

Janus C4 I/O Blade Installation Guide



Part number: JC4-ADV-BL-IO16



The Janus C4 I/O Blade is a plug-in unit that can be purchased with either the Janus C4 Single-Blade Controller (Part No: JC4-ADV-C2-SNG) or the Janus C4 Multi-Blade Controller (Part No: JC4-ADV-C2-MLT).

Each I/O Blade enables the connection of up to 8 supervised inputs and 8 volt-free relay outputs. Clearly labelled connectors simplify the task.



Specification

Overview	Janus C4 IO16 Blade
Aux Inputs	5V pullup (2k2), max 12V in
Aux Out	30V, 3A max
External Power Out (power limited)	12V, 500mA max
Operating Temperature	0 to +49°C (32 to 120°F)
Humidity	5-85±5% at 30±2°C (86±4°F)
Weight	185 g
Dimensions	197 x 60 x 28 mm

Electromagnetic Compatibility

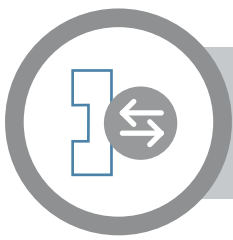
Following the provisions of EMC Directive 2014/30/EU, this product complies with the following standards:

- EN 55022:2010 Class B
- EN50130-4:2011 inc A1:2014
- IEC 62599-2:2010

WEEE

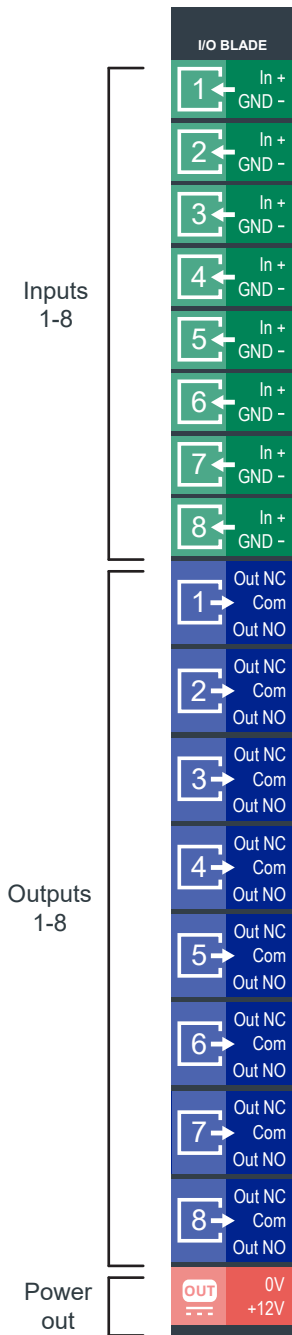
Please refer to www.grosvenortechnology.com/legal-info/ for disposal instructions under EU Directive 2012/19/EU.





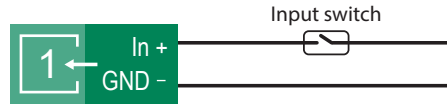
Connections

Auxiliary Input connections

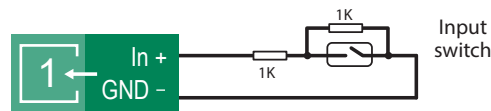


The inputs are supervised and may optionally be used with line resistors for fault detection.

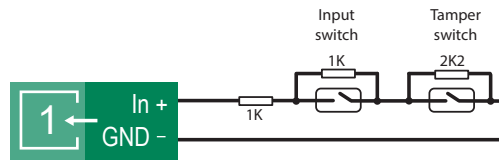
Contacts Only (no fault detection)



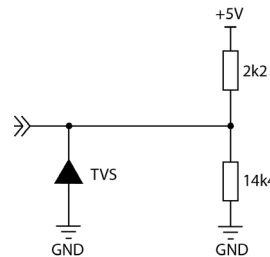
Supervised (short/open circuit detect)



Supervised (short/open circuit detect)



The Aux input is pulled to 5V by the Blade using the equivalent circuit shown below



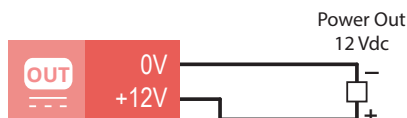
Auxiliary Output connections

The Auxiliary output relays offer volt free contacts and may be used to connect to low voltage systems such as barriers or turnstiles, provided the voltage across the contacts does not exceed 30V and current does not exceed 3A.

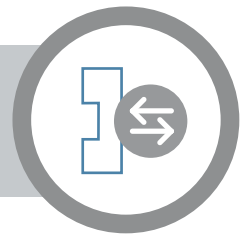


Normally Closed Contact
Common
Normally Open

Power supply



12Vdc power supply for connecting associated devices.



Power

The Janus C4 I/O Blade draws 12V power from the Controller.

The I/O Blade Power draw is summed as follows:

- I/O Blade Quiescent Current = 83 mA max @12V (1.0W)
- I/O Blade Maximum Current (all AUX Output Inputs grounded, all AUX Output relays active) = 333 mA @12V (4.0W)
- External 12V output (if used) = up to 500 mA max @12V (6.0W)

Blade LED indicators

Status LED

The main Blade LED Indicator is used to indicate activity and state. See also the status LED on the controller. If the LED is continuously red, the Blade is not communicating with the controller.

Blade State is reported by flashing a code on the LED every 15 seconds as follows:

5 blue flashes	Board is not being monitored. Probably no download to controller from Janus C4
5 red flashes	Wrong device type configured, e.g. Door defined on an IO Blade
3 red flashes	Out of range device configured
5 green flashes	No devices configured for board
5 yellow flashes	Reports electrical issues, such as current tripped, over voltage, under voltage, over current, under current

Blade Activity is reported as follows:

Yellow flicker (lasts about 30 seconds)	Firmware download in progress
Green blink (every 5 seconds)	Board running OK
Blue blink	Read
Yellow blink	Input state change
Red blink	Output state change

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