

DOM6·3

Digital output module

Data sheet

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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.

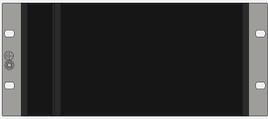
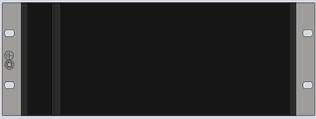
The hardware modules feature:

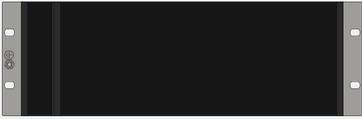
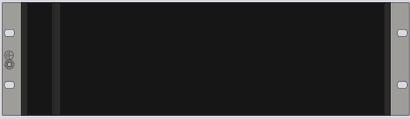
- Placement flexibility in the rack.
- Remove, replace, or add on-site.
- Automatically recognised.
- Configurable input and output functions (digital and analogue):
 - Digital input functions: Commands from operators or 3rd party equipment, changing configuration, operating information.
 - Digital output 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 DOM6·3 module specifications

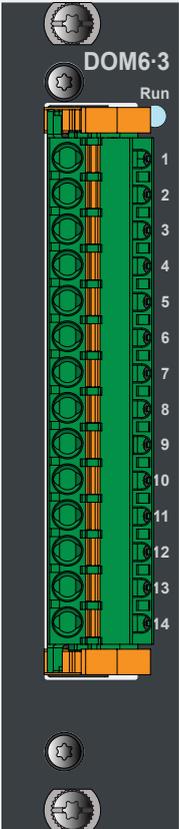
DOM6·3 has 8 x high current digital outputs in two groups.

Each output can deliver up to 2 A continues, and 8 A in total per group. They are all configured in Current sourcing (PNP) mode. The outputs have individual over-current protection (thermal shutdown) with feedback to application.

The individual outputs have current sensing feedback (>10 mA) for load detection when output is active as well as wire break detection (< 1 mA) when output is non-active (always enabled). Additionally, over-current detection with feedback to the application for handling.

The digital outputs in each group are isolated from other potentials up to 500 V DC.

Digital output module

	Power supply	From backplane using PDM6·1 module or PDM6·2 module		
	Backplane interfaces	1 x EtherCAT IN (Port 1) - LVDS 1 x EtherCAT OUT (Port 2) - LVDS		
	8 High Current Digital Outputs	Supply	External supply 24 V (18 to 32 V DC)	
		Type	Solid-state high side (PNP, Sourcing)	
		Voltage	High > Supply voltage -1 V	
		Current	Max. 2 A per channel continues. * Maximum total for all outputs: 8 A per group	
		Response time	Max. 1 ms Delay On : <50 us Delay Off : <80 us	
		Isolation	8 outputs in 2 groups (4+4) Isolated from other potentials, 500 V DC	
		Protections / Special functions	Short circuit protection (thermal) with feedback signal from each output. Overcurrent sensing signal from each digital output (2.06 A ± 20 %) Current sensing feedback signal for load detection on each digital output (>10 mA) - Active DO State Reverse DO supply protection Supply OK feedback signal (within 18..32 V DC) for each group Wire break detection (test current ~2.4 mA) for each digital output	
	Size	25.40 mm		
	Weight	112 g (incl. connectors)		
	Power consumption	Typical 1.5 W		
	Connector, grip (included by default)	14 pole connector, push-in terminals, with snap lock FKC 2,5/14-ST-5,08-LR		
	Connector, screw	14 pole connector, push-in terminals, with screw lock FKC 2,5/14-STF-5,08		

NOTE * The maximum output current is derated to 1.5 A if the ambient temperature exceeds 55°C otherwise the module must be installed in a ventilated environment.

There is always +24 V DC on outputs if they are not loaded due to wire break detection current.

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

This product contains open source software licensed under, for example, the GNU General Public License (GNU GPL) and GNU Lesser General Public License (GNU LGPL). The source code for this software can be obtained by contacting DEIF at support@deif.com. DEIF reserves the right to charge for the cost of the service.

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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