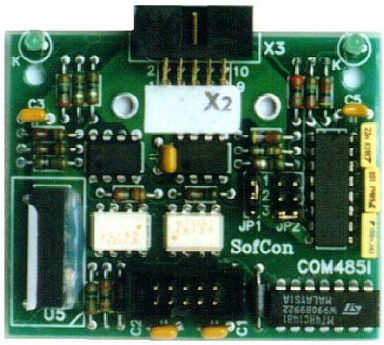
COM Modules
COM485I
RS485 Interface Galvanically Insulated Module

4.1

- Module control and supply through COMBUS
- Standard transfer rate 9600 Bd and 38400 Bd (optionally other)
- Galvanic separation
- Two-wire or four-wire operation
- LED indication of transmitted and received signal



Basic Characteristics

The COM485I module converts HCT-level TTL communication signals to the RS485/RS422 level. The interface is galvanically insulated by optocouplers. A DC/DC converter is used to supply power to the insulated part.
The COM485I module is connected to the COM BUS of a KITV40 microcomputer, or to the COM BUS of expansion input/output cards, such as IOCOM, IOPCOM.

The RS485 interface is implemented with two 75176 (LTC485) circuits, two optocouplers, a DC/DC converter, and a monostable flip-flop circuit. This circuit is intended for reception and transmission switching in two-wire operation. The first change from 1 to 0 will throw up the monostable circuit. The level of 1 on its output will enable data transmission on the RS485 bus through a DE input. The length of a flip-flop oscillation is set to allow transmission at speeds of 9600Bd and higher. The length of a flip-flop oscillation is set with the JP2 jumper. The JP1 jumper allows you to select a two-wire or four-wire connection for the RS485 line. The transmitted and received signals are indicated with LEDs.

The module is delivered as a printed circuit board to be built into a KITV40 microcomputer set.

Technical Data

Module power supply	through COMBUS
Module location	KITV40 set
Ambient temperature	0 to +50°C
Storage temperature	-20 to +50°C
Electric strength	500V
Dimensions	65 x 50 x 15 mm

COMBUS		
	Connector	10-pin
	Signals	SIN, SOUT (TTL level)
RS485 line		
	Connector	10-pin / canon 9-pin**)
	Transfer rate	9600 / 38400 Bd *)/ other**)
	Signal direction control	automatic (monostable flip-flop)
	RS485 connection	two-wire / four-wire *)
	Range	2 km
	Recommended cable type	MK 4 x 0.35 mm

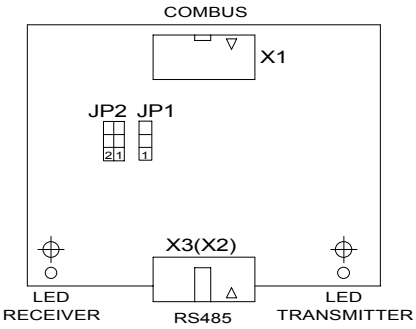
*) according to jumper settings
**) must be specified in the order

Ordering Information

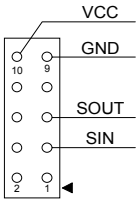
The basic version of the COM485I module is designed for transmission rates of 9600 Bd and 38400 Bd, to be fitted with an RS485 interface with a self-stripping 10-pin connector. Other transmission rates and fitting with an RS485 canon 9-pin (male) connector must be specified in the order.

Self-stripping PFL10 connectors, canon 9-pin (female) connectors, and AWG2810 flat cables are available upon special order.

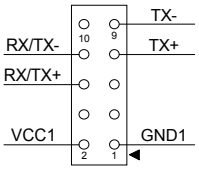
Location of connectors and wiring



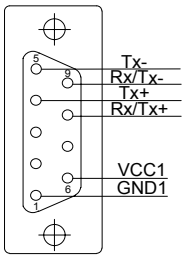
Connector X1
COMBUS



Connector X3
RS485

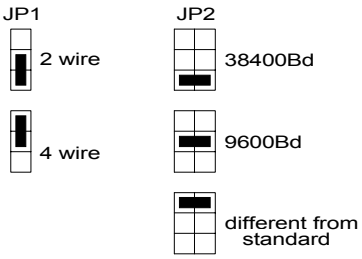


Connector X2
RS485 (canon)

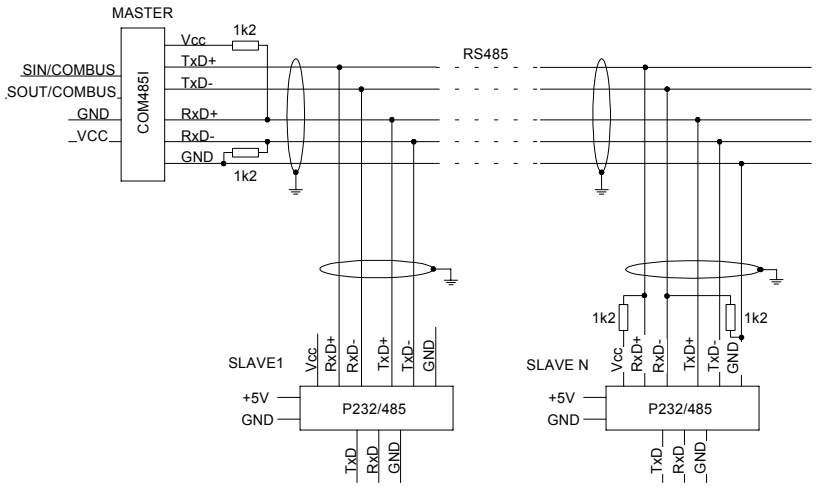


Jumper adjustment

Interconnection Transmission rate



Recommended connection of RS485 bus (four-wire, master-multislave)



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