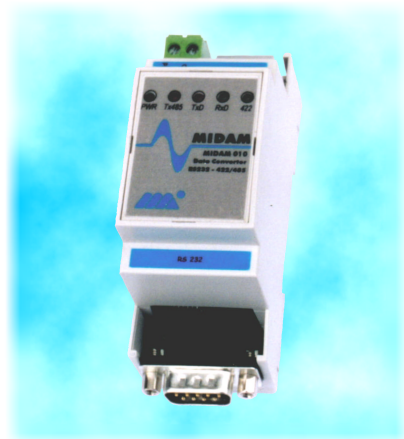




MIDAM

MIDAM 010 Data Converter RS232 to RS422/RS485



MIDAM 010 operates as a converter between the RS232 data bus and the RS422 or RS485 data bus. This module has been designed for wiring a network of devices equipped with the RS422/RS485 to a device with RS232 interface. The converter also provides galvanical separation of the two buses. The MIDAM 010 module data baud rate ranges from 1200 Bd to 19200 Bd. The module has to be installed on a DIN strip.

The RS485 bus supports semi-duplex communication. In order to allow an automatic data flow control, the controller is fitted with a control processor which executes the data flow switching. The direction can also be controlled via CTS signal of the RS232 bus. However, the data communication rate should be the same at either communication channel. The rate of data communication is adjustable with DIP switches on the top side of the printed circuit board. Moreover, there are five LEDs indicating power supply and data transmission connection status and data flow direction on the RS485/RS422 bus.

The module should be connected to the RS485 bus via the RJ 45 connector. Data inputs are protected against overvoltage. In case that the converter has been installed on the bus as a terminal device, a terminating resistor may be installed. To attain this, remove the case cover and connect the terminating resistor to the line by short-circuiting the contacts on the printed circuit board.

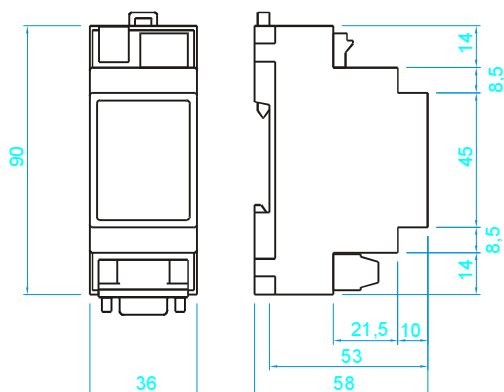
After connecting the converter to the RS 232 bus, the module should be fitted with a CANON 9M (pin) connector. Consequently, when, for instance, a PC has to be wired up, a ("cross") connecting cable with CANON 9F (hole) connectors on both ends has to be used.

Some communication cables used with the RS485 bus include more wire pairs in each cable. Therefore the converter has been designed so as to allow that the module power supply can be brought via the free conductors in the cable. This measure makes the module installation easier and reduces the cabling requirements.

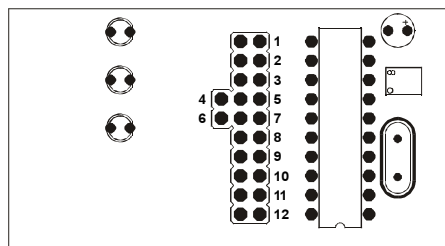
Technical data

Supply voltage	10 V + 35 V DC regulated 14 V + 24 V AC
Power input	1 W
Permissible module inner temperature	0 + 70°C
Communication	asynchronous transmission baud rates: 1200, 2400, 4800, 9600, 19200 Bd max. segment length at the RS485 bus: 1200 m repeater-free bus capacity: up to 32 devices 8 or 9 bit, 1 stopbit
Data flow direction control	either automatic or via CTS signal

Module external dimensions



Terminals on top board



JP1 a JP2
Bus End

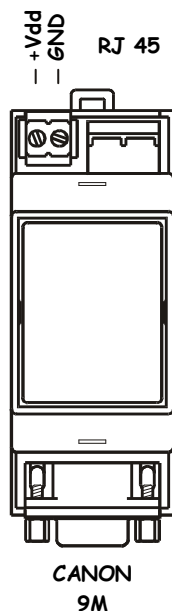
JP3 až JP8
Converter mode

JP9 až JP12
Baud rate in mode
RS485SW

Conf. /JP	3	4	5	6	7	8
485HW	x	x		x		
485SW8	x		x		x	
485SW9	x		x		x	x
422		x			x	

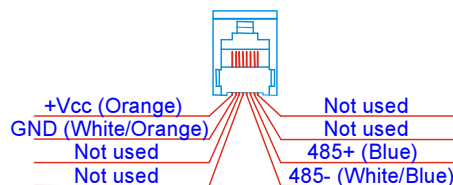
BR / JP	9	10	11	12
1200				
2400	x			
4800		x		
9600	x	x		
19200			x	

Terminals wiring



485HW – RS485 controlled by CTS or DSR
 485SW8 – software controled RS485 8 bits
 485SW9 – software controled RS485 9 bits
 422 – RS422
 x – close jumper
 BR – baud rate

Recommended wiring of the RJ 45 connector



Designation	Description
+ Vdd	+ module power supply terminal
GND	- module power supply terminal
RJ 45	connector for RS485 data bus wiring RS485 and module supply line
CANON 9M	connector for RS485 data bus wiring



Mikroklima s.r.o., Veverkova 1343
 500 02 Hradec Králové, Czech Republic
 Tel.: 049/5813355, fax: 049/5813357
 e-mail: midam@mikroklima.cz

Representative

