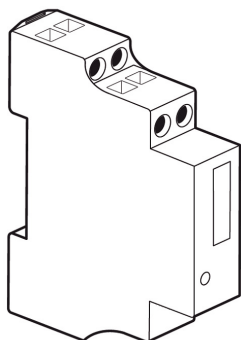


Single phase meter with direct connection and pulse output

Cat. No.: 0 046 70



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1. DESCRIPTION - USAGE

Active energy meter.
Measures the electricity consumed by a single phase circuit downstream of the power distribution metering. Displays electricity consumption in kWh.

2. RANGE

. Cat. No. 0 046 70: 1-module single phase meter (18 mm) self-powered on the measurement terminal.

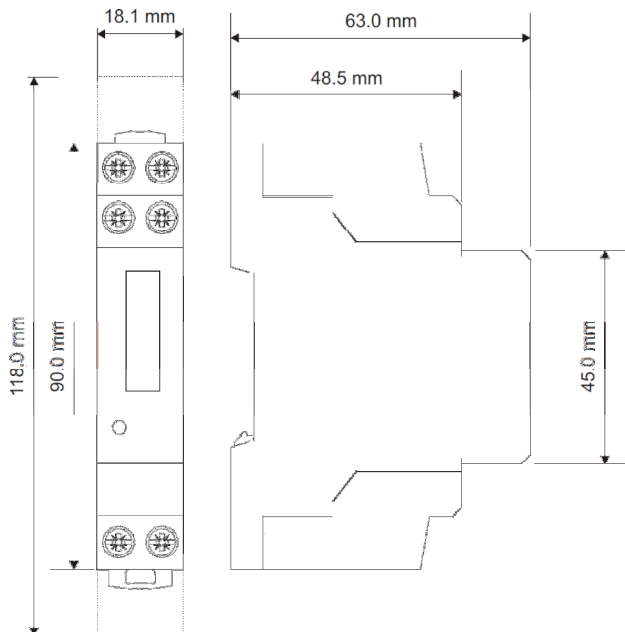
Nominal ratings:

- . Basic current: I_b 5 A
- . I_{max} maximum current: 32 A

Nominal voltage and frequency:

- . U_n: 230 V ± 20%
- . F_n: 50-60 Hz ± 5%

3. DIMENSIONS



4. POSITIONING - CONNECTION

Mounting:

- . On IEC/EN 60715 symmetrical rail

Operating positions:

- . Vertical, horizontal, upside down, on the side



Power terminals (1-3; 4-6):

- . Terminal depth: 8 mm.
- . Recommended stripping length: 8 mm

Pulse output terminals (20-21):

- . Terminal depth: 8 mm.
- . Recommended stripping length: 8 mm

Screw head :

- . Slotted head and Philips.

Recommended tightening torque:

- . 0.8 Nm.

Maximum tightening torque:

- . 1.1 Nm.

Tools required:

- . For the terminals: Philips no. 1 screwdriver or 4 mm flat screwdriver.
- . For attachment: 5.5 mm flat screwdriver (6 mm maximum).

Terminal capacity:

- . Power terminals and pulse output terminals:

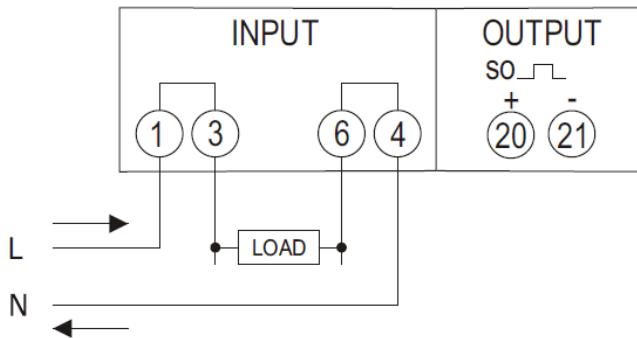
	Copper cable
Rigid cable	1 x 0.5 mm² to 10 mm²
Flexible cable	1 x 0.5 mm² to 10 mm²

Single phase meter with direct connection and pulse output

Catalogue number: 0 046 70

4. POSITIONING – CONNECTION *(continued)*

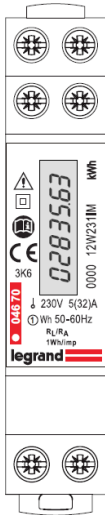
Electrical connection diagram:



5. GENERAL CHARACTERISTICS

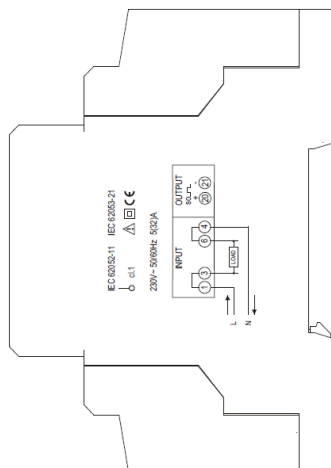
Marking on the front panel:

. By indelible pad printing:



Marking on the left panel:

. By indelible pad printing:



Display

Type: 7-digit LCD

Resolution: 0.01 kWh

Maximum indication: 99999.99 kWh

5. GENERAL CHARACTERISTICS *(continued)*

Metrological LED:

. Pulse weight: 1 Wh/imp

Pulse output characteristics:

. SO according to EN62053-31, class A

. Uimp voltage 12...27 VDC

. Iimp current 10...27 mA

. Pulse weight: 1 Wh/imp

. Pulse duration: 70 ms

Ambient operating temperature:

. Min. = -25°C Max. = +55°C.

Ambient storage temperature:

. Min. = -25°C Max. = +70°C.

Protection rating:

. Protection index for the terminals against solid objects and liquids: IP 20 (in accordance with standards IEC 529, EN 60529 and NF C 20-010).

. Protection index for the enclosure against solid objects and liquids: IP 30 (in accordance with standards IEC 529, EN 60529 and NF C 20-010).

Protection class:

. II

Degree of pollution:

. 2

Overvoltage category:

. III

Precision

. Active energy: class 1 in accordance with standard IEC 62053-21

Average weight per device:

. 0.075 kg.

Packaged volume:

. 0.15 dm³

Power consumption:

. ≤ 8 VA; ≤ 0.4 W.

Heat dissipation:

. ≤ 1 W

6. COMPLIANCE

Compliance with standards:

. Electromagnetic compatibility: IEC 62052-11.

7. EQUIPMENT AND ACCESSORIES

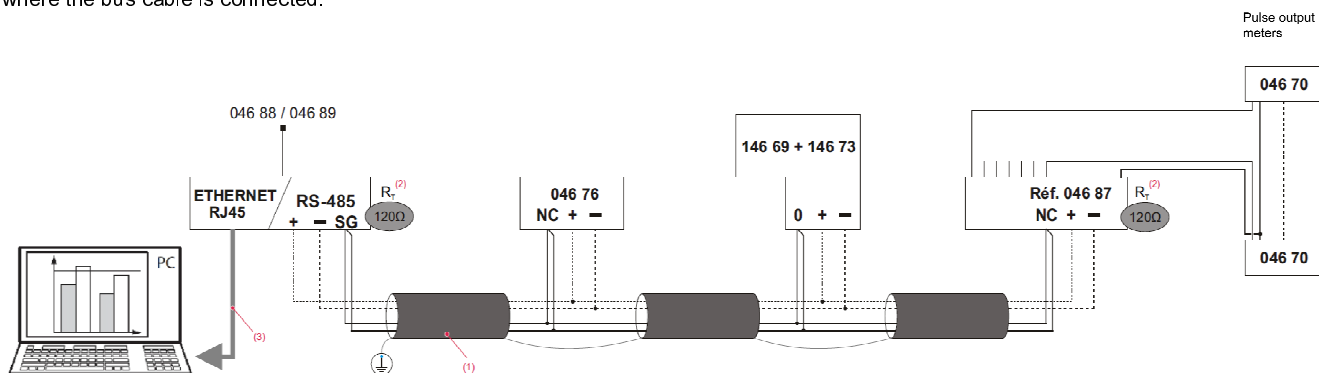
Wiring accessories:

. Sealable terminal shield (supplied complete with the meter). The overall height of the device and terminal shield set is 118 mm.

8. COMMUNICATION

Modbus connection system diagram:

The R_T (120 Ω) termination resistors must be inserted on the first and last device connected to the RS485 bus in the same terminals (+,-) where the bus cable is connected.



⁽¹⁾ RS485: Belden 9842 Cable (or equivalent) used for a maximum bus length of 1000 m or Category 6 Cable (FTP or UTP) for a maximum length of 50 m;

⁽²⁾ Integrated R_T termination resistor;

⁽³⁾ Ethernet: Category 6 Cable (FTP or UTP);

The pulse meters must be connected to the pulse concentrator (Cat. No. 0 046 87) for integration in a monitoring / energy metering system