



**Rayleigh  
Instruments**

Tel: 01268 749300 [www.rayleigh.co.uk](http://www.rayleigh.co.uk)



## **RIHXE12R**

RIHXE12R Single Phase

Two Wire Cost-effective Meter



RIHXE12R is a single phase meter features compact and cost-efficient design. It focuses on the necessary and offers an excellent price-performance ratio.

## ■ Highlights

- Instantaneous KWhr value measurement
- Current reverse indicator (LCD)

## ■ Main Functionalities

- Unidirectional Measurement
- Bi-directional Measurement configurable (optional)
- kWh reverse measured separately
- Instantaneous KWhr value measurement
- LCD backlit to increase readability in low light conditions (optional)
- Optical communication (IEC62056-21)
- SO pulse output
- Terminal cover open detection and record (optional)
- Short terminal cover
- Extended terminal cover (optional)

## ■ Specifications

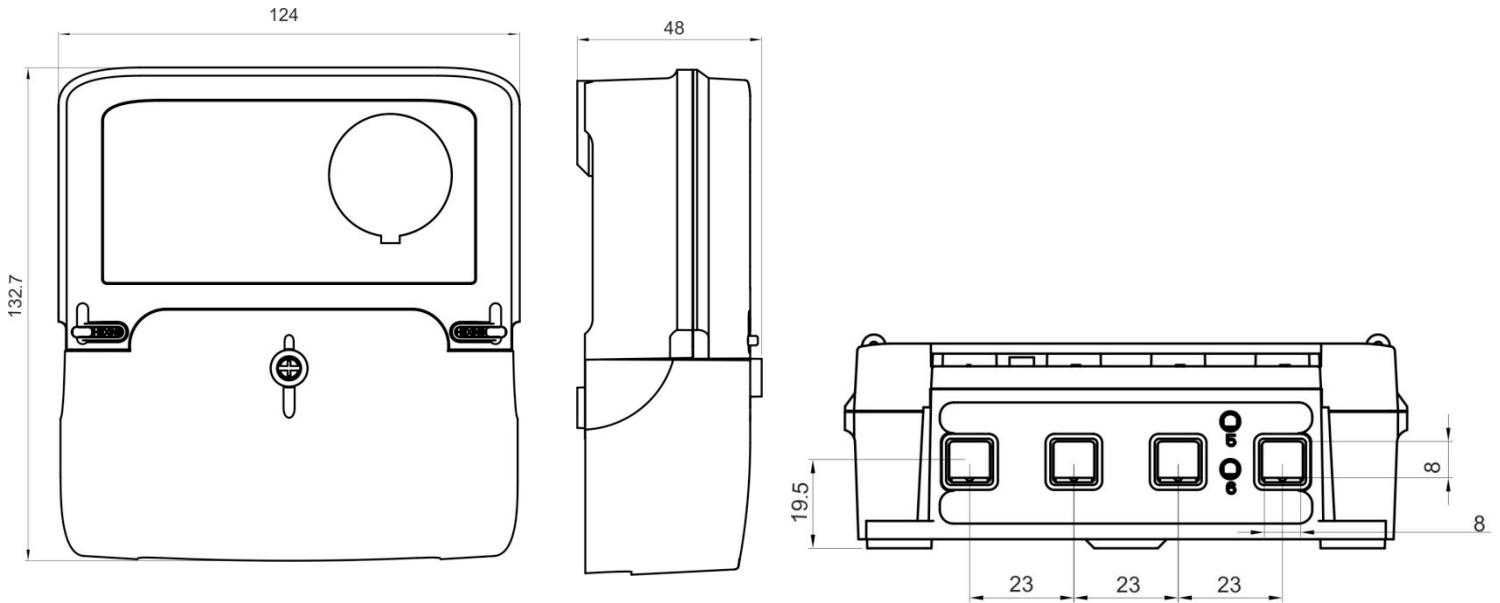
Description	Value
<b>Accuracy</b>	Class 1 or Class 2, Class A or Class B
<b>Voltage</b>	
Reference voltage	110-127V, 220-240V
Operating voltage range	80%-120%Un
<b>Current</b>	
Basic current	5A, 10A
Maximum current	40A, 60A, 80A, 100A
Starting current	≤0.4%Ib
<b>Frequency</b>	50Hz or 60Hz
<b>Temperature</b>	
Operation range	-25°C to +70°C
Limit range for storage and transport	-40°C to +70°C

<b>Humidity</b>	Up to 95%
<b>Power Consumption</b>	
Power consumption in voltage circuit (active)	$\leq 2$ W
Power consumption in voltage circuit (apparent)	$\leq 10$ VA
Power consumption in current circuit	$\leq 1$ VA
<b>Insulation Strength</b>	
AC voltage test	4kV during 1min
Impulse voltage test	1.2/50 $\mu$ s mains connections 6kV
<b>EMC</b>	
Electrostatic discharges(Contact discharges)	8kV
Electrostatic discharges(Air discharges)	15kV
Surge immunity test	4kV
Fast transient burst test	4kV
Electromagnetic RF fields (80MHz to 2000MHz)	10V/m(with current), 30V/m(without current)
<b>Connection Terminals</b>	9mm x 9mm
<b>Housing</b>	
Protection degree	<b>IP51</b>
Meter cover	Opaque PC+ glass fiber with a transparent window
Meter base	Opaque PC+ glass fiber
Terminal cover	Opaque PC + glass fiber
<b>Display</b>	
Digit size	10.0mm x 4.8mm
Number of digits	<b>6</b>
<b>Communication Interface</b>	
Optical communication	IEC62056-21
<b>Weight</b>	
Net weight	Approx. 0.36kg(extended terminal cover) Approx.0.35kg(short terminal cover)
Package	Approx.0.06kg
<b>Dimension</b>	
Extended terminal cover	132.7mm x124mm x48mm
Short terminal cover	99.5mm x124mm x48mm

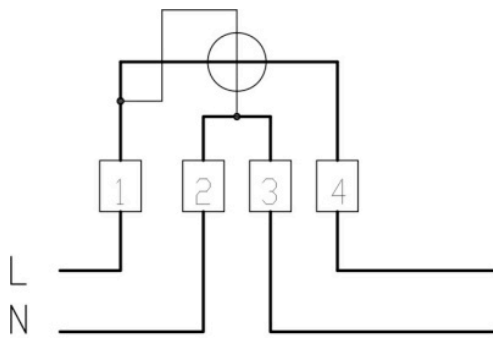
## ■ Standard

<b>IEC62052-11</b>	Electricity metering equipment (a.c.) General requirements, tests and test conditions – Part 11: Metering equipment
<b>IEC62053-21</b>	Electricity metering equipment (a.c.) Particular requirements –Part 21:Static meters for active energy(classes 1 and 2)
<b>IEC62056-21</b>	Electricity metering – Data exchange for meter reading, tariff and load control – Part 21:Direct local data exchange
<b>EN50470-1</b>	Electricity metering equipment (a.c.) —Part 1: General requirements, tests and test conditions — Metering equipment(class indexes A, B and C)

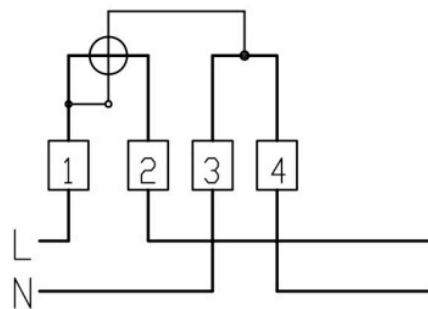
## ■ Dimensions



## ■ Connection Diagram



Symmetric Connection



Asymmetric Connection