DRPUM

DIN rail mounted central processing unit

DRPUM is a universal programmable controller that requires a dedicated firmware for a specific application. It features 2 RJ45 sockets - one for Power over Modbus supply and one for connecting slave devices - and 2 RJ12 sockets for slave devices. Thanks to the built-in Modbus RTU communication, various Sentera HVAC sensors and / or fan speed controllers can be controlled by this device. Via splitters, up to 247 slave devices can be connected.

Key features

- 24 VDC supply voltage, Power over Modbus (PoM)
- Easy to connect via Modbus RTU RJ45 and RJ12 sockets
- Internal backup memory for logging data in case of Internet connection failure
- DIN rail mounted
- Enclosure: plastic ABS, UL94-V0, grey RAL 7035

Area of use

- As a master device for Sentera sensors / fan speed controllers with Modbus RTU communication
- Clean air and non-aggressive, non-combustible gases
- For indoor use only

Technical specifications

Supply voltage	24 VDC Power over Modbus (PoM)	
Maximum power consumption	0,24 W	
Output voltage for connection slave devices	RJ12 sockets	3,3 VDC
	RJ45 sockets	24 VDC
Protection standard	IP20	
Ambient conditions	Temperature	-10—50 °C
	Relative humidity	5—85 % rH, non-condensing

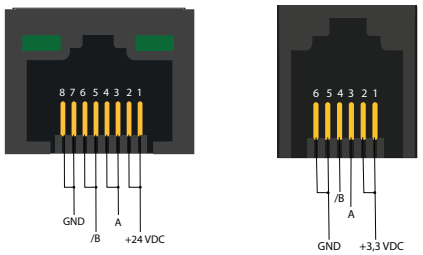
Standards

- EMC directive 2014/30/EU: - EN 61000-6-1:2007
  - Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
  - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments Amendments A1:2011 and AC:2012 to EN 61000-6-3
  - EN 55032:2012 Electromagnetic compatibility (EMC) of multimedia equipment – Emission requirements Amendment AC:2013 to EN 55032
  - CISPR 32:2012
  - EN 50561-1:2013 Power line communication apparatus used in low-voltage installations – Radio disturbance characteristics – Limits and methods of measurement – Part 1: Apparatus for in-home use
- WEEE 2012/19/EC
- RoHs Directive 2011/65/EC
- DIN rail EN 60715:2001 compatible: EN 60730-1:2011

Wiring and connections

RJ45 sockets		
Pin 1	24 VDC	Supply voltage
Pin 2	24 VDC	Supply voltage
Pin 3	A	Modbus RTU communication, signal A
Pin 4	A	Modbus RTU communication, signal A
Pin 5	/B	Modbus RTU communication, signal /B
Pin 6	/B	Modbus RTU communication, signal /B
Pin 7	GND	Ground, supply voltage
Pin 8	GND	Ground, supply voltage
RJ12 sockets		
Pin 1	3,3 VDC	Supply voltage
Pin 2	3,3 VDC	Supply voltage
Pin 3	A	Modbus RTU communication, signal A
Pin 4	/B	Modbus RTU communication, signal /B
Pin 5	GND	Ground, supply voltage
Pin 6	GND	Ground, supply voltage

RJ45 sockets **RJ12 sockets**



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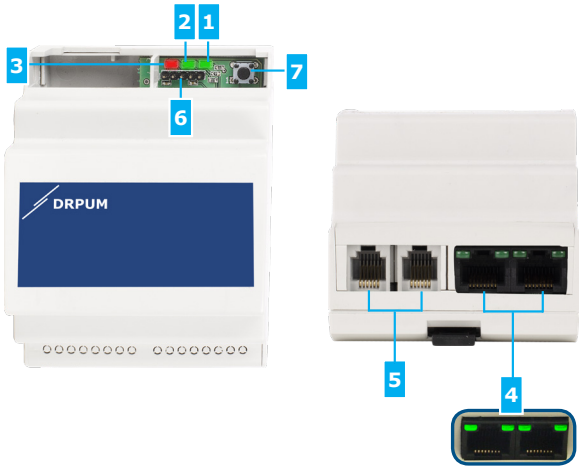
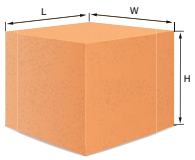
Settings and indications



1 - Green LED	ON	The unit is supplied and there is active Modbus RTU communication
2 - Green LED	ON	Depends on the firmware version
3 - Red LED	Blinking	Slowly blinking indicates system error
		Fast blinking indicates that bootloader mode has been entered
4 - RJ45 connectors		Modbus communication with connected slave devices and PoM-voltage supply (24 VDC)
		Blinking LEDs indicate that packages are transmitted via Modbus RTU communication
5- RJ12 connectors		Modbus communication with connected slave devices (3,3 VDC)
6 - PROG header, P1	 1 2 3 4 5	Put a jumper onto pins 1 and 2 and wait for at least 5 seconds to reset the Modbus communication parameters
	 1 2 3 4 5	Put a jumper onto pins 3 and 4 and restart the supply to enter bootloader mode
7 - Modbus register reset tact switch		Push to start the Modbus RTU register factory reset

Packaging

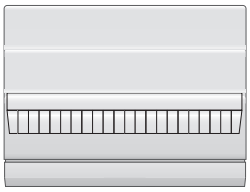


Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
DRPUM	Unit (1 pc.)	92	70	65	0,09 kg	0,10 kg

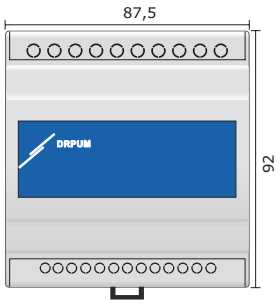
Fixing and dimensions

Bottom view

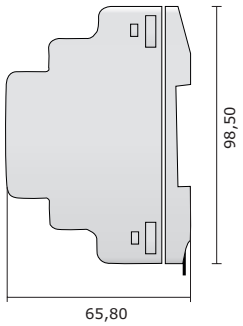
Top view



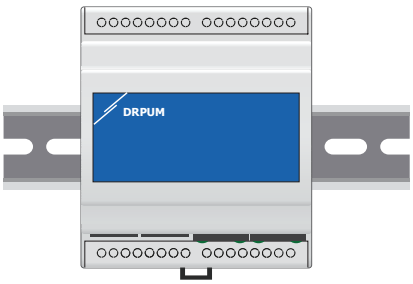
Front view



Side view



DIN-rail mounting



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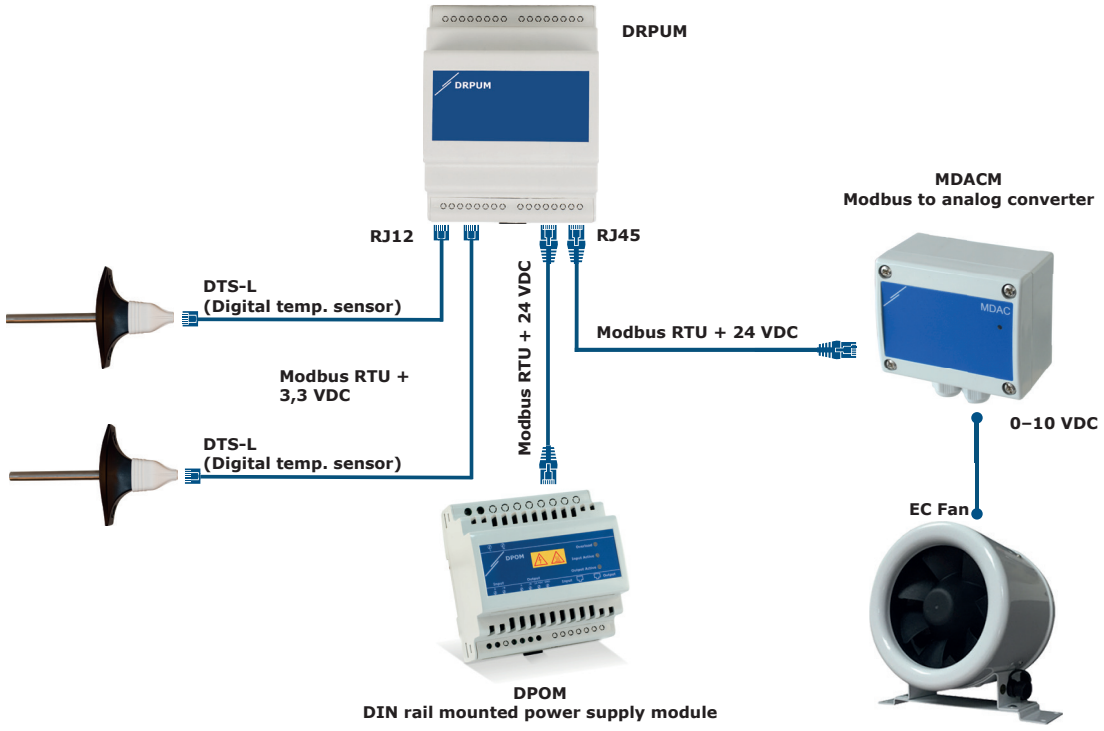
Application example 1



Application example 2