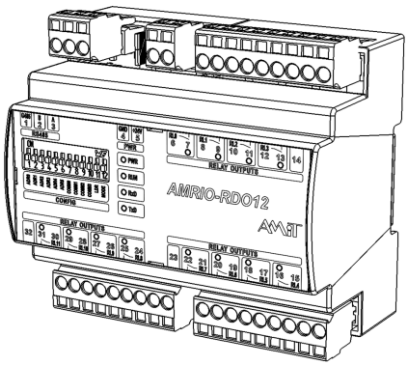
# AMRIO-RDO12

Extension module with relay outputs

- **Module with 12 relay outputs**
- **MODBUS RTU / ARION (RS485) communication**
- **Possibility of user programming**
- **Mounting on a DIN rail**
- **Power supply 24 V DC**




## TECHNICAL DATA

| | |
|---|---|
| **Outputs** | 12 |
| Output type | SPST relay |
| Device of protection class [1]) | II |
| Ingress protection rate of low voltage in mounted state [1]) | IP20 |
| Maximum operating voltage GI | 300 V DC/AC |
| Maximum switched voltage | 250 V DC/AC |
| Nominal voltage<br>Current (resistive load) | 230 V AC / 24 V DC<br>4 A |
| Switched power (resistive load) | 1,000 VA AC / 100 W DC |
| Make time<br>Break time | 10 ms<br>5 ms |
| Contact lifetime<br>No load / nominal load | <br>$3\times10^6$ / $4\times10^5$ cycles |
| Maximum switching frequency<br>No load / nominal load | <br>72,000 / 360 $hrs^{-1}$ |
| **Communication** | RS485 |
| Galvanically isolated line | Yes [2]) |
| 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 (without outputs) | Max. 150 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 | 0.30 kg |
| Dimensions (w × h × d) | (106 × 101 × 62) mm |
| Programming | DetStudio / EsiDet |

[1]) It is necessary to follow mounting instructions, see chapter “Mounting” in the operation manual for amrio-rdo12_g_en_xxx.pdf.

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



**AMiT, spol. s r. o.**
Naskove 1100/3, 150 00 **PRAHA**, Czech Republic
tel.: +420 222 780 100, 222 781 516

**Export Sales Department**
Videnska 118, 619 00 **BRNO**, Czech Republic
tel.: +420 778 775 407
e-mail: automation@amit.cz

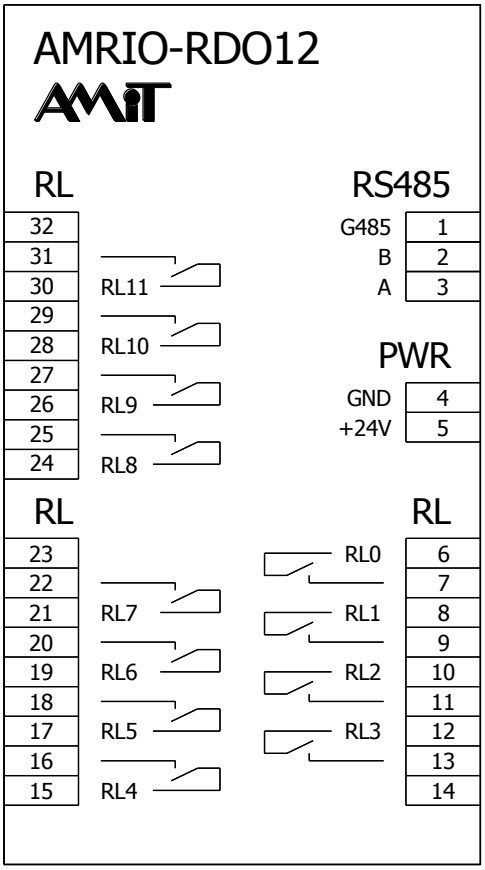
**Technical support**
tel.: +420 549 210 279, 549 210 403
e-mail: support@amit.cz

ID number: 45316015, VAT ID: CZ45316015, DUNS: 36 472 4476
Bank: Komerční banka, a.s., Na Prikope 33, Praha 1, 11407, IBAN: CZ55 0100 0000 4341 4734 0227, SWIFT: KOMBCZPP

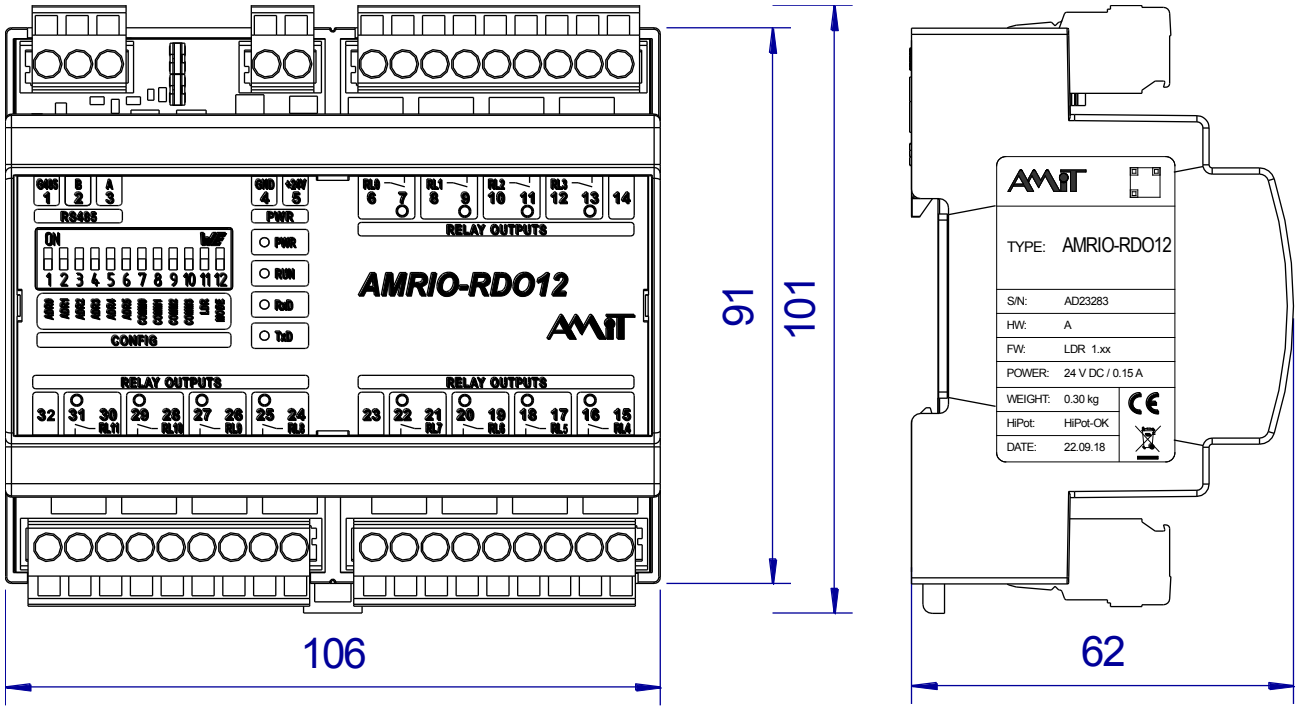
## ORDERING INFORMATION

| | |
|---|---|
| **AMRIO-RDO12** | Module with 12 relay outputs, WAGO connectors |

## RECOMMENDED DRAWING SYMBOL




## MECHANICAL DIMENSIONS



# AMRIO-RDO12

Extension module with relay outputs

## DESCRIPTION OF TERMINALS

| Terminal | Signal | Significance | Terminal | Signal | Significance |
|---|---|---|---|---|---|
| 1 | G485 | RS485, ground | 17 | RL5 | Relay RL5 |
| 2 | B | RS485, signal B | 18 | RL5 | Relay RL5 |
| 3 | A | RS485, signal A | 19 | RL6 | Relay RL6 |
| 4 | GND | Power supply, ground | 20 | RL6 | Relay RL6 |
| 5 | +24V | Power supply, +24 V DC | 21 | RL7 | Relay RL7 |
| 6 | RL0 | Relay RL0 | 22 | RL7 | Relay RL7 |
| 7 | RL0 | Relay RL0 | 23 | – | |
| 8 | RL1 | Relay RL1 | 24 | RL8 | Relay RL8 |
| 9 | RL1 | Relay RL1 | 25 | RL8 | Relay RL8 |
| 10 | RL2 | Relay RL2 | 26 | RL9 | Relay RL9 |
| 11 | RL2 | Relay RL2 | 27 | RL9 | Relay RL9 |
| 12 | RL3 | Relay RL3 | 28 | RL10 | Relay RL10 |
| 13 | RL3 | Relay RL3 | 29 | RL10 | Relay RL10 |
| 14 | – | | 30 | RL11 | Relay RL11 |
| 15 | RL4 | Relay RL4 | 31 | RL11 | Relay RL11 |
| 16 | RL4 | Relay RL4 | 32 | – | |

## 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-rdo12_g_en_xxx.pdf**).

The **AMRIO-RDO12** module with an application loaded during its manufacture can be used as a fully compatible substitute for modules **DM-RDO12** and **DMM-RDO12**.

Data in this datasheet is informative only. Binding detailed information can be found in the operation manual (**amrio-rdo12_g_en_xxx.pdf**). Documentation and examples are available at amitomation.com.



**AMiT, spol. s r. o.**
Naskove 1100/3, 150 00 **PRAHA**, Czech Republic
tel.: +420 222 780 100, 222 781 516

**Export Sales Department**
Videnska 118, 619 00 **BRNO**, Czech Republic
tel.: +420 778 775 407
e-mail: automation@amit.cz

**Technical support**
tel.: +420 549 210 279, 549 210 403
e-mail: support@amit.cz

ID number: 45316015, VAT ID: CZ45316015, DUNS: 36 472 4476
Bank: Komerční banka, a.s., Na Prikope 33, Praha 1, 11407, IBAN: CZ55 0100 0000 4341 4734 0227, SWIFT: KOMBCZPP