

# DPOM8-24/20

## DIN rail PoM power supply & repeater



### Description

DPOM8-24/20 is a Power over Modbus supply module designed for DIN rail mounting. It features a 24 VDC output and an integrated and fully isolated Modbus RTU communication line repeater.

DPOM8-24/20 provides some of the following benefits:

- Power over Modbus (PoM)
  - Through PoM different types of devices such as sensors, controllers, power supply modules, etc. can be interconnected via a single UTP cable which transmits both 24 Volt power supply and Modbus data communication.
- Power Supply Module and Modbus Repeater in One Device
  - DPOM8-24/20 provides a 24 VDC power supply and amplifies the Modbus signal allowing connection of up to 32 devices across a distance of up to 1200 m without signal interruptions.
- Easy Installation
  - The device is DIN rail mountable making it suitable for installation in electrical cabinets.
- Multiple Connection Options
  - Equipped with both terminal blocks and RJ45 sockets, DPOM8-24/20 allows flexibility in device connection.

With its compact design and broad functionality, DPOM8-24/20 is a reliable solution for HVAC installations.

### Key Features

- Power over Modbus module with 24 VDC / 20 W integrated power supply
- Galvanic isolated half-duplex mode repeater for Modbus RTU communication
- Input and output connections with terminal blocks or an RJ45 connector
- Overload hiccup mode protection with red LED indications
- Asynchronous serial data transmission
- Input and output transmission with green LED indication
- Automatic baud-rate fitting up to 115,2 Kbps
- Distance up to 1.200 m
- Up to 32 modules can be connected to the DPOM8
- DIN rail mountable

### Technical Specifications

Output	24 VDC / 20 W	
Supply voltage	85–264 VAC / 50–60 Hz	
Protection standards	IP20	
Operating conditions	Temperature	-20–40 °C
	Relative humidity	5–85 % rH, non-condensing
Enclosure	Material	ABS (Acrylonitrile Butadiene Styrene) plastic
	Colour	Grey, RAL7035

### Wiring and Connections

L	Supply voltage, Line
N	Supply voltage, Neutral
24 VDC	Power supply 24 VDC / 20 W
GND	Ground reference for power supply
A	Modbus RTU (RS485), signal A
/B	Modbus RTU (RS485), signal /B
Input	Modbus RTU communication RJ45 socket. (No integrated 24 VDC on this port)
Output	Power over Modbus communication RJ45 socket (Modbus RTU + 24 VDC)

#### ATTENTION!

- When connecting longer lines, use the lowest possible baud rate.
- The input terminal blocks duplicate the input RJ45 socket.
- The output terminal blocks duplicate the output RJ45 socket.

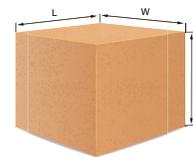
### Standards

- Low Voltage Directive 2014/35/EU
- EMC Directive 2014/30/EU
- Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances

### Global Trade Item Numbers 14 (GTIN 14)

Packaging	DPOM8-24-20
Unit	5401003001479
Box	5401003500354

### Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
DPOM8-24-20	Unit (1 pc.)	95	90	85	0,175 kg	0,306 kg
	Box (36 pcs.)	590	380	280	6,30 kg	11,92 kg

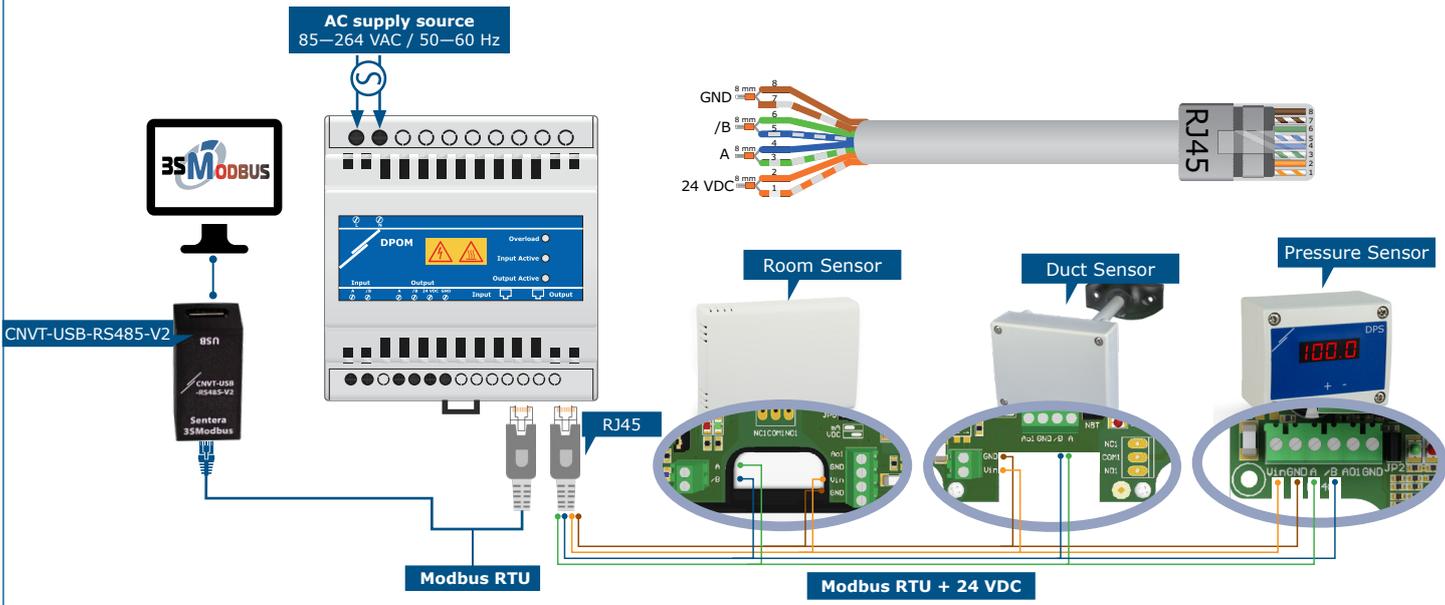
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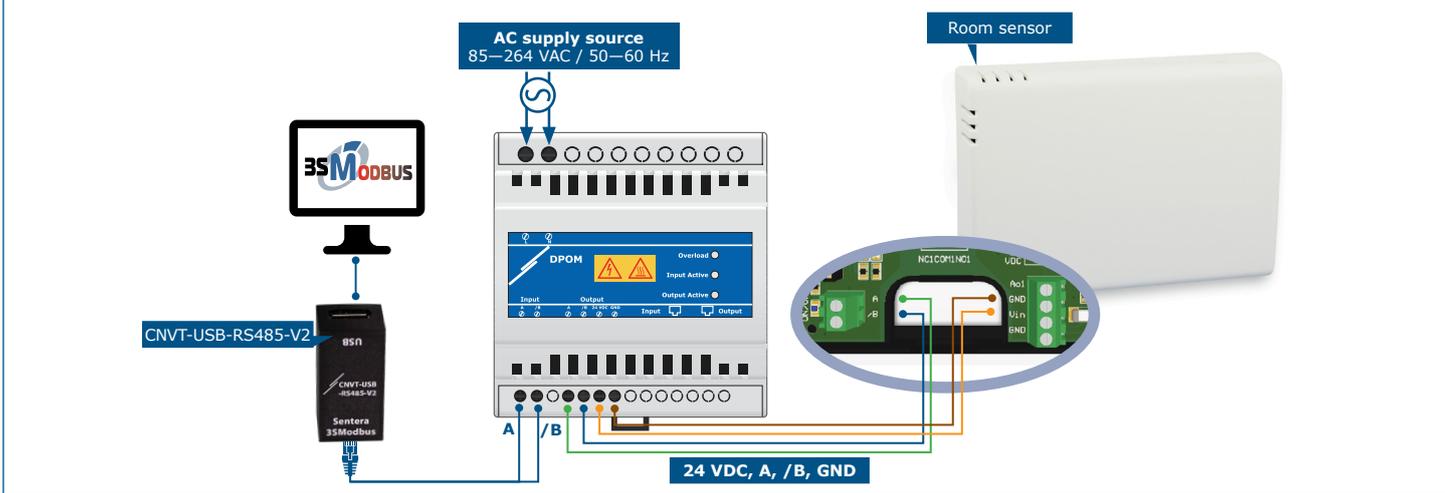
### Application Example

#### Example 1: Connections via RJ45 connector



In application example 1, DPOM8-24/20 is connected to multiple sensors via an RJ45 cable, which transmits both 24 VDC power supply and Modbus data communication. The settings of the devices can be adjusted through 3SModbus via a computer. The connection is established via RJ45 connectors and the Modbus to USB converter CNVT-USB-RS485-V2.

#### Example 2: Connections via terminal block



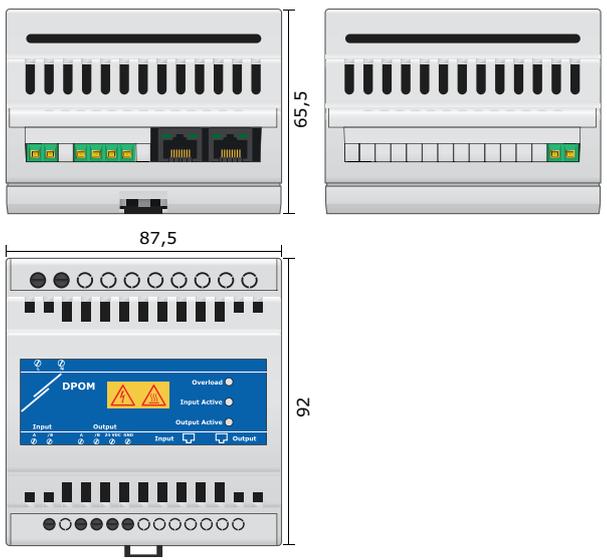
In application example 2, DPOM8-24/20 is connected to a single room sensor via terminal blocks. Both 24 VDC power supply and Modbus data communication are transmitted through the connection. The settings of the devices can be adjusted through 3SModbus via a computer. The connection is made via the terminal block of DPOM8-24/20 and the Modbus to USB converter CNVT-USB-RS485-V2.

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## Fixing and dimensions



## DIN-rail mounting

