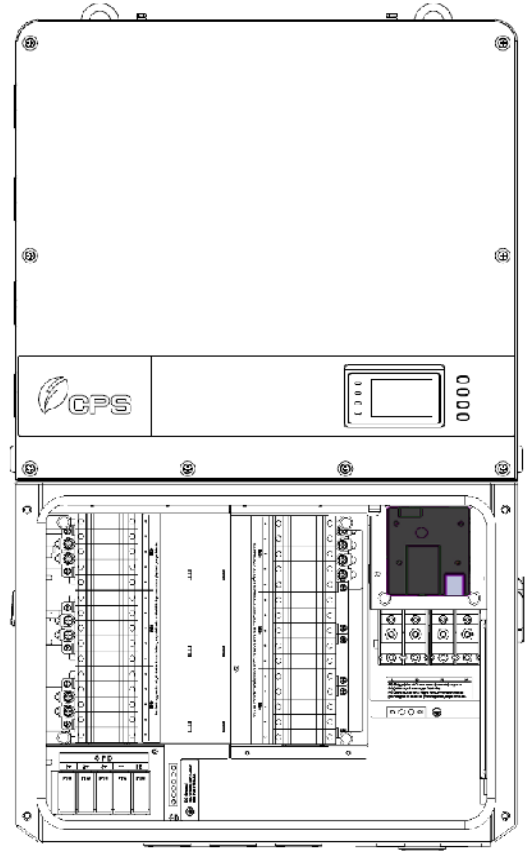
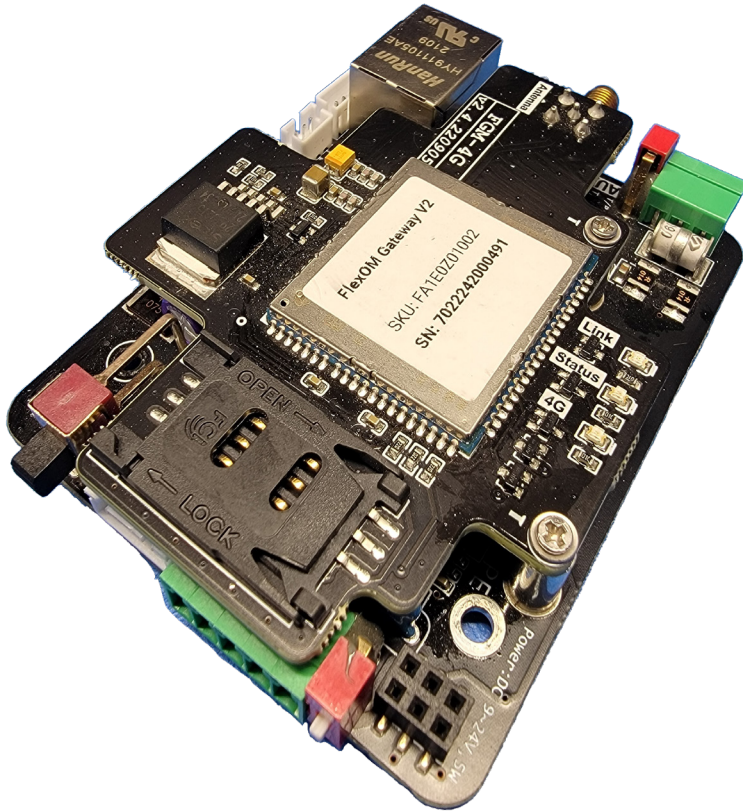


# CPS FlexOM Gateway



The CPS FlexOM Gateway is an advanced communications and controls solution for the CPS 25, 36, 50, 60, 100, 125, 275, and 350 kW inverters. The gateway is a Modbus client data logger and communications device. This flexible solution enables fast, efficient field service for CPS inverters via remote diagnostics and troubleshooting, setting adjustments, and firmware upgrades facilitated by the CPS Service team.

FlexOM Portal Bundles are offered by CPS with web portal data access to features such as data charting, monitoring alerts, remote resetting, kiosk view, and more!

## Key Features

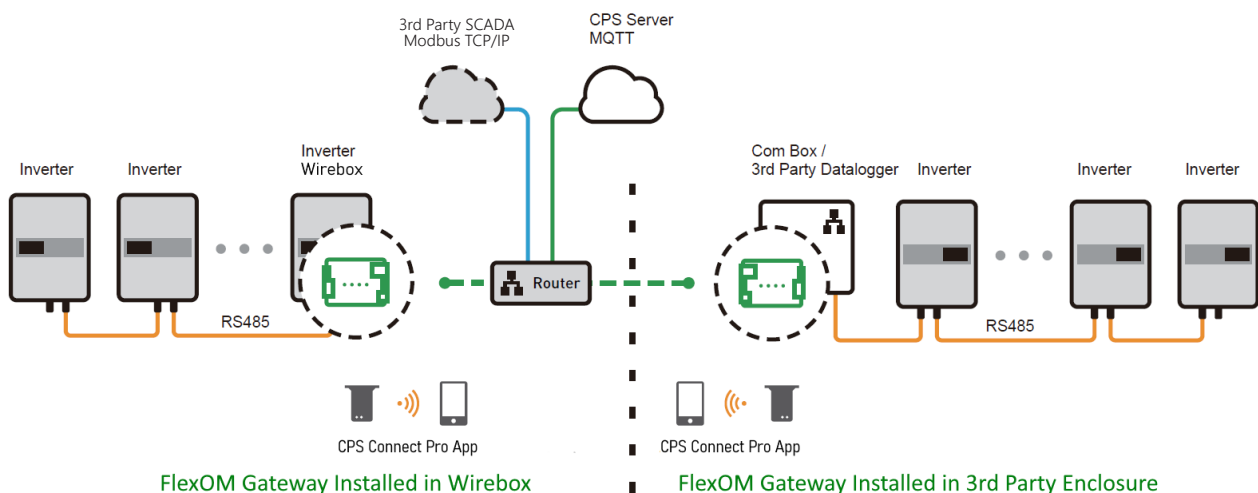
- Can be installed in a single inverter wire-box with no power or extra equipment required\*
- Modbus communications input (up to 32 devices per card) - Modbus RS485
- Complete controls functionality via Modbus (per inverter or broadcast command)
- Flexible outbound communications
- Remote firmware update solution reduces the need for a truck roll
- Pass-through data via aux port for local third-party solutions (Modbus RTU via RS485)
- Includes WiFi or Bluetooth capability for use with "CPS Connect Pro" iOS or Android smart phone app
- Accessory enclosure allows for DIN rail mounting in third-party communication enclosures
- Distinguishable from the previous FlexOM card by its black printed circuit board

*\*Excluding legacy CPS 36 kW wire-boxes and 250/275 kW inverters*

Model Name	CPS FlexOM Gateway	CPS FlexOM Portal Bundle	CPS FlexOM-4G Portal Bundle
<b>Hardware</b>			
FlexOM Gateway card	X	X	X
DIN rail enclosure	X	X	X
Cellular antenna with 3 m cable, mounting bracket, and cable gland (for 4G pkgs only)			X
Misc. connectors and standoff screws	X	X	X
Pre-installed 4G SIM card			X
<b>Software Performance Packages</b>			
5 years of web portal access		X	X
Asset portfolio feature		X	X
Monitoring alerts		X	X
On/off reset remotely		X	X
Arc-fault clearing remotely		X	X
Active power setting remotely		X	X
Fault code observation		X	X
Public kiosk view		X	X
5 years of rolling data storage		X	X
"End user" account admin		X	X
<b>Communications</b>			
Inverter to gateway		RS485	
Internet access	Ethernet	Ethernet	4G cellular <sup>1</sup>
Inverter connections per gateway	32		
Protocol	SunSpec XML, DHCP, DNS Resolution, CPS Modbus RTU, TCP		
<b>Setup and Programming</b>			
Local Programming	CPS Connect Pro app (iOS and Android)		
Remote programming	CPS Service		
<b>Datalogging Specifications</b>			
Data sampling rate	Programmable data sampling (1- to 20-minute sample rate)		
Local data storage	30 days based on 20-minute intervals <sup>2</sup>		
Data parameters	Modbus ID, Inverter S/Ns, Model, TYield/DYield(kWh), RunT(min), Mode, Upv(V), Ipv(A), Pac(kW), PF, Freq(Hz), Uabc(V), Iabc(A)		
<b>Power Supply</b>			
DC input voltage	9-24 V <sub>DC</sub> max. (provided when installed in inverter wire box)		
Power consumption	< 6 W		
<b>Environmental Parameters</b>			
Ambient temperature range	-22°F to 185°F / -30°C to 85°C, natural convection cooling		
Environmental protection	Installed in NEMA 4X inverter wire box or external enclosure (CPS Legacy 36 kW and 250/275 kW inverters require gateway installation in a separate NEMA4 enclosure - not included)		
Relative humidity	< 85% non-condensing		
<b>Mechanical Parameters (per unit)</b>			
FlexOM gateway card dimensions (H × W × D)	3.97 × 2.71 × 0.83 in (101 × 69 × 21 mm)		
FlexOM gateway enclosure dimensions (H × W × D)	4.1 × 3.0 × 1.3 in (103 × 77 × 32 mm)		

1) 4G cellular network coverage in US and Canada locations.

2) FlexOM Gateway only stores data when the Gateway card is continuously powered.

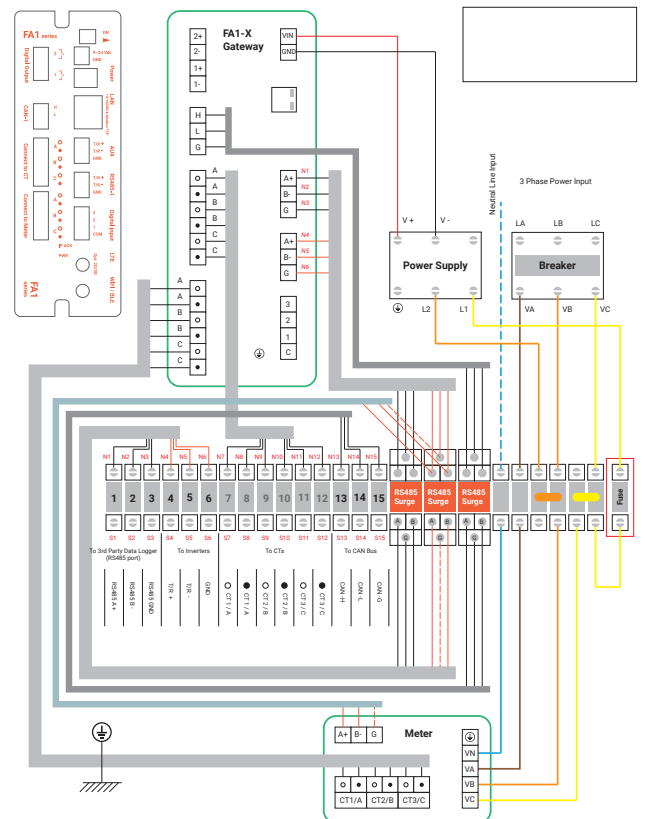




The CPS FlexOM Meter offers a revenue-grade metering solution for CPS 25, 36, 50, 60, 100, and 125 kW inverters. The FlexOM meter solution includes a FlexOM Gateway and revenue-grade meter integrated into a NEMA 4 enclosure. FlexOM Portal Bundles are offered by CPS with web portal data access to features such as data charting, monitoring alerts, kiosk view, and more!

## Key Features

- Low-cost, complete hardware and software package
- Includes revenue-grade site-level meter (CTs not supplied, and must have output voltage of 0.333Vac at full scale)
- Full access to inverter data (15+ parameters per inverter)
- 1- to 20-minute interval data (download up to 5 years of site data)
- 5 years of monitoring included (extensions available)
- Automated site commissioning report
- Up to 32 devices per Flex Gateway (no additional fees for each inverter connection)
- Site activation with "CPS Connect Pro" app (iOS and Android)
- Inverter on/off, remote arc-fault reset, PF and active power curtailment controls capability
- Remote CT reversal capability





Product Model	FlexOM Meter	FlexOM-4G Meter
<b>BOM List</b>		
NEMA 4 Type Enclosure <i>Wall &amp; pole mounting accessories</i>	×	×
Breaker <i>3 P, 5 A, 690 Vac, 2.5 kAIC</i>	×	×
AC-DC Power Supply <i>150-900 Vac output, 12 V output, 18 W</i>	×	×
RS485 Surge <i>12 Vdc, 20 kA, ≤1 ns</i>	×	×
Gateway	FA1-X Gateway card	FA1-X Gateway card
Pre-installed 4G SIM Card		×
Data plan (compatible with AT&T, T-Mobile, and Verizon) <sup>1</sup> <i>5 years for 32 devices in a daisy chain</i>		×
Revenue Meter <i>WattNode® revenue-grade wide-range Modbus® meter</i>	×	×
<b>CPS Flex Gateway</b>		
Inverters to Gateway	Modbus® RS485	
Gateway to Portal	Ethernet	
Inverter Connections per Card	1-32	
Protocols	SunSpec XML HTTPS, CPS Modbus® RTU	
Local Programming	Wi-Fi to CPS ConnectPro app (iOS and Android)	
Data Sampling Rate	Programmable data sampling (1- to 20-minute sample rate)	
Local Data Storage	30 days based on 20-minute intervals <sup>2</sup>	
Data Parameters	Modbus®ID, inverter S/Ns, model, Tyield/Dyield (kWh), Eff (%), PF, Pmax (kW), Pac (kW), Sac (kVA), Uabc (V), Iabc (A), Upv (V), Freq (Hz), mode, time, event	
<b>Revenue-Grade Meter</b>		
Meter Type	WattNode® revenue-grade wide-range Modbus® meter	
Input Voltage	Line-powered from 3-phase, 208/480/600 Vac, 60 Hz	
Communication Protocol	Modbus® RTU RS485	
Measurement Accuracy	ANSI C12.20 class 0.5 and ANSI C12.1	
Update Rate	Approximately 0.1 second	
Startup Time	≤ 1 second after supply voltage is applied	
<b>Monitoring</b>		
Interface	CPS web-based customer-facing portal	
Inverter Controls	On/off, PF control, active power curtailment, remote arc-fault reset	
Inverter Data Parameters	Pac (kW), Uabc (V), Iabc (A), Upv (V), Ipv (A), Temp (°C), THDv, THDi	
Site-Level Production	Energy (kWh), day, month, year	
Real-Time or Daily Notification	Status, warning, protect, fault	
Commissioning Reports	System info: site address, installation date, rated kW AC/DC Inverter info: model, S/N, firmware, V/F relay settings, performance	
Production Reports	Modbus®ID, inverter S/Ns, model, Tyield/Dyield (kWh), Eff (%), PF, Pmax (kW), Pac (kW), Sac (kVA), Uabc (V), Iabc (A), Upv (V), Freq (Hz), mode, time, event	
<b>Environment</b>		
Operating Temperature Range	-40°F to 140°F (-40°C to 60°C)	
Relative Humidity	5-85% (non-condensing)	
Maximum Operating Altitude	13123 ft (4000 m)	
<b>Mechanical Parameters (Meter Enclosure)</b>		
Dimensions (H × W × D)	23.6 × 13.7 × 6.8 in (586 × 347 × 172 mm)	
Weight	41.9 lb (19 kg)	
Protection Degree	NEMA 4 / IP65	
Installation Options	Wall mounting, pole mounting	

<sup>1</sup> 4G cellular network coverage in US and Canada locations.

<sup>2</sup> FlexOM Gateway only stores data when the Gateway card is continuously powered.