

WON-H4-D-R-SC

The WON-H4-D-R-SC Series is a DIN-Rail three-phase multifunctional smart meter with a current sensor system built around a Rogowski coil—a flexible type CT and Split Core CTs.

WON-H4 Series Rogowski-type meter excels at accurate, safe, and flexible high-current AC measurement, especially in tight environments or where fast transient detection is needed and position it carefully for best accuracy.

WON-H4 Series Rogowski-based multifunction meters shine in scenarios requiring high-current, flexible, and accurate AC sensing—especially where transients, harmonics, space constraints, retrofit, or multi-point sensing are present. Their strengths make them invaluable across power systems, industrial automation, renewable energy, EV infrastructure, and research labs.



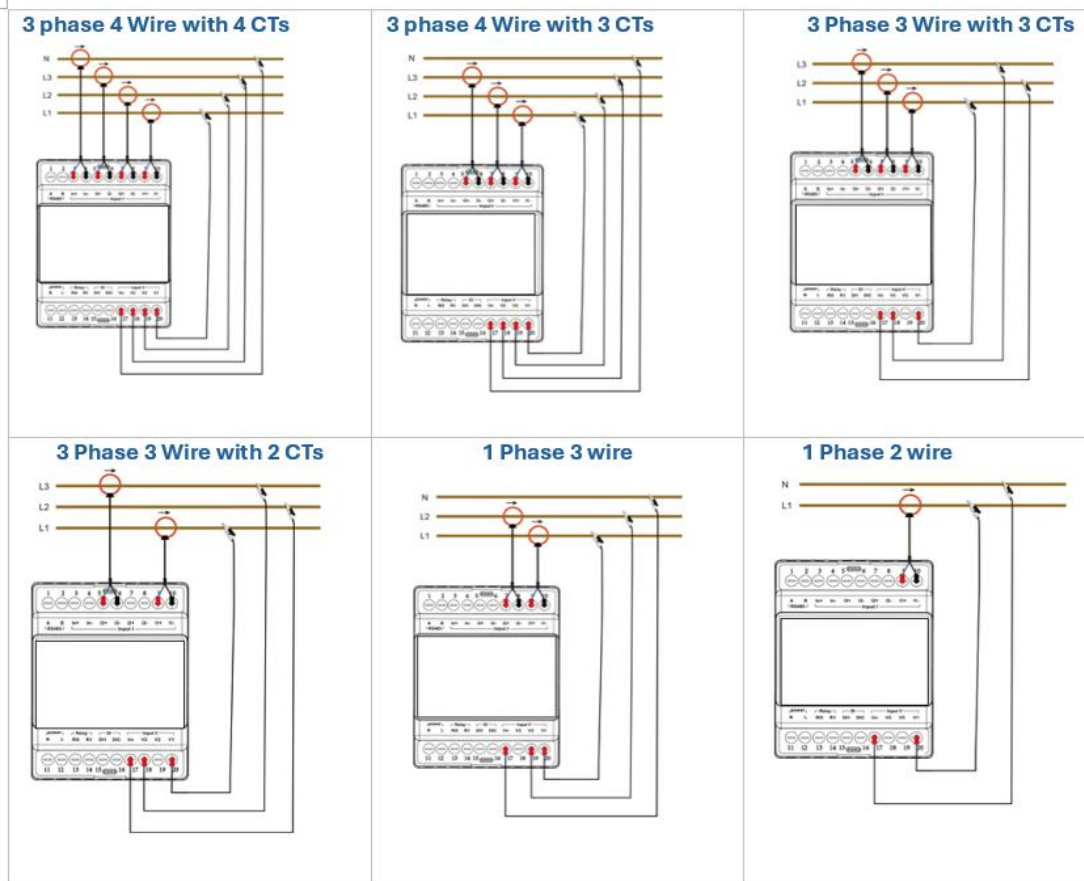
Product Features

- High current range, retrofit flexibility, space savings
- Wide bandwidth, harmonic & transient capture
- Fast di/dt response, linearity for protection relays
- Handle pulsed currents up to tens of kA safely
- Monitoring in solar, wind, EV charging systems
- Startup transients, shaft leakage, rotor health
- Extremely fast measurement in labs, welding, EMC tests
- Earth leakage, neutral line, multi-phase summation

Dimension



Wiring Diagram



Technical Specifications

Description	
Mounting Type	DIN rail
Model	WON-H4-D-R-SC
Current sensor type	Rogowski coil and Split Core Voltage-output current clamp
Advantage	Suitable for wide current range, no dismantling measurement
Wiring system	3P4W 4CT, 3P4W 3CT, 3P3W 3CT, 3P3W 2CT, 1P3W, 1P2W
Application field	Power analysis Tariff meter
Display screen	1.77-inch TFT screen display
Weight	259g
Dimension	L*W*D: 9.45*7.25*6.6CM
Colour	White
Current	
Channel input voltage range	0-900mVAC peak, 636 mV RMS
Measurement range	Different current sensors have different ranges
Rogowski coil	50mV/kA@50Hz(0-12000A), @60Hz(0-10000A) 85mV/kA@50Hz(0-7000A), @60Hz(0-6000A)
Voltage Split core CT	0~99999A
Voltage	
Channel input voltage range	0~600VAC Phase Voltage
Maximum range	720VAC Phase Voltage
Digital Signal	
Relay output	One-way electromagnetic relay output, contact capacity: 3A 30V DC, 3A 250V AC
Digital input	One-way dry contact input, optocoupler isolation (5kVrms)

Communication		
RS485 communication	One-way RS485 communication interface Interface type: two wire half duplexes Communication baud rate: 2400bps ~ 38400bps Protocol: Modbus RTU	
Power Supply		
Power Supply	WON-H4-D-R-SC	WON-H5-D-R-SC
	95~265VAC/110~370VDC , 45~60Hz	24VDC
Maximum power consumption	3.5VA	
Display List		
Phase Voltage	U1, U2, U3, AVG	
Line Voltage	U12, U23, U31, AVG	
Current	I1, I2, I3, AVG, IN	
Grid Frequency	F1, F2, F3, Σ	
Power Factor PF	PF1, PF2, PF3, Σ	
Fundamental power factor DPF	DPF1, DPF2, DPF3, Σ	
Active power	P1, P2, P3, Σ	
Reactive power	Q1, Q2, Q3, Σ	
Apparent power	S1, S2, S3, Σ	
Energy		
Active energy Pos.	EP1, EP2, EP3, Σ	
Active Energy Neg.	EP1, EP2, EP3, Σ	
Reactive Energy Pos.	EQ1, EQ2, EQ3, Σ	
Reactive energy Neg.	EQ1, EQ2, EQ3, Σ	
Apparent Energy	ES1, ES2, ES3, Σ	
Tariff Energy	ET1, ET2, ET3, ET4, ET5, ET6	
Harmonics		
Voltage Harmonic Distortion	THD (Total harmonic percentage), TOHD (Odd total harmonic percentage), TEHD (Even total harmonic percentage), phase L1.L2.L3 1-50th harmonic percentage, phase ABC 1-50th harmonic voltage value	
Voltage Harmonic Value		
Current Harmonic Distortion	THD (Total harmonic percentage) , TOHD (Odd harmonic percentage), phase L1.L2.L3 1- 50th harmonic current value total harmonic percentage), TEHD (Even total harmonic percentage, phase ABC 1-50 th)	
Current Harmonic Value		
Phasor diagram		
Phasor diagram	Between voltage and current	
Phase Sequence	voltage and current	
Voltage Angle	U1, U2, U3	
Current Angle	I1, I2, I3	
UI Angle	UI1, UI2, UI3	
Demand		
Demand	P, Q, S	
Active power DMD Max.	P and Time	
Reactive power DMD Max.	Q and Time	
Apparent power DMD Max.	S and Time	

Unbalance	
Voltage unbalance	Negative Sequence, zero Sequence
Current unbalance	Negative Sequence, zero Sequence
Max. & Min.	
Phase Voltage	U1, U2, U3, AVG
Line Voltage	U12, U23, U31, AVG
Current	I1, I2, I3, AVG, IN
Active power	P1, P2, P3, Σ
Reactive power	Q1, Q2, Q3, Σ
Apparent power	S1, S2, S3, Σ
Measuring Accuracy	
Current measurement accuracy	0.1%+Accuracy of current sensor
Voltage measurement accuracy	$\pm 0.2\%$ (60V~600V AC)
Grid frequency	$\pm 0.01\%$ (45~65Hz)
Power factor	± 0.005
Active and apparent power	IEC62053-22 level 0.5S
Reactive power	IEC62053-21 level 1S
Active energy	IEC62053-22 level 0.5S
Reactive energy	IEC62053-21 level 1S
Environment Condition	
Operating temperature	-20°C ~ +70°C
Storage temperature	-40°C ~ +85°C
Humidity range	5 ~ 95% RH, 50°C(non-condensing)
Class of pollution	2
Over voltage capability	CAT III 1000V, it is suitable for distribution system below 277 / 480VAC
Insulation strength	IEC61010-1
Altitude	3000m Max
Antipollution level	IP20 (Meet the standard of IEC 60629)

Address

Wonporul Technologies(P) Limited

44, Selva Vinayagar Koil Street, Ammayapattu-Vandavasi

Tiruvannamalai District, Tamil Nadu-604 408-India

Tel: +91 4183 225 006, Mob: +91 89256 95250, +91 90425 55250, +91 78454 55250

www.wonporul.com E-mail: wonporul@wonporul.com

