


MACX MCR-EX-SL-RPSS-2I-2I-SP

Order No.: 2924676



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Ex i measuring transducer repeater power supply, 2-channel; HART-transparent. Supplies Ex i 2-wire measuring transducers and transmits the 4 - 20 mA signal from the Ex area to the safe area. 5-way electrical isolation, up to SIL 3 according to IEC 61508; spring-cage connection.

Commercial data	
EAN	4  046356 665483
Note	Made-to-order
Pack	1 pcs.
Customs tariff	85437090
Gross weight in pieces	0.1621 KG
Net weight per piece (exclusive packing)	0.10 KG
Product key	CK3111
country of origin	DE
Catalog page information	Page 162 (CAT-7-2013)

Product notes

WEEE/RoHS-compliant since:
09/12/2012



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Technical data	
Dimensions	
Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	10 % ... 95 % (no condensation)
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Degree of protection	IP20

Input data

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

Output data

Signal output	Current output
Current output signal	4 mA ... 20 mA (active)
Transmission Behavior	1:1 to input signal
Load/output load current output	≤ 450 Ω (20 mA)
	≤ 375 Ω (24 mA)
Output behavior in the event of an error	< 3.6 mA (In the event of cable break at the input (as per NE 43))
	> 22.5 mA (In the event of cable short circuit at the input (as per NE 43))

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (24 V DC (-20% ... +25%))
Max. current consumption	< 100 mA (24 V / 20 mA)
Power consumption	< 1.4 W (at 24 V DC / 20 mA)

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	16
Stripping length	8 mm

Connection method	Spring-cage conn.
General	
Maximum transmission error	< 0.1 % (of final value)
Transmission error, typical	< 0.05 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Step response (10-90%)	< 1.3 ms (for 4 mA ... 20 mA step)
Status display	Green LED (supply voltage)
Inflammability class according to UL 94	V0
Pollution degree	2
Surge voltage category	II
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Emitted interference	EN 61000-6-4
Housing material	PA 66-FR
Color	green
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 Ga] IIC/IIB
	Ex II (1) D [Ex ia Da] IIIC
	Ex II 3(1) G Ex nA [ia Ga] IIC T4 Gc
IECEX	[Ex ia Ga] IIC/IIB
	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC T4 Gc
Functional safety (SIL)	SIL 3
Data communication (bypass)	
HART function	Yes
Protocols supported	HART
Safety data	
Output voltage U_o	≤ 25.2 V
Output current I_o	≤ 93 mA
Output power P_o	≤ 587 mW
Gas group	IIC
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)
Gas group	IIB
Max. external inductivity L_o	4 mH
Max. external capacity C_o	820 nF

Certificates / Approvals

Certification: Functional Safety
 Certification Ex: ATEX, IECEx
 Certifications applied for:

Accessories

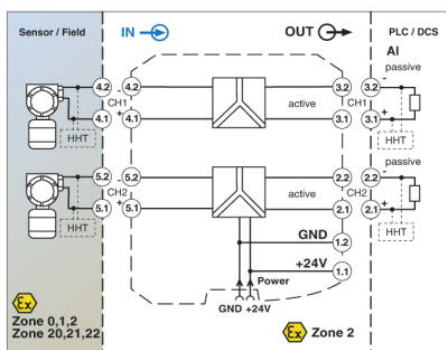
Item	Designation	Description
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General

2865625	MACX MCR-PTB	Power and error message module
2924184	MACX MCR-PTB-SP	Power and error message module, spring-cage terminal blocks
2869728	ME 6,2 TBUS-2 1,5/5-ST-3,81 GN	DIN rail connector for DIN rail mounting. Universal for T-BUS housing. Gold-plated contacts, 5-pos.

Diagrams/Drawings

Block diagram



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