

Hardware

Modbus Ethernet Wi-Fi Gateways (G11 - G13)

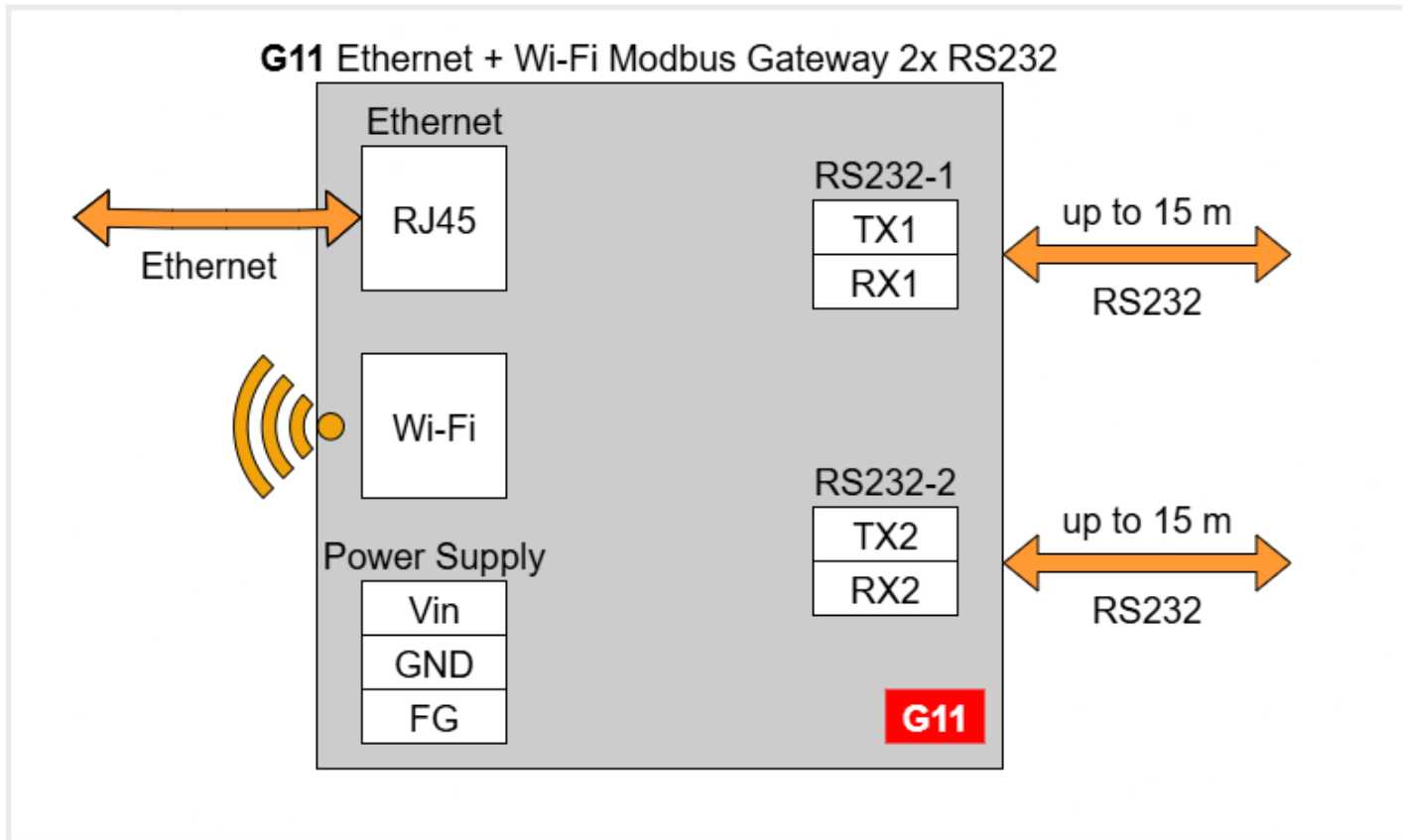
Modbus Gateway can be installed on any device from Redisage G11 - G13 Modbus Gateways family.

Features

Features	
2-mode Ethernet + Wi-Fi Modbus Gateway	
ESD protection for the RS485 data line	
Power supply: +12 to +30 VDC	
Transmission speed up to 115200 bps	
Tx, Rx and power LED indicators	
RS485 embedded termination 120 ohm	
Operating temperatures: -40°C to +75°C	
DIN rail mounting	
Dimensions: 90x56.4x22.5 mm	
3 years warranty	
Customization of OEM is welcomed	

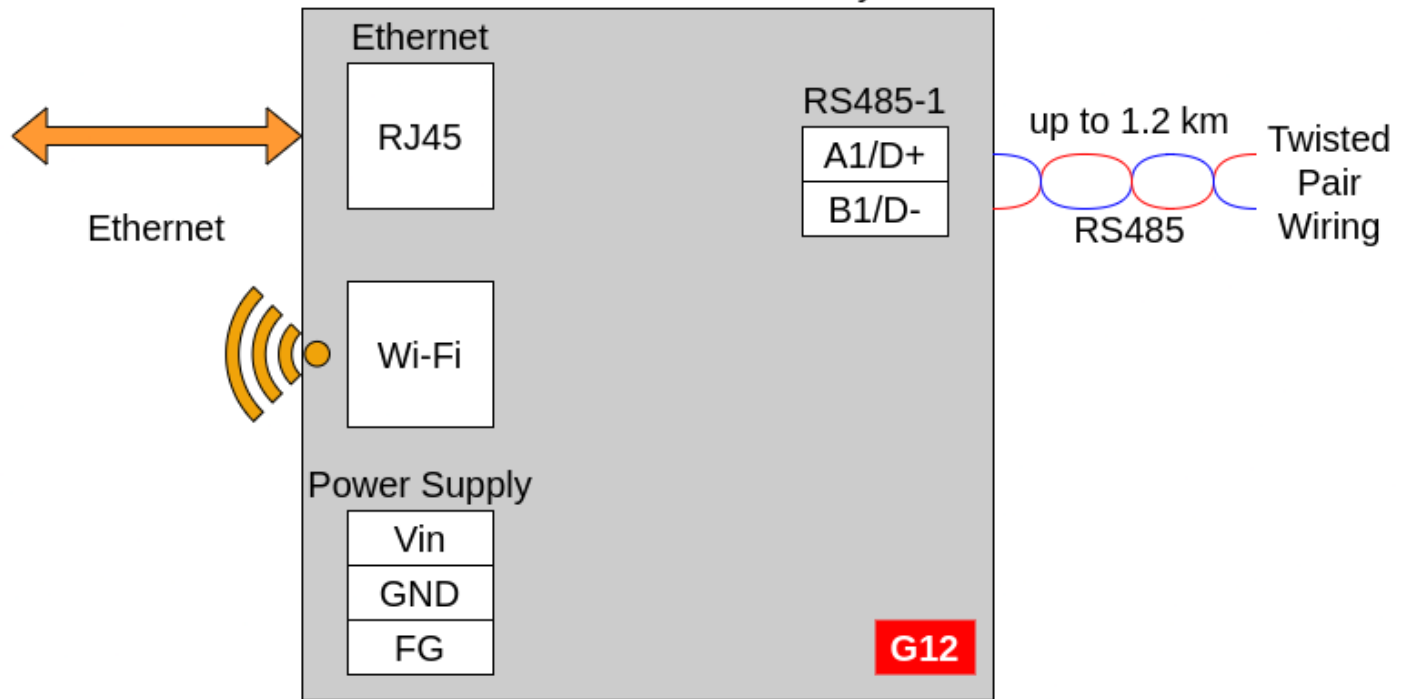
Variants

G11 - Ethernet + Wi-Fi Modbus Gateway 2 x RS232



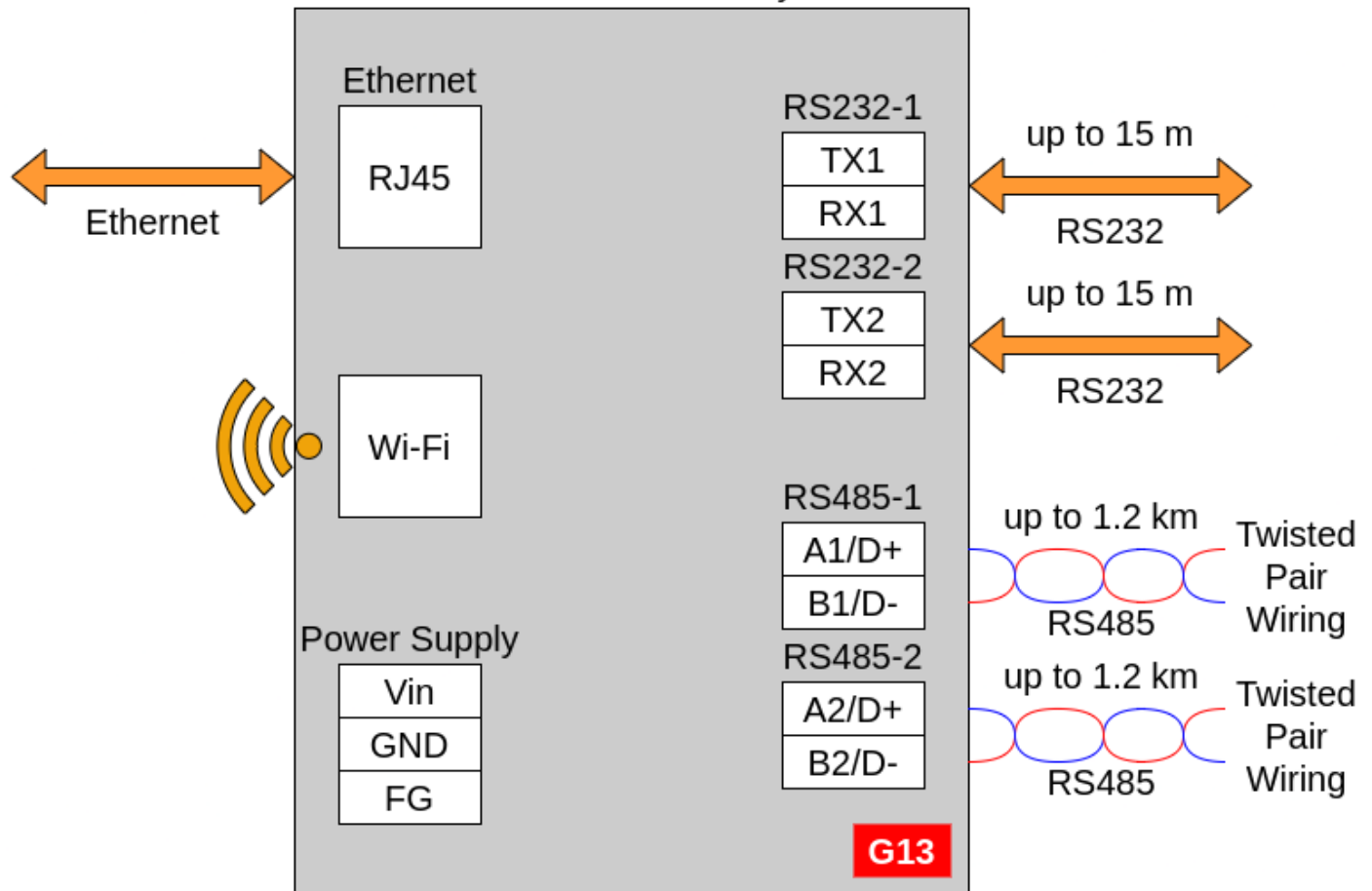
G12 - Ethernet + Wi-Fi Modbus Gateway 1 x RS485

G12 Ethernet +Wi-Fi Modbus Gateway 1x RS485



G13 - Ethernet Modbus Gateway 2 x RS232/RS485

G13 Ethernet +Wi-Fi Modbus Gateway 2x RS232/RS485

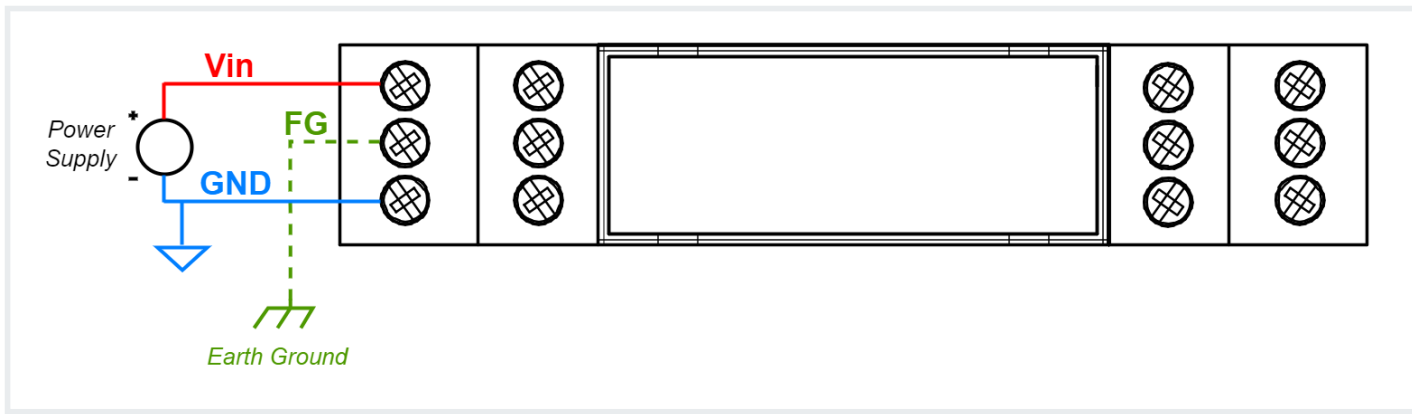


In the G13 gateway user should use only RS232 or only RS485 interface of one port as they occupy the same internal bus of the device.

Frame ground FG

Electronic circuits are constantly prone to electrostatic discharge ESD. Redisage Electronics modules feature a design for the frame ground terminal block FG. The frame ground provides a path for bypassing ESD, which provides enhanced static protection ESD abilities and ensures the module is more reliable. Connecting FG terminal block to the earth ground will bypass the ESD disturbances outside the device, so will provide a better level of protection against ESD.

Frame Ground FG connection reference drawing is provided below.




If earth ground is not available FG can be left floating or it can be connected with the power supply GND.

Specification

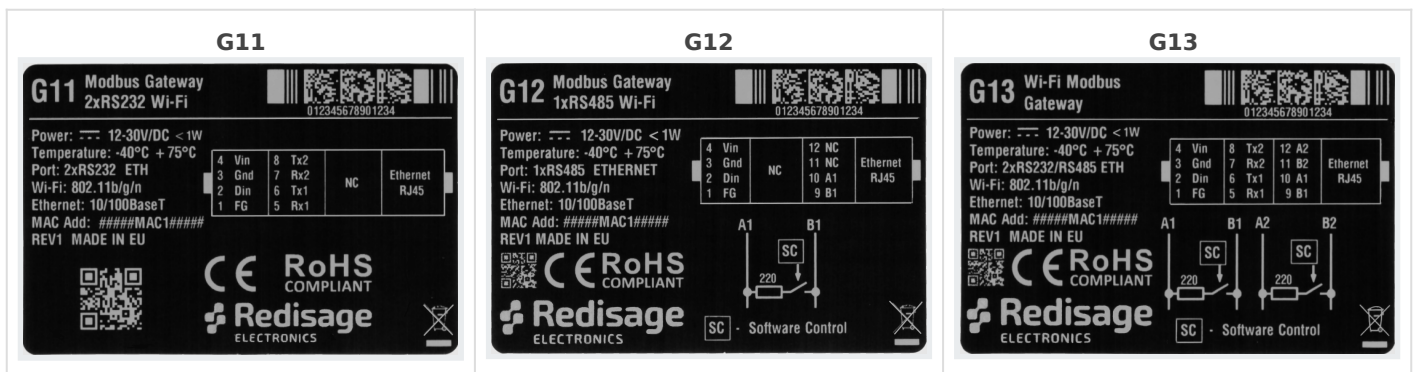
Redisage PN		G01	G02	G03
Ports	RS232	2x	-	-
	RS485	-	1x	-
	RS232/RS485	-	-	2x
Microcontroller		ESP32		
WiFi		2,4 GHz b/g/n		
Power	Voltage	12-30 VDC		
	Power	< 1 W		
Frame ground connection		yes		
Baud rate		up to 115200 bps		
LED indicators		communication Tx, Rx and power		
RS485 termination		120 ohm manually enabled		
Connector	RS232/RS485	8-pin terminal block max. 2.5 mm ² wire		
	Power	3-pin terminal block max. 2.5 mm ² wire		
	Ethernet	RJ45		
Transmission distance	RS485	max. 1,200 m at 9.6 kbps; max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)		
	RS232	max. 15 m at 115.2 kbps		
Mounting and enclosure		DIN rail, plastic PA - UL 94 V0, black/green		
Temperatures		-40°C to +75°C operating and storage		

Redisage PN	G01	G02	G03
Humidity	10 - 90% RH, non-condensing		
ESD protection	±4 kV contact discharge / ±8 kV air discharge		
Certification	CE, RoHS, EMC, LVD		
Norms	61000-6-2 - Immunity standard for industrial environments 61000-6-4 - Emission standard for industrial environments		

LED indicators

Modbus Gateways G11 - G13		
<div> <div> <div>G11</div> <div>  </div> </div> <div> <div>PW</div> <div>ETH</div> <div>ST</div> <div>2 Port MODBUS Gateway</div> <div>WB</div> </div> <div> <div>C1</div> </div> </div>		
LED indicator	Color	Function
PW	Blue	Power
ETH	Green	Network activity
ST	Orange	Console mode
	Red	Service mode

Pin assignments



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Revision #3

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