IOM441-S / IOM441W-S

Relay module

IOM441-S_D00300_01_D_XXEN/02.2019

IOM441-S

IOM441-S

Device features

- Extension of Bender devices by 12 relays
- N/O and N/C selectable

Approvals and certifications

CE

Product description

The IOM441-S relay module is used to extend Bender devices, such as the EDS44x.

For example, in the IOM441-S, alarm messages of the basic device can be converted into switching commands for the 12 relay outputs (N/O contacts). Communication between the two devices takes place via the Bender backbone bus (BB bus), which is mounted to the rear of the devices. The BB bus also provides the supply voltage for the IOM441-S.

A software update of the IOM441-S can be carried out via the BB bus. The parameters as well as switching states are stored in the IOM441-S.

Some of the basic devices allow only one IOM441-S to be connected to them (refer to the data sheet of the respective basic device).

Application

- Extension of the measuring channels during insulation fault location by potential-free contacts

Function description

An alarm contact (N/O contact) is available for each measuring channel of the basic device, e.g. to trip a circuit breaker if the response value in this outgoing circuit is exceeded.

Ordering details

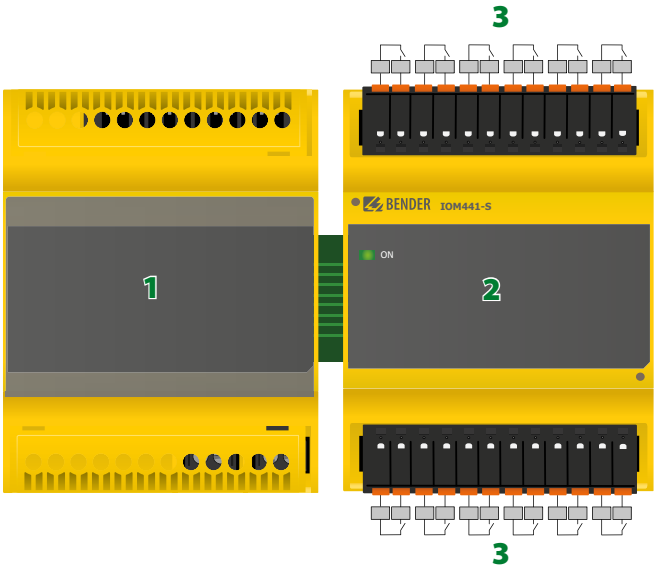
Supply voltage U_S	Option "W"	Type	Art. No.
DC			
24 V	–	IOM441-S	B95012057
	■	IOM441W-S	B95012057W

Accessories

Description	Art. No.
Plug Kit Pushin [1]	B95012902

[1] included in the scope of delivery

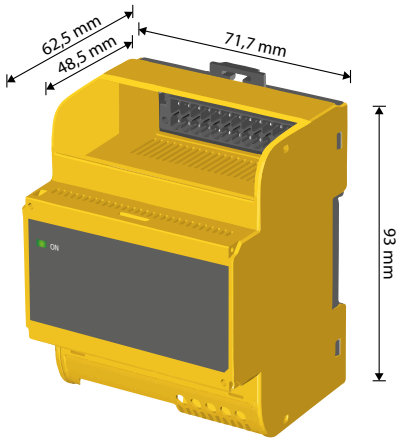
Connection



1 - Basic device
2 - IOM441-S
3 - Relay outputs

Dimension diagram

Dimensions in mm



Technical data

Insulation coordination according to IEC 60664-1

Definitions:	
Supply circuit	BB bus
Output circuits	relay contacts [(13, 14), (23, 24), (33, 34), (43, 44), (53, 54), (63, 64), (73, 74), (83,84), (93, 94), (103, 104), (113, 114), (123, 124)]
Protective separation (reinforced insulation) between	(BB bus) – (relay contacts)
Rated voltage	250 V
Overvoltage category	III
Pollution degree	2
Rated impulse voltage	6 kV
Voltage test (routine test) acc. to IEC 61010-1	AC 3.51 kV
Basic insulation between	(relay contact) – (relay contact)
Rated voltage	250 V
Overvoltage category	III
Pollution degree	2
Rated impulse voltage	4 kV
Voltage test (routine test) acc. to IEC 61010-1	AC 2.21 kV

Supply voltage

Supply voltage U_s	DC 24 V
Tolerance of U_s	5 %
Power consumption	< 1.7 W

LEDs

ON (operation LED)	green

Switching elements

Number	12 N/O contacts
Rated operational voltage	AC 250 V/DC 30 V
Rated operational current	5 A
Minimum contact rating	1 mA at ≥ DC 5 V

Environment/EMC

EMC	IEC 61326-2-4
Ambient temperatures:	
Operating temperature	-25…+55 °C
Transport	-40…+85 °C
Storage	-25…+70 °C
Classification of climatic conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3)	3K5 (no condensation, no formation of ice)
Transport (IEC 60721-3-2)	2K11
Long-term storage (IEC 60721-3-1)	1K22
Classification of mechanical conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3)	3M4
Transport (IEC 60721-3-2)	2M4
Long-term storage (IEC 60721-3-1)	1M12
Area of application	≤ 2000 m AMSL

Connection

Connection type	pluggable push-wire terminal
Conductor sizes	AWG 24-12
Stripping length	10 mm
rigid/flexible	0.2…2.5 mm²
flexible with ferrule, with/without plastic sleeve	0.25…2.5 mm²
Multiple conductor, flexible with TWIN ferrule with plastic sleeve	0.5…1.5 mm²

Other

Operating mode	continuous operation
Degree of protection internal components	IP40
Degree of protection terminals	IP20
DIN rail mounting acc. to	IEC 60715
Screw fixing	2 x M4 with mounting clip
Enclosure material	polycarbonate
Flammability class	UL 94V-0
Dimensions (W x H x D)	72 x 93 x 63
Documentation number	D00300
Weight	approx. 180 g

Device version “W”

Devices with the suffix “W” feature increased shock and vibration resistance.
The electronics is covered with a special varnish to provide increased protection against mechanical stress and moisture.

Ambient temperatures:	
Operating temperature	-40…+70 °C
Transport	-40…+85 °C
Long-term storage	-25…+70 °C
Classification of climatic conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3)	3K5 (condensation and formation of ice possible)
Classification of mechanical conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3)	3M7

( )* = Factory settings

BENDER
The Power in Electrical Safety©

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