# > PRIVA BLUE ID C-LINE DOR6M

Relay output module with manual override



A Priva Blue ID C-Line DOR6m Relay output module with manual override controls output functions using a relay. The module has override buttons for manual intervention.

# **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
- line-up LED
- LEDs for status of I/O
- LED per output, colour is adjustable
- LEDs for indication of manual override
- three override buttons per output to manually intervene

# Manual override

The module has override buttons for manual intervention and corresponding LEDs per output. If necessary, they can be used to control the connected device manually. The corresponding LED indicates this.

#### 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: • relay outputs 5 x normally open contact (COM+NO) 1 x changeover contact (COM+NO+NC)		
В	I/O bus		
С	module information: • module name • number of the module in the line-up		
D	general module LEDs		
E	LEDs and control buttons for outputs		

# **Clear indication**

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



# Legend

A	line-up LED
В	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.

# Operating and indication of digital relay outputs

	DO	R								
Α —		1.	2 •	3•	4.	5 .	6 .	7.	8 •	
		9	9	9	9	9	9	9	-	— D
		н	н	н	н	н	н	н	-	
	A	9	0	Ċ,	0	9	0		•	— E
	0	н	н	н	H	н	н	н	H .	
			10		0	. U	0	0	-	— F
В —	-	•								
С—	-08	•	•	•	•	•	•	•	•	

### Legend

A	LED for status of the output
В	yellow LED for the status of the control: • LED on: manual control • LED off: automatic control
С	red alarm LED
D	1: button for manual control of connected devices
E	A: button for automatic control of connected devices
F	0: button for manual control of connected devices

# LEDs for status of outputs

Per output, an LED clearly indicates the status of the output. Depending on the configuration, the LED is green, red or off.

The LED can also be configured as an operating message for the connected device. The actual operating mode is compared with the sent operating mode via a digital input. The LED flashes if there is a difference between these two modes. If they are the same, the LED follows the control.

### Alarm LED

An alarm LED is present for each output. This LED can be used to show the failure message from a device connected to a digital input.



# **Connections - relay output**





СОМ	common contact
-	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 DOR6m Relay output module with manual override

Priva Blue ID C-Line DOR6m Relay output module with manual override
5215002
140 x 63 x 62 mm (5.6 x 2.5 x 2.5 inches)
3.5 TE (HP) (1 TE = 18 mm (0.71 inches))
53.5 mm (2.11 inches)
0.2 kg (0.44 lb)
24 VDC: 1.6 W
1.4 W
4,380,000 hours
clicks onto DIN rail
can be mounted in DIN 43870 distribution box
mixture of polycarbonate and ABS
TPE (synthetic rubber)
6, consisting of:
5 with normally open contact
1 with changeover contact

<sup>1</sup> measured between the front of the DIN rail and the rear of the cover plate.

<sup>2</sup> Dissipation under the following conditions:

- I/O load of 50%

- 50% of the LEDs on

<sup>3</sup> 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%





Output configuration	normally open contact or changeover contact (depending on output)
Maximum switching voltage	250 VAC
	30 VDC
Maximum switching current	3 A (cosφ = 1)
Maximum switching voltage in USA/Canada when	125 VAC
switching different mains voltage phases on the same	
module	
External fuse	8 A maximum
Expected service life of relay contacts with $\cos \varphi = 1$ and	up to 250 VAC and 3 A: 300,000 switches
maximum of 6 switches per minute	24 VDC and 3 A: 300,000 switches
Expected service life of relay contacts with $\cos \varphi \neq 1$ and	250 VAC and 2 A AC15: 200,000 switches
maximum of 6 switches per minute	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 $\cos \varphi = 1$	up to 250 VAC and 3 A: 30,000 switches
and maximum of 6 switches per minute	24 VDC and 3 A: 30,000 switches
UL certified service life of relay contacts with $\cos \varphi \neq 1$	240 VAC and 0.5 hp motor: 1,000 switches
and maximum of 6 switches per minute	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)	• green/red LEDs for status of outputs (colour is adjustable)
	<ul> <li>green/red LEDs for status of outputs (colour is adjustable)</li> <li>orange LED for status of control (automatic or manual)</li> <li>red alarm LED</li> </ul>
	• red alarm LED
Controls (for modules with manual override)	buttons for manual operation to control connected equipment:
	O: 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.				
	24 VAC ± 25%; 50/60 Hz ± 5 % 24 VDC ± 10%			
Insulation	double insulation between input and output			
	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
	housing: white (RAL9001) and blue (NCS S 1560-R90B) connections and connectors: black (RAL9011)
Type of device	open type equipment for:
	<ul> <li>indoor use only</li> <li>pollution degree 2 environment</li> </ul>

Installation and connection			
Installation	<ul> <li>in control panel:</li> <li>accessible to authorised personnel only</li> <li>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</li> <li>in DIN 43870 distribution box</li> </ul>		
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 mm² (25 14 AWG) flexible with ferrule connector: 0.2 2.5 mm² (25 14 AWG) flexible with double ferrule connector: 0.2 1.5 mm² (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 0 50 °C (32 122 °F) system (without air flow)			
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> <li>UL 916 (energy management equipment)</li> <li>UL 61010-1 (measurement and control equipment)</li> <li>UL 61010-2-201 (measurement and control equipment)</li> <li>CSA C22.2 No 61010-1-12 (measurement and control equipment)</li> <li>CSA C22.2 No 61010-2-201-14 (measurement and control equipment)</li> <li>CSA C22.2 No 61010-1-04 (measurement and control equipment)</li> <li>CSA C22.2 No 205-12 (signal equipment)</li> </ul>		
	EMC	<ul> <li>in compliance with 47 CFR Part 15 Subpart B, Class B (FCC Rules) Functioning must meet two conditions:         <ol> <li>The system must not cause harmful interference.</li> <li>The system must acknowledge all interference received, including interference that may cause unwanted operations.</li> <li>ISM system, in accordance with Canadian standard ICES-001</li> </ol> </li> </ul>		
Europe	CE	<ul> <li>Low Voltage Directive 2006/95/EC:         <ul> <li>EN 61010-1 (measurement and control equipment)</li> </ul> </li> <li>EN 61010-2-201 (measurement and control equipment)</li> <li>EMC Directive 2004/108/EC:         <ul> <li>EN 61326-1 (measurement and control equipment)</li> <li>EN 61326-1 (measurement and control equipment)</li> <li>EN 61000-6-2 (generic immunity standard)</li> <li>EN 61000-6-3 (generic emission standard)</li> </ul> </li> <li>RoHS directive 2011/65/EU</li> </ul>		
		in compliance with WEEE directive 2012/19/EU		
International	IEC	<ul> <li>IEC 61010-1 (measurement and control equipment)</li> <li>IEC 61010-2-201 (measurement and control equipment)</li> </ul>		

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Legislation and standards			
International		•	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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