Honeywell Domestic

Elster

A100C DIN Single Phase

Brief Description

The successful range of A100C meters from Elster Metering Systems provides a cost effective solution for one or two rate domestic applications. The meter is housed in an extremely compact double insulated, polycarbonate case. To enhance security, the main meter cover is permanently secured to the base during the manufacturing process.

The meter offers high security and detects many of the most commonly used tamper techniques. The display has large easy to read characters with information identified by chevrons. Security data can be included as part of the display sequence and read via the communications port.

The A100C has the option of IrDA or optical IEC 62056-21 (FLAG) communications. Both methods of communication allow the meter registers and security data to be read electronically from a laptop or hand-held device, greatly reducing the possibility of manual meter reading errors. The same data is available via the meter auxiliary terminals (IrDa Meter only).

The A100C can be a simple import meter or for import/export, domestic or small scale generation sites. An opto-isolated pulsing output can be provided as an option. The output is available via the meter auxiliary terminals.

The A102C measures reactive energy in addition to active energy and is ideally suited for utilities who wish to bill or monitor energy consumption based on kvarh measurement. The A103C meter offers additional instrumentation values and maximum demand.

Meters are approved to EN 62053-21, have an ingress protection of IP53 to IEC 60529 and comply with EMC standard EN 50081-1.

Features

- Accuracy Class 1 or Class 2
- EN50470 - 3 (MID), Class A or Class B (A100C IrDA meter only)
- kWh import or kWh import/export
- 20 years certified life
- Large digit (9.8mm) multilingual display with chevron information indication
- Extensive security data
- 12kV impulse withstand
- High security, compact design
- DIN double insulated, glass filled polycarbonate case
- Permanently fixed main cover
- Rate select for two rate meters, switch to neutral.
- IP53 in accordance with IEC 60529:1989

Options

- One or two rates controlled by external device
- IrDA communications or IEC 62056-21 (formerly IEC 1107) optical communications for red sensitive probes
- IEC - 62056-21 for infrared only optical probes
- Auxiliary terminals configured for:
  - SO Pulse output (IEC 62053-31)
  - Serial data output (IrDA meter)
- A102C - kWh and kvarh energy measurement
- A103C - Maximum demand, Voltage and current instrumentation values

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Display

The liquid crystal display is programmable to meet a customer's requirements. Chevrons and the index digit indicate the information being displayed. The nameplate information can be printed in any language.

Security Data

The A100C offers many useful security features. The meter stores all registration and security data to non-volatile memory. This data can be shown on the display. All data is retained for the life of the meter. Recordable security features are listed below:

- Reverse run event count
- Reverse run energy total
- Reverse run indication on LCD
- Power fail count
- Elapsed time count
- Time in rate 1 and rate 2
- Hours since last power-up
- Hours spent in anti-creep

As an option the kWh register can increment in power flow insensitive mode i.e. it increments regardless of energy flow direction

Communications

Optical Port

IrDA Port

The A100C has the option of IrDA (Infrared Data association) data stream communications or optical IEC 62056-21 (formerly IEC 1107) two way communications. The table below shows the functions available for each type of communications:

	Configure Meter	Meter Data Via Optical Port	Meter Data Via Auxiliary Terminals
IEC 62056	Yes	Yes	No
IrDA	No	Yes	Yes

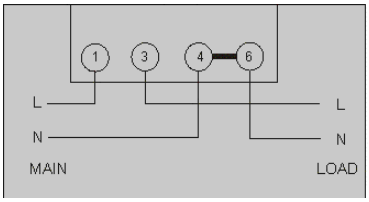
Pulse Output

An opto-isolated pulse output can provide the basis for an energy management system or AMR. These pulses are output via the auxiliary terminals.

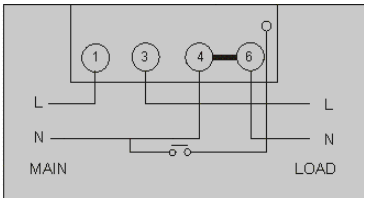
Technical Data

Current Range Voltage Range Frequency System Connection	10-65A, 5-65A 220-250V, 110-127V 50 or 60Hz 1phase 2 wire
Burden (230V)	0.66W, 8.5VA (capacitive burden)
Insulation Impulse Withstand	4kV RMS 50Hz 12kV 1.2/50μS 40Ω source
Display	9.8mm x 3.5mm characters High contrast, wide angle
IrDA Baud Rates IEC 62056 - 21 Rate Serial Baud Rates	2400 or 4800 (9600 without serial port) 2400 or 4800 2400 or 4800
Certified Product Life	20 years (OFGEM model)
Temperature Humidity	-20° to + 55° C (operational range) -25° to + 85° C (storage) Annual Mean 75% (for 30 days spread over one year, 95%)
Pulse Output	100ms pulse 200 p /kWh (=5Wh/pulse) (other pulse rates, durations, available)
Weight	400 grams
Specifications Case	EN50470 - 3 (MID), Class A or B kWh Class 1 or 2 EN 62053 - 21 kvarh Class 2 or Class 3 EN 62053 – 23 IP 53 to IEC 60529

Terminal Arrangements

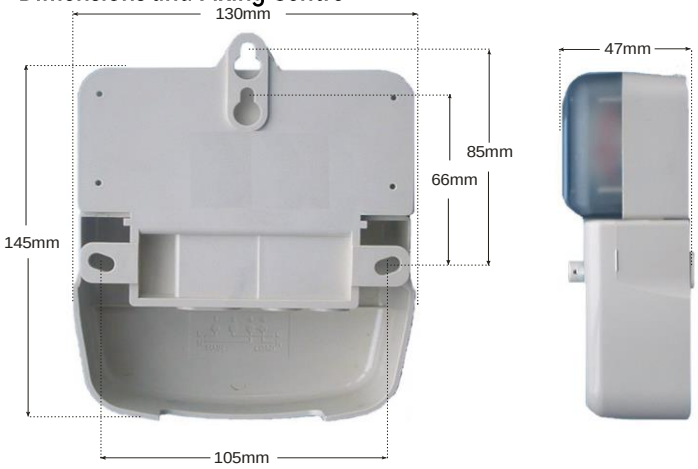


Single Rate



Pulsed Output

Dimensions and Fixing Centre



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