



- Signal transmission to 5 kHz
- Single channel
- Control circuit EEx ia IIC
- Reversible mode of operation
- Narrow design
- Standard rail mounting
- Protection IP 20



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Model:
REL-7005



Description

The isolation switching amplifier transmits pulse signals of up to 5 kHz from hazardous areas. Sensors according to DIN 19 234 (NAMUR) or mechanical contacts may be used as signal transmitters. The control circuit is monitored for line interruption (LB).

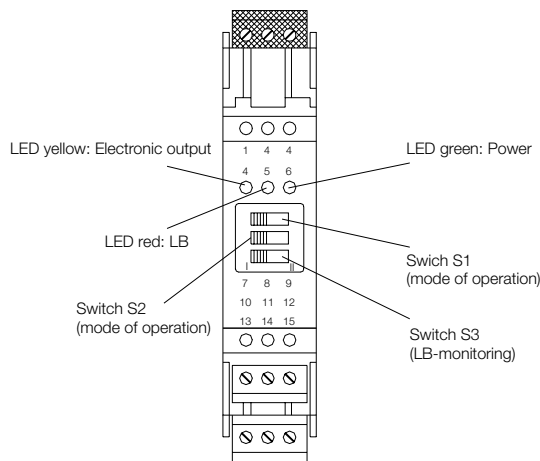
The input is safely isolated from the output and mains according to DIN EN 50 020. Output and mains are isolated from each other according to DIN EN 50178.

The devices are fitted with detachable terminals that greatly simplify installation.

Standards conformity

- Input: according to DIN 19234 (Namur)
- Insulation coordinates: according to DIN EN 50 178
- Electrical isolation: according to DIN EN 178
- Climatic conditions: according to DIN IEC 721
- Electromagnetic compatibility: according to EN50081-2/ EN50 082-2 NAMUR NE 21

Front view



Order Details (Example: REL-7005)

Description	Order no.
Isolation switching amplifier, 1-channel, pulse signals to 5 kHz, supply 24 VDC	REL-7005

Technical Details

- Auxiliary power
- Nominal voltage: 20-30 VDC
- Maximum voltage satisfying safety requirements: 40 VDC
- Ripple factor: ≤ 10%
- Rated current: ≤ 50 mA

Input

intrinsically safe according to Namur and DIN 19234

- Floating voltage: approximately 8 VDC
- Short-circuit current: approximately 8 mA
- Switch point: 1.2-2.1 mA
- Switching hysteresis: approximately 0.2 mA
- Power monitoring: rupture J ≤ 0.1 mA

Maximum values according to certificate of conformity PTB no. Ex-98.D.2046

- Voltage U_0 : 10.5 V
- Current I_0 : 13 mA
- Power P_0 : 34 mW

Allowed connected values

Type of protection	EExia	EExia
Explosion category	IIB	IIC
Exterior capacitance	16.8 μF	2.1 μF
Exterior inductivity	730 mH	200 mH

Output

(not intrinsically safe)

- Output I: signal electronic output, active
- Output II: line interruption electronic output, active

- Maximum voltage satisfying safety requirements: 40 V
- Rated current: 100 mA, short-circuit-proof
- Disabled output off-state current: J ≤ 10 UA
- Switched output voltage drop: < 2.5 V for 10 mA < 3 V for 100 mA
- Acoustic frequency: ≤ 5 kHz
- Dimensions: 118 x 20 x 115 mm (HxWxD)
- Protection: IP 20
- Case material: plastic
- Ambient temperature: -20 to +60°C
- Weight: approximately 150 g