temperature	Category 1: T4 = 60°C, T5 = 50°C, T6 = 40°C
Gas group	II B
Max. external inductivity $L_o$	8.5 mH
Max. external capacity $C_o$	1.9 $\mu$ F
Gas group	II C
Max. external inductivity $L_o$	4.5 mH
Max. external capacity $C_o$	974 nF
Safety-related maximum voltage $U_m$	250 V

#### Certificates / Approvals



Certification	GOST
Certification Ex:	CUL-EX LIS, UL-EX LIS, ZELM-EX

#### Accessories

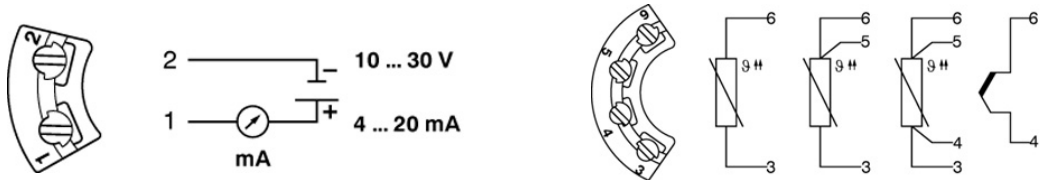
Item	Designation	Description
<b>Cable/conductor</b>		
2881078	CM-KBL-RS232/USB	Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.
2864590	MCR-PAC-T	Software adapter cable, 2.4 m for programming MCR-...-LP-...- and MCR-...-HT-... modules

**General**

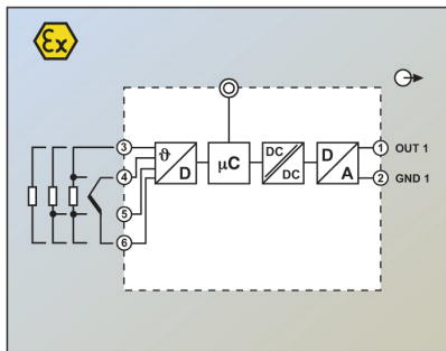
2814799	MCR/PI-CONF-WIN
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**Diagrams/Drawings**

Connection diagram

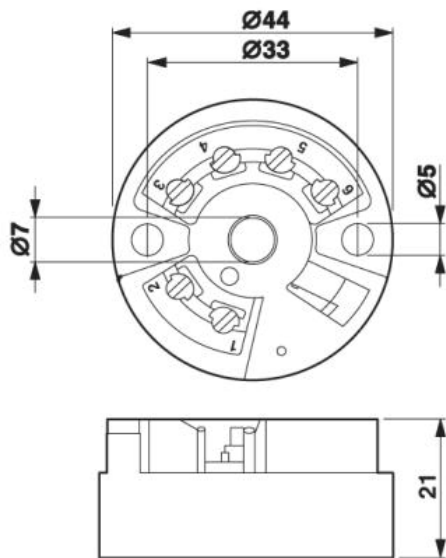


Block diagram



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

Dimensioned drawing



Dimensional drawing

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