

# INTERFACE Ex

## Product overview

### MACX Analog Ex

Analog IN	Type	<b>MACX MCR-EX-SL-RPSSI-I</b>	<b>MACX MCR-EX-SL-RPSSI-I-UP</b>		
	Description	Repeater power supply with intrinsically safe input, supplying and non-supplying, for 0/4...20 mA signals, active and passive output, HART, SIL 2	Repeater power supply with intrinsically safe input, supplying and non-supplying, for 0/4...20 mA signals, active and passive output, HART, with long range supply, SIL 2		
	Page	432	433		
Analog OUT	Type	<b>MACX MCR-EX-SL-IDSI-I</b>			
	Description	Output isolation amplifier with intrinsically safe output, for 0/4...20 mA signals, up to 800 Ω load, with transmission of the HART protocol, SIL 2			
	Page	434			
Digital IN	Type	<b>MACX MCR-EX-SL-NAM-R</b> <b>MACX MCR-EX-SL-NAM-2RO</b>	<b>MACX MCR-EX-SL-2NAM-RO</b>	<b>MACX MCR-EX-SL-NAM-2T</b>	<b>MACX MCR-EX-SL-2NAM-T</b>
	Description	NAMUR isolation amplifier single-channel, with intrinsically safe input, with one relay output (PDT) or two relay outputs (N/O contact), SIL 2	NAMUR isolation amplifier two-channel, with intrinsically safe input, with one relay output per channel (N/O contact), SIL 2	NAMUR isolation amplifier single-channel, with intrinsically safe input, with two passive transistor outputs, SIL 2	NAMUR isolation amplifier two-channel, with intrinsically safe input, with one passive transistor output per channel, SIL 2
	Page	435	437	438	439
Digital OUT	Type	<b>MACX MCR-EX-SL-SD-21-25-LP</b>	<b>MACX MCR-EX-SL-SD-21-40-LP</b>	<b>MACX MCR-EX-SL-SD-24-48-LP</b>	<b>MACX MCR-EX-SL-SD-21-60-LP</b>
	Description	Solenoid driver with intrinsically safe output, loop-powered, 25 mA current limitation, for group IIC/IIB/IIA gases, SIL 3	Solenoid driver with intrinsically safe output, loop-powered, 40 mA current limitation, for group IIC/IIB/IIA gases, SIL 3	Solenoid driver with intrinsically safe output, loop-powered, 48 mA current limitation, for group IIC/IIB/IIA gases, SIL 3	Solenoid driver with intrinsically safe output, loop-powered, 58 mA current limitation, for group IIC/IIB/IIA gases, SIL 3
	Page	440	441	441	441
Temperature	Type	<b>MACX MCR-EX-SL-RTD-I...</b>	<b>MACX MCR-EX-SL-TC-I...</b>		
	Description	Temperature transducer for resistance thermometers and resistance-type sensors, with intrinsically safe input, programmable	Temperature transducer for thermocouples and mV sources, with intrinsically safe input, programmable		
	Page	442	443		

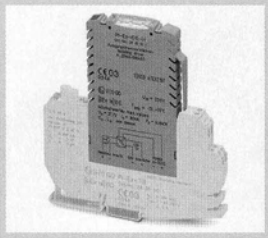
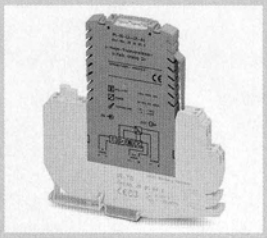
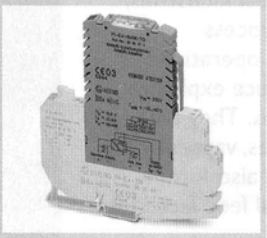
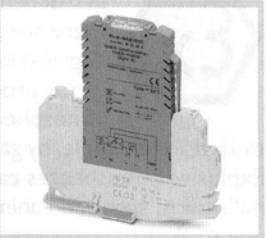
### Accessories - MACX Analog Ex

Type	<b>MACX MCR-PTB</b>	<b>MACX MCR-S-MUX</b>
Description	Power and error message module	Multiplexer for HART signals
Page	445	447
Type	<b>ME 6,2 TBUS-2 1,5/5-ST3,81 GN</b>	<b>UC-EMLP...</b>
Description	DIN rail connector	Marking material
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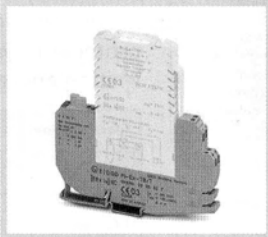

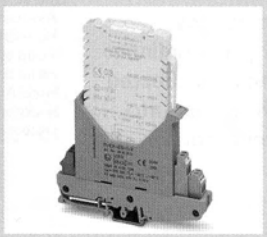
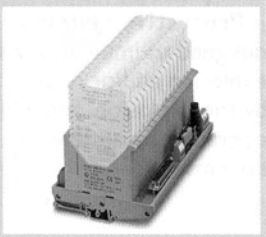
### Loop-powered temperature transducers

Temperature	Type Order No.	<b>MCR-FL-TS-LP-I-Ex</b> 2864587	<b>MCR-FL-HT-TS-I-Ex</b> 2864545
	Type Order No.	<b>MCR-FL-T-LP-I-Ex</b> 2864574	<b>MCR-FL-HT-T-I-Ex</b> 2864532
	Description	Temperature transducer Loop-powered, with intrinsically safe input and output, with transmission of the HART protocol	Temperature head transmitters Loop-powered, with intrinsically safe input and output, with transmission of the HART protocol
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**PROCESS INTERFACE PI - electronic modules**

					
Analog IN	Type Order No.	<b>PI-EX-AIS-I/I</b> 2835626	<b>PI-N-UI-UI-AI</b> 2835859		
	Description	<b>Input isolation amplifier</b> with intrinsically safe input, for 4...20 mA signals, with transmission of the HART protocol	<b>Input isolation amplifier</b> Configurable		
	Page	454	455		
Analog OUT	Type Order No.	<b>PI-EX-IDS-I/I</b> 2835613	<b>PI-N-UI-UI-AO</b> 2835671		
	Description	<b>Output isolation amplifier</b> with intrinsically safe output, for 4...20 mA signals, Load up to 800 Ω, with transmission of the HART protocol	<b>Output isolation amplifier</b> Configurable		
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Digital IN	Type Order No.	<b>PI-EX-NAM/RNO-NE</b> 2835341	<b>PI-EX-NAM/TO-P</b> 2865117	<b>PI-EX-NAM/TO</b> 2835574	<b>PI-N-NAM/RNO</b> 2835888
	Description	<b>NAMUR isolation amplifier</b> with intrinsically safe input and relay output (N/O contact), SIL 2	<b>NAMUR isolation amplifier</b> with intrinsically safe input and passive transistor output, SIL 2	<b>NAMUR isolation amplifier</b> with intrinsically safe input and active transistor output	<b>NAMUR isolation amplifier</b> with relay output (N/O contact)
	Page	458	460	461	459
Digital OUT	Type Order No.	<b>PI-EX-SD-21-25</b> 2865201	<b>PI-EX-SD-24-48</b> 2865298	<b>PI-EX-SD-21-60</b> 2865188	<b>PI-EX-DO/REL-S</b> 2865120
	Type Order No.	<b>PI-EX-SD-21-40</b> 2865913			
	Description	<b>Solenoid driver</b> with intrinsically safe output, loop-powered, for group IIA, IIB, IIC gases, SIL 3	<b>Solenoid driver</b> with intrinsically safe output, loop-powered, for group IIA, IIB, IIC gases, SIL 3	<b>Solenoid driver</b> with intrinsically safe output, loop-powered, for group IIA, IIB gases, SIL 3	<b>Relay module</b> with intrinsically safe contact side for switching intrinsically safe circuits
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**PROCESS INTERFACE PI - base elements**

					
Type	Intrinsically safe	<b>PI-EX-TB(T)</b>	<b>TT-PI-EX-TB(T)</b>	<b>PI-EX-ES-1/3</b>	<b>PI-EX-MB/... UM122.../EX</b>
Type	Non-intrinsically safe	<b>PI-TB</b>	<b>TT-PI-TB</b>		<b>PI-MB/... UM122...</b>
Description		<b>Basic terminal block</b> for intrinsically safe and non-intrinsically safe signals	<b>Basic terminal block</b> for intrinsically safe and non-intrinsically safe signals, with surge protection	<b>Electronics base</b> (Single-channel) with three terminal points for the field level	<b>Motherboard</b> Universal and control system-specific
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