



Panel instruments

Advanced technology
for control panels

Elite 500

High-precision, multiple communication, TFT display

The Elite 500 series is a set of devices with advanced power monitoring capabilities. It can be used for standalone device monitoring and power quality analysis as a part of the building management system (BMS). It can also be used for process automation at industries and SCADA systems.

It offers data logging, the ability to control IOs, and modular communication with multiple protocols for third party system integration. Elite 500 allows customers to select either a conventional type of CT or Rogowski coil input, depending on the application. These can be directly connected to the meter without the need for any additional intergrator. Elite 500 is versatile and is easy to use.



Key features

- Advanced power monitoring device along with multiple communication - Modbus / BacNet / ProfiNet / IEC61850 protocol support
- 16 MB storage with dual logger
- Dual communication, three modules can work simultaneously
- PIPO / ethernet add-on modules, alerts and events
- THD Measurement upto 63rd Harmonics
- IEC 62052-11, IEC 62053-22, IEC 62053-24, IEC61557-12, IEC 62053-31, IEC 60529, IEC 61010-1, IEC 61010-2-030, IEC 61326-1, IS14697, CE, UKCA

Key specifications

- Connection type: LV 3P4W / HV 3P4W / 1CT 3PT / LV 3CT / HV 3P3W / 3CT2PT / 2CT2PT / 1P2W
- Measurement voltage range: 35 V to 500 V max (L-L), 20 V to 300 V max (L-N)
- Measurement current range: 10mA - 6 A (configurable) (For conventional CT), 5% Ipr - Ipr (Ipr=1000 A or 4000 A) (For Rogowski coil)
- Aux. supply range: Range: 48-300VDC or 85-300VAC
- Accuracy: 0.5s / 0.2s (for conventional CT), 0.5s (For Rogowski coil)



High accuracy



Supports Rogowski coil



Colour display for analytical and graphical views



Hot pluggable communication modules



Find out more on our website



Elite 500 with CT inputs

E	5	0	0	C	-	X	X	0	1
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Accuracy class

- 5 – 0.5s
- 2 – 0.2s

Software configuration

- 1. Ind harmonics up to 15th order
- 2. Ind harmonics up to 15th order, PQ parameters
- 3. Ind harmonics up to 31st order
- 4. Ind harmonics up to 31st order, PQ parameters

Elite 500 with Rogowski inputs

E	5	0	0	R	-	X	X	0	1
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Accuracy class

- 5 – 0.5s

Software configuration

- 1. Ind harmonics up to 15th order
- 2. Ind harmonics up to 15th order, PQ parameters
- 3. Ind harmonics up to 31st order
- 4. Ind harmonics up to 31st order, PQ parameters

Elite 500 Modules

E	5	0	0	M	-	X	X	X	1
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Position of module slot in Elite 500

- 1. Comms module slot
- 2. I/O module slot
- 3. AO module slot

Module types

For Slot 1

- 01 – modbus TCP/IP
- 02 – modbus gateway
- 03 – BACnet
- 04 – Profinet
- 05 – IEC61850

For Slot 2

- 01 – 1 relay + 1PO + 2 Conf I/O
- 02 – 3 relay output

For Slot 3

- 01 – 4 analogue output

Elite 440

High accuracy, configurability and easy integration

Elite 440 is a multi-line, three-phase digital panel meter for accurate and reliable measurement of electrical parameters. It is used for both industrial and commercial applications and features a large multi-line backlit LCD display that displays four parameters simultaneously. It is easy to use.



Key features

- Multi-line LCD MFM - 3P3W / 3P4W - measures, records, and displays electrical parameters and energies
- Default RS485 Modbus RTU communication and expansion modules (ethernet / pulse input-output / analogue output)
- Average THD for voltage, current and power up to 31st harmonic, true RMS metering
- Maximum demand recording and midnight snapshots of selected energies and parameters
- Approval IS13779, IS14697, IEC62052-11, IEC62053-21, IEC62053-22, IEC62053-23, IEC61010, IEC62053-31

Key specifications

- Measurement voltage range: 57.7 V (100V) - 240 V (415 V) AC 3 phase 4 wire (3 phase 3 wire)
- Current range: 1-2 A and 5-10 A in single variant (field configurable)
- Aux power supply range: 80 - 300 V AC / DC or 24 - 60 V DC (variant)
- Main frequency: 50 / 60Hz
- Accuracy Class: 0.2s, 0.5s, 1.0



High accuracy



Modbus communication



Add-on modules



Find out more on our website



Elite 440 with CT inputs

Features	Models							
	441	442	443	444	445	446	447	448
P-N and P-P voltage and AVG	X	X	X	X	X	X	X	X
Line current (L1, L2, L3 and average)	X	X	X	X	X	X	X	X
Active / reactive current	X	X	X	X	X	X	X	X
Frequency	X	X	X	X	X	X	X	X
Power factor and AVG PF		X	X	X	X	X	X	X
Active power and total active power		X	X	X	X	X	X	X
Reactive power and total reactive power			X	X	X	X	X	X
Apparent power and total apparent power			X	X	X	X	X	X
Active total import / export energy					X	X	X	X
Reactive import (Q1+Q2) / export (Q3+Q4) energy						X		X
Reactive (Q1,Q2,Q3,Q4) energy					X		X	
Apparent import / export energy					X	X	X	X
Active / apparent forwarded energy	X	X	X	X				
Reactive lag / lead forwarded energy			X	X				
Cumulative MD				X	X	X	X	X
Phase angle			X	X	X	X	X	X
Power on / off hours			X	X	X	X	X	X
Load on / off hours		X	X	X	X	X	X	X
Feeder interruptions count (when aux is also off)			X	X	X	X	X	X
Min / max values							X	X
THD voltage and current		X	X	X	X	X	X	X
THD power			X	X	X	X	X	X
Modbus on RS 485		X	X	X	X	X	X	X

Elite 100 and 300

Multi-function meters, with configurability alerts that are easy to install and use

A range of multi-line, three-phase digital panel meters for reliable and accurate true-RMS measurement of electrical parameters (voltage, current, power, frequency etc.). It is suitable for industrial and commercial applications and is available in two display types, LED display (Elite 100) and LCD display (Elite 300). The range is very simple and safe to install, have an easy-to-use display and are easy to configure.



Key features

- Multi-line, configurable three-phase LED (Elite100) and LCD (Elite300) multi-function meters
- Reliable and accurate true RMS measurement of AC parameters
- Multiple variants with Modbus communication / pulse output / alarm
- Voltage and current THD upto 31st harmonic
- Active energy: Class 1.0 - IEC 62053-21 and Class 0.5s - IEC62053-22, reactive energy: Class 2.0 - IEC 62053-23

Key specifications

- Voltage: measuring (20V-500V), nominal (57.5V-240V), over voltage 150 % of U_n continuous
- Current: measuring (50mA-6A), nominal(1A or 5A), over current 150 % of I_n continuous (120A for 1s)
- Frequency: 45 to 65 Hz
- Aux supply: 40V - 300V AC / DC
- CT and PT ratio: field programmable primary up to 15000 A and 2000 kV



Unique pass-through mechanism for current termination



User-friendly touch-sense



Find out more on our website



Elite 100 and 300 selection table

Features	Models								
	101	102	103	104	105				
LED display	101	102	103	104	105				
LCD display	301	302	303	304		306	307	308	309
Accuracy class 1 (IEC62053-21)	X	X	X	X	X				
Accuracy class 0.5s (IEC62053-22)						X	X	X	X
P-P & P-N voltage (L1, L2, L3, AVG)	X	X	X	X	X	X	X	X	X
Line current (L1, L2, L3, N, AVG)	X	X	X	X	X	X	X	X	X
System frequency	X	X	X	X	X	X	X	X	X
Power factor (L1, L2, L3, AVG)	X	X	X	X	X	X	X	X	X
VAF phase-wise (L1, L2, L3)	X	X	X	X	X	X	X	X	X
Active power (L1, L2, L3, TOTAL)	X	X	X	X	X	X	X	X	X
Apparent power (L1, L2, L3, TOTAL)	X	X	X	X	X	X	X	X	X
Reactive power (L1, L2, L3, TOTAL)	X	X	X	X	X	X	X	X	X
Current demand (L1, L2, L3, Total)	X	X	X	X	X	X	X	X	X
Power demand (L1, L2, L3, Total)	X	X	X	X	X	X	X	X	X
Active import / export energy		X	X	X	X	X	X	X	X
Active forwarded energy		X	X	X	X	X	X	X	X
Apparent forwarded energy		X	X	X	X	X	X	X	X
Reactive import / export energy		X	X	X	X	X	X	X	X
Reactive lag / lead forwarded energy		X	X	X	X	X	X	X	X
Net active energy*		X	X	X	X	X	X	X	X
Gross active import / export energy**		X	X	X	X	X	X	X	X
Run hours	X	X	X	X	X	X	X	X	X
THD Voltage & Current (L1, L2, L3)	X	X	X	X	X	X	X	X	X
Min / max values	X	X	X	X	X	X	X	X	X
Modbus on RS-485			X				X		
Pulse output (Single)				X				X	
Alarm output (Single)					X				X

Transducers - DPT 100/DPT 300

Multi-function and single function

DPT 100 single phase multi-function/single-function

DPT100 is a range of compact transducers with fully configurable input range, parameters and output curves. It is designed to meet the demanding needs of OEMs, panel builders, and supply utilities across multiple applications.

DPT 300 three phase multi-function/single-function

DPT300 is a range of compact, configurable multiple and measure and transducers designed to meet the demanding needs of supply utilities and industrial applications. It offers accurate true-RMS measurements for high efficiency and quick response time.



Key features

- Transducer range: single-phase and three-phase (single function and multifunction)
- Load-independent, galvanically-isolated analogue outputs (DC, mA or V)
- Option of 2 / 4 analogue configurable outputs, ConfigView software for onsite configuration using Micro-USB cable
- Output curves: linear, live-zero, compressed upper, compressed lower, bipolar (3Ph Transducer only)
- IEC 60688, IEC 61010-1, IEC 61010-2-30, IEC 61326-1, DIN 50022, Class 1, 0.5, 0.2
- Response time less than 100 ms

Key specifications

- Voltage: Nominal (U_n) 57.7 to 415 V, measuring 0 to 130 % of U_n (up to 500 V) 3x100 to 415 V L-L (3P-3W), 3x57.5 to 240V L-N (3P-4W)
- Current: Nominal (I_n) 1 A to 5 A, Measuring 0 to 150% I_n
- DC current: -20-0-(+20) mA directly, or -300-0-(+300) mV through shunt
- Frequency:- 45 Hz to 55 Hz or 55 Hz to 65 Hz
- Aux. supply:- 80 to 276V AC/DC or 24 to 80V DC



High accuracy



Response time



Modbus-RTU



USB programming



Find out more on our website



DPT talking catcode

DPT Single Phase - Single Function / Multi Function

Ordering key

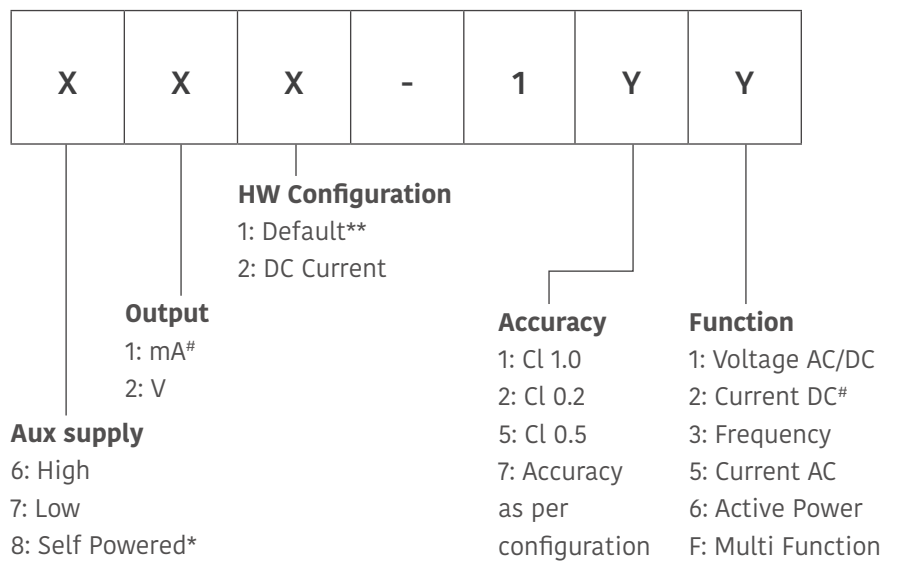
DPT XXX-1YY

Example

DPT 611-126
 where high auxiliary (6),
 mA output (1), accuracy class 0.2,
 function (6)

*Self powered is voltage transducer only.

**Default means AC/DC voltage, AC
 current #Current DC available only in HW
 configuration: DC Current, output: mA



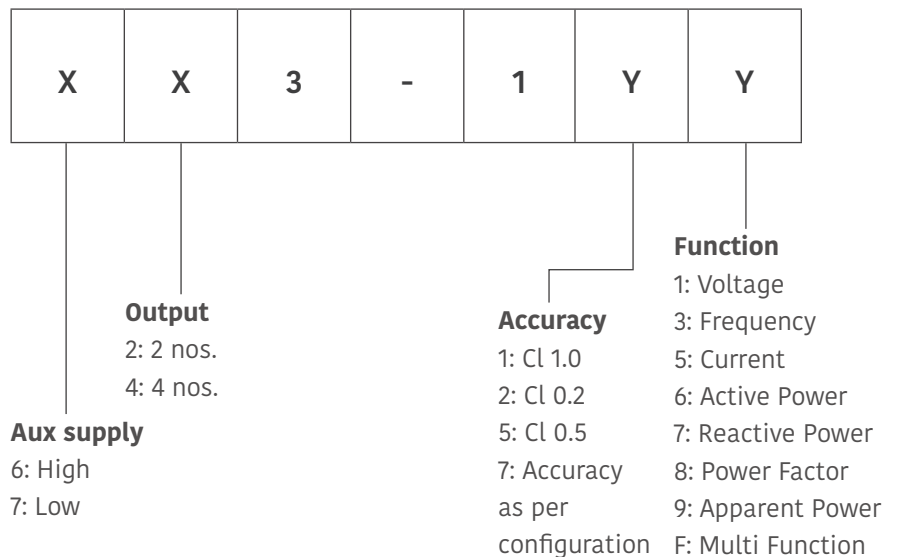
DPT Three Phase - Single Function / Multi Function

Ordering key

DPT XX3-1YY

Example

DPT 623-126
 where high auxiliary (6),
 output nos. (2), accuracy class (2),
 function active power (6)



Digital panel meters

Easy to install and use, high accuracy, and alerts to act

The range of digital panel meters (DPMs) is used for reliable and accurate measurement of both AC parameters (voltage, current, frequency, power, power factor and energy) and DC parameters (voltage and current). It can be used for both industrial and commercial purposes. DPM provides true RMS measurement for AC parameter, has an easy-to-use display, and is easy to configure.



Key features

- Reliable and accurate measurement of AC (True RMS) and DC parameters
- LED / LCD display, touch-sense keys, field programmable
- CT / PT ratio commissioning in field, bar Graph (LCD only)
- Three phase LED active energy meter with Modbus
- IEC62053-21(Class 1.0 energy variant only), IEC61326-1, IS13875

Key specifications

- Voltage : 20V to 500V measuring range
- Current : 50mA to 6A measuring range
- Frequency : 45 to 65Hz, aux. burden: <3.5VA
- Front facia: IP54, terminals IP20
- Temperature : -10°C to 60°C (operating), -25°C to 80°C (storage)



Pass through mechanism



Alerts



High accuracy



Touchkeys



Find out more on our website



DPM talking catcode

		AC Single-phase				AC Three-phase			
Display		Single line LED		Single line LCD		Single line LED		Three line LED	Three line LCD
Dimensions		96 x 96	96 x 48	96 x 96	96 x 48	72 x 72	96 x 96	96 x 48	96 x 96
		DPM96	DPM48	DPM96	DPM48	DPM72	DPM96	DPM48	DPM96
AC	AC current	I100		I150		I300		I310	I360
	AC voltage	V100		V150		V300		V310	V360
	Active power	W100		W150				W310	W360
	Reactive power							R310	R360
	Power factor							P310	P360
	Frequency	F100		F150					
	Active energy with Modbus					E300			
	Voltage - Current - Frequency meter							M310	M360
DC	DC voltage	V200							
	DC current	I200							

Analogue panel instruments

We offer a comprehensive range of analogue and panel instruments for use in control and instrumentation systems. The range includes moving-iron and moving-coil mechanisms in a variety of formats, scales and sizes. All our panel meters are robust, accurate and constructed from high-quality materials to give a long service life. Ammeters, voltmeters, and power meters are available with a large range of scales and can be further customised for special applications.



Key features

- Comprehensive range of moving-iron and moving-coil meters
- Voltage, current, frequency, power (active and reactive), PF, maximum demand (current)
- Mounting positions: horizontal, vertical or angled, adjustable red markers (quadrant scales)
- Range of scales: quadrant (90°), circular (240°) and edgewise
- Range of panel sizes: 48x48, 72x72 and 96x96 mm
- Interchangeable scales for CT/VT operated meters

Key specifications

- Moving iron (AC): Voltage 6 V to 800 V, current 250 mA to 60 A
- Moving Coil (DC): Voltage 60 mV to 600 V, Current 100 μ A to 1 A
- Moving coil (AC): Voltage 6 V to 600 V, Current 400 mA to 1A / 5A
- Frequency Meter: 46-54 Hz, 56-64 Hz or 375-425 Hz
- Temperature range: -25°C to +50°C

Available Types

Moving Iron (AC V, A)	IQ
Moving Coil (DC V, A)	CQ, CL
Moving Coil with Rectifier	CQR, CLR
Watt and Var	PL, PQ, QL, QQ
Frequency	FQ, FL
Power factor	PFL, PFQ
Synchronising instruments	SY, WQ, FQ



Find out more on our website

Low voltage current transformers /Shunts



A comprehensive range of reliable and accurate current transformers (CTs) for low-voltage industrial, commercial and residential metering applications. CT range is an essential component of the AC measurement system, designed to work optimally with panel instruments, transducers and energy meters.

Shunts are used in the DC system to measure current for indicating in panel instruments or as input to transducers. Shunts are available both with and without socket.

Shunts are an important link in the DC measurement system together with the panel instruments and transducers. They can be applied as panels for electrical systems, in power industries, or as any type of control panel in industry / institutions etc. They are easy to connect and cover a wide range of DC currents



Key features

- Comprehensive range of reliable and accurate current transformers (CTs)
- Range: primary 30A - 4000A, Secondary 1A / 5A
- Second terminal for shorting of CT before disconnection
- Insulation class-E
- IEC-61869-1&2 / IS 16227 part 1&2

Key specifications

- Rated primary rating: 30 A to 4000 A
- Class of accuracy: 0.2, 0.2S, 0.5, 0.5S and 1.0
- System voltage: 720V maximum
- Operating frequency: 50 Hz / 60 Hz
- Rated burden (VA): 1, 1.25, 1.5, 2.5, 3.75, 5, 7.5, 10, 12.5, 15, 20, 30, 45, 60



Find out
more on
our website

Position indicators

Our range of position indicators is designed for use in indicator panels and mimic panels. Position indicators for electrical circuit breakers and isolators are available with indicator discs in 'Bar', 'Angle' and 'Disconnecter' designs.

Indicator discs for valves are available in 'Amber-White' and 'Red-Green' formats. A moving-magnet system is used, ensuring high precision of movement of the indicator disc while keeping the power consumption low.



Key features

- Position indicators are available with indicator discs in bar, angle and disconnecter
- Designs available in "Amber-White" and "Red-Green" formats
- High precision disc movement, low power consumption
- Available in AC and DC variants
- EN 61010:1, IEC 51, EN 50081-1, EN 50081-2, EN50082-1, EN50082-1, IEC 473

Applications

- Distribution panels in power plants, substations and plant rooms
- Mimic panels for electrical systems, chemical and water industries
- Industrial plant rooms for commerce, institutions and industry

Key specifications

- Range of sizes: 24x24, 25x25, 36x36, Ø 29 and Ø 39
- Wide operating voltage range 24-230 AC / DC
- Power consumption (AC Aux.): 0.4 / 1.4 VA
- Power consumption (DC Aux.): 0.4 / 1.4 W
- Polycarbonate enclosure (IP 54 rated)

Benefits

- High accuracy and reliability through use of moving-magnet system
- Low power consumption
- No need for external setting of 'zero' position
- Easy to fit, using sleeve and nut



Find out
more on
our website

ConfigView/ M-Cubed 100



ConfigView is free of charge software that allows configuration of all electronic instruments produced by Secure.

M-Cubed 100 is an advanced windows-based application for automatic meter reading (AMR) and is used for the configuration of meters and modems manufactured by Secure. It comes equipped with an interactive user interface to view meter data and report generation, which helps in effective data management. Access rights can be configured to meet the needs of each individual user.



Applications

- Energy transfer measurement and reconciliation
- Power plants, feeder monitoring, grid substations, wind turbines, renewable/PV, industrial and commercial premises
- On-line monitoring of energy exchange at various interface points
- Energy accounting, automation and system integrations



Meter information management



AMR schedule



Meter data collection



Find out more on our website

eWatch 100

Web-based energy management

eWatch 100 is a web based state of the art real-time data acquisition, monitoring, and software for effective management of electrical systems by any electrical (electricity) and/or non electrical (heat, water and gas) business user in an industry. The software communicates with MODBUS supported energy meters to acquire online data, processes the data and displays the data in tabular, gauge, graphical or mimic views as per user choice.

Its enriched alarm engine, dashboard and reporting tool facilities help the user to take decision proactively, thus eliminating any harmful events in the electrical or non-electrical system. The system also supports billing analysis for main and auxiliary supply. Further, the system helps the user to analyse carbon emission based on energy consumption.

Key benefits

- Online energy monitoring and cost analysis
- Enables entities to drive energy efficiency, reduce cost and carbon footprint
- User configurable dashboards using drag and drop wizard for multiple users
- OPC server to provide online data to external system software
- Single system to support up to 1000 meters of multiple makes including dual register meters
- Web based software (works on Intranet)
- Easy implementation through client-server architecture
- Helps to monitor and compare trends of different locations
- Helps to set targets against which consumer can monitor utility use
- Configurable alarms for instantaneous parameters with high and low threshold limit
- Single point acquisition for multi fuel data (electricity, heat, water and gas)



Works in conjunction with Elite 440

Key features

- Online data acquisition over RS 485 MODBUS & TCP/IP
- Multiple online viewing options such as tabular, configurable gauge and graphical, dashboard & mimic
- Flexibility to define dynamic tariff structure to analyse energy cost
- Carbon emission analysis based on type of energy consumption
- Flexible reporting options for energy consumption, demand report, virtual metering report, min-max parameter report and meter replacement report
- Automatic daily report generation and e-mail to assigned

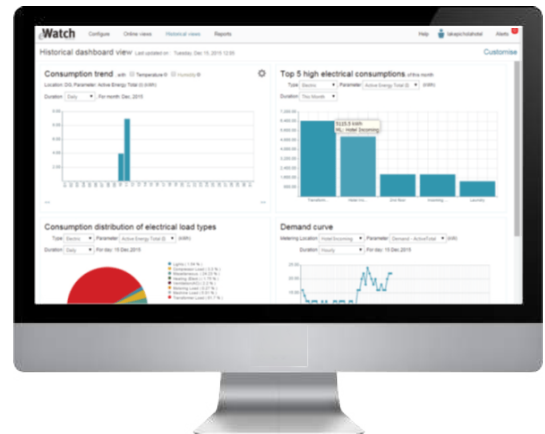


Find out more on our website



Monitor energy, anywhere, anytime

eWatch Online is a web based service for monitoring energy consumption, cost, operational efficiency and system status. It provides all the information an organisation needs to manage its power system and reduce its energy costs. It enables the performance of the energy system to be optimised, through features including consumption monitoring, analysis of emissions and alerts issued using mobile technology. eWatch Online enables the exchange of data from different utilities, such as electricity, gas, heat and water. Live data from energy measuring points can be viewed in real time from any location with internet access.



Works in conjunction with Elite 440

Key benefits

- Helps create cost awareness for utility consumption (electricity, gas, heat and water)
- Isolate waste from efficiency
- Set realistic targets for energy consumption
- Verify the effectiveness of operational charges
- Learn where and when energy is consumed
- Carbon emissions through meaningful real-time displays
- Monitor the performance of geographically distributed assets as required, even while on the move
- Enables and encourages active participation by managers and staff
- Provides accurate information from any location with internet access
- Helps energy efficiency certification targets to be met
- Affordable licensing arrangements spread the cost and provide lifetime savings

Key features

- Real-time personalised dashboards
- Shift wise energy monitoring and analysis
- Consumption reports for energy groups
- User configurable spreadsheet based reports
- Production data can be entered
- Historical graphs and trends
- ‘Virtual meters’ for in-depth analysis of a group
- Provision to integrate gas, heat and water
- Tariff module for cost calculations
- Target demand and open access schedule



Find out more on our website

Our vision

“To be an enduring business that grows from profits earned fairly from products and services that help users save, reduce energy use, and live in comfort.”

Secure is a multi-national solutions provider for revenue management, power quality and energy efficiency that enables users to save money, reduce energy consumption and facilitate comfortable living. We began life in 1987 at the advent of the electronic age.

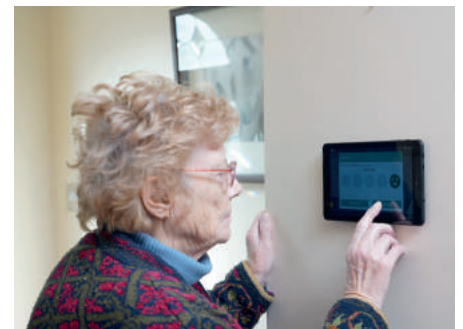
By combining Indian engineering with the best theoretical developments in the global metering domain, Secure was able to create India's first economically viable energy meter. We acquired CEWE Instruments AB in 2007, and later fully merged CEWE as part of Secure. CEWE started in Sweden, and has had a long history in Europe, boasting over 100 years' experience in metering technology.

Our 35-year journey has since taken us all over the world; our products are now installed in over 50 countries. More than 6,500 people work with us across Australia, Bangladesh, India, Italy, Singapore, Sweden, Switzerland, UAE, and the UK to build a future that is energy responsible.

We are more than a metering company

Our expertise is spread over the entire energy stream, from the generation of electricity, gas, and heat to their final consumption, adding value at every point.

We create solutions for metering billing and collection, pump efficiency (ESCO), controlling heating and cooling, energy auditing, asset monitoring, older adult care, and more.



“As a family owned and managed business our mandate is to grow a sustainable and responsible business that endures for generations.”





Head office and R&D, Udaipur (India)



Manufacturing, Udaipur (India)



Manufacturing, Solan (India)



Manufacturing, Sanand (India)



Sales and R&D, Gurugram (India)



Manufacturing & logistics, Bristol (UK)



R&D, sales & supply, Eastleigh (UK)



Sales and R&D, Nykoping (Sweden)



Sales and logistics, Melbourne (Australia)



Sales and logistics, Dubai (UAE)



Bangladesh



Switzerland



Manufacturing, Italy

Manufacturing partners:

Kuala Lumpur, Malaysia

Accra, Ghana

About Secure



Present in 60 countries over 5 continents



Over 6500 employees



Manufacturing facilities on three continents (Europe, Africa and Asia)



Offices in 11 sites worldwide



650 R&D engineers



50M+ meters manufactured so far



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