

Head-mounted transducer - MCR-FL-HT-T-I-EX - 2864532

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

Why buy this product

- Input for resistance thermometers, thermocouples, and linear mV signals, Ex ia IIC
- Configuration via software
- Can be installed in zone 0
- 2-way electrical isolation
- Loop-powered
- 1-channel
- 4
20 mA/20
4 mA output



Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 893231
GTIN	4017918893231
Weight per Piece (excluding packing)	82.300 g
Custom tariff number	85437090
Country of origin	Germany

Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C
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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 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

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 $U_V = 24$ V; $U_{supply} - 8$ V / 0.025 A)
Configurable/programmable	no

Power supply

Designation	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 ²
Conductor cross section solid max.	1.75 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.75 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG 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

Step response (10-90%)	< 2 s
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Technical data

General

Switch-on delay	6 s
Configuration	Using MCR-PI-CONF-WIN configuration software package
Flammability rating according to UL 94	V0
Standards/regulations	NAMUR recommendation NE 21
Housing material	Polycarbonate, PC
Color	green
Line monitoring	NE 43
Conformance	CE-compliant
ATEX	# II 1 G Ex ia IIC T6/T5/T4
UL, USA/Canada	cULus

Safety data

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

Standards and Regulations

Standards/regulations	NAMUR recommendation NE 21
Flammability rating according to UL 94	V0
Conformance	CE-compliant
ATEX	# II 1 G Ex ia IIC T6/T5/T4
UL, USA/Canada	cULus
Group	IIB
	IIC

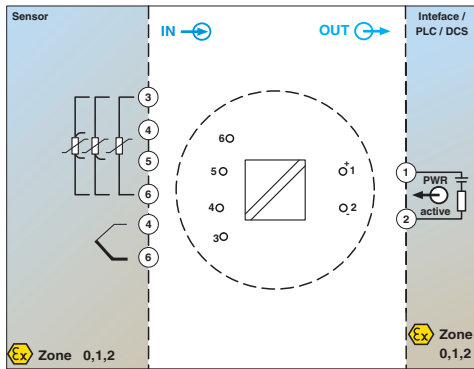
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

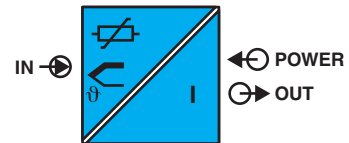
Drawings

Head-mounted transducer - MCR-FL-HT-T-I-EX - 2864532

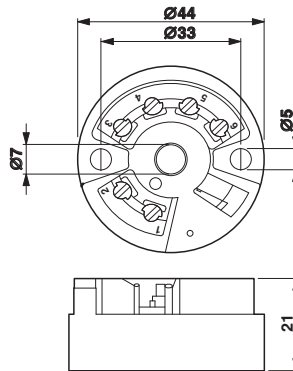
Block diagram



Pictogram



Dimensional drawing



Dimensional drawing

Classifications

eCl@ss

eCl@ss 4.0	27210120
eCl@ss 4.1	27210120
eCl@ss 5.0	27210120
eCl@ss 5.1	27210120
eCl@ss 6.0	27210120
eCl@ss 7.0	27210120
eCl@ss 8.0	27200206
eCl@ss 9.0	27210129

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Classifications

ETIM

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

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	41112105

Approvals

Approvals

Approvals

EAC / EAC

Ex Approvals

ATEX / UL Listed / UL Listed / cUL Listed / cUL Listed / cULus Listed

Approval details

EAC		RU *- DE.A*30.B.01628
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EAC		RU C- DE.A*30.B.01082
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Accessories

Accessories

Mounting rail adapter

Head-mounted transducer - MCR-FL-HT-T-I-EX - 2864532

Accessories

Adapter - MCR-DIN-RAIL-ADAPTER HT - 2864671



Programming adapter

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

