AS230

Single Phase Meter

End User's Guide

elster

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in Metering Technology

ABOUT THIS DOCUMENT

This document is intended as a guide to help suppliers of Elster Metering Systems AS230 Meters produce User Manuals for End Users.

Example text you may wish to use:-

ABOUT YOUR METER

Your Elster AS230 Meter has been chosen by your Service Provider to measure the amount of energy flowing through your installation. Some features described in this manual may not be exactly the same as your particular installation. For instance information viewed on the Liquid Crystal Display (LCD) may not be exactly the same as shown in this manual. Rest assured, the basic operation is exactly the same and you should have no difficulty in following the 'step by step' guides described in this manual.
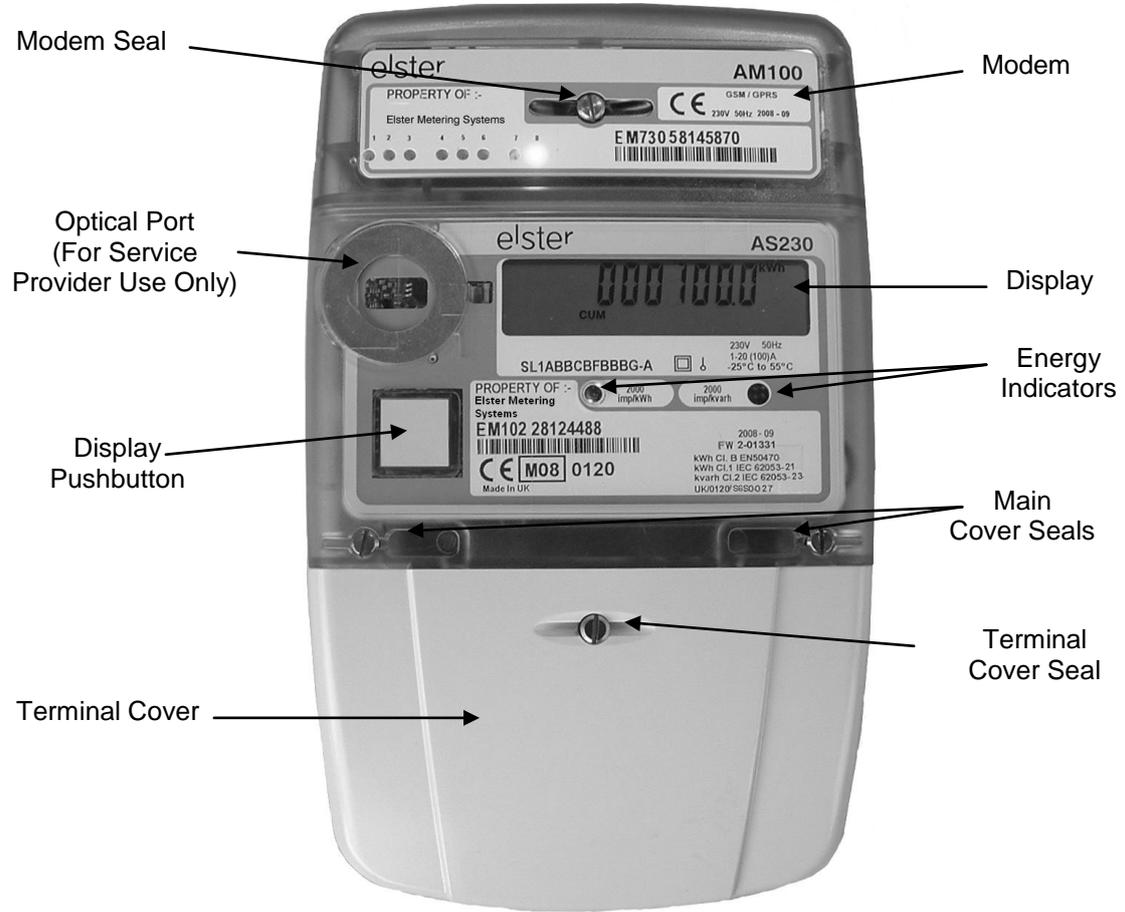
SAFETY

SAFETY

- To prevent fire or shock hazard, never expose the meter to water

- Parts of the internal circuits of your meter are connected to phase voltages. These circuits are highly dangerous if they are touched in any way, and could result in an electric shock or fatality. For this reason all internal circuits are protected by covers with seals. You should '**never'** attempt to remove the seals of the Modem Cover, Main Meter Cover or Terminal Cover.

- **Liquid Crystal Display**

- Liquid crystals are toxic. If the display of your meter is damaged you should avoid contact with any liquid that may be seeping from it.

- If the liquid makes contact with your skin, wash the affected area thoroughly with running water and soap.

- If liquid crystals get into your eye, flush the affected eye with clean water for at least 15 minutes.

- If liquid crystal is swallowed, flush your mouth thoroughly with water, drink large quantities of water to induce vomiting.

- **Immediately Seek medical advice.**

- **Report the damage to your Service Provider**

MAIN FEATURES OF YOUR SMART METER

Modem Seal

Modem

Optical Port
(For Service
Provider Use Only)

Display

Energy
Indicators

Display
Pushbutton

Main
Cover Seals

Terminal
Cover Seal

Terminal Cover

HOW TO CHECK YOUR METER IS WORKING

As your installation generates electricity, a display (similar to the one shown opposite) will increment, allowing you to calculate exactly how much electricity you are generating over a given period of time.

When the Red kWh Energy Indicator is 'Flashing' the generating system is producing electricity. The faster it 'Flashes' the more electricity you are producing. If the indicator is permanently 'On', no electricity is being produced.

READING YOUR SMART METER DISPLAY
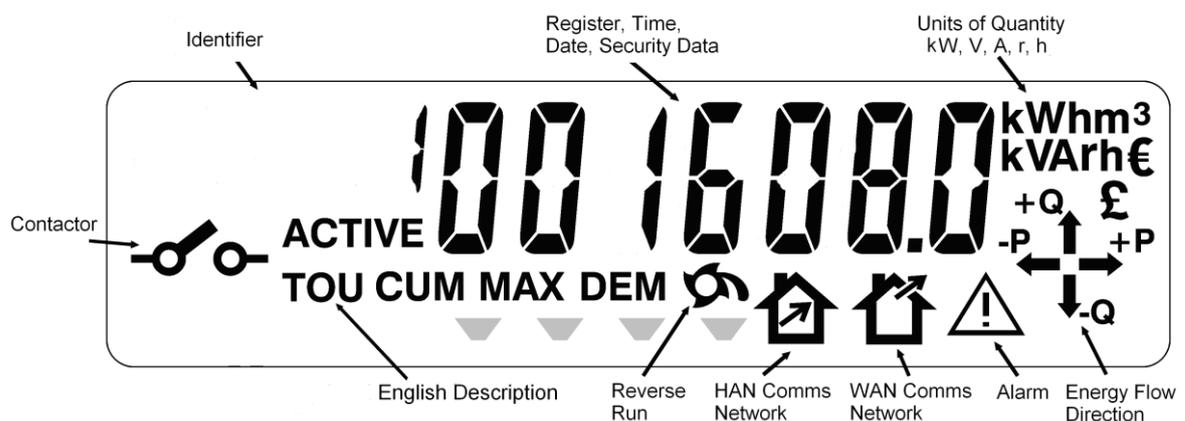
The meter display will display information chosen by your Service Provider to best suit your home requirements. The items displayed will be chosen from the "Test Display" shown above.

The following definitions will help to explain some of the terms used on your display:

Identifier: The identifier gives the register number (example: 1 = Rate 1, 2 = Rate 2)

Active: The register displayed is currently active (example - in Rate 1)

TOU: The register displayed is a Time of Use register (example - used with identifier to signify Rate 1 or Rate 2)

Cum: The register displayed is a Cumulative register (example - the sum of Rate 1 and Rate 2)

kWh: Amount of energy used by a load of one kilowatt over a period of one hour

STEPPING THE DISPLAYS

When your meter is powered up it will normally be cycling through a sequence of displays (called autocycle mode). The time each display is shown is called the dwell time (this may vary between 2 and 30 seconds).

To view each display in turn for a longer period of time:

- Single press the Display Pushbutton to step to the next display

The diagram below will guide you through the sequence of stepping the displays:
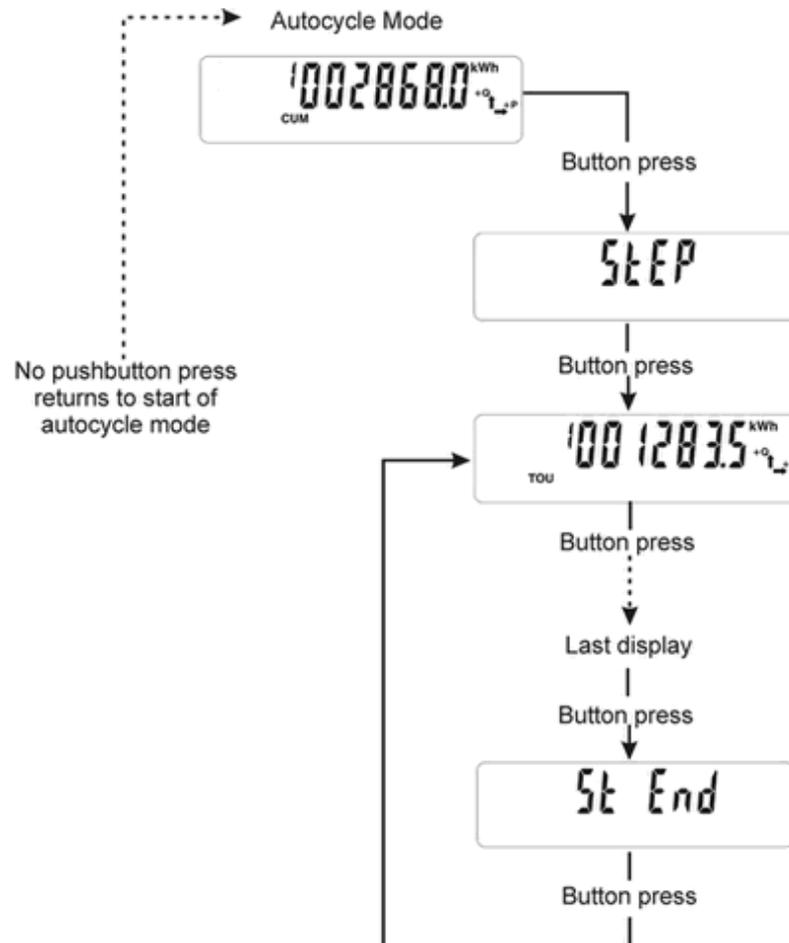
Display Indicators

 Energy Direction Indicators

Communications Indication

When communications are taking place the following indicator is displayed.

  WAN (Wide Area Network) communications (If modem fitted and icon configured)

DISPLAYS

Current Time

```
1200
```

Current Date

```
29.03.11
```

kWh Cumulative Import

```
013652.6 kWh
CUM          +Q  +P
```

Communications

```
00:03:08
```

⌂ Communications Icon (If configured)

YOUR SMART METER MODEM

Your Smart Meter may be fitted with a modem which will allow your Service Provider to access the meter remotely via the GSM Network.

The modem has 8 LED's. In normal operation you can ignore these LED's, but their status may assist your Service Provider if the modem is suspected of being faulty.

If your Service Provider contacts you (or if you suspect the modem of being faulty), please provide them with the status (on, off, blinking) of the modem LED's.

21   TECHNICAL DATA

21.1   AS230 Meter

Current: IEC Ratings	20 - 100A, 10 - 100A, 5 - 100A [lb-Imax]
MID/EN Rating	1-20 (100)A, 0.5 - 10 (100A), 0.25 - 5 (100)A [Imin - Iref (Imax)]
Frequency	50 Hz
Reference Voltage	220V - 240V
Voltage Operating range	±20%
Display	9.8mm characters, high contrast, wide viewing angle
Meter Constant (pulsing LED output)	2000 p/kWh (kvarh)
Accuracy Class kWh	EC Directive 2004/22/EC (MID) - Class A or Class B. (EN 50470-3)
	IEC 62053-21, Class 1 or Class 2
Smart Metering Compliance	Code of Practice 10 (Issue 1, Version 1.0)

About Elster Group

Elster Group is the world's leading manufacturer and supplier of highly accurate, high quality, integrated metering and utilisation solutions to the gas, electricity and water industries.

In addition, through its subsidiary Ipsen International, it is the leading global manufacturer of high-level thermochemical treatment equipment.

The group has over 9,000 staff and operations in 38 countries, focused in North and South America, Europe and Asia. Elster's high quality products and systems reflect the wealth of knowledge and experience gained from over 170 years of dedication to measuring energy and scarce natural resources.

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The company's policy is one of continuous product improvement and the right is reserved to modify the specification contained herein without notice.

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