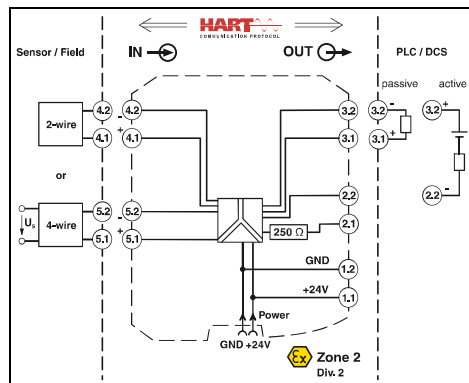
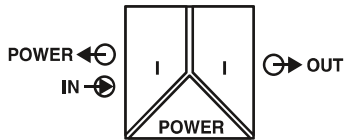


Analog IN / Analog OUT
repeater power supplies



Repeater power supply and input signal conditioner

Functional Safety

Ex: Ex n Ex

Housing width 12,5 mm

Repeater power supply and input signal conditioners for the operation of 2-conductor measuring transducers, 4-conductor measuring transducers, and mA current sources

- 0/4 to 20 mA input (powered or not powered)
- 0/4 to 20 mA output (active or passive)
- Bidirectional transmission of digital HART communication signals
- Plug-in screw or Push-in connection technology, with integrated sockets for HART communicators
- Terminal point with 250 Ω resistor to increase the HART impedance in the case of low-impedance systems
- 3-way electrical isolation
- Power supply via DIN rail connector possible
- Up to SIL 2 in accordance with IEC 61508
- Installation in zone 2 permitted

Notes:
Information about the supply and error evaluation module as well as about the DIN rail connectors and marking material can be found from page 175
Test plugs for test sockets can be found on page 177
Information on "Plug and play" connection using system cabling can be found from page 170

Input data	
Input signal	
Transmitter supply voltage	
Voltage drop	
Output data	
Output signal	
Load	
Output ripple	
General data	
Supply voltage range	
Current consumption	
Power dissipation	
Temperature coefficient	
Step response (10-90%)	
Transmission error, typical	
Maximum transmission error	
Under-/overload range	
Electrical isolation	
Input/output/power supply	
Ambient temperature range	
Status indication	
SMART communication	
Signal bandwidth	
Protocols supported	
Housing material	
Dimensions W/H/D	
Screw connection rigid / flexible / AWG	
Push-in connection rigid / flexible / AWG	
Conformance/approvals	
Conformance	
ATEX	
UL, USA/Canada	
SIL in accordance with IEC 61508	

Technical data

4 mA ... 20 mA
>21,5 V (20 mA)
<3,5 V (in input signal conditioner operation)
4 mA ... 20 mA (active)
4 mA ... 20 mA (14 ... 26 V ext. source voltage)
<1,000 Ω (20 mA)
<20 mV _{rms}
19,2 V DC ... 30 V DC (24 V DC -20%...+25%)
<76 mA (24 V DC / 20 mA / 1,000 Ω) ;
<55 mA (24 V DC / 20 mA / 250 Ω)
<1,1 W (24 V DC / 20 mA)
<0,95 W (24 V DC / 20 mA / 250 Ω)
<1,2 W (24 V DC / 20 mA / 0 Ω)
<0,01%/K
<200 μs (for jump 4 mA ... 20 mA, load 600 Ω)
<0,05% (of final value)
<0,1% (of final value)
In accordance with NE 43
300 V _{rms} (rated insulation voltage (overvoltage category II; degree of pollution 2, safe isolation as per EN 61010-1))
2,5 kV (50 Hz, 1 min., test voltage)
-20°C ... 60°C (any mounting position)
Green LED (supply voltage)
Yes
as per HART specifications
HART
PA 6.6-FR
12,5 / 112,5 / 114,5 mm
0,2 ... 2,5 mm ² / 0,2 ... 2,5 mm ² / 24 - 14
0,2 ... 1,5 mm ² / 0,2 ... 1,5 mm ² / 24 - 16
CE-compliant, additionally EN 61326
Ex II 3 G Ex nA II T4 Gc X
UL 61010 Listed
UL 508 Listed
Class I, Div. 2, Groups A, B, C, D T4
Class I, Zone 2, Group IIC T4
2

Ordering data

Description	Type	Order No.	Pcs./Pkt.
Repeater power supply, HART®-transparent			
	Screw connection	MACX MCR-SL-RPSSI-I	2865955
	Push-in connection	MACX MCR-SL-RPSSI-I-SP	2924207