

FEATURES

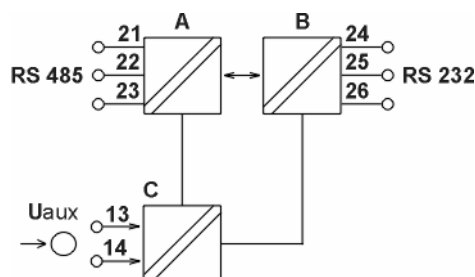
- Convert RS232 to RS485
- Galvanic separation
- Transmission rate up to 115.200 bit/s
- LED diodes for communication indication
- Low power consumption
- Universal AC/DC or AC auxiliary power supply
- Housing for DIN rail mounting

APPLICATION

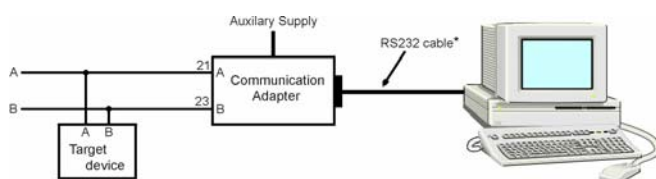
Communication interface MI485 converts the RS232 signals bidirectionally to the RS485 standard. Communication interface is mounted on standard rail 35 × 15 mm (according to DIN EN 50022).

LAYOUT AND MODE OF OPERATION

RS232 signal is converted into TTL signal (B), which is then galvanically separated and converted in the RS485 signal (A). Circuits are auxiliary powered and galvanically separated (C).



Picture 2: Block diagram



Picture 3: Example of connection (* RS232 cable is not supplied with interface)

TECHNICAL DATA

POWER SUPPLY:

Auxiliary AC/DC voltage (universal):

- Rated voltage (Ur): 24...300 V DC
40...276 V AC
- Frequency range: 40...70 Hz
- Power consumption: < 3 VA



Picture 1: Communication interface MI485

Auxiliary AC voltage:

Rated voltage (Ur)	Rated operating range
57.74 V 100 V 230 V 400 V ⁴⁾ 500 V ⁴⁾	80...120 % Ur

⁴⁾ – to 300 V installation category III, from 300 to 500 V installation category II – see chapter Regulations.

Table 1: Rated AC voltage for Auxiliary power supply

- Frequency range: 45...65 Hz
- Power consumption: < 3 VA

COMMUNICATION:

RS232

- Connection type: Point to point
- Signal levels: RS232
- Maximum cable length: 15 m
- Connector: Screw terminals or DB9 (option)
- Isolation: 3.7 kV rms for 1 minute between all terminals and all other circuits
- Transmission mode: Asynchronous
- Data rate (very high speed): 1,200 to 115,200 bits/s

RS485

- Connection type: Multi-drop (32 connections per link)
- Signal levels: RS485
- Cable type: Screened twisted pair
- Maximum cable length: 1000 m
- Connector: Screw terminals
- Isolation: 3.7 kV rms for 1 minute between all terminals and all other circuits
- Transmission mode: Asynchronous
- Data rate (very high speed): 1,200 to 115,200 bits/s

HOUSING:

- Material of housing: PC/ABS
unflammable, according to **UL 94 V-0**
- Mounting: For rail mounting, 35 x 15 mm
according to **DIN EN 50022**: 1978
- Enclosure protection: IP 50
(IP 20 for connection terminals)
according to **EN 60529**: 1989
- Weight: Approx. 300 g

CONNECTION TERMINALS:

- Permissible cross section of the connection leads:
≤ 4.0 mm² single wire
2 x 2.5 mm² fine wire

REGULATIONS:

- Protection: Protection class II
300 V rms, installation category III
500 V rms, installation category II
Pollution degree 2
- Test voltage: 3.7 kV rms
according to **EN 61010-1**: 1990

ENVIRONMENTAL CONDITIONS:

- Climatic rating: Climate class 3 acc. to
EN 60688: 1992
- Operating temperature -10 to +55 °C
- Storage temperature -40 to +70 °C
- Annual mean relative humidity: ≤ 75% r.h.

EU DIRECTIVES CORRESPONDING FOR CE MARKING

Low voltage directive **73/23/EEC**:

EN 61010-1: 1993 and **EN 61010-A3**: 1995

Safety requirements for electrical equipment for measurement, control, and laboratory use, Part 1: General requirements

EMC directive **89/336/EEC**:

EN 61326-1: 1997

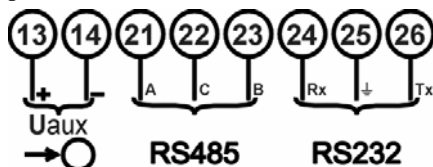
Electrical equipment for measurement, control, and laboratory use

EMC requirements, Part 1: General requirements.

CONNECTION

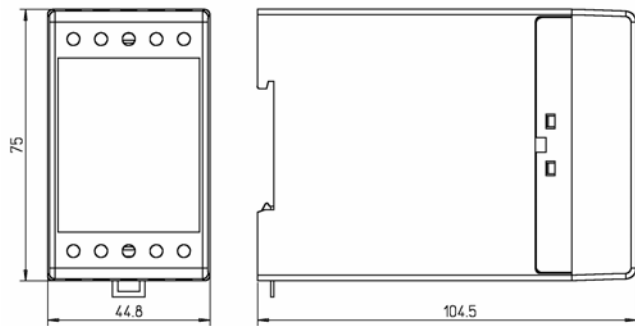
Interface's preferential use is connection into low-voltage network.

The connection terminals marking can be found on the front plate.



Picture 4: Connection diagram

DIMENSIONAL DRAWING



Picture 5: Dimensional drawing (all dimensions are in mm)

SPECIFICATION AND ORDERING INFORMATION

For ordering it is necessary to define type of communication interface (MI485), type of power supply and type of RS232 connector.

Ordering code:

MI485 *A(b V); C*

MI416		Value	Code
A	Type of power supply	universal power supply	U
		AC power supply	A
b	Value of power supply voltage (only for AC power supply)	57 V	57
		100 V	100
		110 V	110
		230 V	230
		400 V	400
C	Type of RS232 connector	Screw terminals (standard)	S
		DB 9 (option)	D

Table 3: Ordering information

ORDERING EXAMPLE

Communication interface MI485, 230 V AC power supply, screw terminals.

MI485 A230V S



Ljubljanska c. 24a
SI-4000 Kranj
Slovenia
tel.: +386 4 237 21 40
fax: +386 4 237 21 29
e-mail: info@iskra-mis.si
www.iskra-mis.si

