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Modbus RS485 communication module for 4 120 53

Cat. N°: 4 120 55



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1. DESCRIPTION - USE

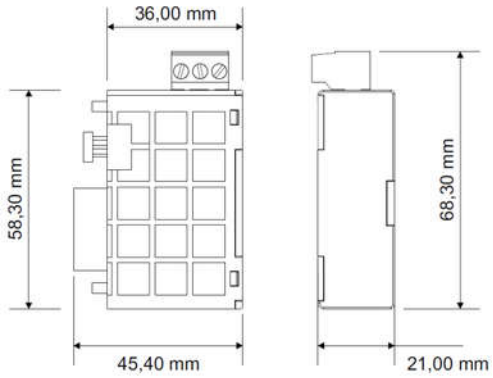
Modbus RS485 communication module.
Makes available, by RS485 communication, all measurements performed as well as the configuration parameters of the multifunction measurement devices 4 120 53.

2. RANGE

. Cat. N° 4 120 55: Modbus RS485 communication module; associable only to multifunction measuring device 4 120 53.
. It is possible to connect only one module 4 120 55.

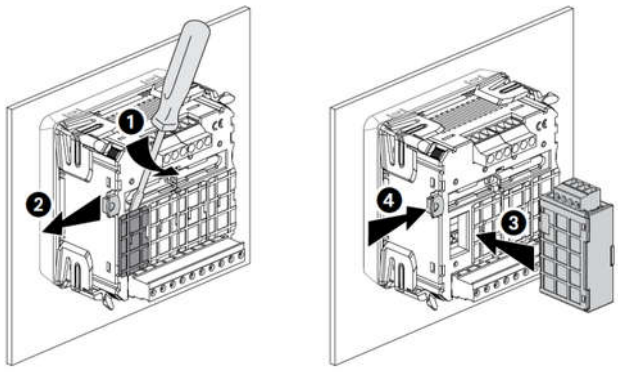
Auxiliary supply:
. Supplied by the multifunction measuring device 4 120 53

3. OVERALL DIMENSIONS



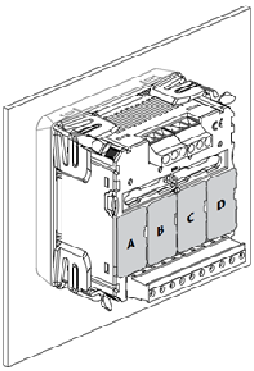
4. FIXING - CONNECTION

Fixing:



Note: modules must be connected with the device 4 120 53 not supplied.

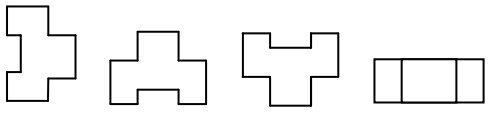
Associability table:



	A	B	C	D	
4 120 55	✓	×	×	×	max. 1
4 120 56	✓	×	×	×	max. 1
4 120 57	×	×	✓	✓	max. 2
4 120 58	×	×	×	✓	max. 1
4 120 59	✓	✓	✓	✓	max. 2
4 120 60	×	×	✓	✓	max. 2
4 120 61	×	✓	×	×	max. 1

Operating position:

. Vertical Horizontal Upside down On the side



4. FIXING - CONNECTION *(continued)*

Screw terminals:
. Terminal depth: 8 mm.
. Stripping length: 8 mm

Screw head:
. Screw slotted.

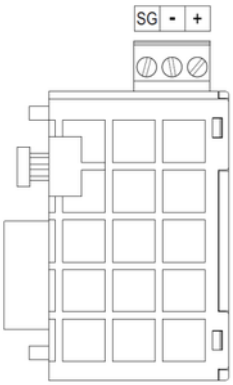
Recommended tightening torque:
. 0,6 Nm.

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

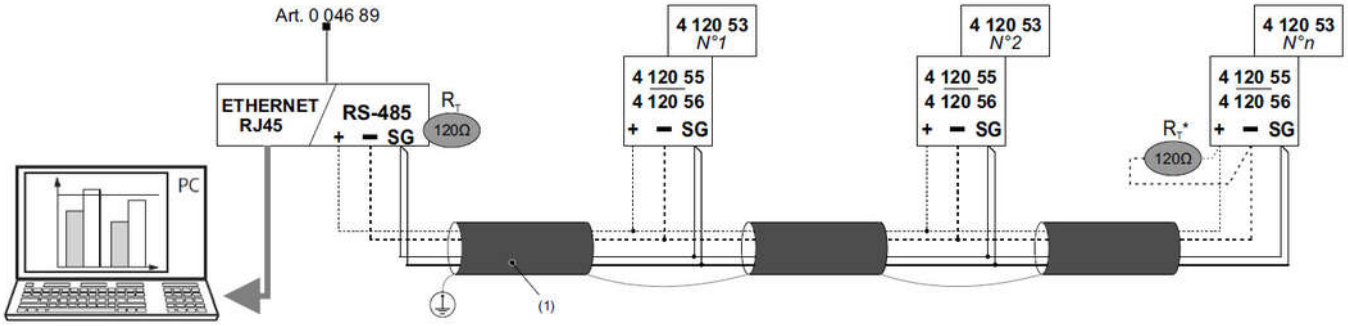
Connectable section:
. Copper cables.

	Without ferrule	With ferrule
Rigid cable	**0,05 to 4,5 mm²**	-
Flexible cable	**0,05 to 2,5 mm²**	**0,05 to 2,5 mm²**

Wiring diagrams:
. Terminals identifications



RS485 Wiring diagram:



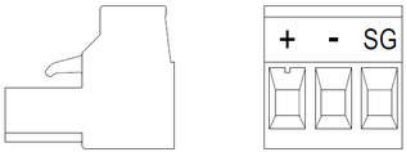
(1) RS485: Prescribed use of Cable Belden 9842, Belden 3106A (or equivalent) for a maximum length of 1000 m, or Category 6 cable (FTP or UTP) for a maximum length of 50 m;
(*)Resistance not furnished

Modbus communication tables
. Modbus communication tables are available at www.e-catalogue.legrandgroup.com, typing "4 120 53" 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.

Average weight per device:

. 0,030 kg.

Volume when packed:

. 0,30 dm^3

Consumption:

. Module 4 120 55: ≤ 1 VA
. Measuring device 4 120 53 + 1 Module 4 120 55: ≤ 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.