

Victron GX product range

Introduction

GX products are Victron's state-of-the-art monitoring solution. The family consists of the different GX products, and their accessories.

The GX-device lies at the heart of the system - providing monitoring, and operating as the communication-centre of your installation. All the other system-components - such as inverter/chargers, solar chargers, and batteries - are connected to it. Monitoring can be carried out locally and remotely - via our free-to-use Victron Remote Management portal ([VRM](#)). The GX-device also provides [Remote firmware updates](#) and allows inverter/charger settings to be [changed remotely](#).

The GX Family consists of these models:



- [Color Control GX](#)
- [Venus GX](#)
- [CANvu GX](#) is best for harsh environments - when its IP67 rating is a must.
- [Octo GX](#) - The Octo GX is particularly suited to medium size installations which have many MPPT Solar Chargers, as it has 10 VE.Direct ports
- [Maxi GX](#) - suited for systems having many MPPT Solar Chargers, as it has 25 VE.Direct ports.

Also, there is a GX device built into our MultiPlus-II GX and EasySolar-II GX Inverter/chargers. There, it's referred to as the GX Card.

Available accessories

- [GX GSM](#) - A cellular modem. It connects to Venus-device via USB, and takes a simcard
- [WiFi USB sticks](#)
- [Energy Meters](#) - Measures PV Inverter Output where PV Inverters cannot be read-out directly. Also used as a grid meter in an [Energy Storage System \(ESS\)](#).
- [VE.Can resistive tank sender adapter](#) Allows a standard resistive tank-level sender to be connected to the Venus-device.

Comparison table

<u>User interface</u>	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Appearance						

User interface	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Display	LCD Display & 7 buttons	no display	no display	4.3" touch-screen	2×16 character display	
Remote Console	yes					
Buzzer	yes	yes	no	yes	no	
Documentation	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Manual	CCGX manual	VGX manual	OGX manual	CANvu manual	Maxi GX manual	MultiPlus-II GX
Product detail page	CCGX product	VGX product	OGX product	CANvu product	Maxi GX product	
Victron comm. ports	CCGX	Venus GX	Octo GX	CANvu GX ⁽¹²⁾	Maxi GX	MultiPlus-II GX and EasySolar-II GX
VE.Direct ports (always isolated)	2 ⁽¹⁾		10 ⁽¹⁾	3 ⁽¹⁾	25	1
VE.Can	2 paralleled RJ45 sockets – isolated					
VE.Bus	2 paralleled RJ45 sockets – isolated				1 isolated RJ45 socket	2 paralleled RJ45 sockets – isolated
Non Victron-products	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Canbus-BMS batteries	Many battery brands. See here for details					
Fronius PV Inverters	See here for details					
SMA PV Inverters	See here for details					
ABB PV Inverters	See here for details					
SolarEdge PV Inverters	See here for details					
Communication	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
USB	2 USB Host ports – not isolated		1 USB Host port - not isolated			
Ethernet	10/100 RJ45 socket - isolated except shield			1 port. isolation? ⁽¹²⁾	10/100 RJ45 socket	
WiFi	optional ⁽²⁾	built-in, but see ⁽³⁾	built-in, external antenna ⁽¹¹⁾	optional ⁽²⁾	no	built-in
Bluetooth Smart	no					
Micro SDcard slot	SDHC cards up to max. of 32GB. ⁽⁵⁾			no	yes	no
Second CAN-bus port	no	yes - non-isolated	yes - non-isolated	yes - non-isolated	no	no
Built-in RS485	no	no	yes - non-isolated	no		no
IO	CCGX	Venus GX	Octo GX	CANvu GX ⁽¹²⁾	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Programmable relay ⁽⁷⁾	1x NO	1x NO / NC ⁽⁸⁾	1x NO / NC		2x NO / NC ⁽⁸⁾	n/a

User interface	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Resistive tank level inputs	no	3 ⁽⁹⁾	no			
Temperature sense inputs	no	2 ⁽¹⁰⁾	no			
Digital Inputs	no	5	3	1	4	no
Other	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Supply voltage	8 - 70 VDC			8 - 32 VDC	32 - 70 VDC	powered internally, no external supply
Mounting	Panel Integration	Wall mounting	DIN Rail (35mm)	Panel	Wall mount IP65	Built-in
Outer dimensions (h x w x d)	130 x 120 x 28 mm	45 x 143 x 96 mm	61 x 108 x 90 mm	?	600 x 380 x 210 mm	
Operating temperature	-20 to +50°C			-20 to +70°C	-20 to +50°C	
Battery backedup clock	yes			no	yes	yes
CPU	single core				quad core	
Standards	CCGX	Venus GX	Octo GX	CANvu GX	Maxi GX	MultiPlus-II GX and EasySolar-II GX
Safety	EN 60950		?	?	?	
EMC	EN 61000-6-3, EN 55014-1, EN 61000-6-2, EN 61000-6-1, EN 55014-2					
Automotive	E4-10R-053535	In progress	?	?	no	

Notes

1. The maximum number of VE.Direct devices which can be attached to a CCGX is 5 (2 direct, and 3 via USB); on a Venus GX the number is 6 (2 direct and 4 via USB); on an Octo GX it is 10 (all attached directly). VE.Direct ports on a Venus-device are isolated.
2. Though the CCGX has no built-in WiFi that functionality can easily be added by attaching a USB-WiFi dongle. See [CCGX Manual, section 1.4.2](#) for details.
3. The built-in WiFi in the Venus GX has a very low signal strength - unfortunately. It is strong enough to connect to a phone, tablet or laptop in order to access setup and monitoring. But to connect the Venus GX to the internet either use the built-in Ethernet port or add a USB-WiFi dongle. See [CCGX Manual, section 1.4.2](#) for details. Make sure the Venus GX is running v2.06 or later - early shipments of Venus GX units ran v2.05.
4. The hardware of the Venus GX and Octo GX includes a built-in Bluetooth Smart chipset which hasn't proved satisfactory. Bluetooth Smart for Venus-devices is coming soon but will not use built-in chipsets.
5. Larger SD memory cards (SDXC) are not supported. SD cards can be used for two purposes:
 1. Logging data, see [this section in the ccgx manual for details](#).
 2. Updating firmware, see [this section in the ccgx manual for details](#).
6. The second CANbus port is accessible via the GND, CAN-H and CAN-L terminals. Note that the port is not Isolated. See Settings → Services for configuring that port.
7. The programmable relay can be set to act as an alarm relay, [automatic genset start stop](#), or an

on/off switch, and is controlled via the GUI and/or ModbusTCP.

8. In the Venus GX hardware there are two relays - at present only one of them is available for use.
9. The tank level inputs are resistive and should be connected to a resistive tank sender. Victron does not supply tank senders. The tank level ports can each be configured to work with either European (0 - 180 Ohm); or US tank senders (240 - 30 Ohm).
10. The Venus GX has two temperature terminals which can be used to measure & monitor all kinds of temperature-inputs. Temperature senders are not included. The required sensor is ASS000001000 - Temperature Sensor QUA/PMP/Venus GX. (Note that this is not the same as the BMV temperature accessory.)
11. Octo GX comes with a small Wifi antenna. You may remove and replace it with any other Wifi antenna having an RP-SMA connector.
12. Requires the [CANvu GX IO Extender and wiring kit](#)

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