OB111/OB112

Single phase two wire 45 Amp DIN rail energy meter (One Module)

OB111
VIEW & BUY
ONLINE

OB112
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ONLINE

UKCA CE **MID** CERTIFIED **ANNEX B&D**

OB111 - OB112

Single phase two wire DIN rail energy meter (One Module)

USER MANUAL

OWEN BROTHERS®
METERING UK LTD
owen-brothers.com

New Phoenix Works, Glen Trading Estate, Wellyhole Street, Oldham, OL4 3BF

0161 624 6211   sales@owen-brothers.com

Company Reg: 6342757   VAT: GB 146 8118 59

1 FOREWORD

Thank you for purchasing **Owen Brothers Metering OB111 - OB112** series DIN rail single phase four wire energy meter .

This series includes two types of energy meter: one is an analogue meter **OB111**, and the other is digital **OB112**.

Both the **OB111** and the **OB112** are fully MID certified under annex B & D – to view the full NMI certification details please scan the QR code located on page 1 of this document.

2 PERFORMANCE CRITERIA

Operating humidity:	≤ 75%
Storage humidity:	≤ 95%
Operating temperature:	-25°C - +55°C
Storage temperature:	-30°C - +70°C
International standard:	EN 50470-1 and EN 50470-3
Accuracy class:	1
Protection against penetration of dust and water:	IP51
Insulating encased meter of protective class:	II

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3   SPECIFICATION

Meter type:	OB111 - OB112 series
Nominal voltage (Un):	230V AC
Operational voltage:	195-253V AC
INSULATION CAPABILITIES:	
AC voltage withstand:	4KV for 1 minute
Impulse voltage withstand:	6KV - 1.2µS waveform
Basic current (Ib):	5A
Maximum rated current (Imax):	45A
Operational current range:	0.4% Ib- Imax
Over current withstand:	30Imax for 0.01s
Operational frequency range:	50Hz ±10%
Internal power consumption:	≤2W /phase- ≤10VA/phase
Test output flash rate (RED LED):	1000/2000imp/kWh
Pulse output rate (pins 20 & 21):	1000/2000imp/kWh
Consumption indicator (RED LED):	Flashing = load running

4   BASIC ERROR

0.05Ib	Cosφ = 1	±1.5%
0.1Ib	Cosφ = 0.5L	±1.5%
	Cosφ = 0.8C	±1.5%
0.1Ib - Imax	Cosφ = 1	±1.0%
0.2Ib - Imax	Cosφ = 0.5L	±1.0%
	Cosφ = 0.8C	±1.0%

5 DESCRIPTION

① Meter top case

② Display window

③ Protection cover

④ Meter bottom case

⑤ DIN clip

⬭ Lead sealing position

MATERIAL:

|	
Register	PC flame retardant
Case	ABS flame retardant
Terminal block	ABS flame retardant
Protection cover	ABS flame retardant
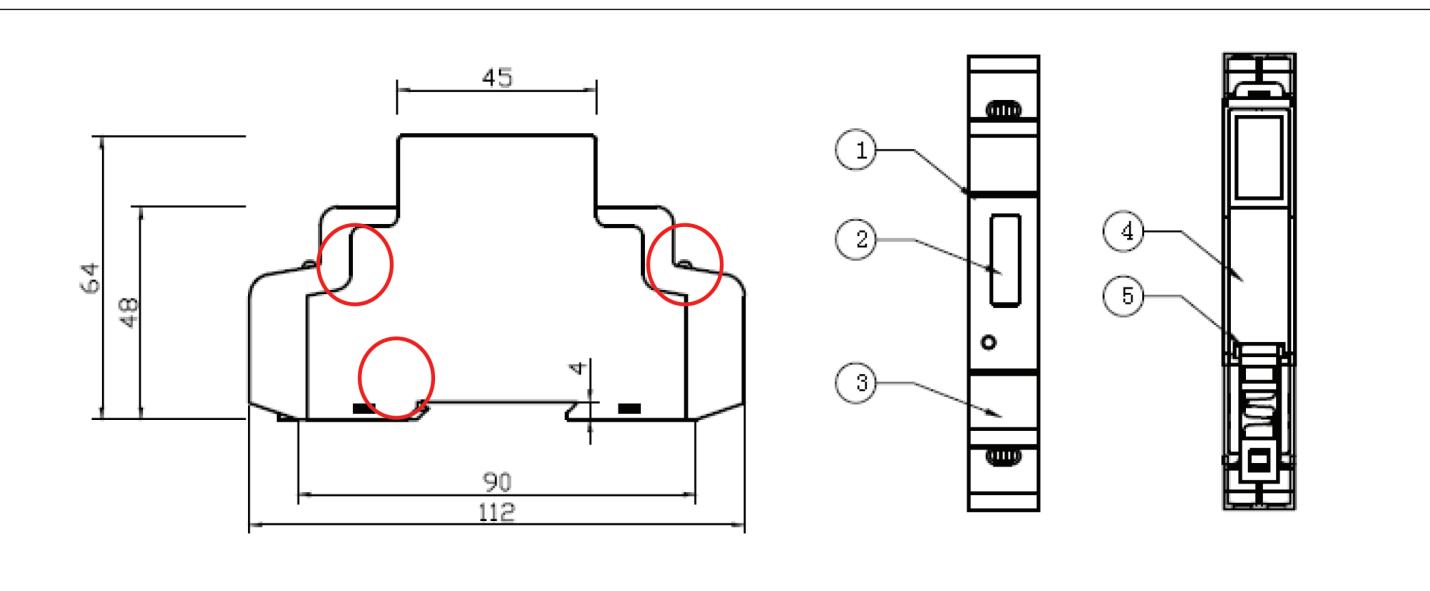
DISPLAY INFORMATION AS FOLLOWS:
OB112 registers show seven digits, you can choose 5+2 i.e. 5 integer-bit and 2 decimal place and can show maximum 99999.99kWh or 6+1 i.e. 6 integer-bit and 1 decimal place which shows maximum 999999.9kWh.

OB111 register show two part, black background colour part means integer-bit, white background colour part means tenths unit.

OWEN BROTHERS ®
M E T E R I N G   U K   L T D
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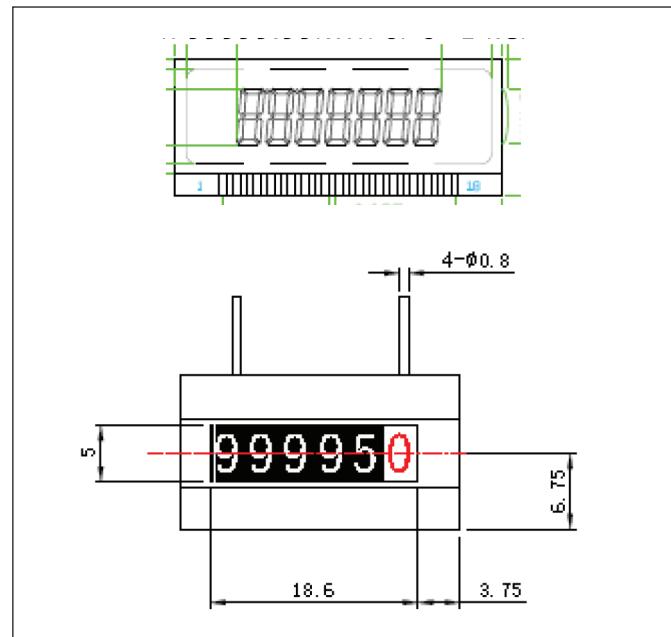
6 DIMENSIONS

Height:	112 mm
Width:	17.5 mm
Depth:	64 mm
Weight:	0.12 Kg (net)

7 INSTALLATION

| ⚡ CAUTION |
|---|
| • Isolate supply before working on the installation.

• Always use a suitable test lamp & proving unit to prove that power is isolated. Such as Cyclim Test lamps. |
| ⚠ **WARNING** |
| • Installation should be performed by qualified personnel familiar with related procedures, regulations and risks.

• Use insulated tools to install the meter.

• The case is sealed, do not break it as this will void MID certification and warranty. |

Connection of the wires should be done in accordance with the following connection diagram.
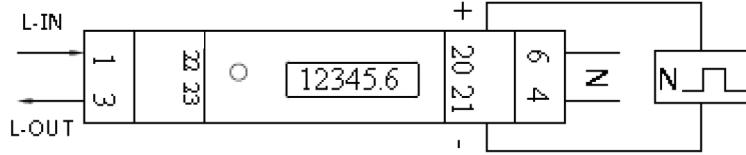
1	Inlet phase line
4	Inlet neutral line
3	Outgoing phase line
6	Outgoing neutral line
20 & 21	Pulse output contact
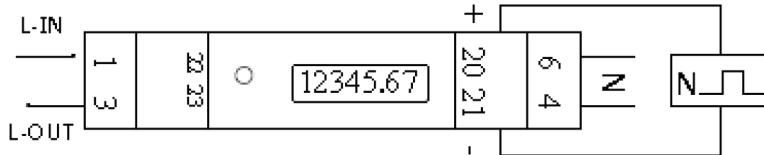
8   OPERATING

Consumption Indication:
There is a LED which has two colours (green and red) while flashing in the front panel of DRS-201 series. When consumption happens, the LED will flash and display red. The more quickly LED flash, the more consumption there is.

Reading The Meter:
The OB111 energy meter is equipped with a 5+1 register.
Five integers are marked with black colour and one decimal is marked with red.
The OB112 energy meter is equipped with 5+2 LCD display which is used for recording consumption and can't be reset to zero.
The reading accuracy is 1/100 kWh.

Pulse Output:
The LED indicator relates to pulse output. When consumption happens; the LED will flash.
More LED flashes means more consumption RI=1000/2000imp/kWh

9   TECHNICAL SUPPORT

Technical Support/Sales:

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