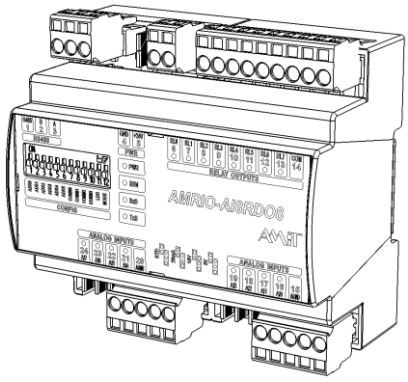
AMRIO-AI8RDO8

Combined extension module

- **8 relay outputs**
- **8 universal analogue inputs**
- **MODBUS RTU / ARION (RS485) communication**
- **Possibility of user programming**
- **DIN rail mounting**
- **Power supply 24 V DC**



TECHNICAL DATA

Outputs	8
Output type	SPST contact relay
Nominal voltage current (resistive load)	230 V AC / 24 V DC 2 A
Max. current through common terminal	10 A
Galvanically isolated outputs	Yes
Inputs	8
Common conductor	AGND [1])
Input ranges (configurable individually)	(0 to 5) V DC / (0 to 10) V DC / (0 to 20) mA DC / RTD/ dry contact / digital input 24 V DC
Range selection	Jumpers on the module
Input overvoltage protection	Diodes
Max. voltage / current on the input	50 V DC / 30 mA DC permanently [2])
Galvanically isolated inputs	No
Communication	RS485
Galvanically isolated line	Yes [3])
Line overvoltage protection	Transil 600 W
Communication speeds	9,600 bps to 115,200 bps
Network / segment module count	63
Power supply	19.2 V DC to 28.8 V DC
Consumption (w/o inputs / outputs)	Max. 64 mA at 24 V DC
Other	
Connection	Spring-loaded connectors WAGO 231
Ingress protection rate	IP20
Operating temperature range	-20 °C to 70 °C
Maximum ambient humidity	< 95 % non-condensing
Mounting	On a 35 mm DIN rail
Weight	0.24 kg
Dimensions (w × h × d)	(106 × 101 × 62) mm
Programming	DetStudio / EsiDet

[1]) AGND terminal is internally connected to the module power supply connector GND terminal.

2) Max. voltage applicable for ranges (0 to 5) V/(0 to 10) V/RTD and current for range (0 to 20) mA.

[3]) Isolation strength 500 V AC, galvanic isolation must not be used for separation of safe parts from dangerous parts.

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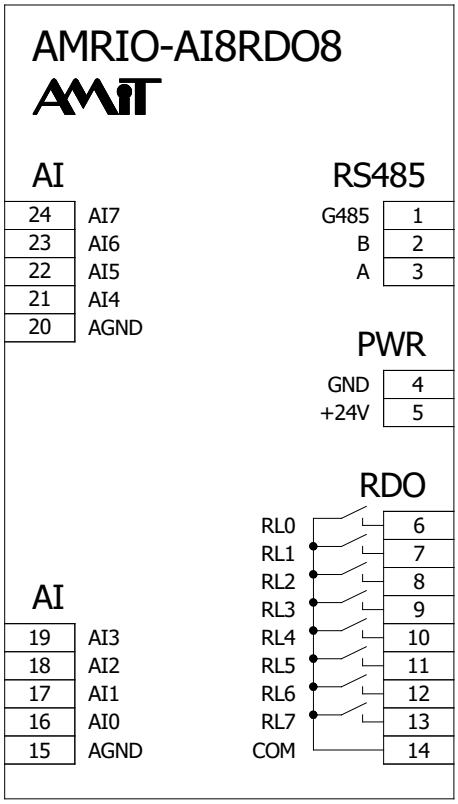
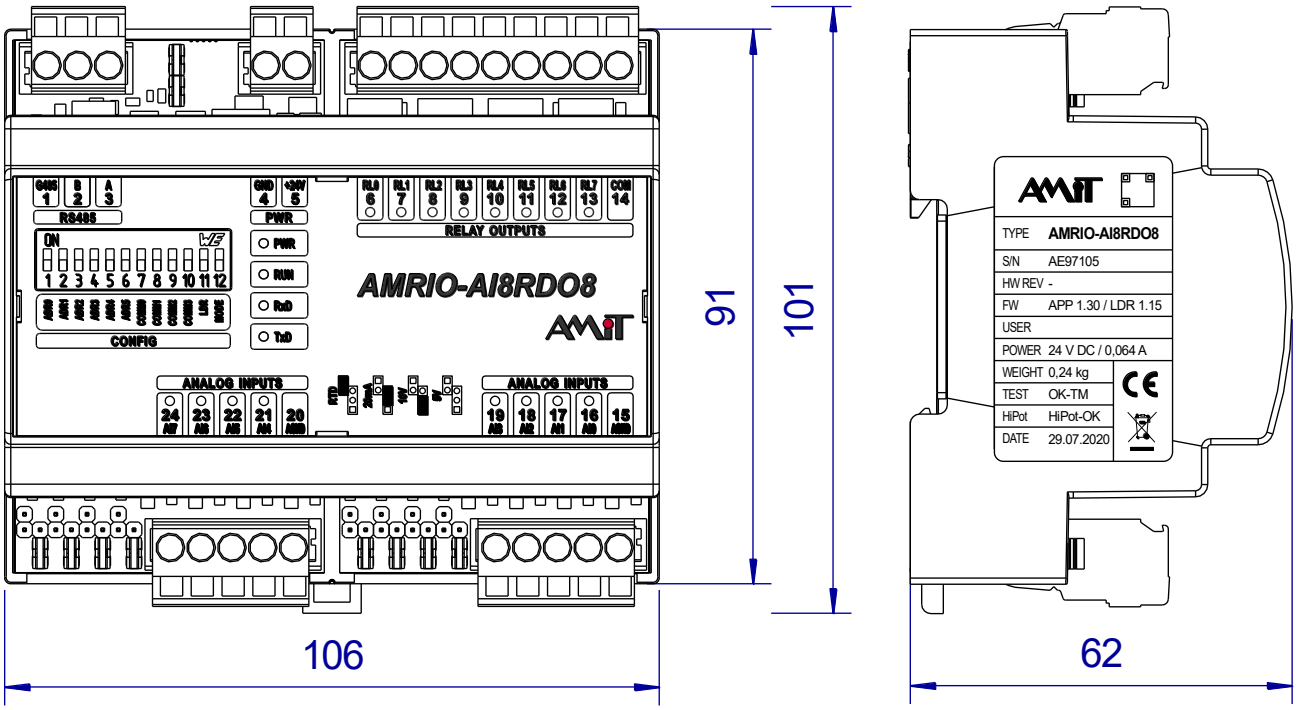
ORDERING INFORMATION

AMRIO-AI8RDO8	Module 8 universal analogue inputs and 8 relay outputs, WAGO connectors

RECOMMENDED DRAWING SYMBOL



MECHANICAL DIMENSIONS



AMRIO-AI8RDO8

Combined extension module

DESCRIPTION OF TERMINALS

Terminal	Signal	Significance	Terminal	Signal	Significance
1	G485	RS485, ground	13	RL7	Output 7
2	B	RS485, signal B	14	COM	Common terminal
3	A	RS485, signal A	15	AGND	Analogue ground
4	GND	Power supply, ground	16	AI0	Input 0
5	+24V	Power supply, +24 V DC	17	AI1	Input 1
6	RL0	Output 0	18	AI2	Input 2
7	RL1	Output 1	19	AI3	Input 3
8	RL2	Output 2	20	AGND	Analogue ground
9	RL3	Output 3	21	AI4	Input 4
10	RL4	Output 4	22	AI5	Input 5
11	RL5	Output 5	23	AI6	Input 6
12	RL6	Output 6	24	AI7	Input 7

RS485 JUMPERS

Jumpers	Significance
Fitted	Terminal station – idle states and terminations are active.
Not fitted	Intermediate station – idle states and terminations are inactive.

Note: Jumpers are always fitted simultaneously.

Procedures of setting communication parameters, including the list of supported MODBUS functions and mapping of signals in the ARION protocol, are included in the operation manual for this module (**amrio-ai8rdo8_g_en_xxx.pdf**).

The **AMRIO-AI8RDO8** module with the application loaded during its manufacture can be used as a fully compatible substitute for modules **DM-UI8RDO8** and **DMM-UI8RDO8**.

Data in this datasheet is informative only. Binding detailed information can be found in the operation manual (**amrio-ai8rdo8_g_en_xxx.pdf**). Documentation and examples are available at amitomation.com.

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