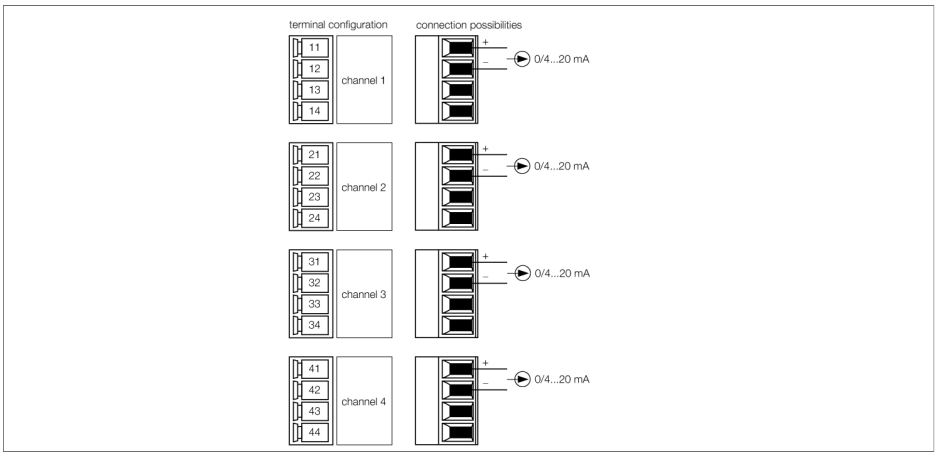
Remote I/O system *excom*®
4 channel analog output module
AO40EX



The output module AO40Ex is designed for connection of intrinsically safe analog actuators such as control valves or process indicators.

The module features protection class Ex ib IIC and can be mounted in zone 1 in combination with the *excom*® system. The outputs feature protection class EEx ia IIC.

Galvanically separated outputs.

The resolution is 13 bit, i.e. the analogue value of 0…21 mA is represented as a number between 0 and 8191. For easier operation, the host system operates in a value range between 0…21000. This raw value is reduced by the AO40EX to a 13-bit resolution.

- **Output module for the connection of analog actuators**
- **Complete galvanic separation**

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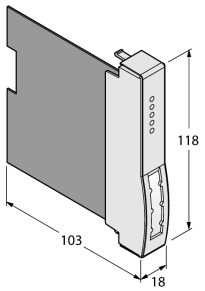
Remote I/O system *excom*®
4 channel analog output module
AO40EX

Industrial Automation

Type code	AO40EX
Ident no.	6884002
Supply voltage	via the backplanes, central power supply
Power consumption	≤ 3.5 W
Galvanic separation	all-round galvanic separation acc. to EN 60079-11
Number of channels	4-channel
Output circuits	intrinsically safe acc. to EN 60079-11 0/4…20 mA
No-load voltage	16 VDC
External load	≤ 600 Ω
Short circuit	< 100 Ω (only with „live zero“)
Wire-break	> 15 V (only with „live zero“)
Resolution	13 Bit
max. Messabweichung	≤ **max. Messabweichung %** → **max. Messabweichung** 0.1
Linearitätsabweichung	≤ 0.1% of full scale vom Endwert
Temperature drift	≤ 0.005 % / K
Rise time/fall time	≤ 50 ms (10 … 90 %)
Ex approval acc. to conformity certificate	PTB 00 ATEX 2179
Device designation	Ⓔx II 2 (1) G Ex ib [ia] IIC T4 Ⓔx II (1) D [Ex iaD]
Max. values:	terminal connection 1+2
Max.output voltage U_o	≤ 18.9 V
Max. output current I_o	≤ 80 mA
Max. output power P_o	≤ 510 mW
Characteristic	trapezoidal
Internal inductance/capacitance L_i/C_i	L_i negligibly small C_i ≤ 25.0 nF
External inductance/capacitance L_o/C_o	see table below
Indication	
Operational readiness	1 x green / red
State/ Fault	4 x red
Housing material	Plastic
Connection mode	module, plugged on rack
Protection class	IP20
Ambient temperature	-20…+60 °C
Relative humidity	≤ 95% at 55 °C acc. to EN 60068-2
Vibration test	acc. to IEC 60068-2-6
Shock test	acc. to IEC 60068-2-27
EMC	acc. to EN 61326-1 (2006) acc. to Namur NE21 (2007)
MTTF	78 years acc. to SN 29500 (Ed. 99) 40 °C
Dimensions	18x 118x 103 mm
Weight	132 g

	IIC	IIB
L_o [mH]	C_o [µF]	C_o [µF]
2.0	0.10	1.00
1.0	0.10	1.00
0.5	0.12	1.00
0.2	0.15	1.17

Dimensions



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