

# A120/140

## DIN Multi-rate Single Phase Meter



### Advanced domestic metering...

#### Features

- Class 1 or Class 2 accuracy
- Comprehensive tariff structure
- Large digit multilingual display
- IEC 62056-21 (formerly IEC 61107) optical communications port
- Internal clock and calendar with battery back-up
- 15 years product life
- Extensive security features
- DIN double insulated, glass filled polycarbonate case
- Compact design
- IP53 in accordance with IEC 60529:1989
- 12kV impulse withstand

#### Options

- RS232 communications port with multi-drop capability
- Pulse output (IEC 62053-31)
- 300 days, 30 minute load profiling recording (A140 only)

The A120/140 range of advanced electronic meters offer all of the benefits associated with the very latest in design of solid state electricity metering. Highly secure, reliable and extremely accurate, the A120 provides a comprehensive tariff structure suitable for the most complex domestic metering applications. To further enhance the functionality, the A140 offers up to 300 days of load profile recording.

The liquid crystal display is fully programmable and provides large, high contrast characters that can be viewed from a wide angle. Chevrons identify the values being displayed. The register value can be programmed for the number of digits and the position of the decimal point.

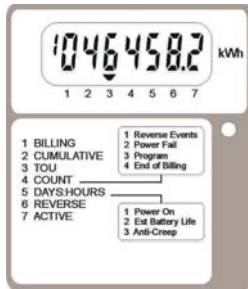
Communications are via an IEC optical port. An additional RS232 port is available as an option. Both ports allow access to metered quantities, security and status data within the meter. A user friendly Windows™ 'Power Master Unit' software package programs or reads all metering data and configuration data.

The meter stores a comprehensive range of security data with respective flags, counts and time stamps. This includes reverse run count, reverse run energy total, reverse run indication, elapsed hours counter, power fail counter, cumulative hours spent in anti-creep, programming counter, end of billing count, watchdog and reset counter. Power flow insensitive mode, a manufacturing option, allows the cumulative import register and TOU registers to increment for both import and energy flow.

Meters can be supplied to meet accuracy Class 1 or Class 2. They are fully approved to EN 61036:1996 and comply with EMC standard EN 50081-1:1992.

## Display

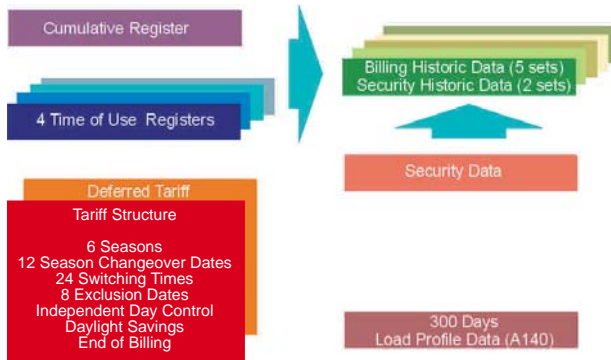
The liquid crystal display is programmable via the 'Power Master Unit'. A typical display showing the contents of the TOU register for Rate 1 is shown below:



The seven chevrons indicate the information being displayed. Up to 30 displays can be included in the display sequence.

## Tariff Structure & Registers

A range of customer tariffs can be defined within the structure shown below:



## Communications

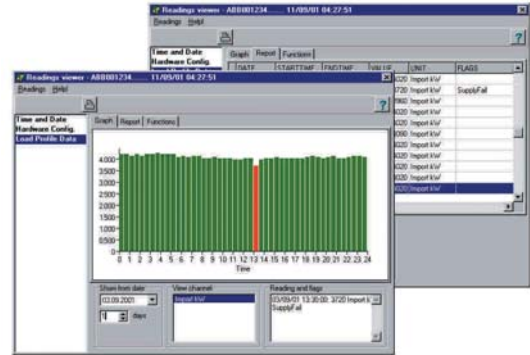
The meter is fitted with an IEC 62056-21 (formerly IEC 61107) port that allows the meter to be fully configured and provides access to all metered quantities, load profile (if available), security and status data. An RS232 port, allowing configuration and access to the same data is available as an option.

## Pulse Output

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

## Load Profile Data (A140 only)

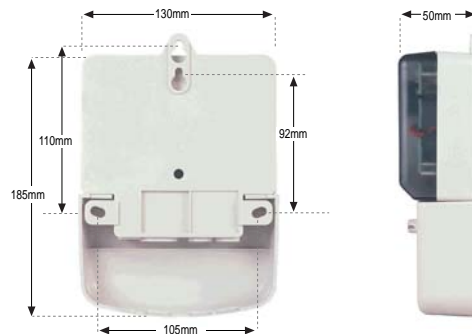
The A140 stores up to 300 days of 30 minute load profile data. Each period is tagged with status flags. The data can be displayed in the Power Master Unit as a chart or report. The number of day's data to be read back is selectable. The chart gives mouse over viewing details of demand recordings and flags.



## Technical Data

Ratings	230V, 5-60A, 10-60A
Frequency	50 or 60Hz
System Connection	1 phase, 2 wire
Burden	0.4W, 1.4VA
Insulation	4kV RMS 50Hz
Impulse Withstand	12kV 1.2/50µS 500ohm source
Display	7.5mm characters, High contrast, wide angle
Product Life	15 years
Temperature	-10° to +55°C (Operational range) -20° to +85°C (Storage)
Humidity	Annual mean 75% (For 30 days spread over one year, 95%)
Pulse Output	
Pulse Width	100ms or equal mark/space
kWh/pulse (programmable)	10, 20, 25, 50, 100, 200, 250, 500, 1000
Weight	400 grams
Specifications	Class 1 or 2 EN 61036:1996
Case	IP53 to IEC 60529:1989

## Dimension and Fixing Centres



Elster Metering Systems  
Staffordshire,  
United Kingdom  
Tel: 44 (0) 1785 812111  
www.elstermetering.com

Our policy is one of continuous product development and the right is reserved to modify the specification contained herein without notice.

# A120/140

## BS Multi-rate Single Phase Meter



### Advanced domestic metering...

#### Features

- Class 1 or Class 2 accuracy
- Comprehensive tariff structure
- Large digit multilingual display
- IEC 62056-21 (formerly IEC 61107) optical communications port
- Internal clock and calendar with battery back-up
- 15 years product life
- Extensive security features
- BS double insulated, glass filled polycarbonate case
- Compact design
- IP53 in accordance with IEC 60529:1989
- 12kV impulse withstand

#### Options

- RS232 communications port with multi-drop capability
- Pulse output (IEC 62053-31)
- 300 days, 30 minute load profiling recording (A140 only)
- ANSI optical port cover
- Extended terminal cover

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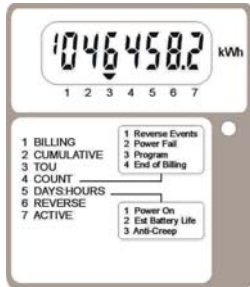
Communications are via an IEC optical port. An additional RS232 port is available as an option. Both ports allow access to metered quantities, security and status data within the meter. A user friendly Windows™ 'Power Master Unit' software package programs or reads all metering data and configuration data.

The meter stores a comprehensive range of security data with respective flags, counts and time stamps. This includes reverse run count, reverse run energy total, reverse run indication, elapsed hours counter, power fail counter, cumulative hours spent in anti-creep, programming counter, end of billing count, watchdog and reset counter. Power flow insensitive mode, a manufacturing option, allows the cumulative import register and TOU registers to increment for both import and export energy flow.

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## Display

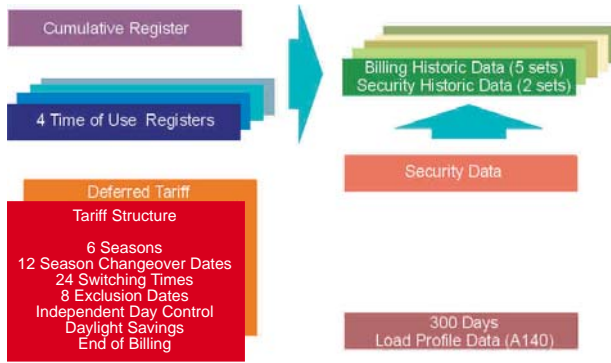
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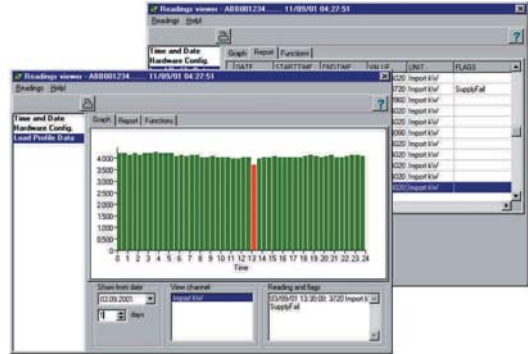
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## Load Profile Data (A140 only)

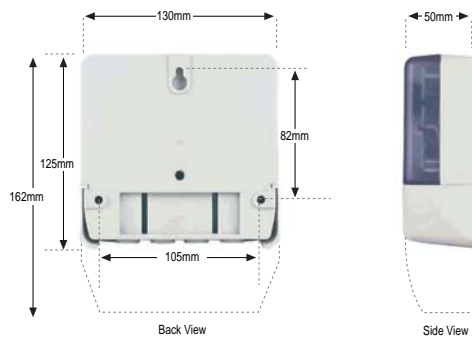
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