MBus 60-400 Converters & Reapeters Data Sheet

M-Bus Converters (C05 - C08)

C05 C06 C07 C08	Features
Image (6).webp Image not found or type unknown	- Serial ports RS232 and RS485 - Up to 400 simultaneously connected slave devices - ESD protection for the RS232/485 data line 3000 VDC isolation protection - Power supply: +12 to +30 VDC or 24 VAC - Transmission speed up to 9600 bps - Tx, Rx, power and M-Bus load LED indicators - RS485 embedded termination 120 ohm - Operating temperatures: -40°C to +60°C - DIN-rail mounting - Dimensions: 90x56.4x35,6 mm 3 years warranty - Customization of OEM is welcomed

Introduction

C05 - C08 is a family of products that are reliable M-Bus electrical standard converters. They enable communication in master mode with many (60-400) simultaneously connected slave devices and can work as M-Bus repeaters letting to broaden the range of the interface, while simultaneously making the quality better and supporting the safety of the communication. Dedicated EMC integrated circuits guarantee improved connection quality by limiting the impact of interference typical for an industrial environment.

Specifications

Redisage PN	C05	C06	C07	C08

Converter ports	Serial	1 x RS232 & 1 x RS485			
	M-Bus master	up to **60** slaves	up to **120** slaves	up to **200** slaves	up to **400** slaves
	M-Bus slave	1 x M-Bus slave			
Power	Voltage	12-30 VDC / 24 VAC			
	Max. power	5 W	8 W	15 W	30 W
Frame ground connection		yes			
Serial interface	RS232	TxD, RxD, GND			
	RS485	A, B			
3000 VDC isolation side		RS232, RS485, M-Bus slave			
Baud rate		up to 9600 bps			
LED indicators		communication Tx, Rx, power, M-Bus load, error			
RS485 termination		120 ohm manually enabled			
Connector	RS232	3-pin terminal block max. 2.5 mm^2 wire			
	RS485	3-pin terminal block max. 2.5 mm^2 wire			
	Power	3-pin terminal block max. 2.5 mm^2 wire			
	M-Bus	3-pin terminal block max. 2.5 mm^2 wire			
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			
	M-Bus	see: M-Bus max. transmission distance			
Mounting and enclosure		DIN rail, plastic PA - UL 94 V0, black/green			

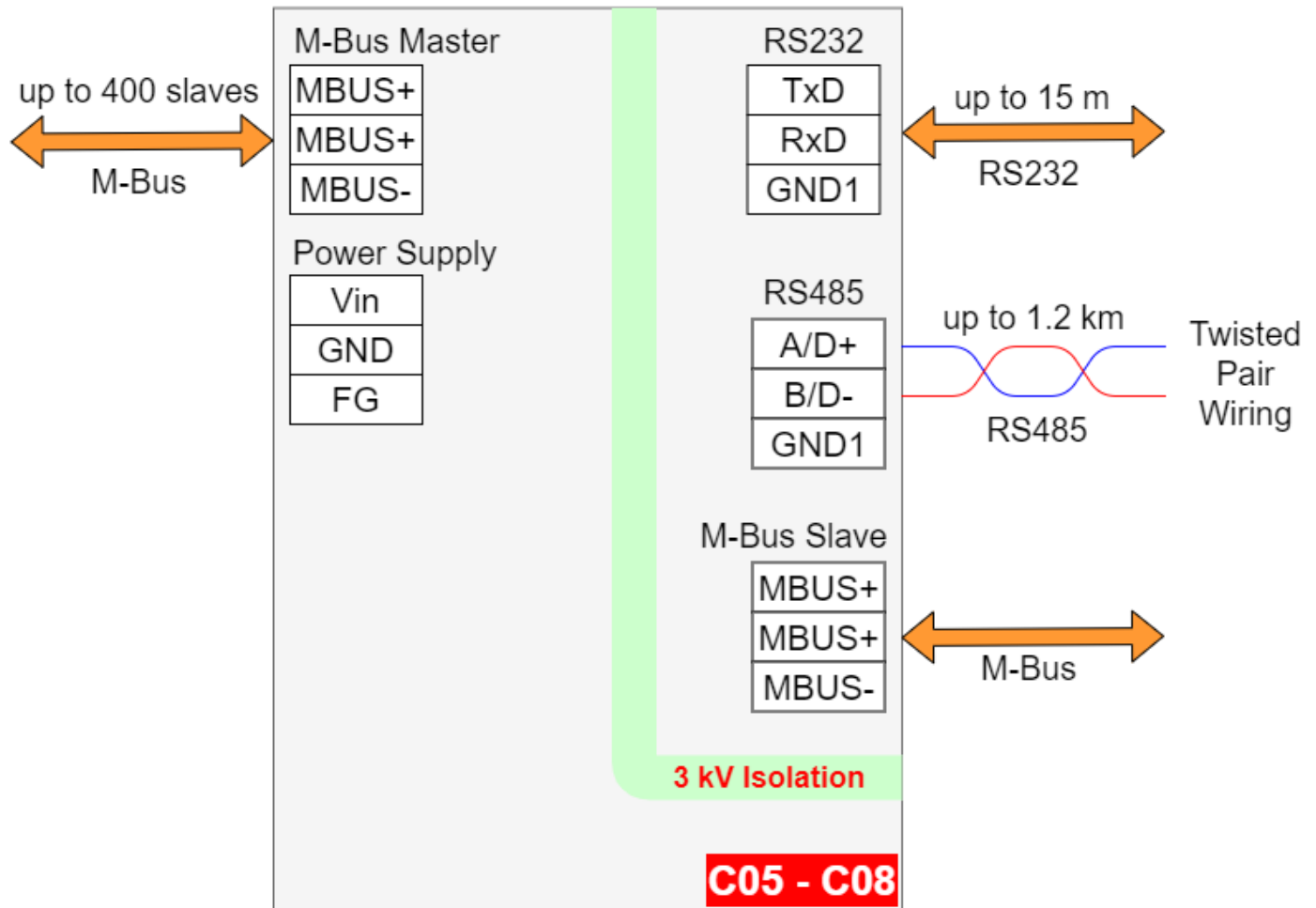|	
Temperatures	-40°C to +60°C operating and storage
Humidity	10 - 90% RH, non-condensing
ESD protection	±4 kV contact discharge / ±8 kV air discharge
Certification	CE, RoHS

M-Bus max. transmission distance

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Variants

C05 - C08 M-Bus Converter with M-Bus repeater functionality

C05-C08 M-Bus Converter with M-Bus Reapeater functionality

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.

Pin assignments

C05	C06
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C07	**C08**
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Enclosure dimensions

2U Module Enclosure
98 x 35.8 x 56.4
Units: mm
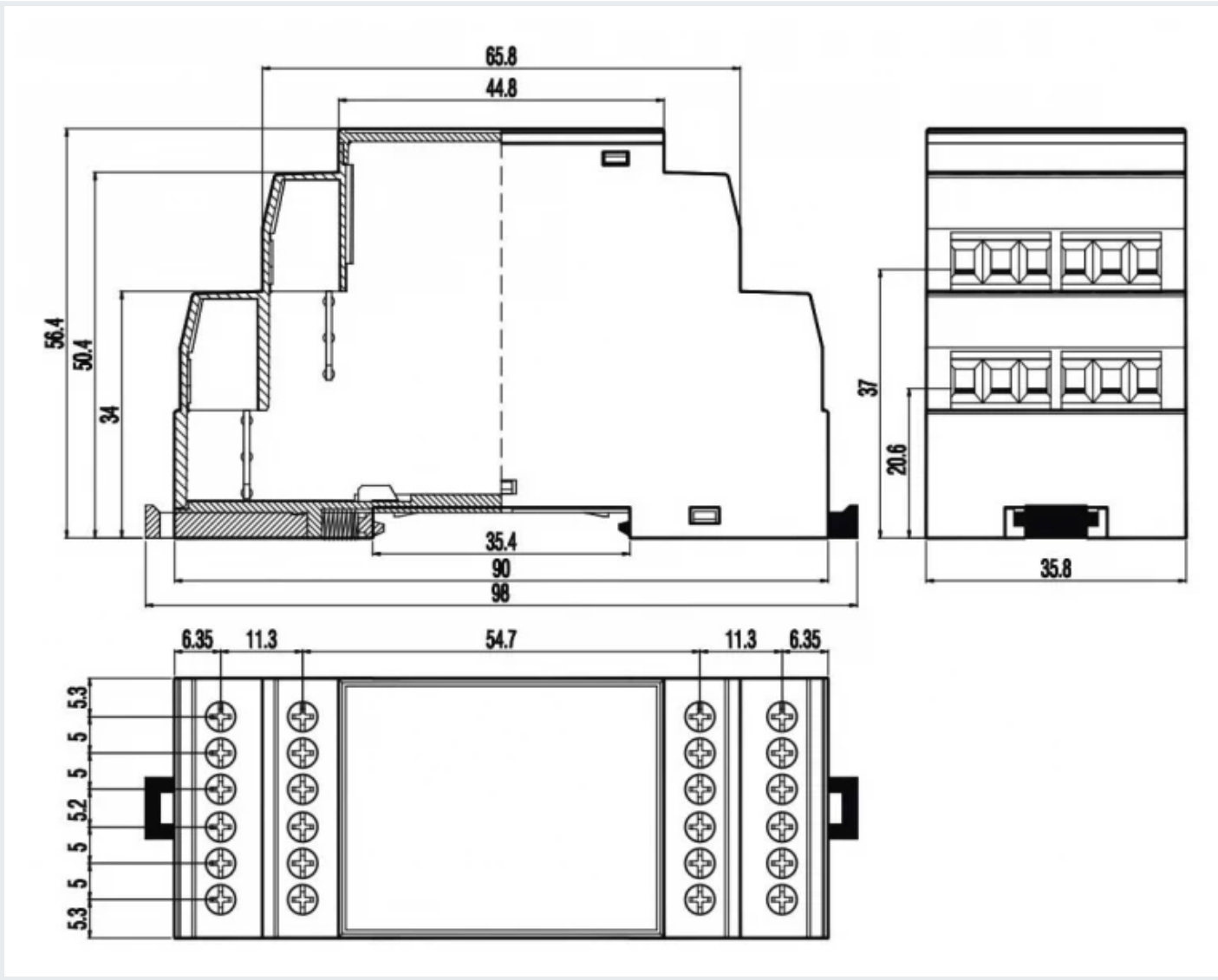
Additional notes

Related information and links		

Products family sample photo

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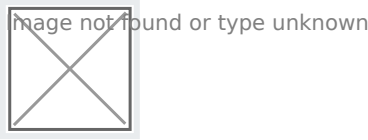
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