







The CPS Flex Gateway is a new communications and controls solution for the CPS 36, 50, 60, 100 and 125kW inverters. The gateway is a Modbus master data logger and communications device. This flexible solution enables three parallel outbound communication options: (1) local pass-through Modbus RS485 data to 3rd party solutions, (2) Ethernet based communications for CPS service operations, and (3) a programmable Ethernet based connection to a location chosen by the customer.

The Flex Gateway enables remote firmware upload by the CPS Service team, enabling efficient field service solutions for our customers. The remote upload function is facilitated by the CPS Service team.

## **Key Features**

- Installed in a single inverter wire-box: no power or extra equipment required
- Modbus communications input (up to 32 inverters per card) Modbus RS485
- Complete controls functionality via Modbus (per inverter or broadcast command)
- Flexible outbound communications
- Programmable IP address for customer direct data (SunSpec XML HTTPS format)
- Remote firmware update solution reduces the need for a truck roll
- Pass-through data for local 3rd party solutions (Modbus RS485)
- Includes WiFi module for use with "CPS Connect" IOS or Android Smart Phone App
- Accessory enclosure allows for DIN rail mounting in 3rd party communication enclosures



Model Name  Communications Inverter to Gateway  Gateway to Customer Inverter connections per card	CPS FG4E-US-KIT  RS485  Standard: Pass-through RS485, Ethernet  32
Inverter to Gateway Gateway to Customer	Standard: Pass-through RS485, Ethernet
Gateway to Customer	Standard: Pass-through RS485, Ethernet
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Inverter connections per card	32
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Protocol	SunSpec XML HTTPS, DHCP, DNS Resolution, CPS Modbus RTU
Monitoring	
IP Addresses	CPS Service + Customer Programmable location
Remote monitoring	3rd party platform
Setup and Programming	
Local Programming	LinKit WiFi to CPS Connect Phone App (IOS and Android)
Remote Programming	CPS Service
Data logging Specifications	
Data sampling rate	Programmable data sampling (1 to 15 minute sample rate)
Local data storage	30 days based on 15 minute intervals
Upgradeability	Remotely via CPS Service platform or 3rd party platform / locally via USB
Data parameters	Modbus ID, Inverter S/N's, Model, TYield/DYield(kWh), RunT(min), Mode, Upv(V), Ipv(A), Pac(kW), PF, Freq(Hz), Uabc(V), Iabc(A)
Advanced Functions	
Remote O&M operations	Inverter parameter settings / inverter firmware upgrade
Controls Capability	Capable of control commands via Modbus (ie; PF control, Active Power curtailment, Remote reset)
Connections	
RS485 Port A	RS485 + DC input, 6 Pin Connector
RS485 Port B	RS485 + DC input, 5 Pin, 3.5mm, Edge Connector
Pass-through	RS485, 3 Pin Connector
Ethernet	RJ45, 10BaseT / 100BaseT Connector
LinKit WiFi Module	4 Pin Connector
Power Supply	
DC Input Voltage	9-24Vdc, 28Vdc Max (provided when installed in Inverter wirebox)
Power Consumption	<6W
Environmental Parameters	
Ambient temperature range	-30 to +85°C, Natural Convection cooling
Environmental protection	Installed in NEMA 4X Inverter wirebox (CPS 36kW Inverters require enclosure installed - included in kit)
Relative humidity	<85% Non-condensing
Mechanical Parameters (per unit)	
Flex Gateway card Dimensions (H x W x D)	3.38" x 2.71" x 0.63" (86mm × 69mm × 16mm)
Flex Gateway enclosure Dimensions (H x W x D)	3.50" x 1.38" x 3.13" (89mm x 35mm x 79.4mm)
Flex Gateway card and enclosure Weight	0.3lb (150g)

