

## FEATURES

- 1- and 3-Phase Universal Energy Meter
- Up to 277 VAC (L - N)/ 480VAC (L - L)
- Usage with external CT
- 1 x digital Input
- 2 x digital Outputs
- Measured Values provided via Modbus RTU/ RS485

## FUNCTIONS

- Line to neutral voltage measurement
- Current measurement
- Reactive power measurement
- Active power measurement
- Reactive energy
- Active energy
- Power factor measurement
- Line to line voltage measurements



## SPECIFICATIONS

## Supply circuit

Terminals/Connections	V+, 0V
Supply Voltage	12-48VDC
Supply Voltage Tolerance	-5%..+10%
Power Consumption	approx. 0.4W
Duty Cycle	100%
Reset Time	500ms
Drop-out voltage	9.6VDC

## Indicators

Green LED (Uv+) ON	Supply Voltage present
Yellow LED (Com) Flashes	Indicator communication
Red LED (Err) ON	Indicator communication & errors
Yellow LED DO1 ON	Digital Output DO1 active
Yellow LED DO2 ON	Digital Output DO2 active

## Mechanical/ Environmental Specs

Housing material	V2
Protection degree	IP40 (Enclosure) IP20 (Terminals)
Mounting	DIN Rail
Mounting Position	any
Dimensions	22.5 x 90 x 108 mm
Stripping Length	7 mm
Terminal Torque	1.0 Nm (8.5 lb.in)
Wire size Terminals	20-14AWG
Ambient Temperature IEC	-25..+55°C (IEC 60068-1)
Ambient Temperature UL	-25..+40°C (UL 508)
Storage Temperature	-25..+70 °C
Transport Temperature	-25..+70 °C
Relative Humidity	15%..85% (IEC 60721-3-3 class 3K3)
Vibration Resistance	10..55 Hz 0.35 mm (IEC 60068-2-6)
Shock Resistance	15 g 11 ms (IEC 60068-2-27)
Pollution Degree	3 (IEC 60664-1)
Installation Altitude	Up to 2000 m above sea level

## Digital Input

Terminals	DI+, DI-
Voltage Threshold	8VDC
Max. Input Voltage	55VDC
Current Threshold	1mA
Input Resistance	8 kOhm

## Digital Outputs

Type	Power MOSFET, Normally Open
Supply Output 1	Supply Voltage
Terminal Output 1	DO1
Supply Output 2	Own supply terminals V2+, V2-
Terminal Output 2	DO2
Operating Voltage	11.4-55 VDC
Permissible Output Current	max. 500 mA
Output ON state voltage drop	0.3 VDC @ 500 mA

## Measuring circuit

Measurand	Voltage 1- and 3-Phase, Current
Measuring Range 1-Phase	0-277 VAC
Measuring Range 3-Phase	0-277 VAC (L-N), 480 VAC (L-L)
Measuring Range Current	≤ 5A rms (Indirect via external 5A CT)
Terminals Voltage Measuring	L1, L2, L3, N
Terminals Current Measuring	I1i-I1k, I2i-I2k, I3i-I3k
Working Frequency	46-400 Hz
Voltage Overload Capacity	319 Vrms (L-N), 552 Vrms (L-L)
Current Overload Capacity	8 Arms @ t=5s
Input Resistance	450 kΩ (voltage), 10 mΩ (current)
Overvoltage Category	III (IEC 60664-1)
Rated impulse withstand voltage	6 kV
Measuring Method	Treu RMS

## Accuracy Voltage

<b>Voltage</b>	
Base Accuracy	≤0.15 %
Frequency Influence	≤0.005 %/ Hz
Repetition Accuracy	≤0.02 %
Temperature Influence	≤0.0005 % / °C

## Current

Base Accuracy	≤0.25 %
Frequency Influence	≤0.01 %/ Hz
Repetition Accuracy	≤0.05 %
Temperature Influence	≤0.015 % / °C

## Power (Active, Reactive, Apparent)

Base Accuracy	≤0.5 %
Frequency Influence	≤0.015 %/ Hz
Repetition Accuracy	≤0.1 %
Temperature Influence	≤0.02 % / °C

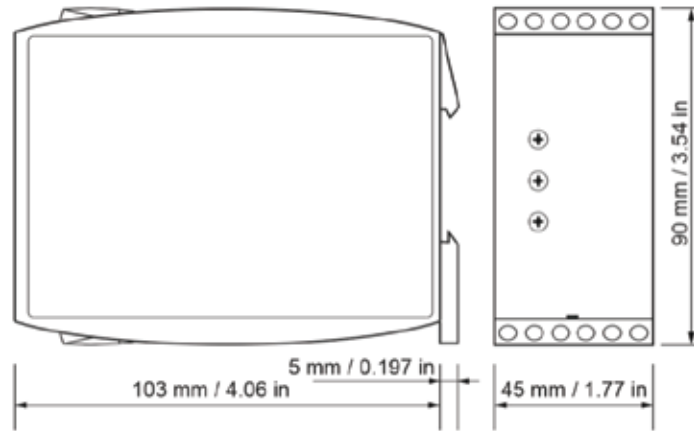
## Energy (Active, Reactive)

Base Accuracy	≤1.5 %
Frequency Influence	≤0.02 %/ Hz
Temperature Influence	≤0.025 % / °C

## Frequency

Base Accuracy	≤5 mHz (typ. 1 mHz)
Temperature Influence	≤0.15 mHz/ °C
Resolution	≤1 mHz

## Dimensions



## Wiring

