

# **EM Pulse Series**

# **Pulse Output Energy Meter**

ANSI C12.20 0.2% Meter Accuracy Pulse Version: kWh, KVAR, kVA

Accepts additional pulse inputs for meters or flow meters

Flexible Split-core Rogowski CVTTM Sensors Monitor loads from 30-6000A & 90-600VAC

















#### **DESCRIPTION**

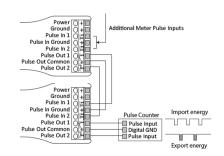
The EM-pulse installs quickly and safely. Unique design makes the meter entirely low-voltage, as the high voltage components are embedded in the Current/Voltage Transducer (CVT). Each CVT uses digital communication with the meter for superior noise immunity. The CVTs are individually calibrated and can be mixed or matched with independent meter channels for a sum total. Accepts additional pulse inputs for additional meter inputs.

#### **APPLICATIONS**

- Energy Management & performance contracting
- Monitoring for commercial tenants
- Activity-based costing in commercial & industrial facilities
- · Real-time power monitoring & load shedding
- Audits/temporary monitoring
- Distributed generation
- Great for data center & voltage and current sensing



Flexible split-core CVT sensors are easy to install with plug and play high accuracy

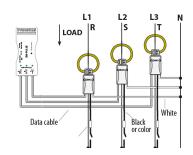


Multi-meter pulse summing. The EMPULSE meter is capable of accepting pulse inputs from one or more meters. The meter will aggregate the pulses and report them as a total sum. The meters must all be set with the same pulse scale.



Super compact, low voltage meter base fits in or outside panel. Screw, DIN, and magnetic mounting









Fusing is typically NOT required!

Meter base is low voltage and safe

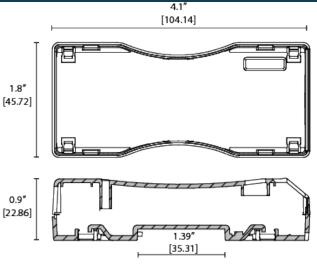
Fast installation options

# **FEATURES**

- Split-core Rogowski CVT<sup>TM</sup> senses both voltage and current, communicating with the meter through a low voltage data cable
- Easy to install Rogowski CVT<sup>TM</sup> is lightweight and compact
- True 3 channel meter--mix and match different voltages and currents per phase on HVAC equipment
- No scaling required--easy set up
- Meter base is entirely low voltage--locate external to panel if desired
- 2 pulse inputs can connect to a variety of pulse output meters (water, gas, steam, etc.)
- · Versatile DIN, screw, and magnetic mount

# **ORDERING**

# **DIMENSIONS**





**Warning:** The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice.



Power Supply Input Pulse Outputs		
Pulse Outputs		12-30VDC/24VAC (1), 1.5W max,100mA max.
Pulse Outputs	Dual Outputs	Import & Export Energy
	Туре	Solid state dry contact
	Specifications	N.O., 300mA max, 40V max
	Pulse Scaling	0.01, 0.1, 1, 10, 100, 1k Wh/Pulse
Wiring Requirements	Conductor gauge	14-26 AWG
	Terminal torque rating	0.4 ft-lb (0.55 N-m)
Pulse Inputs	Input Rating	3.5 +/- 0.5 VDC, short circuit current is 10mA max
	Pulse Rate	50 Hz max
	Pulse Active	<100 ohms
	Pulse Undefined	100-1000 ohms
	Pulse Idle	>1000 ohms
Service Types	Configurations	1Ph, 2Ph, 3Ph Wye (4-Wire), 3Ph Delta (3-Wire)
	Voltages	90VL-N through 600VL-L
	Frequency	45-65 Hz
Performance	Meter Accuracy	0.2% (ANSI C12.20 Class 0.2 standards)
	System Accuracy	1% for V, A, kW, kVAR, kVA
Operating Environment	Temperature	-4 to 140F (-20 to 60C)
	Humidity	0-95% non-condensing
Dimensions	Meter	4.1"h x 1.8"w x 0.9"d
	CVT	3.5"h x 1.6"w x 0.8"d
	Material	Polycarbonate/ABS
Compliance	Agency	UL Listed, File E501430, CE, RoHS
	USA	Meets ANSI C12.20 Class 0.2 Standards (Revenue Grade)
	State	Meets WA State Clean Building bill

Fusing is typically NOT required! Under UL 240.21 Senva CVTs may tap conductors without overcurrent protection under certain guidelines. Senva's unique architecture keeps the high voltage connections contained within the CVT enclosure and in consideration to the tap rule, Senva does not ship EM Series meters with more than 10 feet of voltage reference wire on any CVT. If your voltage reference must be longer than 20 feet, proper use of over current protection is required (i.e. appropriate fusing or circuit breakers)

<sup>\*</sup> Product improvement is a continual process at Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.