

# Saral

direct connected credit meter

## compact, accurate and reliable



Best in class accuracy



Intuitive



Compact size  
95x130x60mm  
(w x h x d)



Interoperable communication



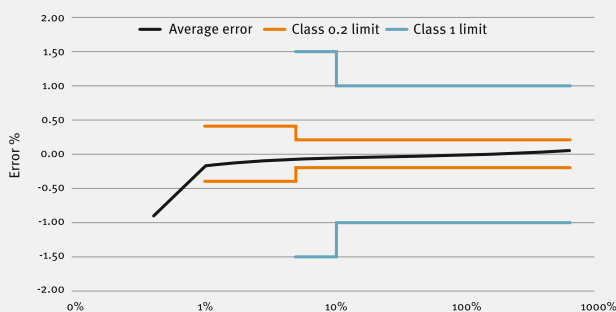
Saral is compact single phase direct connected 'intelligent credit' meter for domestic, small commercial metering applications including net metering. Its enhanced revenue protection features coupled with inter-operable communication protocol makes it an ideal choice for distribution companies. The meter offers an accurate and reliable metering solution for measurement of electrical energy in a single phase 2-wire network and ensures revenue assurance.

### Highlights

- Meter reading in absence of mains
- Logs energy even when connected using a single wire
- Load profile recording
- Registers historic billing data
- Records power factor
- Integrated base and cover
- Current and temperature profile to help analyse loose connections, attempts to burn

### Metrology

Saral sets a benchmark for metrology in its class and exhibits stable metrological characteristics in diverse field conditions



### Revenue protection

- Advanced anti-tamper capability – prevention, detection and deterrence
- Ensures revenue protection - even in case of wrong connections such as reversal, interchange of earth and neutral, partial earthing
- Immune to abnormal magnetic interference and electric discharge
- Extensive forensic information for detection and analysis of tamper

### End to end data security

- Security against manipulating meter data
- Authenticated billing and metering data with time stamp

### Cost of ownership

- Robust power supply designed to withstand harsh electrical and environmental conditions
- Designed to serve a long life in the field
- Meter is sealed for life
- Burden is low

### Simplicity

- Smallest footprint in its class
- Compact and light weight
- User friendly display
- Intuitive display actuator without an opening

### Benefits

- Advanced anti tamper capabilities – prevention, detection and deterrence
- Quality of supply information
- Peak and off-peak tariff management
- Stringent ingress protection/ outdoor
- Low cost of ownership



## Technical specifications

### Electrical

Connection type	Direct connected
Wiring configuration	Single phase, two wire
Voltage range	230/240 V (P-N)
Current range	5-30A, 10-60A, 10-100A
Accuracy class	1.0
Mains frequency	50 Hz $\pm$ 5%
Burden	
Voltage circuit:	< 0.5W and 1 VA
Current circuit:	< 0.1 VA

### Compliance

Standards	IS 13779, IEC 62052-11, IEC 62053-21, IS 15959
Meter constant	6400 imp/kWh, 3200 imp/kWh, 1280 imp/kWh

### Mechanical

Dimensions (W x H x D)	95x130x60mm (approx.)
Weight	0.3 kg (approx.)
Enclosure	Engineering plastic

### Environmental

Ingress protection	IP 54
Surge withstand	10 kV
Temperature	-20 °C to +60 °C (operating) -25 °C to +70 °C (storage)
Humidity	95% non-condensing

### Measurement

Energy types	Active and Apparent
Energy registration	Forwarded, import and export

### Tariff

	Up to 8 rate registers
	Up to 8 time zones
	Seasons, weekdays, and holidays
Maximum demand	Configurable in 6 rate registers

### Data storage

Midnight energy	35 days for 2 parameters
Load survey	More than 150 days (30min. IP) upto 5 parameters
Events	Up to 300 events, compartment wise
History: 12 billing periods	

### Communication

	IEC 62056-31 physical port for local communication
	Optional RS 232 port over micro USB for remote communication