

Electricity Meters as per IS 13779

## RESIDENTIAL + COMMERCIAL

Landis+Gyr make Long Life, High Precision, Superstatic Meter

### TRULY WORLD CLASS

### FUNCTIONAL AND COST- EFFECTIVE SOLUTION

Landis  
| Gyr<sup>+</sup>



# SOLUTION FOR A BROAD RANGE OF METERING REQUIREMENTS

Precision measurement, reliability, demand-driven functionality, durability and cost effective solution are the pre-requisites for energy meters for domestic application. Our 'Superstatic' meter is a result of years of extensive R&D activities in the global product development centre at Zug in Switzerland which not only meets and exceeds the requirements of various standards but also provides suitable measures to counter the tampering means adopted in the field. Like any other product of Landis+Gyr, the 'Superstatic', 1- $\phi$  energy meters also make measurable differentiation in terms of precision, performance and durability.

## BASIC FUNCTIONALITY

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ELECTRONICS	Backlit LCD (10mmx6mm) LED test output Optical Interface Push Button for Display Real Time Clock RS232 Serial Interface (Optional) Internal Battery (> 10 years life) Single Wire Measurement Magnetic Tamper recording
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FUNCTIONS	Energy (KWh) Measurement  Maximum Demand in KW  Tamper immunity & recording to all standard tamper conditions  Operating condition Indication  Stored Values / Previous History of Billing parameters up to last 12 months  Manual Reading / Data readout during power fail condition
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HOUSING	Reinforced Polycarbonate, antistatic  UV stabilized Viewing window  Unique top opening hinged terminal cover for easy connection
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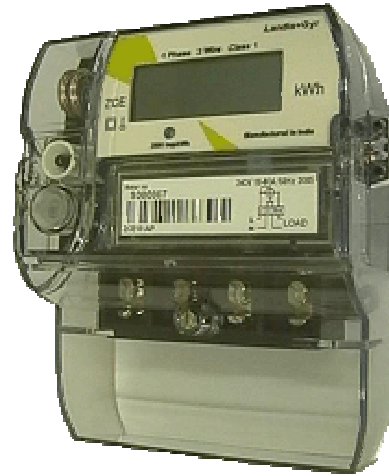
## ADVANCED TECHNOLOGY

- ▶ Use of 'e' Beam welded Shunt ensures greater reliability over CT's and Brazed Shunt
  - ▶ Non use of CT's eliminates the limitations of saturation thresholds, Non-linearity and susceptibility due to Electromagnetic Interference
  - ▶ Monitoring of both line and neutral current signals by special Landis+Gyr "MMI ASIC " to ensure Linear Error Curve
  - ▶ Cover and Base are permanently sealed with Heat Stake Process, which is more advantageous over Ultrasonic Welding Process since components are not subjected to mechanical vibrations
  - ▶ Phase and Neutral circuits are completely Isolated from each other which protects the meter from unwanted supply transients and spikes
  - ▶ State of the art SMT technology
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## ANTI-TAMPER FEATURES

- ▶ Phase & Neutral reversal
- ▶ Source side – Load side interchanged
- ▶ Load fully / partially returned to earth
- ▶ Combination of any of the above
- ▶ Neutral removal from source side & load side
- ▶ Magnetic Tamper
- ▶ Neutral Disturbance

## TECHNICAL DATA SHEET



<b>Accuracy</b>	Class 1.0
<b>Voltage</b>	230 / 240 V (-40 % to +20%)
<b>Current in Amps</b> <b>I<sub>b</sub> (I<sub>max</sub>)</b>	5(30), 10(40), 10(60), 20(80), 15(100)
<b>Frequency</b>	50 Hz (±10%)
<b>Power Consumption</b>	Voltage Circuit < 1W, 4VA Current Circuit < 1 VA at I <sub>b</sub>
<b>Standards</b>	IS: 13779, IEC 62052-11/ 62053-21 CBIP: Tech Report 88

### Electromagnetic Compatibility

Electrostatic discharges As per IS & IEC Standards  
Contact discharges

Electromagnetic high frequency fields to IEC 61000-4-3  
80 kHz to 2 GHz at least 30 V/m

Radio interference suppression to IEC/CISPR 22 Cl B  
Line transients to IEC 61000-4 (burst) with basic current I<sub>b</sub>:

for current and voltage circuits	2 kV
for auxiliary circuits > 40 V with open current circuit	1 kV
for voltage and current circuits	4 kV

Surge immunity test	(IEC 61000-4-5)
Impulse voltage	6 kV
Impedance of source	2 Ω
Rise- / Decay time of impulse voltage	1.2 μs / 50 μs
Rise- / Decay time of current	8 μs / 20 μs

### Insulation Strength

Insulation strength 10 kV at 50 Hz for 1 min.

Impulse voltage strength	IEC 62053-11
Impulse voltage	10 kV
Impedance of source	500 Ω
Rise- / Decay time of impulse voltage	1.2 μs / 50 μs
Protection class to IEC 60050-131	⊠ 2

### Display

Characteristics	
Type	LCD liquid crystal display
Digit size	10mmx6mm
Number of digits	7

### Optical Test Output

Type	Infrared LED
Pulse length	2 ms
Meter constant R	2000 imp/kWh

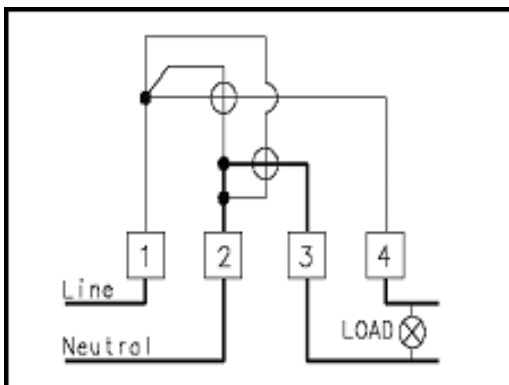
### Communication Interfaces

Optical Interface	according to IEC 62056-21
Type	serial, bi-directional, half duplex
Max bit rate	9600 bps
Protocols	IEC 62056-21
RS232-Interface	DIN 61393 / DIN 66259
Type	serial, asymmetric, asynchronous, bi-directional
Operating mode	transparent
Max bit rate	9600 bps
Protocols	IEC 62056-21

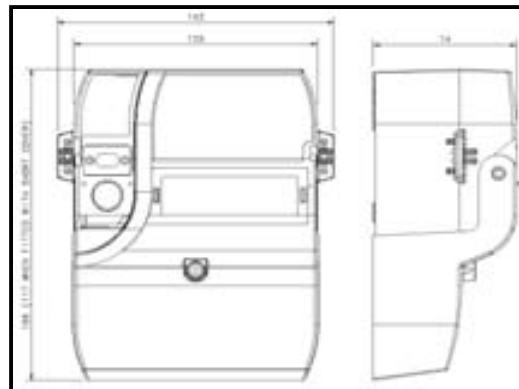
### Weight and Dimensions

Weight	approx. 630 g
External dimensions	comply with DIN
Width	142 mm
Height (without terminal cover)	117 mm
Height (with terminal cover)	169 mm
Depth (without terminal cover)	74 mm
Suspension	Horizontal two screw
Terminal cover	
Short	no free space
Long	52 mm free space

## CONNECTION DIAGRAM



## DIMENSIONAL DETAILS



## DEFINING «MEANS OF PRECISION»

Outstanding solutions with persuasive intelligence, product reliability and durability form the basis for enhanced customer process efficiency for which we are committed to. We also continuously bear in mind the economic and ecological requirements, optimal life cycle costs as well as safe recycling.

We set the standards in energy consumption metering which has been our passion since 1896, and will continue to remain so in the future as well.

**Landis+Gyr Ltd.**  
Diamond Harbour Road,  
P.O.Joka, Dist.24 Parganas(S)  
Pin -700104, West Bengal, India  
Phone : +91 33 24670007  
Fax : +91 33 24677400  
Mail : [mktg@in.landisgyr.com](mailto:mktg@in.landisgyr.com)

**Works:**  
**Landis+Gyr Ltd.**  
Village: Dharampur  
District: Solan  
Himachal Pradesh,India  
Phone : +91 1795 202311

Product development is a continuous process.  
We reserve the right to modify the specification contained herein without notice.

