

## AS230 Smart Time of Use Meter

### Residential Single Phase Smart Meter

The AS230 Smart electricity meter from Elster is a world leading technology, high quality, reliable and robust product that is available ex-stock supported with technical advice and training from Elster Solutions.

The meter complies with the latest national and international metering standards. Elster Solutions (Pty) Ltd is accredited to IEC 17025:2005 to provide individual meter accuracy verification certificates when requested.

The AS230 Smart Meter provides extensive measurement and tariff capabilities for use in both residential and light commercial 100 Amp direct connected metering applications. The meter includes an Internal 100A Contactor that can be remotely controlled for Smart Billing and Smart Prepayment solutions. The AS230 can operate as a stand alone or as part of a comprehensive AMR/AMI metering system via a variety of communication modules. Batteries for Clock & Calendar back up never need to be changed as they will provide support 'on the shelf' for the meters design life.

Elster support software for programming, configuration, and reading is available.

### Features

- 100A Direct Connect variant
- kWh, kvarh, KVA four quadrant measurement
- 8 Time of Use and Maximum Demand registers
- LCD Display
- Instrumentation displays
- Accuracy class 1.0 for 100A
- Profile memory upto 120 days for 4 channels load profiling and 60 days instrumentation profiling
- During power down clock & calendar battery back up for Design Life
- Compact & High Security Cover Design
- Internal 100A Disconnect Contactor
- Multi-drop capable (upto 32 meters on RS485 bus)
- 2 independent kVA registers
- 230V 100mA Pulse Output
- Data Stream Mode for rapid data transfer
- SMARTset Programming Software
- Supporting AMI/AMR Solutions/Packages
- Terminal Cover removal tamper detection
- Main cover removal tamper detection
- 20 Year Design Life

### Communication Devices

- GSM/GPRS Modem
- Ethernet
- Modbus Converter
- RS232 or RS485 Modules
- Optical Flag Probe
- Wireless RF Module
- Ongoing Developments - contact Elster

### Options

- IEC 17025:2005 accuracy verification certificate and test report
- Protocol available under Licence
- Short Terminal Cover
- OBIS Display Configurable
- Register Zeroing Service Available
- Training Courses for meter, software and communications at Elster



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## Display

Programmable Display sequence with English display descriptors or OBIS identifiers.



## Communications

### Local

- Optical bidirectional IEC 62056-21 port

### Remote

- WAN communications port allowing remote meter reading and programming of meter data.
- Modules are available for: GSM/GPRS; RS232 and RS485 with low power radio Ethernet and Modbus.

## Tariff Structure

- 8 Time-of-Use Registers
- 2 Maximum Demand Registers
- 12 Seasons
- 24 Change of Season Dates
- 48 Switching Times
- 32 Exclusion Dates
- 13 End of Billing Dates
- 10 Daily Billing Registers
- Daylight Savings
- Deferred Tariff

## Typical Load/Instrumentation Profiling

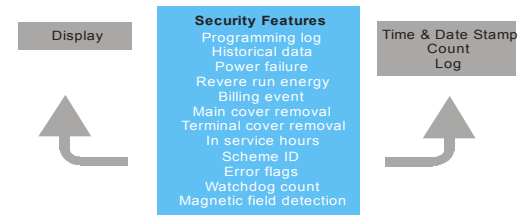
Load Profile	Instrumentation profile
120(D), 4(C), 30(M)	80(D), 1(C), 30(M)
120(D), 2(C), 30(M)	120(D), 2(C), 30(M)
100(D), 2(C), 30(M)	70(D), 2(C), 15(M)

## Technical Data

Current Range	5-100A
Voltage Range	230V
Frequency	50Hz
Impulse Withstand	12kV impulse (from 40 Ohm source)
Display Characters	9.8 x 3.5 High contrast, wide angle
Baud Rates	Optical – 300 to 9600 baud WAN – 9600 baud
Product Design Life	20 years
Temperature	-25° C to + 65° C (operational range) -25° C to + 85° C (storage)
Humidity	Annual Mean 75% (non condensing)
Test Indicator Output	100, 200, 250, 500, 1000 or 2000
Dimensions	170 (High) x 132 (Wide) x 65 (Deep)
Accuracy	Class 1.0 kWh to IEC 62053:21 Class 2.0 kvarh to IEC 62053:23
Case	IP53 to IEC 60529:1989

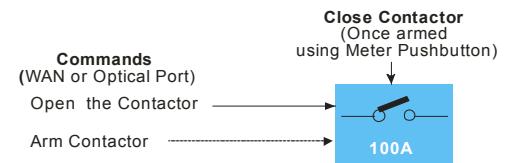
## Security

The meter offers high security against fraud or tampering.



## Contactor Disconnect

The main 100A contactor can be disconnected locally or remotely by the Utility. This can be driven directly or driven by the meter at load limiting thresholds.



## Dimensions and Fixing Centre

