VersaGateway

VersaCloud M2M Enabled Communications Gateway

- Easy to Program with Ladder Diagram and Structured Text.
- Communicates to Cloud via Function Block
- 5 Programmable LED Indicators
- Operating Temperature -40° to 80° C
- Modbus Master/Slave
- Modbus TCP over Ethernet / WI-FI
- SAE J1939 via CAN
- NMEA 2000 via CAN
- Cellular[1,2], Wi-Fi and GPS Options
- 2 Serial Ports (RS232/RS485)
- 2 CAN Ports - 1 Isolated NMEA Compliant
- Full Size SD Card Support
- Optional GPS
- 9-32VDC Powered

VersaGateway

Overview:

The VersaGateway is a VersaCloud M2M enabled interface device that operates as a communications gateway between virtually any type of equipment and the VersaCloud M2M Cloud. The VersaGateway provides communications to equipment using a variety of communications ports and buses including wired Ethernet (Modbus TCP), WI-FI (Modbus TCP), Serial Ports (RS232/RS485) using Modbus Master/Slave or custom drivers, and CAN ports (SAE J1939, NMEA 2000, OptiCAN). The VersaGateway also supports GPS allowing for mapping location.

VersaGateway communicates to the VersaCloud M2M Cloud via Ethernet, Cellular[1,2], or Wi-Fi[2] (model dependent) providing the ability to monitor equipment and process remotely, control equipment and adjust process parameters remotely and to collect operational and status information for data analysis and reporting.

VersaGateway Programming

The VersaGateway is based on the P-Series PLC on a Chip™. The PLC on a Chip™ provides powerful functionality with ease of programming. Divelbiss EZ Ladder Toolkit is a Ladder Diagram Development Platform that allows for programming in ladder diagram (LD), function block (FB) and structured text (ST). EZ Ladder software parallels the IEC-61131 standard and provides an easy to use interface.

After a ladder diagram program is developed, it can be downloaded to the controller via the programming port (serial) or Ethernet Port. The program is stored on non-volatile FLASH memory and is automatically executed on power up.

VersaGateway Communication Ports

The VersaGateway is designed to communicate with equipment and devices using a variety of communication ports and buses.

Programming Port

The VersaGateway has one programming serial port (RS232). This port is used to configure and program the VersaGateway.

Serial Ports

The VersaGateway has two serial ports that are each configurable for RS232 or RS485. Each supports Modbus Master and Slave. Other communications are possible using custom drivers with Structured Text.

CAN Ports

The VersaGateway has two CAN ports. One port is Isolated and NMEA Compliant with multiple jumper configurations for power sourcing options. Each supports SAE J1939, NMEA 2000 and Divelbiss OptiCAN.

Ethernet Port

The VersaGateway has one Ethernet port (model dependent). This port supports communications using Modbus TCP, VersaCloud connectivity and can also serve as an optional programming port for the VersaGateway.

Wi-Fi

The VersaGateway supports Wi-Fi (model dependent). Wi-Fi supports communications using Modbus TCP and VersaCloud connectivity. Wi-Fi can also serve as an optional programming port for the VersaGateway.

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Cellular

The VersaGateway (model dependent) supports VersaCloud cellular[1,2] data communications to VersaCloud cloud and portals. Data sent and received is based on the VersaGateway programming.

GPS

The VersaGateway (model dependent) supports an external GPS antenna and can be used to receive current GPS data.

Ordering Information:

Model	Description
VCG-E-C-G	VersaGateway with Ethernet Port, Cellular[1,2] Data Modem and GPS
VCG-E-C-X	VersaGateway with Ethernet Port and Cellular[1,2] Data Modem
VCG-E-X-G	VersaGateway with Ethernet Port and GPS
VCG-E-X-X	VersaGateway with Ethernet Port
VCG-W-C-G	VersaGateway with Wi-Fi, Cellular[1,2] Data Modem and GPS
VCG-W-C-X	VersaGateway with Wi-Fi, and Cellular[1,2] Data Modem
VCG-W-X-G	VersaGateway with Wi-Fi, and GPS
VCG-W-X-X	VersaGateway with Wi-Fi

VersaGateway Specifications / Features - All Models	
	All Models
Processor / Memory / Programming	
Processor / Memory / EEPROM	P-Series PLC on a Chip™ - 32K RAM, 512K Flash / 3500 Bytes EEPROM / 512K Battery Backed S-RAM
Retentive Memory (FRAM)	480 Bytes
Full size SD Card	Yes, Update Programs / Kernels, Data-logging
Programming	Ladder Diagram / Structured Text / Function Block
User Interface	
LED Indicators	Qty 5 Programmable, Power x 1 / Status x 1
Communications	
Serial Ports / Serial Networking	2 Serial Ports - Configurable RS232 / RS485 (Modbus Master / Slave), 1 Programming Port
CAN Ports / CAN Networks Supported	2 CAN Ports (1 NMEA Compliant, Isolated), SAE J1939, NMEA 2000, OptiCAN
Other	
Input Power	9-32VDC
Real Time Clock	Month, Day, Year, Day of Week, Hour, Minute, Second
Dimensions	7.3"L x 4.8" W x 1.3"H (Excludes antennas)
Operating Temperature	-40°C to +80°C

VersaGateway Specifications / Features - Model Specific								
	VCG-E-C-G	**VCG-E-C-X**	**VCG-E-X-G**	**VCG-E-X-X**	**VCG-W-C-G**	**VCG-W-C-X**	**VCG-W-X-G**	**VCG-W-X-X**
Communications								
Wi-Fi (VersaCloud[2] / Modbus TCP)					■	■	■	■
Ethernet (VersaCloud[2] / Modbus TCP)	■	■	■	■				
VersaCloud Cellular[1,2]	■	■			■	■		
GPS	■		■		■		■	

1: Cellular data provided by VersaCloud by Divelbiss
2: VersaCloud features require VersaCloud M2M Package with Cloud Portal. Additional charges apply to connected devices.