BENDER
The Power in Electrical Safety©

DI-2

RS-232/RS-485 interface converter

TDB109010en/05.2013

DI-2

Interface converter DI-2USB

Device features

- Plastic enclosure for DIN rail mounting
- Electrical separation between the input and output circuit
- Supply voltage DC 10…30 V

Product description

The DI-2 converter is designed for the connection of personal computers and workstations utilising an RS-232 interface with Bender devices utilising an RS-485 interface. The hardware and software of the computers need not to be changed. A typical application is the connection of a personal computer to a BMS network.

Application

- Conversion of RS-232 signals into RS-485 signals
- Parameterisation of alarm indicator and operator panels (MK800, MK2430) with RS-485 interface via PC with RS-232 interface using software

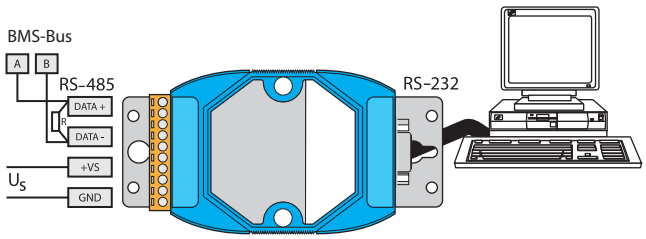
Function

Many PCs and work stations are equipped with serial RS-232 interfaces. The interface converter DI-2 is designed to connect these devices via an RS-232 interface to the BMS bus using the RS-485 standard. The connected devices are protected against spikes by galvanic separation between the input and output circuit. Additional internal measures protect the device against voltage spikes.

Approvals

Lloyd's Register TYPE APPROVED

Wiring diagram (example)

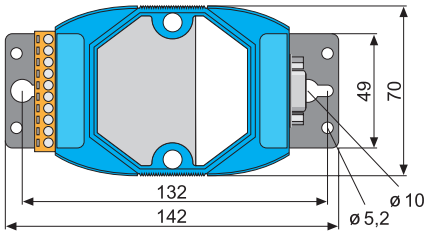


DI-2 for the integration of a personal computer utilising an RS-232 interface into a BMS network.

Note:
Terminate both ends of the BMS bus with 120 Ω resistors (R)

Dimension diagram

Dimensions in mm



Technical data

Insulation coordination acc. to IEC 60664-1

Rated voltage	
Rated impulse voltage/pollution degree	3 kV/3

Supply voltage

Supply voltage U_S	see ordering information
Power consumption	≤ 2.2 W

Interfaces

BMS

Interface/protocol	1 x RS-485/–
Baud rate	9.6…115.2 kbit/s
Cable length	≤ 1200 m
Cable (twisted in pairs, one end of shield connected to PE)	recommended: J-Y(St)Y min. 2 x 0.8
Mode	–
Connection	DATA + (A), DATA - (B)
Terminating resistor	120 Ω (0.25 W)
Device address, BMS bus	–
Serial interface	1 x RS-232
Alarm LEDs	ON

Environment/EMC

EMC immunity/EMC emission	EN 61000-6-2/EN 61000-6-4
Classification of climatic conditions acc. to IEC 60721	
Stationary use	3K5
Transport	2K3
Long-time storage	1K4
Ambient temperature, operation	-10…+55 °C
Classification of mechanical conditions acc. to IEC 60721	
Stationary use	3M4
Transport	2M2
Long-time storage	1M3

Connection

Connection	screw-type terminals
Connection rigid/flexible/conductor sizes	0.5…2.5 mm² (AWG 22…12)

Other

Operating mode	continuous operation
Mounting	any position
Degree of protection, internal components (IEC 60529)	IP30
Degree of protection, terminals (IEC 60529)	IP30
Screw mounting	2 x M3
DIN rail mounting acc. to	IEC 60715
Operating manual	TBP109010
Weight	≤ 160 g

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