

TECHNICAL SPECIFICATION

8 input 4 output expander with Modbus
and IEC-60870-5-101

AMB-8I-4O



Features

- 8 × 5-30V DC isolated digital inputs
- 4 × NO relay outputs 5A
- Modbus RTU
- IEC-60870-5-101¹
- Baud rate: 1200 – 921600
- Modbus addresses: 8 bit (1-255)
- RX/TX and activity indicators
- Save config button
- Powered 8-48V DC
- DIN rail mounting
- Compact size

The AMB-8I-4O input/output expander with Modbus RTU and IEC-60870-5-101 protocol support (under development). It has 8 isolated digital inputs with voltage range up to 30VDC and 4 relay output with 5A

230V range and NO contacts. The power supply range is 8 to 48V DC. The use of DC / DC technology for supplying relays enables a wide range of supply voltages.

Description	Specification
Serial Interface	
Interface Type	RS485
Signals	A, B and GND
Data Length	8 bits
Parity	None, odd, even
Stop Bits	1
Setting	12 way DIP switch
Connector	Screw connector, 28÷12AWG / 2.52mm
Digital Inputs	
Input number	× 8
Input type	Opto-isolated 3.7kV

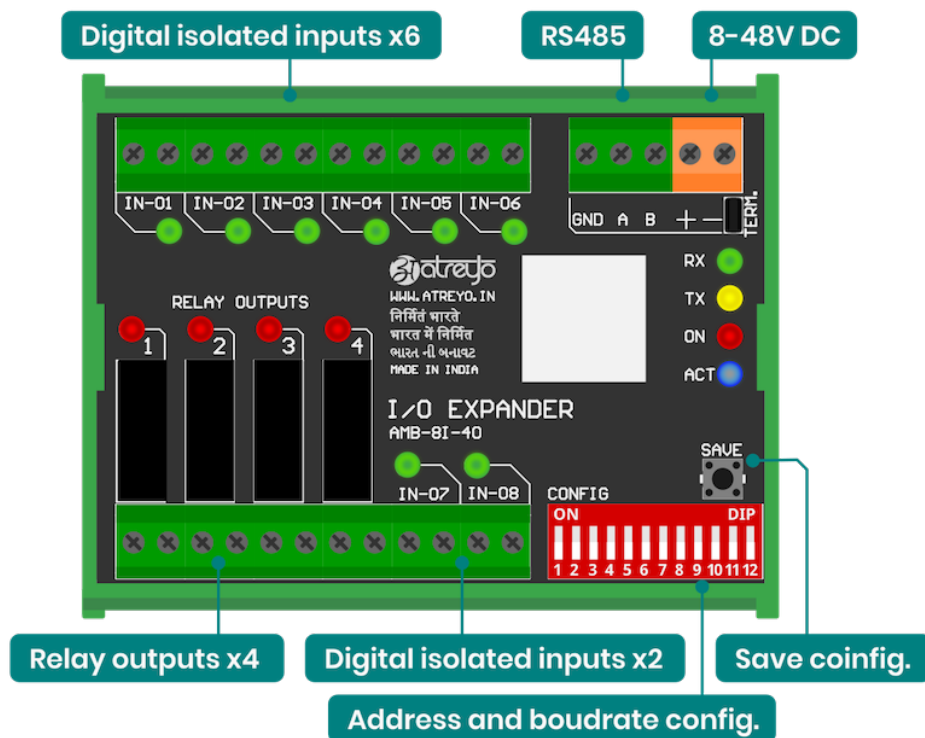
Description	Specification
Configuration	Every input separate
VIN _{max}	30V DC
Logic 1 Voltage range	3V to VIN _{max}
Connector	Screw connector, 28÷12AWG / 2.52mm
Digital Outputs	
Output number	× 4
Configuration	Potential free, relay NO
Voltage and Load	5A 230V AC and 3A 30V DC
Connector type	Screw connector, 28÷12AWG / 2.52mm

¹ please refer the functionality of IEC-60870-5-101

Description	Specification
Modbus RTU	
Data Rate	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200, 230400, 256000, 560800, 576000, 921600 bps
Address	1-10, 10-250
IEC-60870	
Data Rate	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200, 230400, 256000, 560800, 576000, 921600 bps
Address	1-10, 10-90
Balanced	Balanced/unbalanced
System Functions Indicators	
Inputs indicators	× 8 ø3mm LED green
Outputs indicators	× 4 ø3mm LED red
RX/TX	× 2 ø3mm LED yellow/green
Power	× 1 ø3mm LED red

Description	Specification
Activity	× 1 ø3mm LED blue
Power Supply	
Voltage range	8-48V DC
Consumption	0.2W without relay on
Connector	Screw connector, 28÷12AWG / 2.52mm
Protection	Reverse polarity, surge
Physical Characteristics	
Installation	DIN-Rail mounting
Housing	PVC
Weight	125g
Dimensions	100mm x 90mm x 50mm
Environmental Specification	
Operating Temp.	-25 ~ 85°C (-13 ~ 158°F)
Storage Temp.	-40 ~ 85°C (-40 ~ 176°F)
Ambient RH	5% to 95% (non-condensing)

Interface



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