

Head-mounted transducer - MCR-FL-HT-TS-I-EX - 2864545

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Measurement and control temperature transducer, for resistance thermometers, thermocouples, resistance-type sensors, and voltage sensors. For Pt 100 resistance temperature detectors. Replacement part: 2908742 FA MCR-HT-TS-I-OLP-PT.

Your advantages

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



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4017918893200

Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C
Degree of protection	IP00
	IP66 (Installed in the connection head)

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

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Technical data

Input data

Input signal range	10 Ω ... 400 Ω (min. measurement range 10 Ω)
	10 Ω ... 2000 Ω (min. measurement range 100 Ω)
	-10 mV ... 75 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	≤ 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 (linear increase/decrease)
Load/output load current output	≤ 630 Ω (At UV = 24 V; U _{supply} - 10 V / 0.023 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 ... 1.75 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.75 mm ²
Conductor cross section AWG	24 ... 15
Torque	0.5 Nm ... 0.6 Nm
pluggable	no

General

Step response (10-90%)	< 2 s
Switch-on delay	6 s
Configuration	With HART protocol
Standards/regulations	NAMUR recommendation NE 21
Housing material	Polycarbonate, PC
Color	green
Line monitoring	NE 43

Safety data

Max. output voltage U _o	5 V DC
Max. output current I _o	5.4 mA
Max. output power P _o	6.6 mW

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Safety data

Max. ambient temperature	Category 1: T4 = 60°C, T5 = 50°C, T6 = 40°C
Group	IIA
Max. external inductivity L _o	100 mH
Max. external capacitance C _o	9.9 µF
Group	IIB
Max. external inductivity L _o	100 mH
Max. external capacitance C _o	9.9 µF
Group	IIC
Max. external inductivity L _o	100 mH
Max. external capacitance C _o	2 µF
Safety-related maximum voltage U _m	250 V

Standards and Regulations

Standards/regulations	NAMUR recommendation NE 21
Conformance	CE-compliant
ATEX	# II 1 G and II 2 G Ex ia IIC T6/T5/T4
UL, USA/Canada	cULus
Group	IIA
	IIB
	IIC

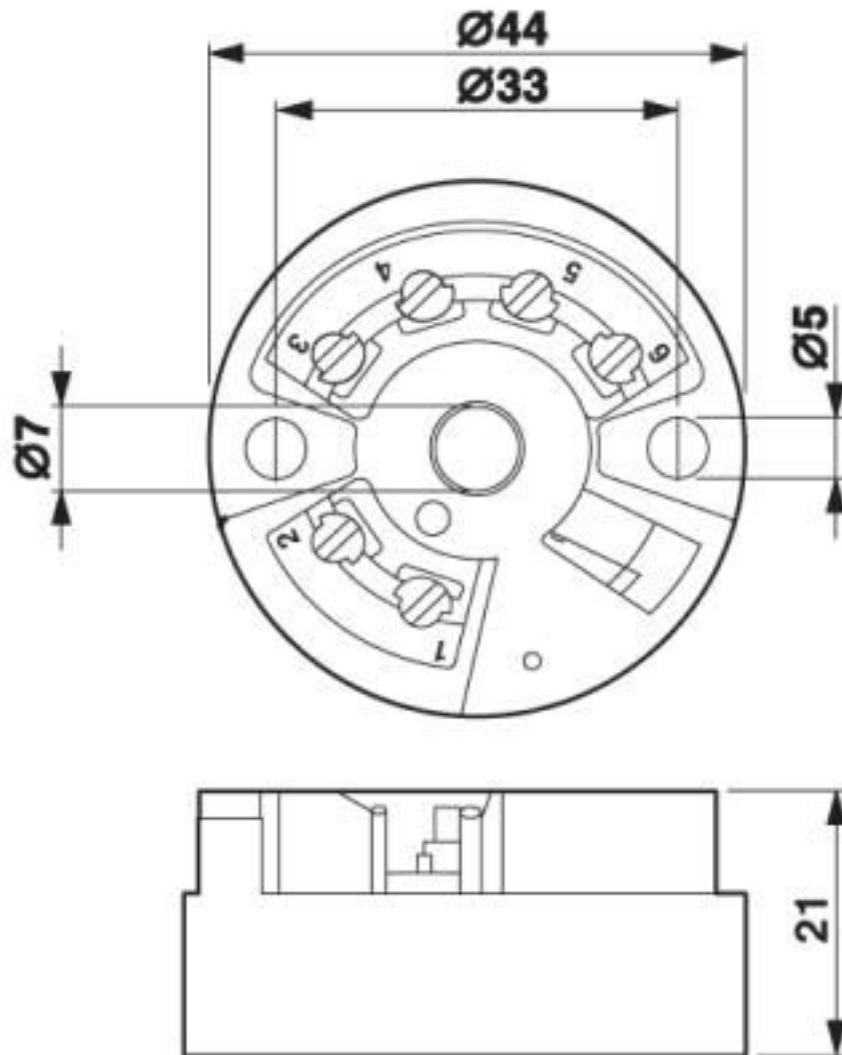
Environmental Product Compliance

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

Drawings

Head-mounted transducer - MCR-FL-HT-TS-I-EX - 2864545

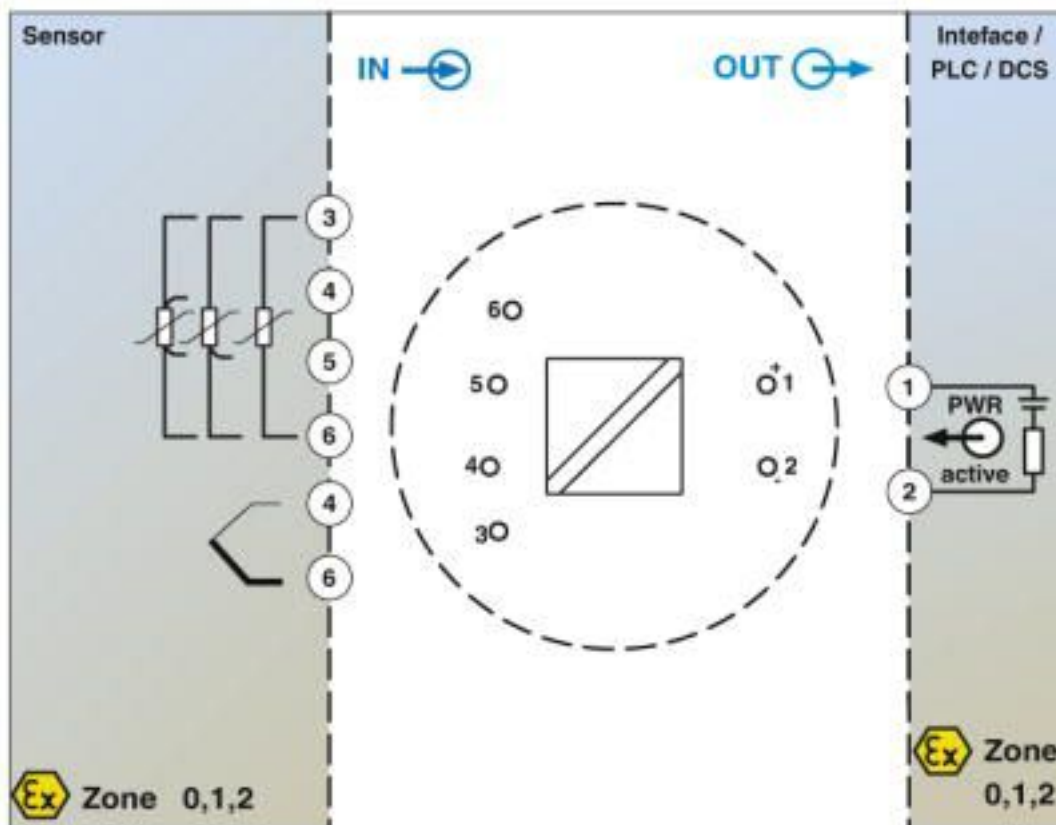
Dimensional drawing



Dimensional drawing

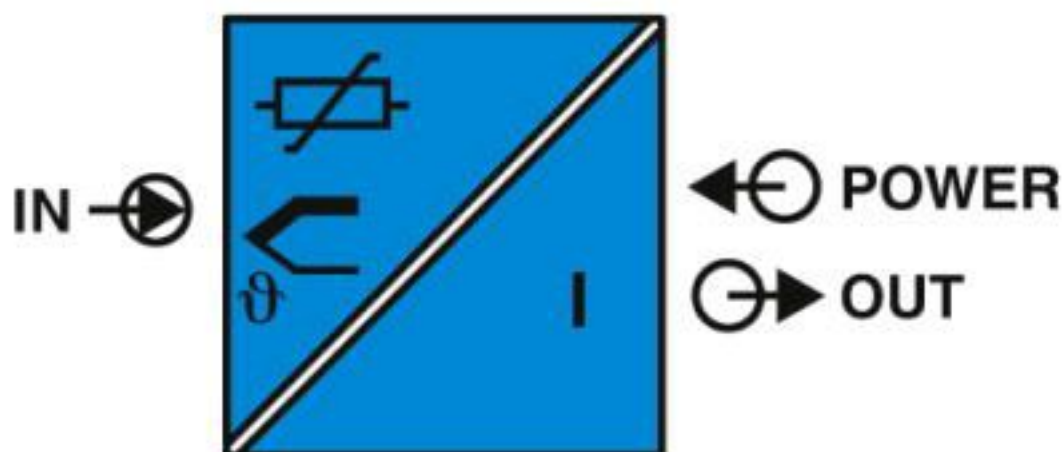
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Block diagram



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

Pictogram



Head-mounted transducer - MCR-FL-HT-TS-I-EX - 2864545

Classifications

eCl@ss

eCl@ss 10.0.1	27210129
eCl@ss 4.0	27200200
eCl@ss 4.1	27200200
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 19.0	41112105

Accessories

Accessories

Mounting rail adapter

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



DIN rail adapter for head-mounted transducers. Suitable for 35 mm DIN rails in accordance with EN 60715.

Programming adapter

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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



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