AIO6·2

4921240711A

Analogue input and output module

Data sheet

DEIF Improve Tomorrow

1. About the 600 series

1.1 About the hardware modules

The 600 series is a PLC-based programmable automation controller (PAC) suitable for land, marine, and wind power control applications. It is class approved, designed to marine specifications and can withstand very harsh operating conditions.

The controller is a highly flexible, modular PLC and I/O system that is designed for usage across a wide range of industrial applications. It is reliable, robust and flexible.

EtherCAT is used as native communication protocol both as the backplane communication and as interconnection between multiple 600 series racks via electrical or fibre optical connections. Other DEIF EtherCAT I/O modules or third party EtherCAT I/O modules can also be connected.

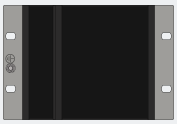
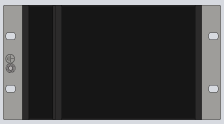
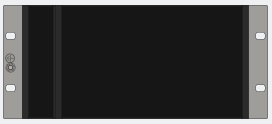
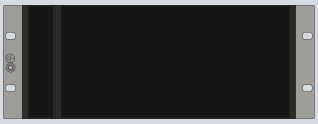
The hardware modules feature:

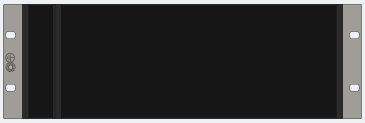
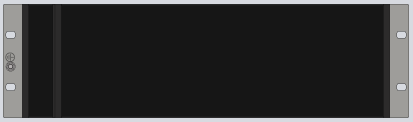
- Placement flexibility in the rack.
- Remove, replace, or add on-site.
- Automatically recognised.
- Configurable input and output functions (digital and analogue):
  - Digital input functions: Commands from operators or 3rd party equipment, changing configuration, operating information.
  - Digital output functions: Alarm status, commands to 3rd party equipment, operating information.
  - Analogue input functions: External set points, operating information, supervised binary inputs.
  - Analogue output functions: Operating information.

NOTE All slots must be covered during operation and blind modules can be used to cover unused slots.

Rack sizes

The controller rack is available in six different sizes:

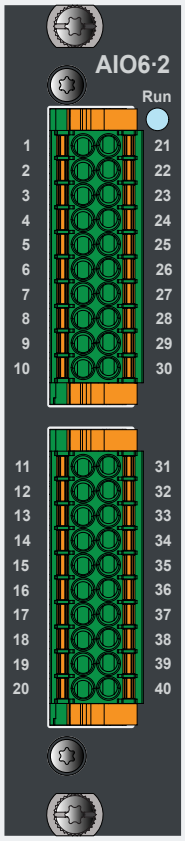
Rack	Slots	Ground plate dimensions HxDxW (mm)	Weight (g)	Rack
Rack6·4	4	122.0 x 113.9 x 182.4	715	
Rack6·6	6	122.0 x 113.9 x 233.2	870	
Rack6·8	8	122.0 x 113.9 x 284.4	1020	
Rack6·10	10	122.0 x 113.9 x 334.8	1175	

Rack	Slots	Ground plate dimensions HxDxW (mm)	Weight (g)	Rack
Rack6·12	12	122.0 x 113.9 x 385.6	1335	
Rack6·14	14	122.0 x 113.9 x 436.4	1500	

2. Technical specifications

2.1 AIO6·2 module specifications

AIO6·2 has 8 analogue inputs and 8 analogue outputs. The voltage and current modes for the inputs and outputs are individually software configurable. All the inputs and outputs are protected and isolated from other potentials.

Analogue input and output module			
	Power supply	From backplane using PDM6·1 module or PDM6·2 module	
	Backplane interfaces	1 x EtherCAT IN (Port 0) - LVDS 1 x EtherCAT OUT (Port 1) – LVDS	
	8 analogue outputs	Output type	Current mode: 0 to 20 mA, 4 to 20 mA, -20 to 20 mA Voltage mode: 0 to 10 V, -10 V to 10 V Software selectable.
		Output range	Current mode: 0 to 20 mA, 4 to 20 mA, -20 to 20 mA Voltage mode: 0 to 10 V, -10 to 10 V
		Load	Current mode: < 500 Ω Voltage mode: ≥ 1000 Ω
		Resolution	16 bit
		Accuracy	0.2 % of full range output (20 mA/10 V) at reference temperature 0.4 % of full range output (20 mA/10 V) at operational temperature
		Isolation	8 outputs in 2 groups (4+4) Isolated from other potentials, 500 V DC
	8 analogue inputs	Input type	Current mode: 0 to 20 mA, 4 to 20 mA, -20 to 20 mA Voltage mode: 0 to 10 V, -10 to 10 V Software selectable.
		Impedance	Current mode: Max. 50 Ω Voltage mode: Min. 10 kΩ
		Filter	250 Hz hardware low-pass filter
		Sampling	< 2 ms
		Resolution	16 bit
		Accuracy	0.2 % of full range input (20 mA/10 V) at reference temperature 0.4 % of full range input (20 mA/10 V) at operational temperature
		Isolation	8 inputs in 2 groups (4+4) Isolated from other potentials, 500 V DC
	Size	25.40 mm	
	Weight	118 g (incl. connectors)	
	Power consumption	Typical 5.1 W (8 analogue outsourcing 20 mA)	
	Connector, grip (included by default)	2 x 10 terminals: DFMC 1.5/10-ST-3.5-LR – 1790564	
	Connector, screw	2 x 10 terminals: DFMC 1.5/10-STF-3.5 – 1790373	

3. Legal information

3.1 Disclaimer and copyright

Third party equipment

DEIF takes no responsibility for the installation or operation of any third party equipment, for example, a **genset**. Contact the **manufacturer** or third party equipment company if you have any doubt about how to install or operate the third party equipment.

Open source software

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General warranty

The warranty period for the purchased product is defined in the contract and order acknowledgement. In general, DEIF's Terms and Conditions of Sale and Delivery apply.

The product continuously monitors the operating temperature and stores this information in a log file on the device. DEIF uses this information for service purpose and to validate if issues with the product are covered by the warranty.

The software packages supplied are believed to be of the highest quality. Due to the nature of the software development process, it is possible that there are hidden defects in the software which may affect its use, or the operation of any software or device developed with this software package.

DEIF does not undertake responsibility for determining whether this package is suitable for the application, nor for ensuring the correct operation of the application software and hardware.

The warranty does not cover product wear parts, such as:

- Internal flash disc
- If applicable, SD card (purchased separately)
- Replaceable coil-cell battery, used for the real-time clock (available as a spare part)

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