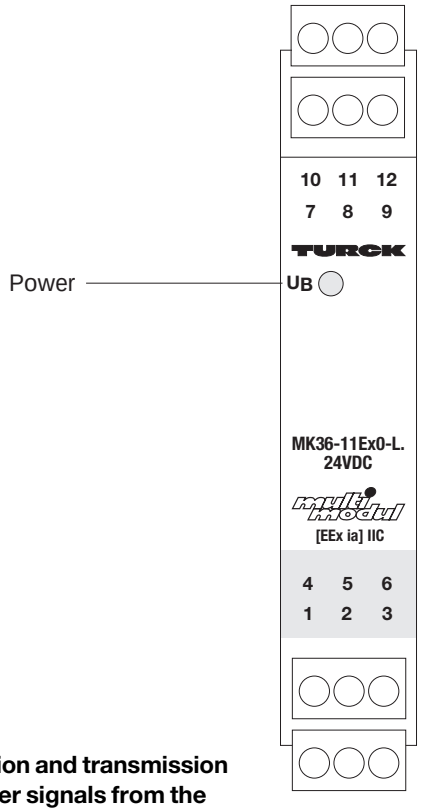


Potentiometer Transducer MK36-11Ex0-Li/24VDC MK36-11Ex0-LU/24VDC

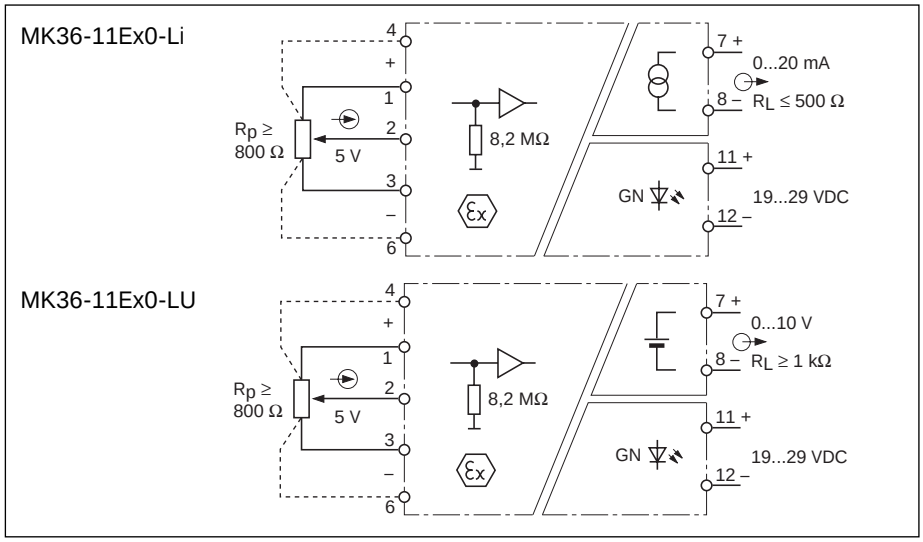
- **Galvanic isolation and transmission of potentiometer signals from the explosion hazardous areas**
- **Intrinsically safe input circuit [EEx ia] IIC**
- **Output circuit 0…20 mA or 0...10 V**
- **Linearity ≤ 0.1 %**
- **Temperature drift ≤ 0.02 %/K v. E.**

The potentiometer transducers MK36-11Ex0-Li and MK36-11Ex0-LU isolate signals from 3-wire or 5-wire potentiometers and transfer these as standard analogue signals from the hazardous to the non-hazardous area.

Potentiometer with a resistance range of 800...20 000 Ω may be connected.The permissible line resistance may not exceed 50 Ω at a potentiometer resistance of 800 Ω.

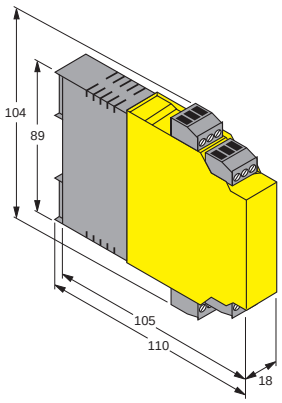
There are devices with a current output of 0...20 mA (MK36-11Ex0-Li) or a voltage output of 0...10 V (MK36-1Ex0- LU) available.

The devices feature galvanic isolation between input circuit, output circuit and power supply.



Potentiometer Transducers

Type	MK36-11Ex0-Li/24VDC	MK36-11Ex0-LU/24VDC
Ident-No.	75 095 10	75 095 20
Supply Voltage U_B	19...29 VDC	19...29 VDC
Ripple W_{PP}	≤ 10 %	≤ 10 %
Current consumption	approx. 50 mA	approx. 50 mA
Galvanic isolation	between input circuit, output circuit and supply voltage for 250 V_{rms}, test voltage 2.5 kV_{rms}	between input circuit, output circuit and supply voltage for 250 V_{rms}, test voltage 2.5 kV_{rms}
Input Circuits	intrinsically safe according to EN 50020	intrinsically safe according to EN 50020
Potentiometer input	3/5-wire circuit	3/5-wire circuit
Potentiometer resistance	800...20 000 Ω	800...20 000 Ω
Line resistance	≤ 50 Ω at 800 Ω potentiometer resistance	≤ 50 Ω at 800 Ω potentiometer resistance
Voltage at potentiometer	5 V	5 V
Output Circuits	current output	voltage output, short-circuit protected
Load impedance	≤ 500 Ω	–
Output current	0…20 mA	–
Load resistance	–	≥ 1 kΩ
Output current	–	0...10 V
Ex-Approvals acc. to Certificate of Conformity	TÜV 99 ATEX 1405	TÜV 99 ATEX 1405
Maximum values from both inputs		
– No load voltage U_0	13.8 V	13.8 V
– Short-circuit current I_0	35 mA	35 mA
– Power P_0	121 mW	121 mW
Maximum external inductances/capacitances		
– [EEx ia] IIC	20 mH / 760 nF	20 mH / 760 nF
– [EEx ia] IIB	100 mH / 4.9 µF	100 mH / 4.9 µF
Transfer Characteristics		
Linearity tolerance of setpoint adjustment	≤ 0.1 % of final value	≤ 0.1 % of final value
Measuring tolerance	≤ 0.2 % (typ. 0.1 %)	≤ 0.2 % (typ. 0.1 %)
Long term error	0.1 %/year	0.1 %/year
Ambient temperature sensitivity	≤ 0.02 %/K of final value	≤ 0.02 %/K of final value
Pulse rise time (10 %...90 %)	≤ 100 ms	≤ 100 ms
Release time (90 %...10 %)	≤ 100 ms	≤ 100 ms
LED Indications		
– Power "ON"	green	green
Housing	12-pole, 18 mm wide, Polycarbonate/ABS flammability class V-0 per UL 94	
Mounting	snap-on clamps for top-hat rail (DIN 50022) or srew terminals for panel mounting	
Connection	removeable terminal blocks, reverse-polarity protected, screw connection	
Connection profile	≤ 1 x 2,5 mm^2 or 2 x 1,5 mm^2 with wire sleeves	
Degree of protection (IEC 60529/EN 60529)	IP20	
Operating temperature	-25…+60 °C	



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