

## RBC-EM1-PE WINDOWS ENERGY MONITORING

The RBC-EM1-PE Energy Monitoring kit includes a LonWorks compatible power meter and 3 current transformers, one for each electrical phase. All of these components must be mounted in a suitable enclosure. The power meters connect directly to the windows package. The installed components allow for the total power consumption data to be divided between the indoor units and can be included on individual tenant bills. A power meter is required for each refrigerant circuit.

### Connections

The power meter connects to the PC and LonWorks gateway via the AB network the recommended cable is 2-Core Screened 1.5mm<sup>2</sup>. The current transformers connect to the power meters by a 1.5mm<sup>2</sup> cable. The power meter requires a reference voltage from each phase the power meter should be protected by a circuit breaker. The supply to the outdoor unit should pass through the centre of the current transformer.

### Limits

One power meter kit for each refrigerant circuit (a closed loop system including all outdoor units and indoor units on the same circuit)

### Dimensions (W x H x D)

Power meter: 125.5mm x 90mm x 75mm

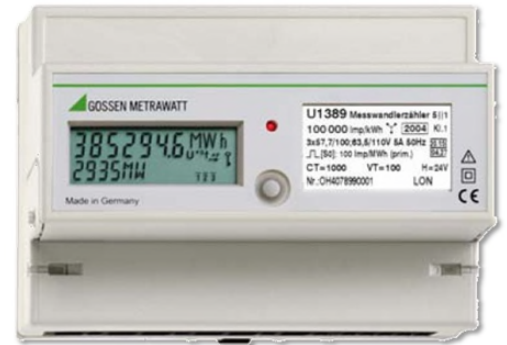
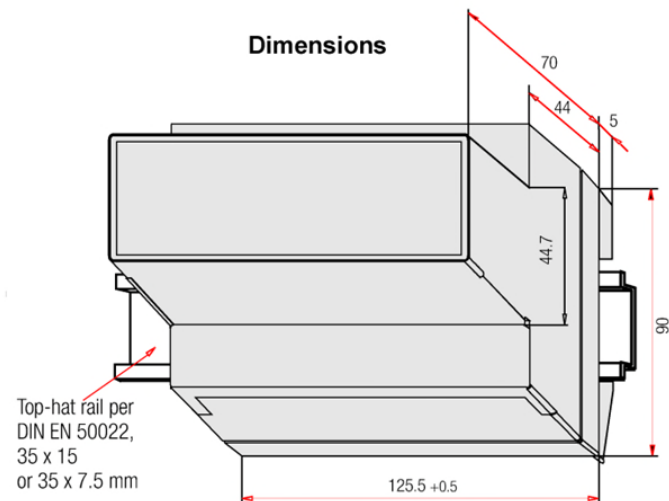
Current Transformer: 45mm x 49mm x 70mm

### Ambient Conditions

Operating temperature range	-25 ... +55° C
Storage temperature range	-25 ... +70° C
Relative Humidity	< 75% annual average
Elevation	to 2000 m
Deployment	indoors

### Mechanical Data

Housing	
Material	Lexan polycarbonate per UL94 V0
Dimensions	Height ≤ 90 mm
	Overall depth ≤ 75 mm
	Width 125.5 +0.5 mm
Weight	< 0.5 kg
Installation	Top-hat rail per DIN EN 50022 or wall mounting
Protection	IP 51 (dust protection, vertically dripping water)



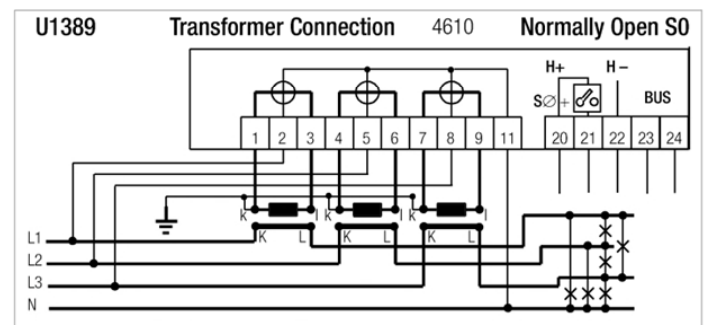
### Terminal Connections

Self-locking screw terminals are utilized, and are protected with a tamper-proof terminal cover as a standard feature.

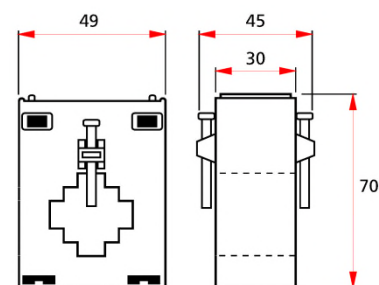
Terminals	
Current input	≤ 16 square mm without wire end ferrule
Voltage input	≤ 2.5 square mm with wire end ferrule
	≤ 2 x 1.5 square mm without wire end ferrule
SO pulse input / LON	≤ 2.5 square mm with wire end ferrule
	≤ 2 x 1.5 square mm without wire end ferrule
Protection	IP 20 (Protection against entry of foreign objects ≥ 12.5 mm dia. without protection against the penetration of water)

### Terminal Circuit Diagrams

4-wire AC system, any load



### Transformer Dimensions



Ø Internal Diameter 24mm  
Busbar 30x10mm, 20x20mm