

MACX MCR-EX-SL-RPSSI-I-UP


Order No.: 2865793

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Ex-i repeater power supply and input isolating amplifier, HART Sends fed or active 0/4-20 mA signals from the Ex area to a load (active or passive) to the safe area. Electrical 3-way isolation; SIL 2, wide range power supply.



Commercial data

GTIN (EAN)	
sales group	H720
Pack	1 pcs.
Customs tariff	85437090
Catalog page information	Page 441 (IF-2011)

Product notes

WEEE/RoHS-compliant since:
10/28/2008



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Technical data

Input data

Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
Transmitter supply voltage	> 16 V (at 20 mA)

Voltage drop	< 3.5 V (in input isolating amplifier operation)
Output data	
Signal output	Current output
Voltage output signal	0 V ... 5 V (internal resistance, 250 Ω, 0.1%)
Current output signal	0 mA ... 20 mA (active)
	4 mA ... 20 mA (active)
	0 mA ... 20 mA (14 ... 26 V ext. source voltage)
	4 mA ... 20 mA (14 ... 26 V ext. source voltage)
Transmission Behavior	1:1 to input signal
Load/output load current output	< 600 Ω (I output)
Output ripple	< 20 mV _{rms}
Power supply	
Supply voltage range	24 V AC/DC ... 230 V AC/DC (-20%/+10%, 50/60 Hz)
Max. current consumption	< 80 mA (at 24 V DC)
Power consumption	< 1.6 W
Connection data	
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	8 mm
Screw thread	M3
Connection method	Screw connection
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm
General data	
No. of channels	1
Maximum transmission error	< 0.1 % (of final value)
Transmission error, typical	< 0.05 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)

Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	10 % ... 95 % (no condensation)
Step response (10-90%)	< 600 µs (for 4 mA ... 20 mA step)
Status display	Green LED (supply voltage)
Width	17.5 mm
Height	99 mm
Depth	114.5 mm
Inflammability class acc. to UL 94	V0
Pollution degree	2
Surge voltage category	II
Housing material	PA 66-FR
Degree of protection	IP20
Color	green
Electrical isolation input / output / supply	2.5 kV (50 Hz, 1 min., test voltage)
Electrical isolation input / output	375 V (Peak value in accordance with EN 60079-11)
Electrical isolation input / supply	375 V (Peak value in accordance with EN 60079-11)
Conformance	CE-compliant, additionally EN 61326
ATEX	Ex II (1)G [Ex ia] IIC/IIB Ex II (1) D [Ex iaD] Ex II 3 (1)G Ex nA [ia] IIC/IIB T4
IECEX	[Ex ia] IIC/IIB; [Ex iaD]; Ex nA [ia] IIC/IIB T4
UL, USA / Canada	Class I Div 2; IS for Class I, II, III Div 1
Functional safety (SIL)	SIL 2 according to EN 61508
Data communication (bypass)	
HART function	Yes
Protocols supported	HART
Safety data	
Max. voltage U_o	25.2 V
Max. current I_o	93 mA
Max. power P_o	587 mW
Gas group	II C
Max. external inductivity L_o	2 mH
Max. external capacity C_o	107 nF
Safety-related maximum voltage U_m	253 V AC (125 V DC)

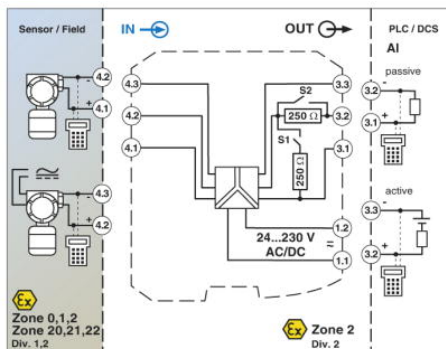
Certificates / Approvals



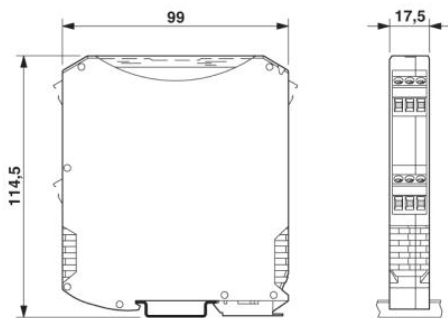
Certification	CUL Listed, UL Listed
Certification Ex:	CUL-EX LIS, IECEX, UL-EX LIS
Certifications applied for:	GL

Diagrams/Drawings

Block diagram



Dimensioned drawing



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