

FA MCR-HT-1TS-I-OLP - Head-mounted transducer



1145210

<https://www.phoenixcontact.com/us/products/1145210>

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Output loop-powered head transmitter for transmitting RTD and TC sensor signals, as well as from resistance and voltage sensors via 4 mA ... 20 mA. HART, Standard configuration, Screw connection

Commercial data

Item number	1145210
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C401
Product key	CK1322
GTIN	4063151135614
Weight per piece (including packing)	187 g
Weight per piece (excluding packing)	137.9 g
Customs tariff number	85437090
Country of origin	DE

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Technical data

Product properties

Product type	Temperature transmitter
Product family	Field Analog
No. of channels	1
Configuration	Software
	HART

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Step response (0–99%)	1 s (TC)
	1 s (RTD)

Electrical isolation Input/output

Test voltage	2 kV AC (50 Hz, 60 s)
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Supply

Supply voltage range	loop-powered, no external supply necessary
	10 V DC ... 36 V DC (Standard)

Input data

Measurement

Number of inputs	1
Input voltage range	-20 mV ... 100 mV (Minimum measuring span: 5 mV)
Sensor types (RTD) that can be used	Pt, Ni, Cu sensors: 2, 3, 4-wire
Sensor types that can be used (TC)	A, B, C, D, E, J, K, L, N, R, S, T, U
Temperature measuring range	-250 °C ... 2500 °C (Range depending on the sensor type)
Temperature measuring range	≥ 10 K (RTD)
	≥ 50 K (TC)
Linear resistance measuring range	10 Ω ... 2000 Ω (Minimum measuring span: 10 Ω)

Output data

Signal: Current

Current output signal	4 mA ... 20 mA (HART)
	20 mA ... 4 mA (HART)
Max. current output signal	23 mA
Load	(U _L - 10 V) / 0.023 A
HART coding	FSK ± 0.5 mA
HART version	7
Transmission speed	1200 Baud

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Mains frequency filter	50/60 Hz
Communication resistance	$\geq 250 \Omega$
Switch-on delay	$\approx \phi s$ (HART)
	$\approx \phi s$ (Measured value)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	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
Tightening torque	0.5 Nm

Ex data

Ex installation (EPL)	Gc
	Div. 2

Interfaces

Data communication (bypass)

Protocols supported	HART
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP00 (upon installation in field housing IP66/67, NEMA 4X)
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-50 °C ... 100 °C
Altitude	≤ 4000 m (Above sea level)
Climatic class	C1
Permissible humidity (operation)	5 % ... 95 % (condensation permitted)

Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	⊕ II 3 G Ex ec IIC T6
Certificate	PxCIF20ATEX1145192U

CSA

Identification	Ex ec IIC T6...T4
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Mounting

Mounting type	Installation
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	DIN rail mounting
Assembly note	Installation in connecting head B in accordance with DIN EN 50446

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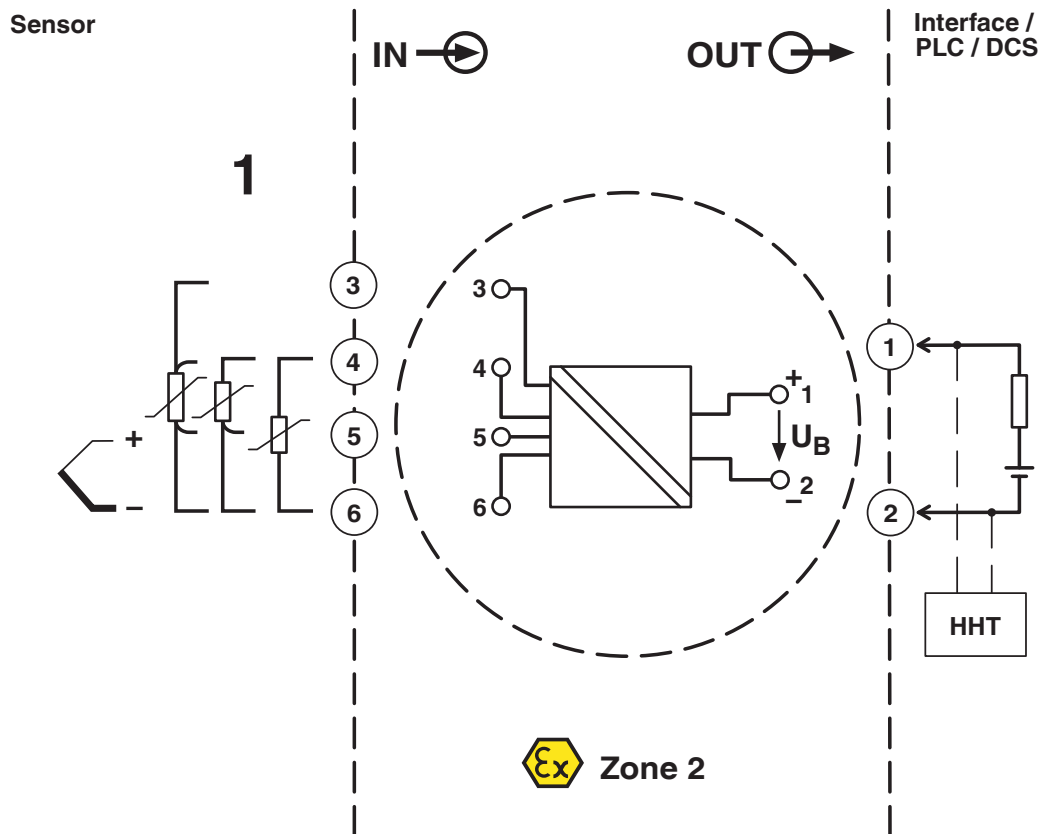
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Drawings

Block diagram



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Approvals

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CSA
Approval ID: 80070110



CSAus
Approval ID: 80070110

cCSAus

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Classifications

ECLASS

ECLASS-11.0	27210129
ECLASS-12.0	27210129
ECLASS-13.0	27210129

ETIM

ETIM 9.0	EC002919
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UNSPSC

UNSPSC 21.0	41112100
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Environmental product compliance

China RoHS	
Environment friendly use period (EFUP)	EFUP-50 An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

MCR-PAC-T-USB - Programming adapter

2309000

<https://www.phoenixcontact.com/us/products/2309000>

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



GW HART USB MODEM - Cable adapter

1003824

<https://www.phoenixcontact.com/us/products/1003824>

USB HART modem cable for communication between a PC and HART devices, cable length: 1 m.



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MCR-DIN-RAIL-ADAPTER HT - Adapter

2864671

<https://www.phoenixcontact.com/us/products/2864671>

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



FA MCR-HT-D - Display

2908735

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Display unit for plugging directly into the FA MCR-... head transmitter



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FA MCR-HT-FH - Electronics housing

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Field housing for the installation of head transmitters with or without display unit.
For direct connection to the process.

FA MCR-HT-FH-WM - Mounting kit

2908737

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Wall fastening for FA MCR-HT-FH field housing



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FA MCR-HT-FH-PM - Mounting kit

2908738

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Pipe fastening for FA MCR-HT-FH field housing



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