

The 1-channel potentiometer amplifier IM36-11EX-I/24VDC separates signals from 3-wire or 5-wire potentiometers and transfers these as standard 0...20 mA analog signals from the Ex area to the non-Ex area. The resistance value of the wiper contact is collected and processed linearly in a range between 0 Ω and the end value (see fig.).

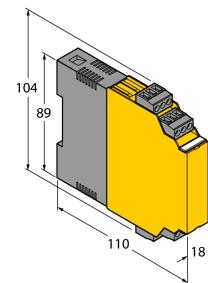
A potentiometer is defined by its nominal resistance. Any potentiometer can be connected, provided the nominal resistance is 800 ... 20000 Ω . Common potentiometers featuring a nominal resistance of 1 k Ω or 10 k Ω can therefore be applied. The admissible line resistance is maximally 50 Ω with a potentiometer resistance of 800 Ω .

- Intrinsically safe input circuits EEx ia
- Application area acc. to ATEX: II (1) G
- Transfer of potentiometer signals from the explosion hazardous area
- Potentiometer, nominal resistance: 0.8...20 k Ω
- Output circuit: 0...20 mA
- Removable terminal blocks
- Complete galvanic separation

Potentiometer amplifier
1-channel
IM36-11EX-I/24VDC

Type code	IM36-11EX-I/24VDC									
Ident no.	7509525									
Operating voltage range	19...29 VDC									
Power consumption	≤ 2 W									
Input circuits	potentiometer									
Potentiometer input										
Cable resistance	≤ 50 Ω									
Voltage on resistor	5 VDC									
Nominal resistance	0.8...20 kΩ									
Output circuits										
Output current	0...20 mA									
Galvanic separation										
Test voltage	2.5 kV									
Ex approval acc. to conformity certificate	TÜV 99 ATEX 1405									
Application area	II (1) G									
Protection type	[EEx ia] IIC									
Max. output voltage U _o	≤ 13.8 V									
Max. output current I _o	≤ 35 mA									
Max. output power P _o	≤ 121 mW									
Characteristic	linear									
External inductance/capacitance L _o /C _o	<table border="1"> <thead> <tr> <th></th><th>EEx ia IIC</th><th>EEx ia IIB</th></tr> </thead> <tbody> <tr> <td>Lo [mH]</td><td>20,0</td><td>100,0</td></tr> <tr> <td>Co [nF]</td><td>760</td><td>4900</td></tr> </tbody> </table>		EEx ia IIC	EEx ia IIB	Lo [mH]	20,0	100,0	Co [nF]	760	4900
	EEx ia IIC	EEx ia IIB								
Lo [mH]	20,0	100,0								
Co [nF]	760	4900								
MTTF	200 years acc. to SN 29500 (Ed. 99) 40 °C									
Indication										
Operational readiness	green									
Protection class	IP20									
Ambient temperature	-25...+60 °C									
Storage temperature	-40...+80°C									
Dimensions	104x 18x 110 mm									
Weight	136 g									
Mounting instruction	For mounting on DIN rail or mounting panel									
Housing material	Polycarbonate/ABS									
Electrical connection	4 x 3-pole removable terminal blocks, reverse polarity protected, screw connection									
Terminal cross-section	1 x 2.5 mm ² / 2 x 1.5 mm ²									
Tightening torque	0.5 Nm									

Dimensions



Accessories

Type code	Ident no.	Description	Dimension drawing
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex devices; width 18 mm): 2 blue/2 black, 3-pin, included in delivery.	