

## M012

## RS232 – RS485 data converter



### Summary

**M012 is a RS232 to RS485 multi-speed half-duplex physical level converter with galvanic separation at both ends and power part. The device is equipped with a microcontroller which controls the data flow switching.**

### Applications

- **domat I/O modules link to PC**
- **any RS232 to RS485 conversion where galvanic separation is required**

### Functions

The RS485 bus supports half-duplex communication. For automatic flow control, a microcontroller is used which is controlled by the CTS or DSR signals (DSR as default). The communication speed of both channels must be equal and is to be set by jumpers at the printed board. There are LEDs at the front panel to indicate power presence and RS485 data flow.

For the RS485 connection, a RJ 45 connector is used. The line is protected against overvoltage. In case the converter is used as the last in line, a terminating resistor may be employed by connecting piano switch accessible behind the K1 connector.

For the RS232 connection, a CANON 9M (pins) connector is used. For PC connection, use nullmodem (cross) cable with CANON 9F (holes) at both ends. **domat** only uses RxD, TxD, and GND signals for PC communication.

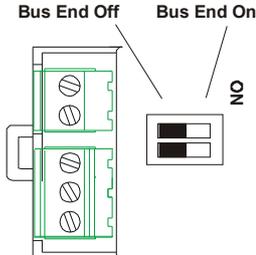
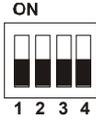
## Technical data

Supply voltage	10 V ÷ 35 V DC, 14 V ÷ 24 V AC, any polarity
Consumption	1500 mW
Working temperature of the device	0 ÷ 70°C
Communication	asynchronous RS485, 1200 ... 115200 bit/s
Bits	8 or 9, 1 stopbit
Max. bus length	1200m
Data flow control	automatic, CTS or DSR
Dimensions	see below
Default settings	Bus End Off, 8, 9600 (suitable for <b>domat</b> I/O modules)

## Terminals and settings

The M012 replaces the older types M010 (which was equipped by a RJ45 connector at the RS485 side) since June 2007 and M011 (which did not have RS232 and power part galvanically separated) since November 2010.

When using Even or Odd parity bit (i.e. not None), do not forget to set the DIP switch 4 to 1 (i.e. 9 bit position)!

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		<table> <tr><td>000</td><td>1200 bps</td></tr> <tr><td>100</td><td>2400 bps</td></tr> <tr><td>010</td><td>4800 bps</td></tr> <tr><td>110</td><td>9600 bps</td></tr> <tr><td>001</td><td>19200 bps</td></tr> <tr><td>101</td><td>38400 bps</td></tr> <tr><td>011</td><td>57600 bps</td></tr> <tr><td>111</td><td>115200 bps</td></tr> </table>	000	1200 bps	100	2400 bps	010	4800 bps	110	9600 bps	001	19200 bps	101	38400 bps	011	57600 bps	111	115200 bps	<table> <tr><td>0</td><td>8 bit</td></tr> <tr><td>1</td><td>9 bit</td></tr> </table>	0	8 bit
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## Dimensions

