

SensEnable™

56WM

WirelessHART™ Power Meter

Monitor Electrical Equipment and Infrastructure That Was Previously Out of Reach



Overview

Emerson's SensEnable 56WM powered by Smart Wireless is designed to monitor voltage, current, power, energy, and other electrical parameters on single and three phase electrical systems with revenue-grade accuracy.

The 56WM Wireless Power Meter provides continuous monitoring of energy data to avoid equipment downtime and increase efficiency.

Primary Benefits

- Provide real-time energy consumption and demand data at the equipment level
- WirelessHART™ communication technology ensures highly secure and reliable data transmission
- Highly secure network communication via data encryption, critical key management, and end-to-end security features
- "Easy to install" design and mounting features support plug-and-play deployment in new or existing WirelessHART™ mesh networks.
- Diverse number of variables available to meet users' needs

Benefits Detail

Multiple Variables to Meet Users' Needs

- Single phase or 3-phase line voltage, current, and power factor
- kWh, kVAh, and KVARh to understand energy consumption
- Instantaneous and averaged variables

Ease of Setup and Options Available

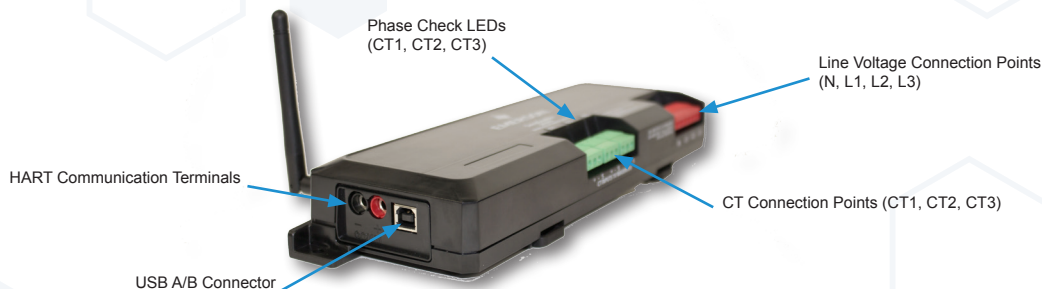
- Full range of UL 2808 listed current transformers (CTs) available
- Phase Check LEDs to ensure proper configuration
- Passively powered to eliminate unexpected power loss
- Compact design and DIN rail channel mounting

Proven Reliability

- Designed using WirelessHART technology employed in tens of thousands of critical application networks exceeding four billion operating hours
- Self-organizing, self-healing, mesh network ensures optimized connectivity for 99.999% data reliability
- Superior interference tolerance obtained through Time Slotted Channel Hopping (TSCH) providing seamless coexistence with other wireless networks

Secure Network Communications

- Always ON built-in AES 128-bit encryption for confident and secure data protection
- Data and Network Level Security provides critical key management, end-to-end security, and message based integrity checks
- Complies with the open WirelessHART (IEC 62591) International Standard providing connectivity options with existing WirelessHART sensors
- Simple Network ID and Join Key provisioning for rapid connection to the Gateway



Device Specifications

Power Source	From L1 Phase to L2 Phase or USB
Connection Points	<ul style="list-style-type: none"> • USB A/B Connector - Computer connection using a USB A/B cable • N, L1, L2, and L3 - Line voltage connection points • CT1, CT2, and CT3 - Current Transformers connection points • HART Communication Terminals
Phase Check LEDs	<ul style="list-style-type: none"> • LEDs CT1, CT2, and CT3 - Phase connection check and health of unit
WirelessHART Mesh Features	<ul style="list-style-type: none"> • Remotely adjustable reporting interval • Received Signal Strength Indication (RSSI) available for radio signal monitoring • Automatic self healing mesh network • Ease of adding and removing sensors
Gateway	Any WirelessHART Gateway
Approximate Dimensions (L x W x H)	26.7 x 9.1 x 4.0 cm (10.5" x 3.6" x 1.6" in)
Operational Environment	Temperature: -20°C to +55°C [20°F to +131°F] / Humidity: 5% to 90% (non-condensing)
Regulatory	<ul style="list-style-type: none"> • Compliant with FCC, UL Listed, and CE Mark • Conforms to UL Std. 61010-1 • Certified to CSA Std C22.2 No. 61010-1, 3rd Edition
Electrical Details	<ul style="list-style-type: none"> • Service Type - Single Phase, 3 Phase-4 Wire (WYE), 3 Phase-3 Wire (Delta) • Voltage channels - 80-346 Volts AC Line-to-Neutral, 600V Line-to-Line, CAT III • Line frequency - 50/60 Hz.
Measurement Details	<ul style="list-style-type: none"> • Measurement type - True RMS using high-speed digital signal processing (DSP) • Measurement variables - Volts, Amps, kW, kWh, kVAR, kVARh, kVA, kVAh, Apparent Power Factor, Displacement Power Factor • Averaged variables - Volts, Amps, kW, kVA, kVAR, Apparent Power Factor, Displacement Power Factor • All parameters for each phase and system total • Resolution - 0.01 Amp, 0.1 Volt, 0.01 Watt, 0.01 VAR, 0.01 VA, 0.01 Power Factor depending on scalar setting • Accuracy - 0.2% (<0.1% typical) ANSI C12 .20-2010 class 0.2
Current Channels	3 channels, 0.52 VAC max, 333 mV CTs, 0-4000A
Waveform Frequency	12 kHz (200 Samples/60Hz, 240 Samples/50Hz)
Ingress Protection Rating	20
Enclosure	ABS Plastic, 94-VO Flammability Rating

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