

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



2908742

<https://www.phoenixcontact.com/us/products/2908742>

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The output-loop-powered head transmitter transmits up to two sensor signals from RTD and TC sensors as well as from resistance-type sensors and voltage sensors and via HART_ communication or 4 ... 20 mA, configurable. SIL2/3

Commercial data

Item number	2908742
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C401
Product key	DK1142
GTIN	4055626347783
Weight per piece (including packing)	196.6 g
Weight per piece (excluding packing)	186.6 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Temperature transmitter
Product family	Field Analog

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Electrical isolation between input and output	yes
Step response (0–99%)	0.8 s (TC)

Electrical isolation Input/output

Test voltage	2 kV AC
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Supply

Supply voltage range	loop-powered, no external supply necessary
	11 V ... 42 V (Standard)
	11 V ... 32 V (SIL active)

Input data

Measurement

Input voltage range	-20 mV ... 100 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)
	-200 °C ... 850 °C (Pt 100)
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

Configurable/programmable	no
Current output signal	4 mA ... 20 mA (HART)
	20 mA ... 4 mA (HART)
Max. current output signal	23 mA
Load	$(U_B - 11 \text{ V}) / 0.023 \text{ A}$
HART coding	FSK \pm 0.5 mA
HART version	7
Transmission speed	1200 Baud
Mains frequency filter	50/60 Hz

Communication resistance	≥ 250 Ω
Switch-on delay	approx. 10 s (HART)
	approx. 28 s (Measured value)

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross-section AWG	24 ... 16

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP33 (upon installation in field housing IP66/67, NEMA 4X)
Ambient temperature (operation)	-40 °C ... 85 °C
	-40 °C ... 70 °C (SIL active)
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 3G Ex nA IIC T6...T4 Gc
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UL, USA/Canada

Identification	UL 61010 Recognized
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FM

Identification	NI / Class I / Div. 1, 2 / Group ABCD T6/T5/T4
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CSA

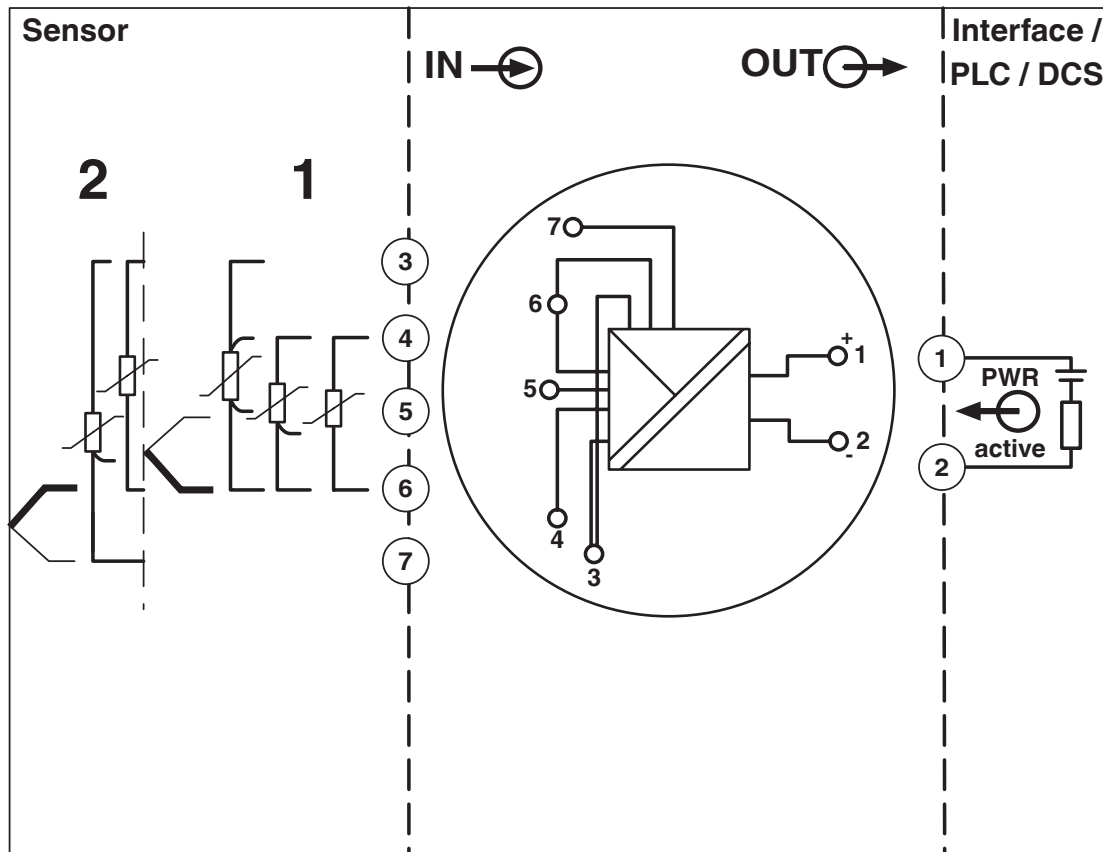
Identification	NI, Class I, Div. 2, Groups A, B, C, D
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Mounting

Assembly note	Installation in connecting head B in accordance with DIN EN 50446
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Drawings

Block diagram



Block diagram for FA MCR-HT-TS-I-OLP-PT

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Classifications

UNSPSC

UNSPSC 21.0	41112105
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Environmental product compliance

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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