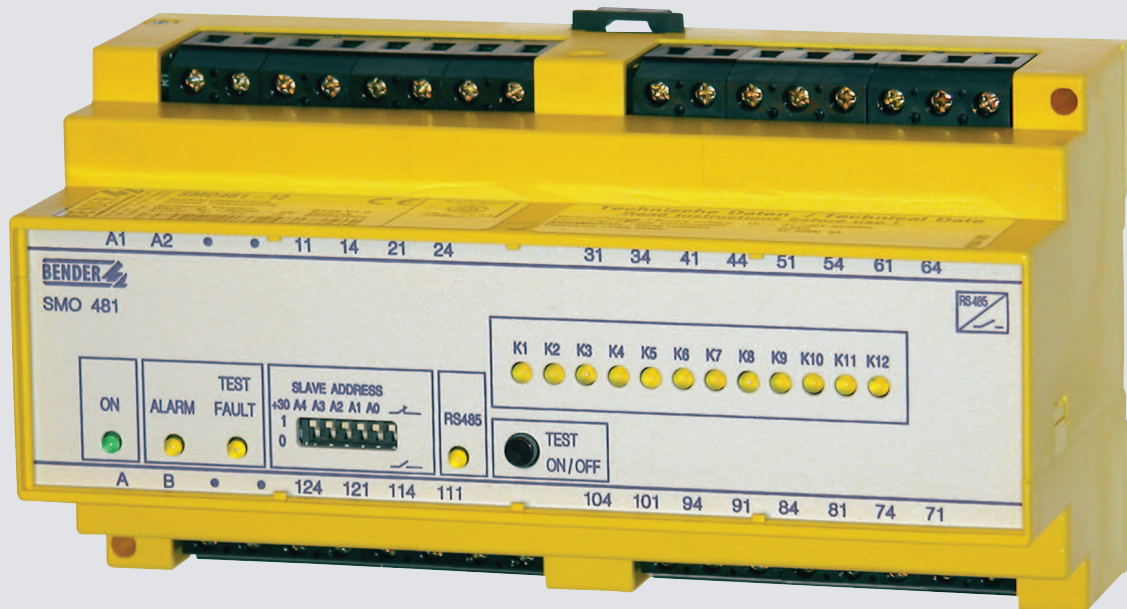


Signal converter SMO481-12



Signal converter SMO481-12



Signal converter SMO481-12

Device features

- 12 relay outputs
- Operating mode selectable: N/O or N/C operation.
- LED for each channel
- Test button to check the relay function
- LEDs: Power On, ALARM, TEST/FAULT

Product description

The signal converter SMO481-12 converts BMS bus switching commands to relay contact messages. The relay contacts are also suitable for very low currents (> 5 mA).

Application

- To convert BMS switching commands from TM operator panels to relay messages, e.g. for lighting system or device control

Function

When the signal converter SMO481-12 receives a switching command via the BMS bus, this command will be converted to a relay message.

Standards

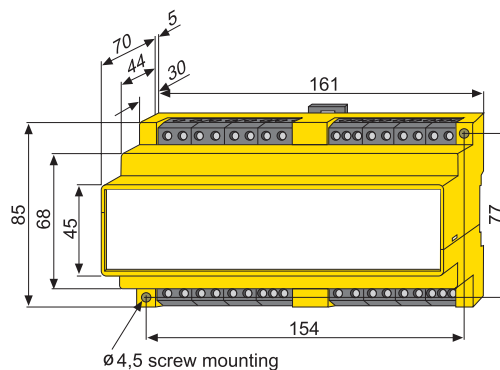
The signal converter SMO481-12 complies with the requirements of the device standards: EN 50178 for AC 230 V.

Ordering information

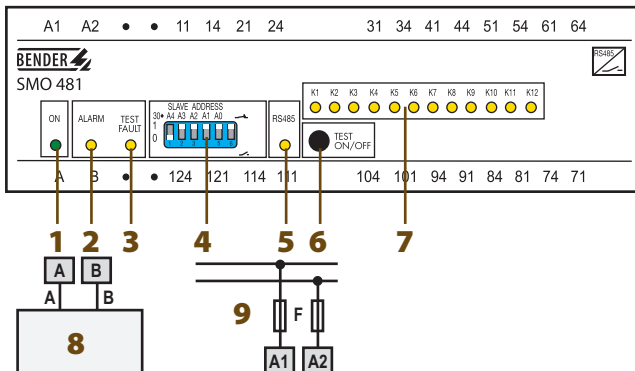
Supply voltage U_s	Type	Art. No.
AC 230 V	SMO481-12	B 9204 7005

Dimension diagram X480

Dimensions are given in mm

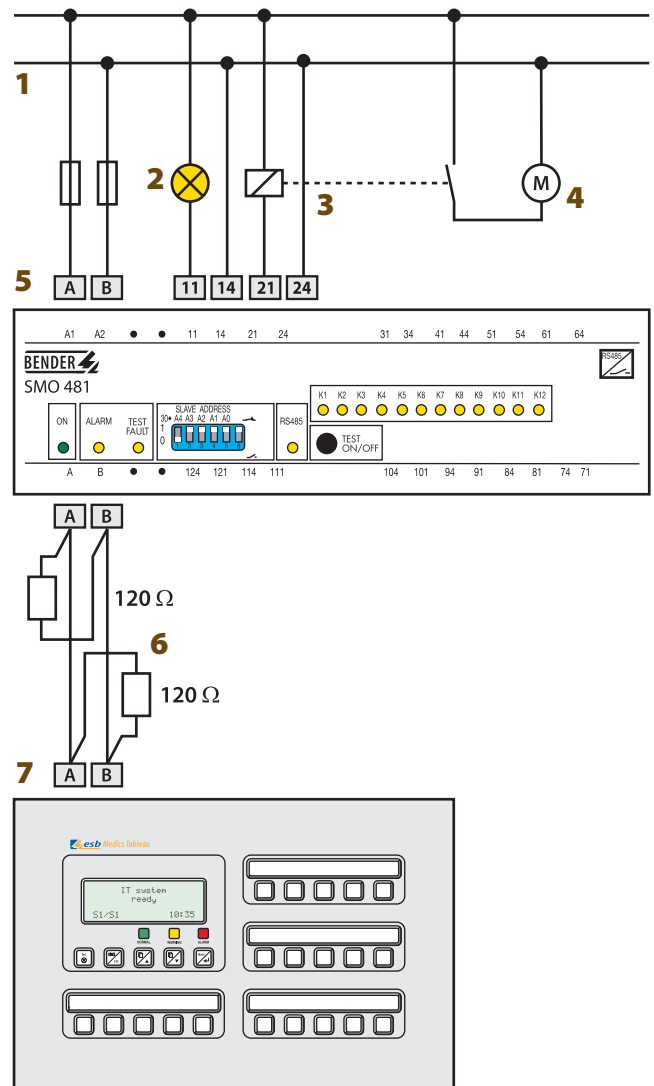


Operating elements



- 1 - LED "ON": operation indicator
- 2 - LED "ALARM": lights whilst one (or several) relays respond and during the test mode.
- 3 - LED "TEST/FAULT": LED lights during the test mode and flashes when an impermissible address has been selected.
- 4 - DIP switch, to set the device address of SMO482-12 (address = parameter value + 30) and the operating mode of the alarm relay.
- 5 - LED "RS-485": lights in case of activities on the BMS bus
- 6 - "TEST ON/OFF" button: pressing the test button once: will change over the operating mode of all alarm relays, pressing the test button once again: will change over from the test mode to the normal operating condition.
- 7 - LED "K1...K12": LED lights whilst respective relay responds
- 8 - Connection to TM operator panel
- 9 - U_S see ordering information, short-circuit protection for supply voltage U_S , 6 A fuse recommended, Note: Supply voltage U_S in the IT system requires two fuses

Wiring diagram



- 1 - U_S see ordering information
- 2 - Load (direct control)
- 3 - Relay to control load 4
- 4 - Load
- 5 - Signal converter SMO481-12
- 6 - Terminating resistors BMS bus
- 7 - TM operator panel

Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulation voltage	AC 250 V
Rated impulse voltage/pollution degree	4 kV/3

Supply voltage

Supply voltage U_S	AC 230 V
Frequency range U_S	50...60 Hz
Operating range U_S	0.8...1.15 x U_S
Power consumption	≤ 8 VA

Displays

LEDs	16 (ON, Alarm, TEST/FAULT, RS-485, K1...K12)
------	--

Operating elements

Button	TEST ON/OFF
--------	-------------

Interface

Interface/protocol	RS-485/BMS
Baud rate	9.6 kbit/s
Cable length	≤ 1200 m
Recommended cable (shielded, shield connected to PE on one side)	min. J-Y(St)Y 2 x 0.6
Terminating resistor (connectable via DIP switch)	120 Ω (0.25 W)
Device address, BMS bus	30 + (1...30)
Factory setting device address	30 + 1;

Switching elements

Number	12 x 1 N/O contacts
Operating principle	N/C operation/N/O operation selectable
Factory setting	N/O operation

Contact data acc. to IEC 60947-5-1

Rated operational voltage U_e	AC 230 V/DC 220 V
Rated operational current I_e	AC 5 A/DC 0.2 A
Utilization category	AC 14/DC 12
Electrical service life, number of cycles	10.000
Minimum contact load	1 mA at AC/DC > 10 V

Environment/EMC

EMC immunity	acc. to EN 61000-6-2
EMC emission	acc. to EN 61000-6-4
Classification of climatic conditions acc. to IEC 60721	
Stationary use	3K5
transport	2K3
storage	1K4
Operating temperature	-25...+55 °C
Classification of mechanical conditions acc. to IEC 60721	
Stationary use	3M4
transport	2M2
storage	1M3

Connection

Connection	13 x 1 N/O contacts
Connection properties	
rigid/flexible/conductor sizes	0.2...4/0.2...2.5 mm ² /AWG 22...12
flexible with ferrule, without/with plastic sleeve	0.25...2 mm ²
Stripping length	8 mm
Tightening torque	0.5 Nm

Other

Operating mode	continuous operation
Mounting	any position
Degree of protection, internal components (IEC 60529)	
	IP 30
Degree of protection, terminals (IEC 60529)	
	IP 20
Type of enclosure/dimension diagram	X470
Screw mounting	2 x M4
DIN rail mounting acc. to	IEC 60715
Flammability class	UL94V-0
Operating manual	BP108011
Weight	≤ 580 g



Bender GmbH & Co. KG

P.O. Box 1161 • 35301 Gruenberg • Germany
 Londorfer Strasse 65 • 35305 Gruenberg • Germany
 Tel.: +49 6401 807-0 • Fax: +49 6401 807-259
 E-Mail: info@bender.de • www.bender.de



BENDER Group