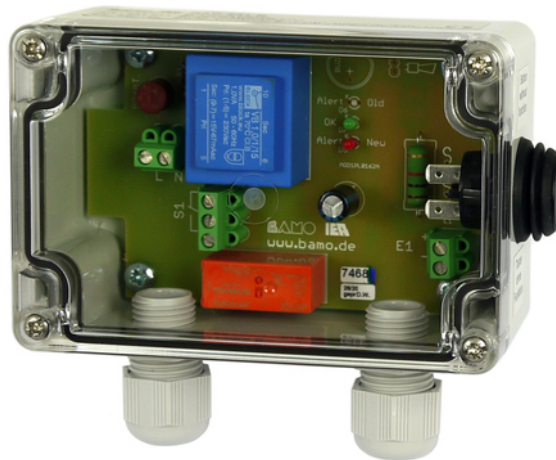


# EX isolating amplifier RAC 531 B - Owners manual (translation)



## SAFETY INSTRUCTIONS

- Installation, initial start-up and maintenance may only be performed by trained personnel!
- The device may only be connected to supply power which complies with the specifications included in the technical data and on the serial plate!
- The device must be disconnected from all sources of power during installation and maintenance work!
- The device may only be operated under the conditions specified in the operating instructions!
- The applicable installation and maintenance regulations for Ex devices must be observed!
- No changes or modifications may be made to the device.

## DESCRIPTION

The RAC 531 B isolating amplifier is used to monitor a potential-free contact in potentially explosive areas via an intrinsically safe circuit.

## TECHNICAL DATA

Operating voltage	230V AC / 50...60Hz
Safety-related maximum voltage	Um = 250V AC
Power consumption	~2W
Wall-mounted housing	120x80x55mm
Protection class	IP65
Ambient temperature	-20...+60 °C
EU type examination certificate	BVS12 ATEX E 019
Ex maximum values	The maximum permissible values (U <sub>0</sub> , I <sub>0</sub> , P <sub>0</sub> and C <sub>0</sub> , L <sub>0</sub> ) of the intrinsically safe measuring circuits were taken from the type examination certificate/type plate
Ex marking	Ⓔ II (1)G [Ex ia Ga] IIB/IIA (associated electrical equipment)
Sensor input	Terminals with screw connection for potential-free contact
Monitoring	for cable break
Signalling	Green LED -> relay energised Red LED -> Relay is de-energised
Alarm relay	1 output relay, 230V AC, 3A, floating changeover contact

**CE mark: The device fulfils the legal requirements of the applicable EU-guidelines.**

**BAMO** INTERNATIONAL

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL  
Tel +33 (0)1 30 25 83 20 Web [www.bamo.eu](http://www.bamo.eu)  
Fax +33 (0)1 34 10 16 05 E-mail [export@bamo.fr](mailto:export@bamo.fr)

**EX isolating amplifier**

**RAC 531 B - Owners manual (translation)**

21-05-2024

M-252.01-EN-ABb

**LEV**

**252-01 /1**

## TECHNICAL DATA (continuation)

Intrinsically safe circuit

Version	RAC531 B	
Terminals	Terminal (+), terminal (-)	
Voltage $U_0$	17.22V	
Current $I_0$	18.2mA	
Power $P_0$	78mW	
Max. external capacity $C_0$	IIB	2.06 $\mu$ F
	IIA	8.5 $\mu$ F
Max. external inductance $L_0$	IIB	430mH
	IIA	860mH
Max. Inductance/resistance ratio $L_0/R_0$	IIB	1..82mH/ $\Omega$
	IIA	3.64mH/ $\Omega$
Characteristic curve	linear	

## CONNECTION CABLE

### Please note!

- Strip the connection cable to a maximum length of 6 cm and fit a sleeve or heat-shrink tubing.
- Connect the RAC 531 B isolating amplifier to the power supply correctly.

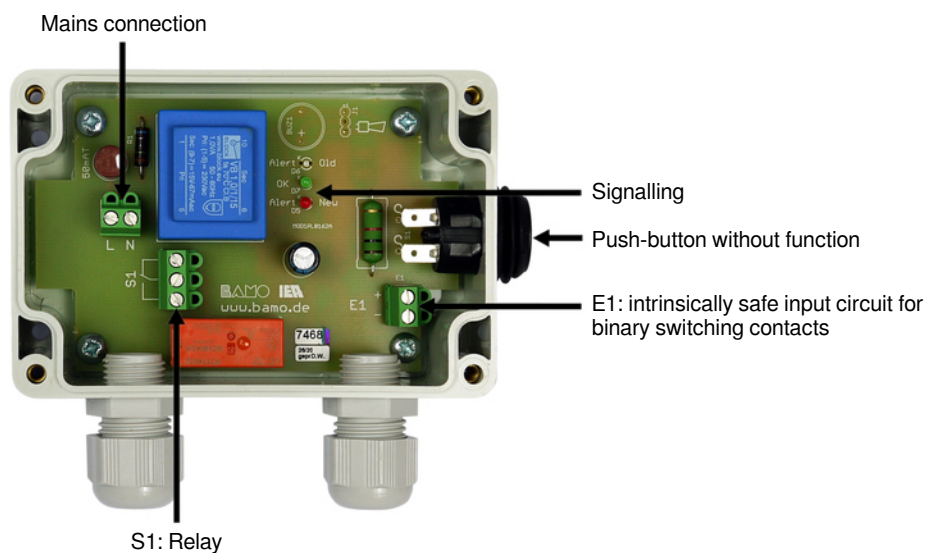


max. 6cm

## MAINTENANCE

When used as intended, the appliance is maintenance-free.

## ELECTRICAL CONNECTION



**BAMO** INTERNATIONAL

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL  
 Tel +33 (0)1 30 25 83 20 Web www.bamo.eu  
 Fax +33 (0)1 34 10 16 05 E-mail export@bamo.fr

**EX isolating amplifier**

**RAC 531 B - Owners manual (translation)**

21-05-2024

M-252.01-EN-ABb

**LEV**

**252-01 /2**

**Wiring diagram**

