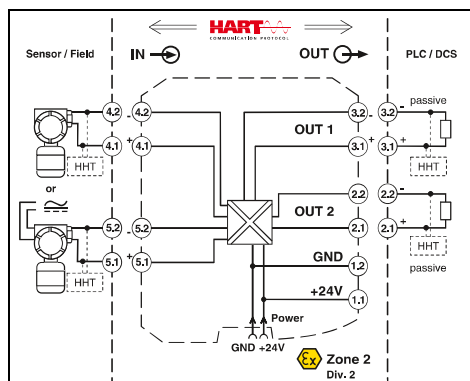
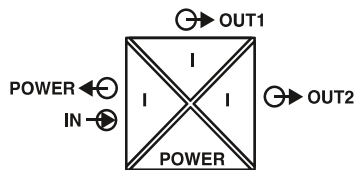


Analog IN / Analog OUT
repeater power supplies



Ex n



Repeater power supply and input signal conditioner, with two electrically isolated outputs

Functional Safety

Ex: Ex n

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)
- Two electrically isolated outputs, 0/4 to 20 mA (active)
- Bidirectional transmission of digital HART communication signals (both outputs)
- Plug-in screw or Push-in connection technology, with integrated sockets for HART communicators
- 4-way electrical isolation
- Power supply via DIN rail connector possible
- Up to SIL 2 in accordance with IEC 61508
- PL d in accordance with EN ISO 13849-1
- 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	4 mA ... 20 mA / 0 mA ... 20 mA
Transmitter supply voltage	>21.5 V (20 mA)
Voltage drop	<3.9 V (in input signal conditioner operation)
Output data	
Output signal (per output)	4 mA ... 20 mA (active) 0 mA ... 20 mA
Load	<450 Ω (20 mA)
Output ripple	<20 mV _{rms}
General data	
Supply voltage range	19.2 V DC ... 30 V DC (24 V DC -20%...+25%)
Current consumption	<75 mA (24 V DC / 20 mA)
Power dissipation	<1.45 W (24 V DC / 20 mA)
Temperature coefficient	<0.01%/K
Step response (10-90%)	1.3 ms (for jump 4 mA ... 20 mA, typical)
Transmission error, typical	<0.05% (of final value)
Maximum transmission error	<0.1% (of final value)
Under-/overload range	In accordance with NE 43
Electrical isolation	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)
Input/output/power supply	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)
Output 1/output 2	1.5 kV AC (50 Hz, 1 min., test voltage) -20°C ... 60°C (any mounting position) -20°C ... 70°C (any mounting position, module distance > 5 mm, MTBF reduction factor 2.5, not assessed by UL)
Ambient temperature range	-20°C ... 60°C (any mounting position) -20°C ... 70°C (any mounting position, module distance > 5 mm, MTBF reduction factor 2.5, not assessed by UL)
Status indication	Green LED (PWR supply voltage)
SMART communication (per output)	Yes
Protocols supported	HART
Housing material	PA 6,6-FR
Dimensions W/H/D	12.5 / 112.5 / 114.5 mm
Screw connection rigid / flexible / AWG	0.2 ... 2.5 mm ² / 0.2 ... 2.5 mm ² / 24 - 14
Push-in connection rigid / flexible / AWG	0.2 ... 1.5 mm ² / 0.2 ... 1.5 mm ² / 24 - 16
Conformance/approvals	
Conformance	CE-compliant, additionally EN 61326-1
ATEX	Ex II 3 G Ex nA IIC T4 Gc X
SIL in accordance with IEC 61508	2

Ordering data		
Type	Order No.	Pcs./Pkt.
Repeater power supply, HART®-transparent		
Screw connection	MACX MCR-SL-RPSSI-2I	2924825 1
Push-in connection	MACX MCR-SL-RPSSI-2I-SP	2924838 1