

1. Features

- The module is used for connecting the power from power supply to the system CAN bus
- Allows separating of the CAN bus power wires and connecting two power supply units, each to one part of the bus
- Allows separating of the CAN bus transmission wires and terminating them with built-in 120 Ohm resistors
- Operation voltage 16-24V DC
- Maximum allowed current of the bus 1.5A
- For DIN rail mounting.
- Dimensions 90x53x36 mm (2 mod)
- Schematic and PCB design can be downloaded from hapcan.com site



2. Application version



3. Technical data

Parameter	Symbol	Value	Unit
Power supply voltage	U_s	16-24	V DC
Maximum bus current	I_s	1500	mA
Bus connector type		2x RJ45	

4. Hardware

4.1. Wiring

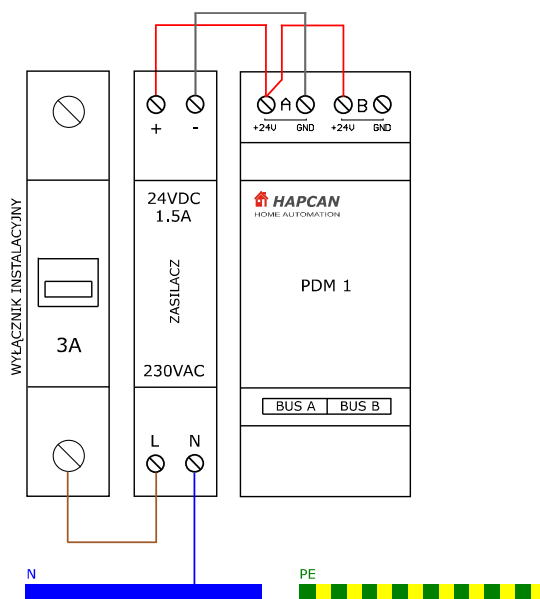
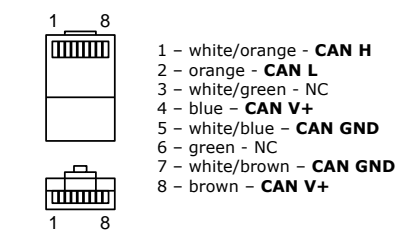
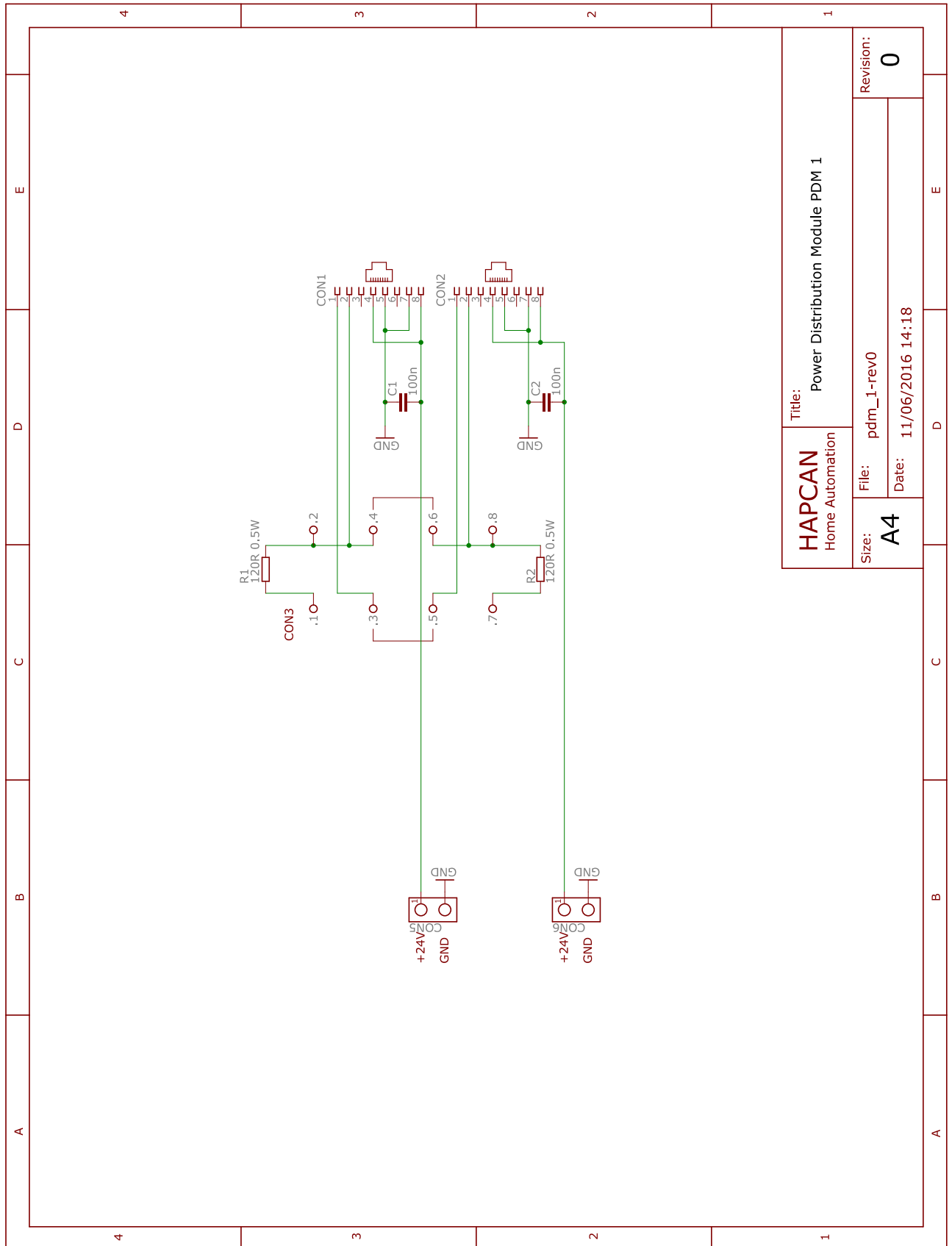


Figure 1. Module wiring.



Rysunek 2. RJ45 bus connector wiring.

4.2. Schematic



HAPCAN Home Automation		Title: Power Distribution Module PDM 1	
Size: A4	File: pdm_1-rev0	Revision: 0	
	Date: 11/06/2016 14:18		

Figure 3. Schematic of PDM 1 module

4.3. Different variants of power distributing

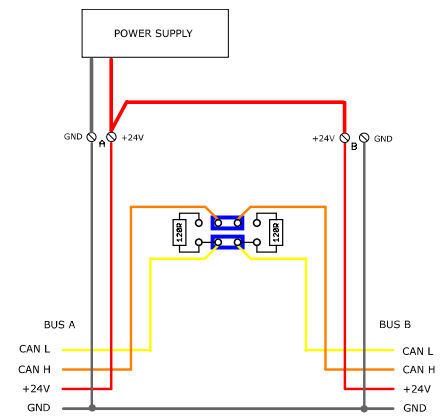
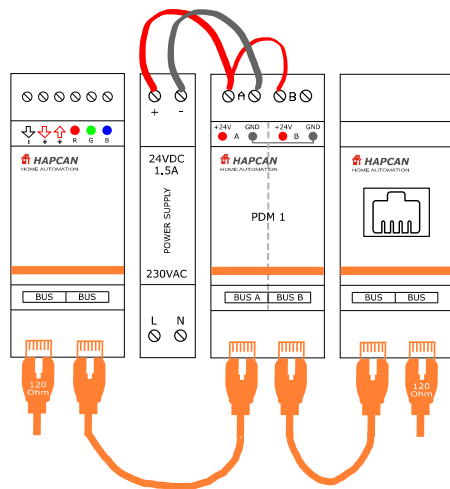


Figure 4. Power supply in the middle of the bus with a single power supply unit

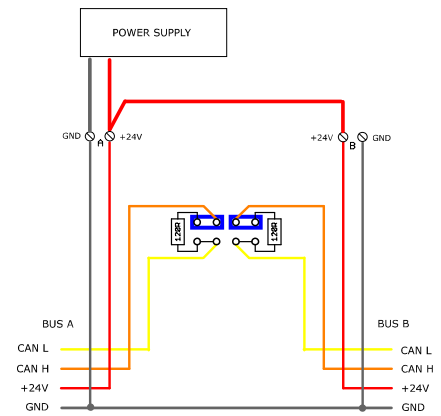
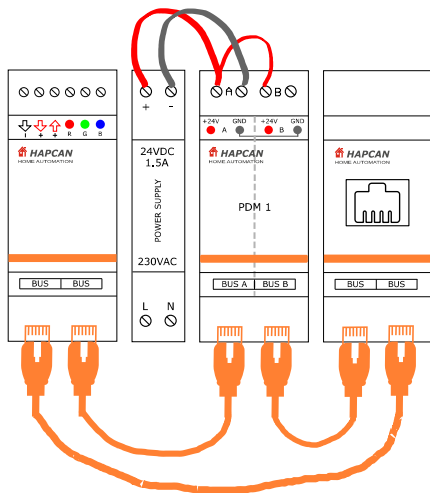


Figure 5. Supply at both ends of the bus with a single power supply unit

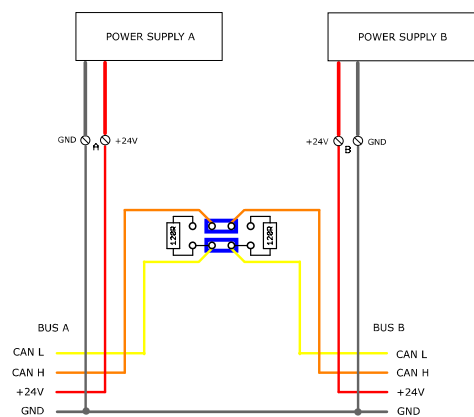
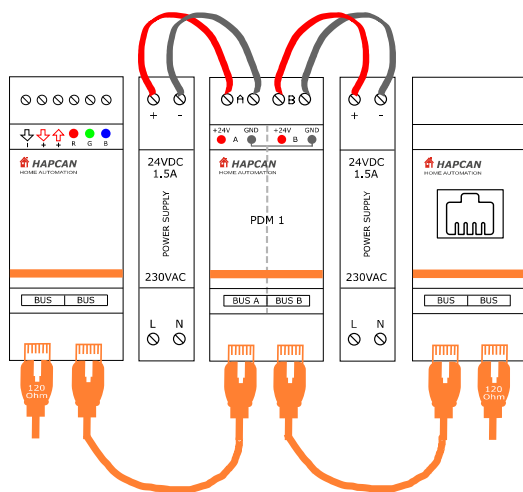


Figure 6. Power supply in the middle of the bus with two power supply units

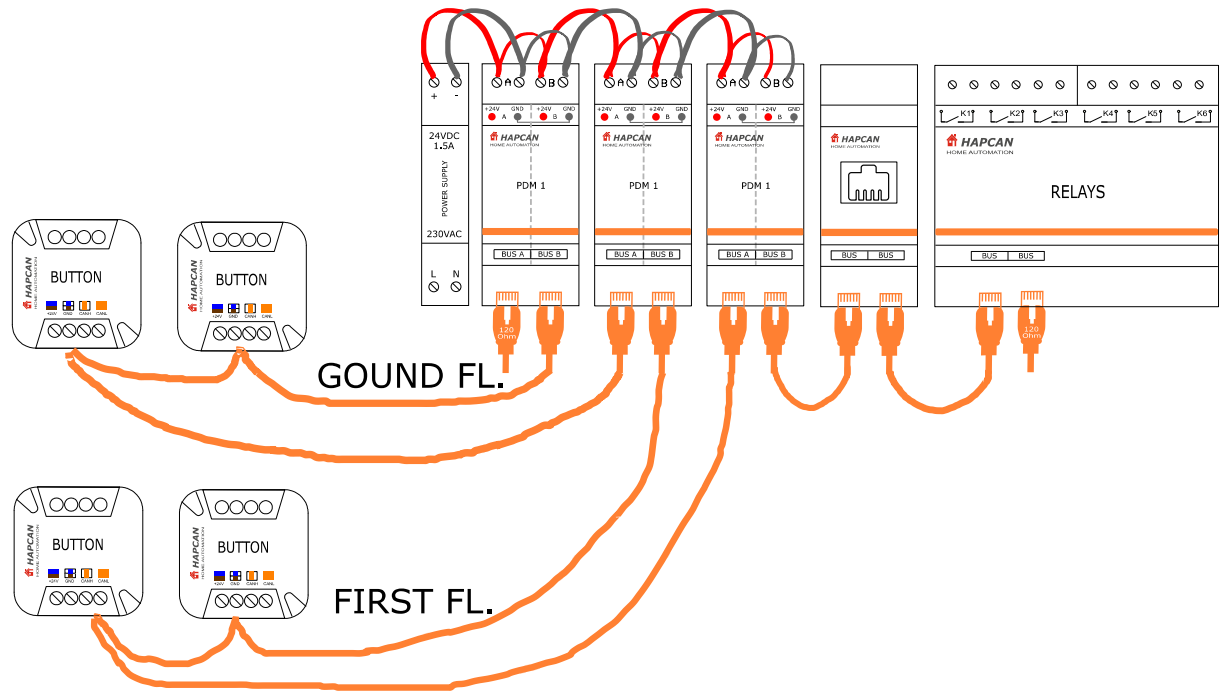
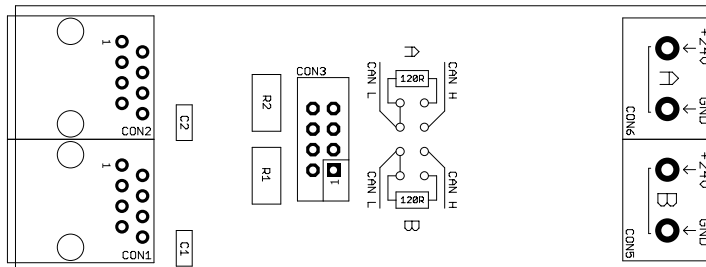


Figure 7. Multipoint power supply to the fuse box and to the floor circuits

4.4. Assembly schematic

- Printed circuit board of PDM1 module
- PCB dimensions: 33mm x 86.5mm

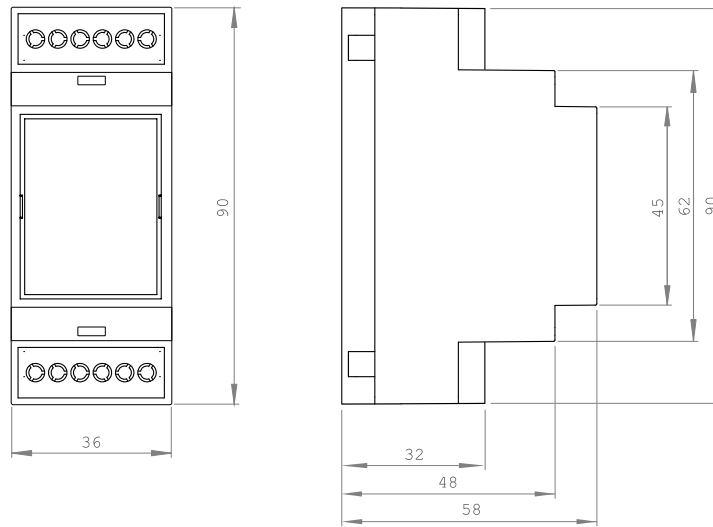


4.5. Components

Designator	Quantity	Type	Footprint	Description
C1, C2	2	100nF/50V ±10%	0805	Ceramic capacitor
R1, R2	2	120 Ohm 1%	2010	Resistor
CON1, CON2	2	95501-2881	8pin RJ45	Connector RJ45 Molex
CON3	1	Pin header 2x4pin	raster 2.56mm	Pin header
CON5, CON6	2	AK710/2-7.5-V-green	raster 7.5mm	Terminal block PTR Messtechnik
	2	Jumper	raster 2.56mm	Jumper

4.6. Enclosure

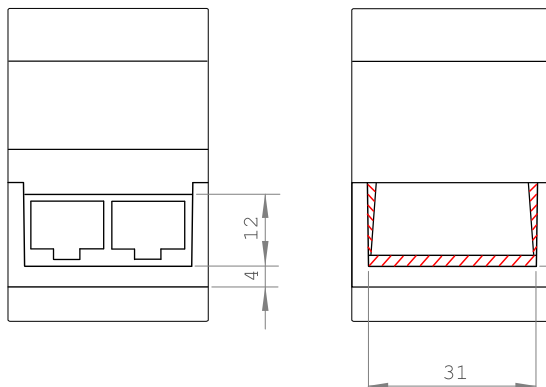
- Gainta D2MG enclosure (2 modules wide)
- Dimensions: 90mm x 58mm x 36mm



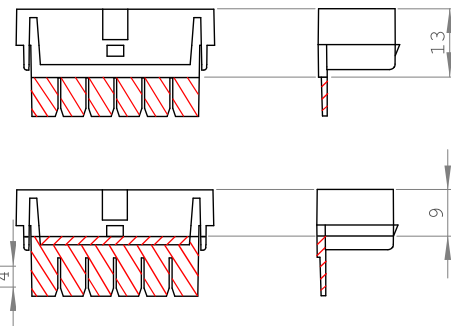
4.7. Mechanical processing

Striped parts must be removed.

BODY

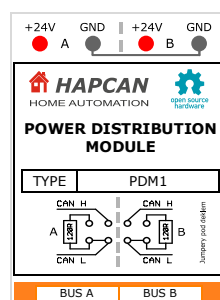


TERMINAL GUARDS



4.8. Label

Editable label version is available at hapcan.com website.



5. License



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6. Document version

File	Hardware Revision	Description	Date
pdm1_a_pl.pdf	rev0	Original version	June 2016