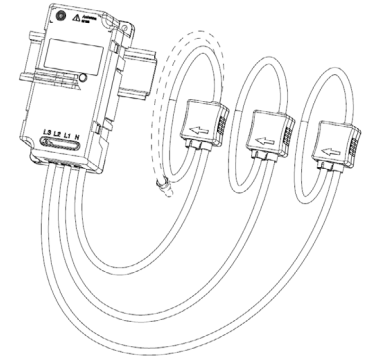




Sentinel Power 200 .. 2000 – W4 (3 phase Wye 4 wires)

The Sentinel Power series is an AC energy sub-meter with an IEEE 802.11 Wi-Fi network communication output. The W4 is designed for three phase networks with a line-to-neutral voltage up to 300V rms.



Electrical data

Symbol	Description	Types	Units	
I_{PN}	Primary nominal current rms (A)	200	Sentinel Power 200 W4	
		500		Sentinel Power 500 W4
		1000		Sentinel Power 1000 W4
		2000		Sentinel Power 2000 W4
I_{PM}	Primary current, measuring range (of I_{PN})	120	%	
V_{PM}	Primary voltage, measuring range (neutral/phase) ¹	90 .. 300	V_{rms}	
	Permanent overload voltage (neutral/phase)	300	V_{rms}	
f	Frequency	50/60	Hz	
S	Output signal : radio frequency communication ²	See User Guide		
	Power supply	Line powered between N-L1 inputs		
V_{PN}	Primary nominal, voltage (neutral/phase)	100 .. 272	V_{rms}	
P_C	Maximum power consumption	2	W	

Features

- Wide range of electrical parameters measurement
- Wireless communication on license free 2.4GHz using Standard IEEE-802.11 Wi-Fi
- Class 1 accuracy active energy

Advantages

- Fast & easy mounting :
 - Wireless communication
 - High accuracy Split Core Rogowski coil
 - Self powered from voltage line
- Compact
- Interfaces : Java API, XML/RPC
- Ideal for retrofit applications

Applications

- Energy sub-metering
- Network condition monitoring
- Energy audit & diagnostic
- Building Energy management

Application domain

- Energy & Automation



Measurement values (refer to User Guide for complete list)

	Interval based values									Counter values			
	Configurable reading interval : 5 .. 30min												
	L1			L2			L3			SUM	L1	L2	L3
	Av	Min	Max	Av	Min	Max	Av	Min	Max				
Current (A)			○			○			○				
Voltage (V)		○			○			○					
Active Energy (KWh)										●	●	●	●
Reactive Energy (KVArh)										○	○	○	○
Apparent Energy (KVA)										○	○	○	○

● Guaranteed transmission (stored on flash) ○ Best effort transmission only

f Frequency measured in phase 1 (L1)

Accuracy

X	Accuracy : @ $T_A = 25^\circ C$	Max	Units
	Rms current @ I_{PN}	1.5	%
	Rms voltage @ V_p	1.5	%
	Active Energy (refer to IEC 62053-21 class 1) ³	±1	%
	Reactive Energy (refer to IEC 62053-23 class 3)	±3	%

General data

T_A	Ambient operating temperature (90 % rH)	- 10 .. + 55	°C
T_S	Ambient storage temperature	- 25 .. + 85	°C
m	Mass	400	g
IPxx	Protection index Standards	P 2X	
		EN 50178 : 1997	
		IEC 61010-1 : 2001	

¹ See connection diagram

² RF Certification : CE, FCC (pending)

³ Class 1 guaranteed for Power Factor ≥ 0.65 .



Sentinel Power 200 .. 2000 – W4 (3 phase Wye 4 wires)

Isolation characteristics



Isolation class II
IEC 61010-1 CAT III 300 V_{rms}
Pollution degree: PD2

Safety

CB test Certificate N° FR 583050 IEC System for mutual recognition of test certificates for electrical equipment (IECEE) CB Scheme.



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



Caution, risk of electrical shock: do not remove any parts of the Sentinel Power – W4

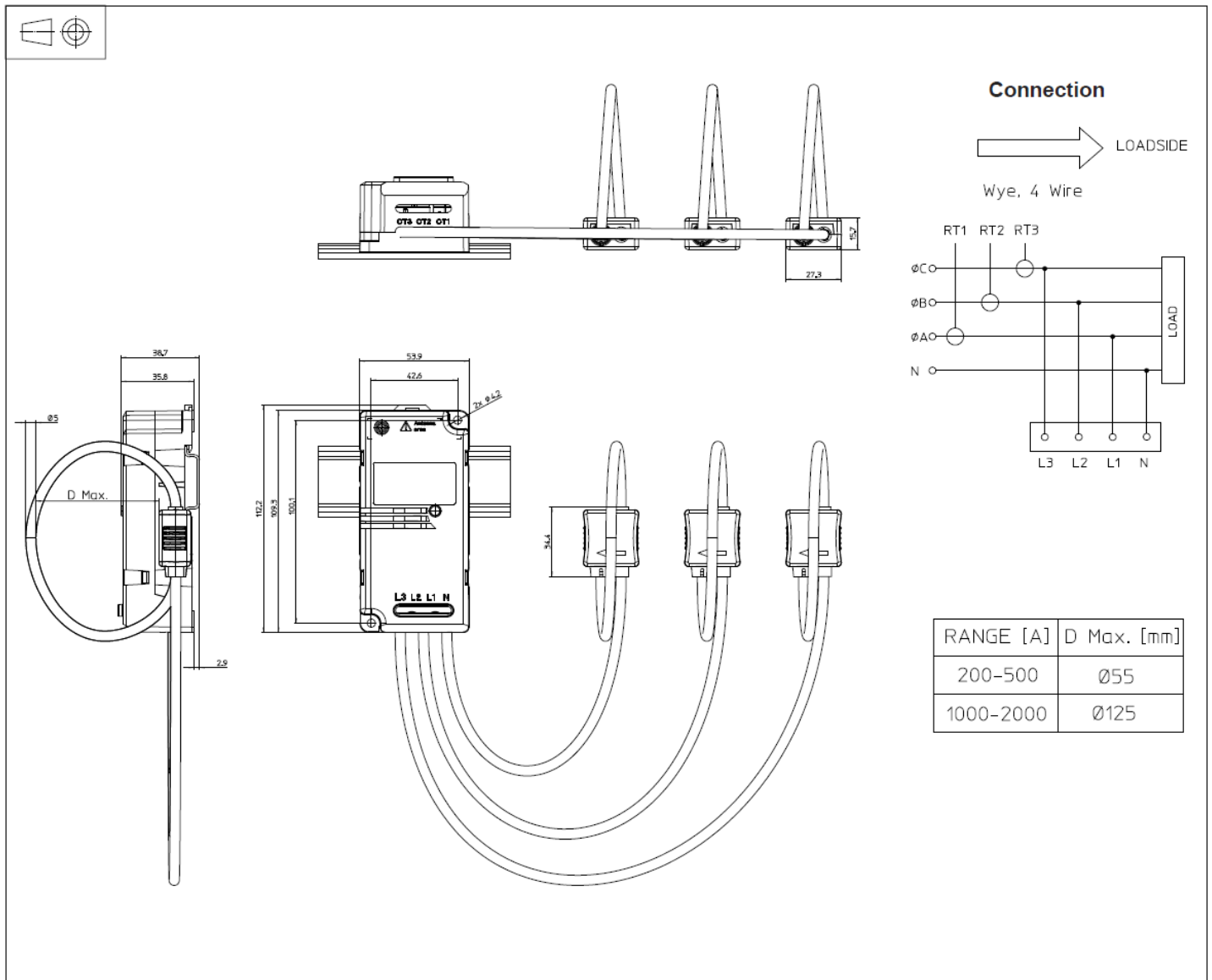


For current sensor (Rogowski coil) mounting:

Make sure that the power cable on which the current sensor will be attached is powered off.



Dimensions - Sentinel Power 200 .. 2000 – W4 (3 phase Wye 4 wires) (in mm. 1mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 1 mm
- Primary through-hole of Rogowski coil see drawing above
- Rogowski coil output cable length: 1.5 m
- Module fixing DIN rail rear box or
- Module fastening 2 slots $\varnothing 4.2$ mm
2 M4 steel nuts
2.8Nm or 2.07 Lb.Ft.
- Recommended fastening torque 4 M3
- Voltage terminal block 0.5Nm or 0.37 Lb.Ft.
- Recommended fastening torque use cable max cross section 2.5mm^2
- Input voltage terminal

Remarks

- Temperature of the primary conductor shall not exceed 65°C .
- Sentinel Power must be installed vertically as shown on the diagram above