

> PRIVA BLUE ID C-LINE DOR6

Relay output module



A Priva Blue ID C-Line DOR6 Relay output module controls output functions using a relay.

Characteristics

- 6 relay outputs (5 x normally open contacts and 1 x changeover contact)
- switching extra-low voltage and low voltage possible
- switching current 3 A maximum with resistive load
- 24 V system power monitoring
- contacts on terminals are properly isolated from the rest of the system
- LED for status of I/O
- line-up LED

Internal bus

The system is equipped with an internal bus which is implemented to the outside as an I/O bus. The 24 VDC system power, for instance, is distributed via this bus. The communication between controller and modules also runs via the I/O bus.

Controlled switching

If communication with the controller fails, the outputs are set to a user-configured state.

Electrically isolated make or break contacts

The contacts on the terminals are isolated from the rest of the system.

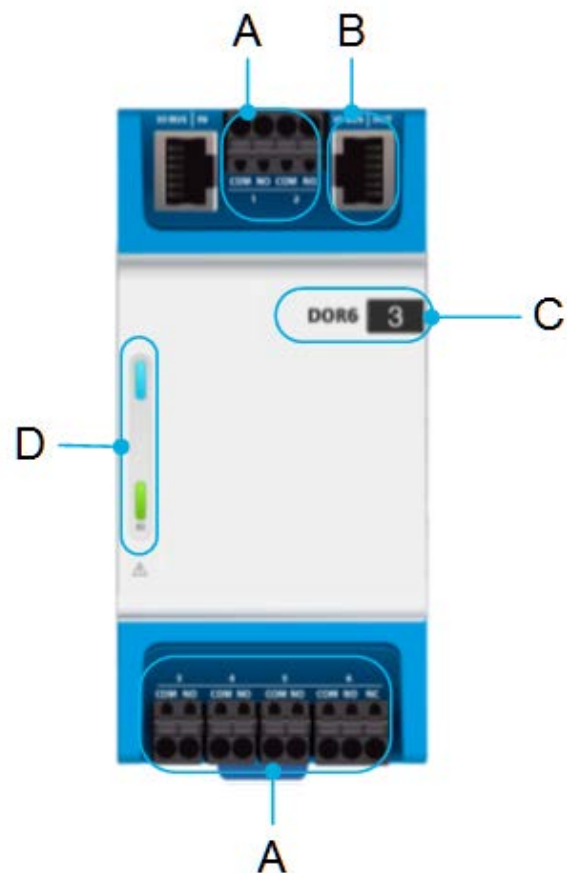
Easy installation

You simply click the module onto the DIN rail. The wiring connects to the module via spring terminals or screw connectors (optional).

The module can also be installed in a DIN 43870 distribution box.

Components

All functions and indications are on the front of the module.



Legend

Front

A	connections for: <ul style="list-style-type: none"> • relay outputs • 5 x normally open contact (COM+NO) • 1 x changeover contact (COM+NO+NC)
B	I/O bus
C	module information: <ul style="list-style-type: none"> • module name • number of the module in the line-up

D	general module LEDs
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Clear indication

The module has general LEDs that indicate the status of the module.



Legend

A	line-up LED
B	LED for status of the I/O

Line-up LED

The module is equipped with a blue line-up LED. If the blue LED is continuously on, the module is in the correct place according to the configuration in TC Engineer.

LED for I/O status

The green LED shows the status of the I/O on the module. If the I/O on the module is working correctly, the LED will be green and on continuously. If not, and in special circumstances, the LED will flash green.

Connections - relay output



COM	common contact
NO (normally open)	normally open contact, open when output is not powered
NC (normally closed)	normally closed contact, closed when output is not powered

Specifications of Priva Blue ID C-Line DOR6 Relay output module

General	
Module article description	Priva Blue ID C-Line DOR6 Relay output module
Module article number	5215001
Dimensions (XYZ)	140 x 63 x 62 mm (5.6 x 2.5 x 2.5 inches)
Width according to DIN 43880	3.5 TE (HP) (1 TE = 18 mm (0.71 inches))
Mounting depth for DIN 43870 distribution box ¹	53.5 mm (2.11 inches)
Weight	0.18 kg (0.40 lb)
Maximum power consumption	24 VDC: 1.2 W
Typical power dissipation ²	1.2 W
MTBF ³	4,380,000 hours
Installation	clicks onto DIN rail can be mounted in DIN 43870 distribution box
Housing material	mixture of polycarbonate and ABS
Button material	TPE (synthetic rubber)
Number of relay outputs	6, consisting of 5 with normally open contact 1 with changeover contact

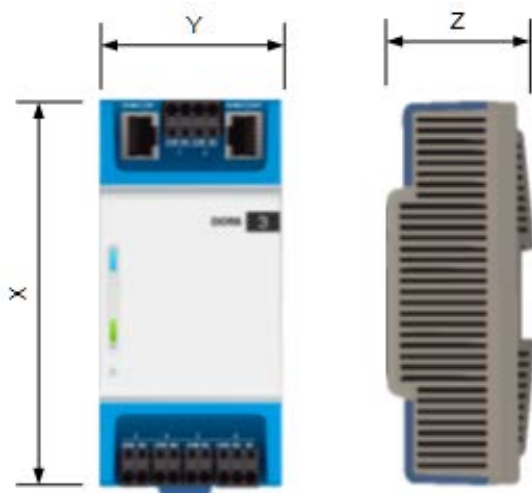
¹ measured between the front of the DIN rail and the rear of the cover plate.

² Dissipation under the following conditions:

- I/O load of 50%
- 50% of the LEDs on

³ The MTBF is calculated according to the *Telcordia SR-332 standard Issue 3* under the following conditions:

- ambient temperature: 35 ... 50°C (95 ... 122 °F)
- supply voltage: 24 VDC
- time in operation per day: 24 hours
- reliability level: 60%



Digital relay outputs	
Output configuration	normally open contact or changeover contact (depending on output)
Maximum switching voltage	250 VAC 30 VDC
Maximum switching current	3 A ($\cos\phi = 1$)
Maximum switching voltage in USA/Canada when switching different mains voltage phases on the same module	125 VAC
External fuse	8 A maximum
Expected service life of relay contacts with $\cos\phi = 1$ and maximum of 6 switches per minute	up to 250 VAC and 3 A: 300,000 switches 24 VDC and 3 A: 300,000 switches
Expected service life of relay contacts with $\cos\phi \neq 1$ and maximum of 6 switches per minute	250 VAC and 2 A AC15: 200,000 switches 250 VAC motor 370 W AC3: 300,000 switches 24 VDC and 3 A L/R 7 ms: 100,000 switches 24 VDC and 1 A DC13: 200,000 switches
UL certified service life of relay contacts with $\cos\phi = 1$ and maximum of 6 switches per minute	up to 250 VAC and 3 A: 30,000 switches 24 VDC and 3 A: 30,000 switches
UL certified service life of relay contacts with $\cos\phi \neq 1$ and maximum of 6 switches per minute	240 VAC and 0.5 hp motor: 1,000 switches 120 VAC and 0.25 hp motor: 1,000 switches B300 pilot duty rating: 6,000 switches
Maximum switching frequency	6 times per min.
Fail-safe	if communication with the controller fails, the outputs are set to a user-configured state
Indication (for modules with manual override)	<ul style="list-style-type: none"> green/red LEDs for status of outputs (colour is adjustable) orange LED for status of control (automatic or manual) red alarm LED
Controls (for modules with manual override)	buttons for manual operation to control connected equipment: <ul style="list-style-type: none"> 0: relay off A: automatic or manual control 1: relay on


General specifications of controllers and modules

System power supply	Requirements
The system power supply for the controllers and Mix I/O modules must meet the following requirements.	
Output voltage	24 VAC $\pm 25\%$; 50/60 Hz $\pm 5\%$ 24 VDC $\pm 10\%$
Insulation	double insulation between input and output
Type of power supply	for UL916, CSA C22.2 No. 205: UL listed / CSA certified Class 2 extra low output voltage power supply




Housing	
IP code	IP20 (IEC 60529)
Flammability class	V-0 (UL 94)
Recycle code	7
Colour	housing: white (RAL9001) and blue (NCS S 1560-R90B) connections and connectors: black (RAL9011)
Type of device	open type equipment for: <ul style="list-style-type: none"> indoor use only pollution degree 2 environment

Installation and connection	
Installation	in control panel: <ul style="list-style-type: none"> accessible to authorised personnel only can be clicked onto horizontally or vertically positioned DIN rail. DIN rail installed directly on a mounting plate or floating with respect to the mounting plate in DIN 43870 distribution box
Type of DIN rail	35 x 7.5 (1.38 x 0.30 inches) or 35 x 15 mm (1.38 x 0.59 inches) (height x depth), in accordance with IEC 60715
Connector type for power supply and I/O	pluggable terminal block screw connectors (optional)
Permitted core cross section area	solid: 0.2 ... 2.5 mm ² (25 ... 14 AWG) flexible with ferrule connector: 0.2 ... 2.5 mm ² (25 ... 14 AWG) flexible with double ferrule connector: 0.2 ... 1.5 mm ² (25 ... 16 AWG)
Strip length/connector length (terminal block)	solid: 10 mm (0.39 inches) flexible with ferrule connector: 10 mm (0.39 inches) flexible with double ferrule connector: 12 mm (0.47 inches)
Strip length/connector length (screw connector)	8 mm (0.31 inches)
Identification of connections	labelling with an explanatory abbreviation
Maximum length of I/O bus cable between modules	3 m (9.84 ft)
Maximum length of I/O bus (total, including modules)	20 m (65.62 ft)

Environment	
Permitted temperature inside control panel of a working system (without air flow)	0 ... 50 °C (32 ... 122 °F)
Permitted temperature during transport and storage	-20 ... 70 °C (-4 ... 158 °F)
Maximum height	3000 m (9842 ft)
Permitted ambient relative humidity	10%...95% (non-condensing)
Shock resistance	EN 60068-2-27 (Ea)
Vibration resistance	EN 60068-2-27 (Fc)
Installation category	II

Legislation and standards		
Canada / USA		<ul style="list-style-type: none"> UL 916 (energy management equipment) UL 61010-1 (measurement and control equipment) UL 61010-2-201 (measurement and control equipment) CSA C22.2 No 61010-1-12 (measurement and control equipment) CSA C22.2 No 61010-2-201-14 (measurement and control equipment) CSA C22.2 No 61010-1-04 (measurement and control equipment) CSA C22.2 No 205-12 (signal equipment)
	EMC	<ul style="list-style-type: none"> in compliance with 47 CFR Part 15 Subpart B, Class B (FCC Rules) Functioning must meet two conditions: <ol style="list-style-type: none"> The system must not cause harmful interference. The system must acknowledge all interference received, including interference that may cause unwanted operations. ISM system, in accordance with Canadian standard ICES-001

Legislation and standards

Europe		<ul style="list-style-type: none"> • Low Voltage Directive 2006/95/EC: <ul style="list-style-type: none"> • EN 61010-1 (measurement and control equipment) • EN 61010-2-201 (measurement and control equipment) • EMC Directive 2004/108/EC: <ul style="list-style-type: none"> • EN 61326-1 (measurement and control equipment) • EN 61000-6-2 (generic immunity standard) • EN 61000-6-3 (generic emission standard) • RoHS directive 2011/65/EU
		in compliance with WEEE directive 2012/19/EU
International	IEC	<ul style="list-style-type: none"> • IEC 61010-1 (measurement and control equipment) • IEC 61010-2-201 (measurement and control equipment)
International		<ul style="list-style-type: none"> • The Priva Blue ID C4 C-MX34 Controller and Priva Blue ID C4 C-MX34m Controller with manual override are BTL-registered with BACnet International. • The Priva Blue ID C4 C-MX34 Controller and Priva Blue ID C4 C-MX34m Controller with manual override are BACnet-certified in accordance with ISO 16484-5/6. • Priva is a member of the BACnet Interest Group Europe.

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