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

2908743

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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 via HART communication or 4 ... 20 mA, configurable. SIL 2/3, intrinsic safety.

Commercial data

Item number	2908743
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	DK1242
GTIN	4055626347790
Weight per piece (including packing)	197.1 g
Weight per piece (excluding packing)	197.1 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

Supply

Supply voltage range	loop-powered, no external supply necessary
	11 V ... 42 V (Standard)
	11 V ... 32 V (SIL active)
	11 V ... 30 V (Ex)

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

Current output signal	4 mA ... 20 mA (HART)
	20 mA ... 4 mA (HART)
Max. current output signal	23 mA
Load	$(U_L$ - 11 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	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 mm² ... 1.5 mm²
Conductor cross-section flexible	0.2 mm² ... 1.5 mm²
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

ATEX

Identification	Ⓔx II 1G Ex ia IIC T6...T4 Ga
	Ⓔx II 2G Ex ia IIC T6...T4 Gb
Certificate	EPS 17 ATEX 1 130 X

IECEx

Identification	Ex ia IIC T6...T4 Ga
	Ex ia IIC T6...T4 Gb
Certificate	IECEx EPS 17.0076X

UL, USA/Canada

Identification	UL 61010 Recognized

FM

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

CSA

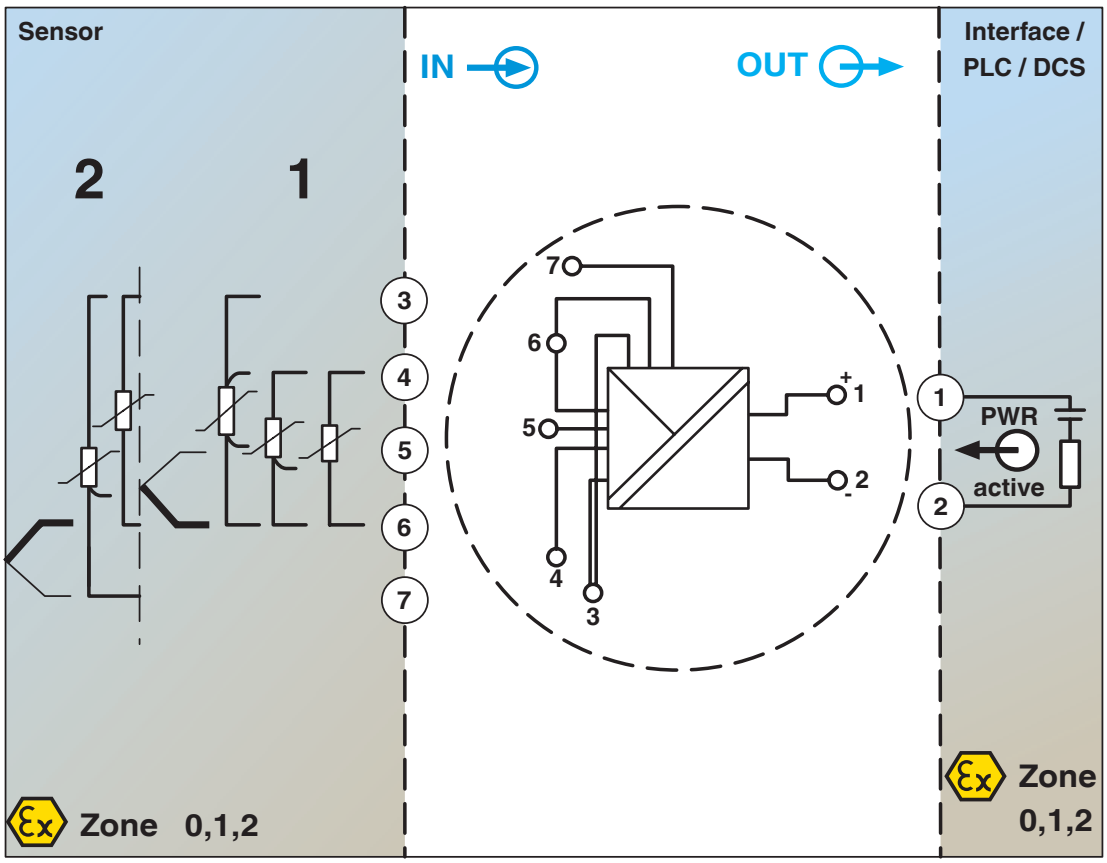
Identification	Exia / Class I / Group ABCD T6/T5/T4

Mounting

Assembly note	Installation in connection head according to DIN 43729 form B

Drawings

Block diagram



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

Classifications

UNSPSC

UNSPSC 21.0	41112105

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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