

# 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	DK1142
GTIN	4063151135614
Weight per piece (including packing)	187.6 g
Weight per piece (excluding packing)	137.9 g
Customs tariff number	85437090
Country of origin	DE

## 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

### System properties

#### Functionality

Configuration	Software
	HART

### Electrical properties

Electrical isolation between input and output	yes
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)
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	20 mA ... 4 mA (HART)
Max. current output signal	23 mA
Load	(U <sub>L</sub> - 10 V) / 0.023 A
HART coding	FSK ± 0.5 mA
HART version	7
Transmission speed	1200 Baud
Mains frequency filter	50/60 Hz
Communication resistance	≥ 250 Ω
Switch-on delay	≈ ⌀ s (HART) ≈ ⌀ s (Measured value)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm

## Ex data

Ex installation (EPL)	Gc Div. 2
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## 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

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## CSA

Identification	Ex ec IIC T6...T4
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## Mounting

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

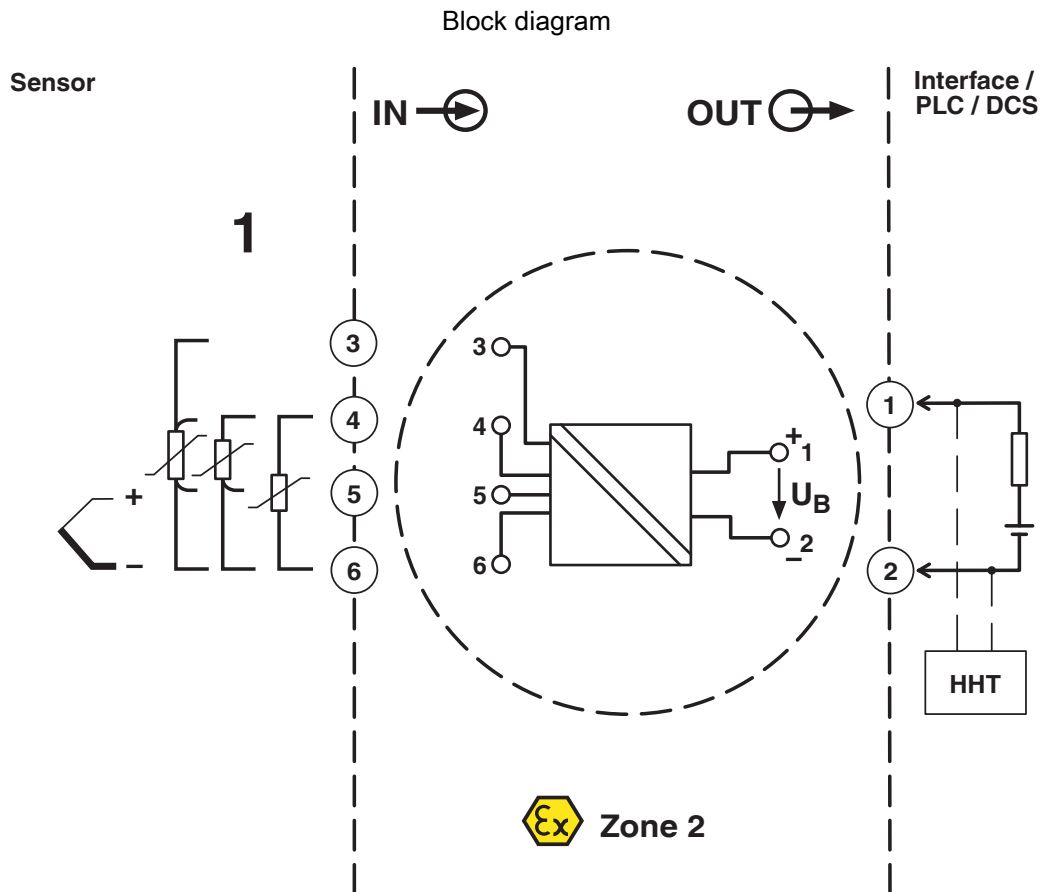
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## Drawings



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




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## Approvals

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 **CSA**  
Approval ID: 80070110

 **CSAus**  
Approval ID: 80070110

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## Classifications

### ECLASS

ECLASS-13.0	27210129
ECLASS-15.0	27210129

### ETIM

ETIM 10.0	EC002919
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### UNSPSC

UNSPSC 21.0	41112100
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### 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.)	Lead(CAS: 7439-92-1)
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