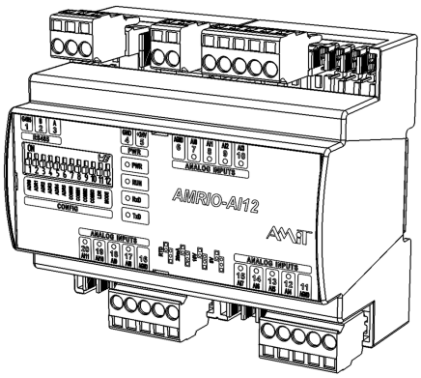
AMRIO-AI12

Analogue inputs extension module

- **Module with 12 universal analogue inputs**
- **MODBUS RTU / ARION (RS485) communication**
- **Possibility of user programming**
- **DIN rail mounting**
- **Power supply 24 V DC**



TECHNICAL DATA

Inputs	12
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
Converter resolution	12 bits
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 (without inputs)	Max. 25 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	0.22 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.

ORDERING INFORMATION

AMRIO-AI12	Module with 12 universal analogue inputs, WAGO connectors

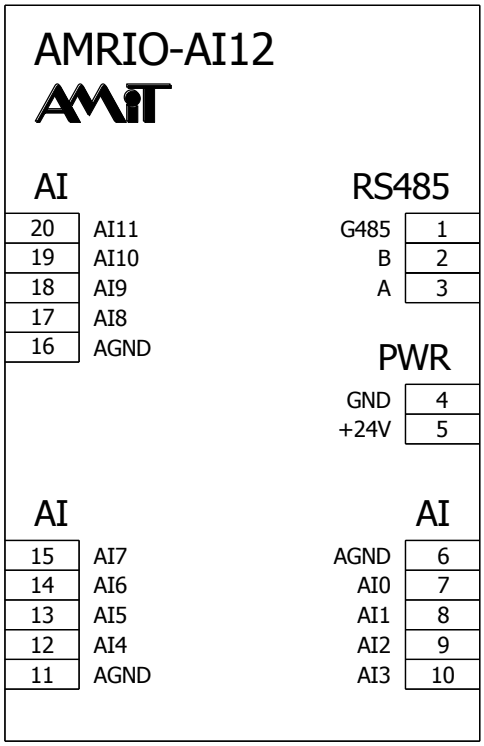
AMiT, spol. s r. o.
Naskove 1100/3, 150 00 **PRAHA**, Czech Republic
tel.: +420 222 780 100, 222 781 516

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

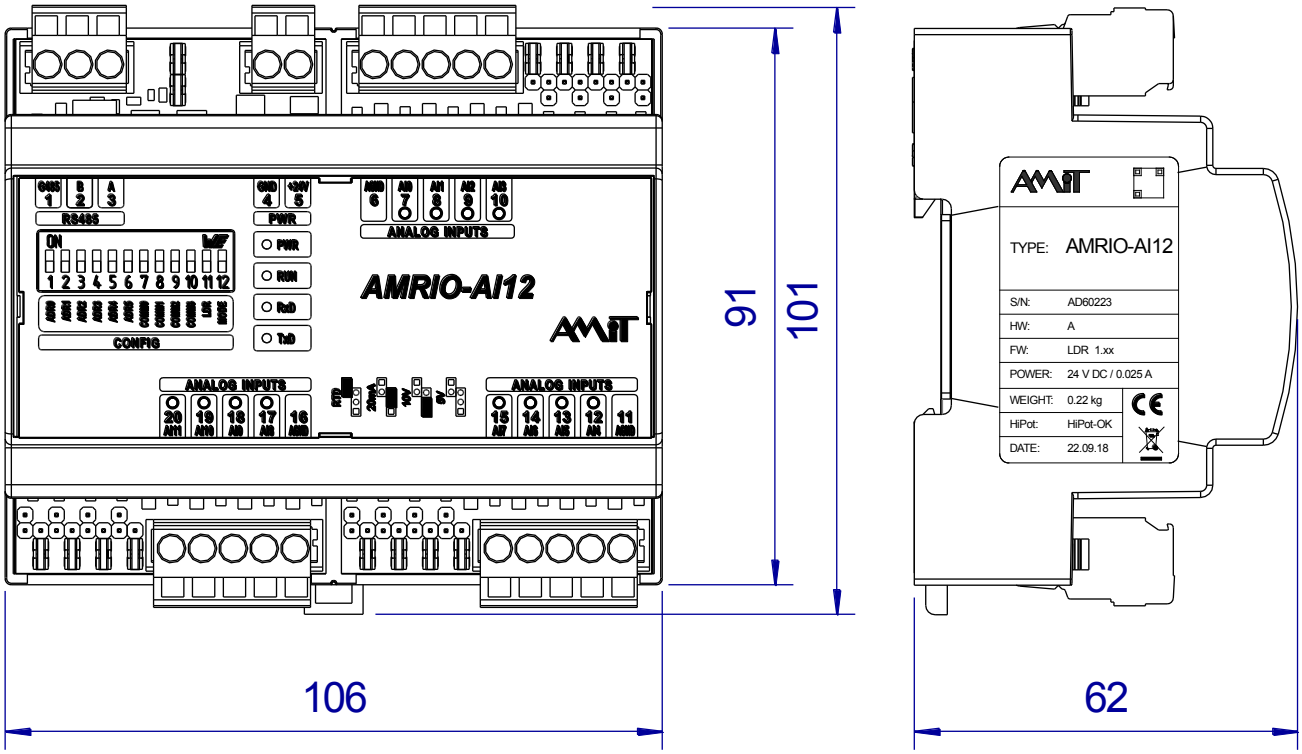
Technical support
tel.: +420 549 210 279, 549 210 403
e-mail: support@amit.cz

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

RECOMMENDED DRAWING SYMBOL



MECHANICAL DIMENSIONS



AMRIO-AI12

Analogue inputs extension module

DESCRIPTION OF TERMINALS

Terminal	Signal	Significance	Terminal	Signal	Significance
1	G485	RS485, ground	11	AGND	Analogue ground
2	B	RS485, signal B	12	AI4	Input 4
3	A	RS485, signal A	13	AI5	Input 5
4	GND	Power supply, ground	14	AI6	Input 6
5	+24V	Power supply, +24 V DC	15	AI7	Input 7
6	AGND	Analogue ground	16	AGND	Analogue ground
7	AI0	Input 0	17	AI8	Input 8
8	AI1	Input 1	18	AI9	Input 9
9	AI2	Input 2	19	AI10	Input 10
10	AI3	Input 3	20	AI11	Input 11

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-ai12_g_en_xxx.pdf**).

The **AMRIO-AI12** module with an application loaded during its manufacture can be used as a fully compatible substitute for modules **DM-AI12** and **DMM-AI12**.

Data in this datasheet is informative only. Binding detailed information can be found in the operation manual (**amrio-ai12_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