

HRU-5331

Hub, converter, separator, RS232 / 485 repeater for 4 x RS485 mounted on a DIN rail.

Description

The HRU-5331 works as a hub, converter, separator and repeater RS232 / 485 on four RS485 lines. The device also provides galvanic separation between input and output, input and power supply as well as output and power supply. It does not require additional signals controlling the direction of transmission. The design of HRU-5331 is based on programmable PLD systems, which is particularly important in the operating mode as a hub, repeater, separator and in cascade operation of several devices connected in series. RS485 lines are additionally protected against surges.

Main use of HRU-5331:

- matching transmission standards,
- hub, converter, separator, repeater,
- construction of a transmission network with a star topology,
- the device can work as a protector and separator,
- HRU-5331 allows you to expand the RS-485 bus (extends bus range and increases load capacity),
- improves the quality and efficiency of transmission (technology automatic frame forming).



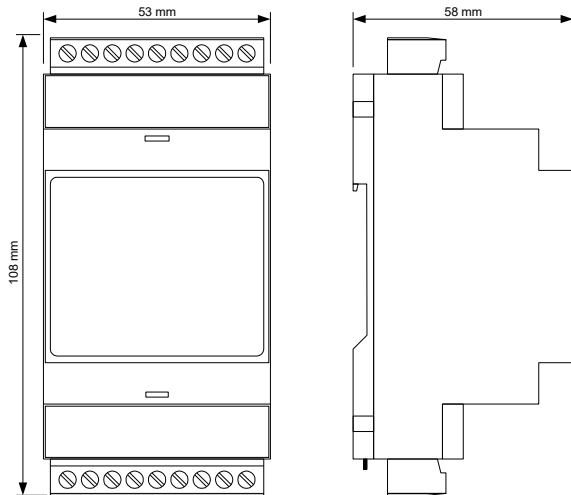
Main features

- Baud rate from 50 b/s to 375 kb/s,
- data flow control ,
- galvanic isolation RS232 / 485 from 4xRS485 - 2.5kV,
- galvanic isolation RS232 / 485 and 4xRS485 from power supply 3,0kV,
- signaling of communication quality,
- built-in RS485 line terminator,
- universal device enabling operation in RS232 / 4x RS485, RS485 / 4x RS485 modes,
- the device improves the quality and efficiency of transmission.

Specification

Parameter	Description
Supply voltage	7..35 VDC 12..26 VAC
Overvoltage and short circuit protection	43V, 200mA 1,5kW
Power consumption	2VA
Working temperature	-30°C...+65°C
Storage temperature	-40°C...+70°C
Relative humidity	work: 20%...95% storage: 20%...95%
Vibration resistance	4g
Specification of RS232	EIA-232E i CCITT v.28
ESD protection of RS232	IEC 1000-4-2 (801.2) +/- 8 kV contact discharge +/- 15 kV air gap discharge
RS232 line support	TxD and RxD
Maximum RS-232 line length	15m
RS232 connection	detachable connectors; line 0,2...2,5 mm
Specification of RS485	EIA/TIA-485
Transmission direction control	automatically
ESD protection of RS485	+/-15 kV using the Human Body Model +/- 8 kV contact discharge specified in IEC 100-4-2 +/- 15 kV air gap discharge
Overvoltage and short-circuit protection of the RS485 line	100mA 600W
Galvanic separation RS232 / 485 from RS485	2,5kV
Galvanic separation RS232 / 485 and RS485 from the power supply	3,0kV.
Terminators for the RS485 line	Built in, switched by DIP SWITCH
Maximum number of devices on one line	32
Baud rate	From 50 b/s to 375 kb/s
The maximum length of the RS485 line	1200m
RS485 connection	detachable connectors; line 0,2...2,5 mm
EMC	according with EN-61000-6-1/2/3/4
IP protection of terminals	IP-20 according with DIN 40050/EC529
IP protection of housing	IP-43 according with DIN 40050/EC529
Installation	On DIN rail PN/E-06292 or DIN EN 50 022-35
Weight	116 g
Dimensions with connectors	53 x 108 x 58 mm

Dimensions

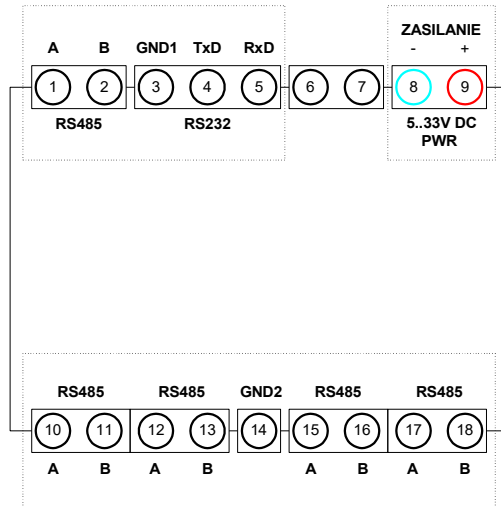


Main operating modes

- RS232 to RS485
- RS232 to 1x, 2x, 3x or 4x RS485
- RS485 to RS232
- 2x, 3x or 4x RS485 to RS232
- RS485 to 1x, 2x, 3x or 4x RS485
- 1x, 2x, 3x or 4x RS485 to RS485

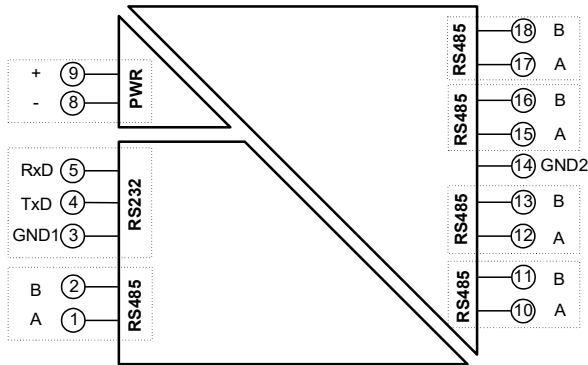
Wiring diagram

Three-way separation



Block diagram

Three-way separation



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