



4-channel Analog Input

4-20 mA

803-AI-04

- ◆ power supply for 4-20 mA loop powered transmitters
- ◆ short and break detection
- ◆ isolation, input to bus and input to power
- ◆ common return for all inputs
- ◆ 4-channel, EEx ia IIC

MODULE SPECIFICATION

See also System Specification

INPUT

Input current	4 to 20 mA
Range	0 to 24 mA
Transmitter supply	> 15 V (20 mA)
Internal current limitation	24 to 26 mA
Input impedance	240 ohm
Residual ripple	< 100 mV
Short-circuit detection	< 5 V
Line-break detection	< 2 mA

EXPLOSION PROTECTION

Certificate number	PTB 01 ATEX 2137 X
Max. short-circuit current	$I_0 = 93$ mA
Voltage	$U_0 = 22.1$ V
Performance	$P_0 = 403$ mW
External inductance	$L_0 = 1.78$ mH
External capacitance	$C_0 = 100$ nF

DIAGNOSTIC INFORMATION

System/ Module power on	LED green / red
Line break or short circuit	LED 1 to 4, red
Via fieldbus	
Break, short	per channel
Over/under-range	per channel
Simulation	per channel
Communication, hardware	for each I/O module

CHARACTERISTICS AT RATED CONDITIONS

Accuracy incl. nonlinearity	< 0.1 %
Digital Accuracy	14 bit
Linearity	< 0.05 %
Temperature effect	< 0.05 % / 10 K
Response time	50 ms (10% -> 90%)
50/60 Hz filter	> 30 dB
Damping per software	PT1
Total power consumption	< 2.6 W (20 mA)

