

Modbus RS485 communication module for F4N400

Cat. N°:
F4N104



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Modbus RS485 communication module for F4N400

Cat. N°:
F4N104

1. DESCRIPTION - USE

Modbus RS485 communication module.
Makes available, by RS485 communication, all measurements performed as well as the configuration parameters of the multifunction measurement devices F4N400.

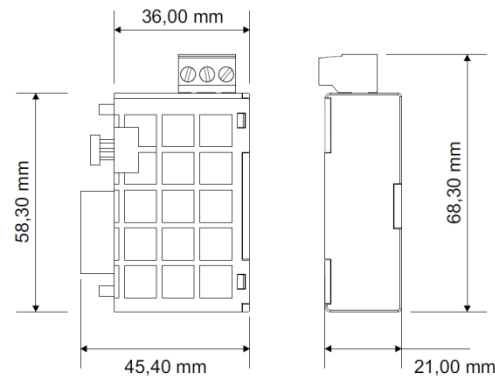
2. RANGE

- . Cat. N° F4N104: Modbus RS485 communication module; associable only to multifunction measuring device F4N400.
- . It is possible to connect only one module F4N104.

Auxiliary supply:

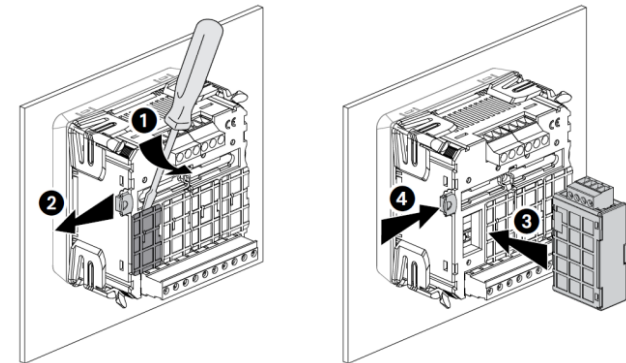
- . Supplied by the multifunction measuring device F4N400

3. OVERALL DIMENSIONS



4. FIXING - CONNECTION

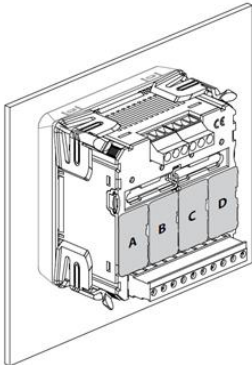
Fixing:



Note: modules must be connected with the device F4N400 not supplied.

4. FIXING - CONNECTION (continued)

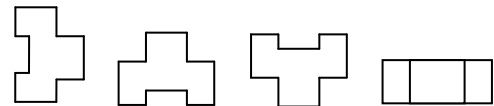
Associability table:



	A	B	C	D	
F4N101	×	×	✓	✓	max. 2
F4N102	×	×	✓	✓	max. 2
F4N103	✓	✓	✓	✓	max. 2
F4N104	✓	×	×	×	max. 1
F4N105	✓	×	×	×	max. 1
F4N106	×	×	×	✓	max. 1
F4N107	×	✓	×	×	max. 1

Operating position:

- . Vertical Horizontal Upside down On the side



Screw terminals:

- . Terminal depth: 8 mm.
- . Stripping length: 8 mm

Screw head:

- . Screw slotted.

Recommended tightening torque:

- . 0,6 Nm.

Tools required:

- . For terminals: flat screwdriver 3,5 mm
- . For fixing the modules to the measuring device: flat screwdriver max. 5 mm.

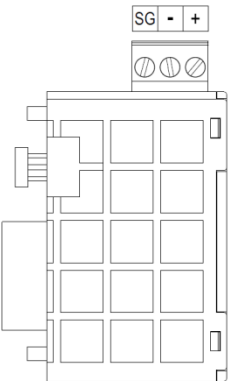
Connectable section:

- . Copper cables.

	Without ferrule	With ferrule
Rigid cable	0,05 to 4,5 mm ²	-
Flexible cable	0,05 to 2,5 mm ²	0,05 to 2,5 mm ²

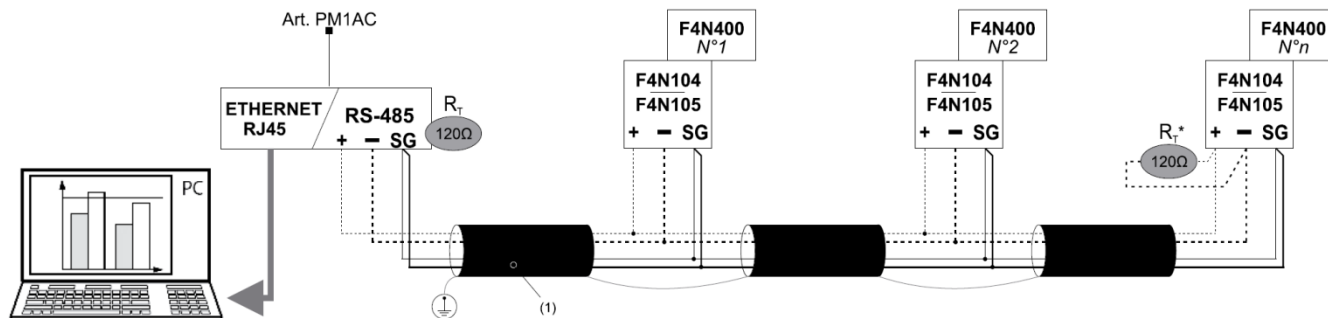
Wiring diagrams:

- . Terminals identifications



4. FIXING - CONNECTION *(continued)*

RS485 Wiring diagram:



(1) RS485: Prescribed use of Cable Belden 9842, Belden 3106A (or equivalent) for a maximum length of 1000 m, or Category 6 cable (FTP or UTP) for a maximum length of 50 m;

(*)Resistance not furnished

Modbus communication tables

. Modbus communication tables are available at www.download.bticino.it, typing "F4N400" in the search field

5. GENERAL CHARACTERISTICS

Terminals marking:

. By permanent ink pad printing.



RS485 communication port's characteristics:

- . Programmable addresses: from 1 to 247
- . Baud rate: 4,8 - 9,6 - 19,2 - 38,4 kbps
- . Parity bit: none, even, odd
- . Stop bit: 1
- . Galvanically isolated respect to measuring inputs and auxiliary supply
- . Standard RS485 3 wires, half-duplex
- . Protocol Modbus® RTU
- . Response time (time out question/answer): ≤ 200 ms

Plastic material:

. Self-extinguishing polycarbonate.

Ambient operating temperature:

. Min. = - 5 °C Max. = + 55 °C.

Ambient storage temperature:

. Min. = - 25 °C Max. = + 70 °C.

Impulse withstand voltage:

- . Supply / RS485 port:
 - alternate current 50 Hz / 1 min.: 2 kV
- . Measuring inputs / RS485 port:
 - alternate current 50 Hz / 1 min.: 2 kV

Note: values referred to combination measuring device + add-on module.

5. GENERAL CHARACTERISTICS *(continued)*

Average weight per device:

. 0,030 kg.

Volume when packed:

. 0,30 dm³

Consumption:

. Module F4N104: ≤ 1 VA

. Measuring device F4N400 + 1 Module F4N104: ≤ 5 VA

6. COMPLIANCE AND APPROVALS

Compliance to standards:

. Compliance with Directive on electromagnetic compatibility (EMC)
n° 2004/108/EC

. Compliance with low voltage directive no. 73/23/CEE dated 19
February 1973, modified by directive no. 93/68/CEE dated 22 July
1993, modified by directive n° 2006/95/CE.