



47630657001

Edition 2

July 2020

Digital Input / Output Converter for INSIGHTqc and INSIGHTqcx Controllers

QC-DIO-8CH

Installation Manual



Save These Instructions

 **Ingersoll Rand**

Product Safety Information

Intended Use:

The QC-DIO-8CH is intended to be used with INSIGHTqc and INSIGHTqcx controllers for wiring 24V discrete I/O connections.

Refer to **Controllers for Electric Tools Product Safety Information Manual 16573701**.

Manuals can be downloaded from ingersollrand.com

Installation Guidelines

NOTICE

For all connector terminals:

- Tighten torque to minimum 0.22 Nm and maximum 0.25 Nm.
- Use minimum wire size of 28AWG and maximum 16AWG with 7mm of strip length.

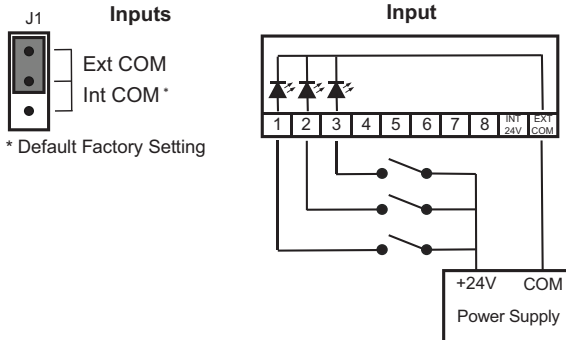
1. For best results, mount the QC-DIO-8CH box to the controller using the mounting brackets and screws provided with product.
2. For best results, use the 0.5 m USB cable provided with product. If a longer USB cable is required DO NOT exceed 2.0 m in length.
3. Ground Strap provided with product must be used. Connect one end to the terminal screw on the QC-DIO-8CH box and the other end should be attached to any of the housing screws in the controller.
4. DO NOT use the USB cable or Input / Output signal wires in parallel to higher voltage power lines or wires with high current switching.

Placing QC-DIO-8CH Box in Service

NOTICE

- An external power supply is recommended to place converter box in service. Refer to 'Wiring Inputs using External Power Supply' for installation instruction.
- Minimum of 5mA is typical to turn On input.

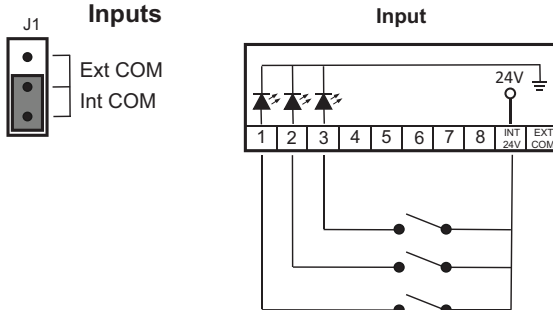
Wiring Inputs using External Power Supply



Wiring Inputs using Internal Power Supply

NOTICE

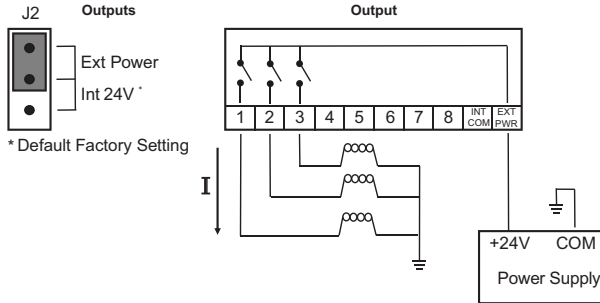
Minimum of 5mA is typical to turn On input.



Wiring Outputs using External Power Supply (Sourcing)

NOTICE

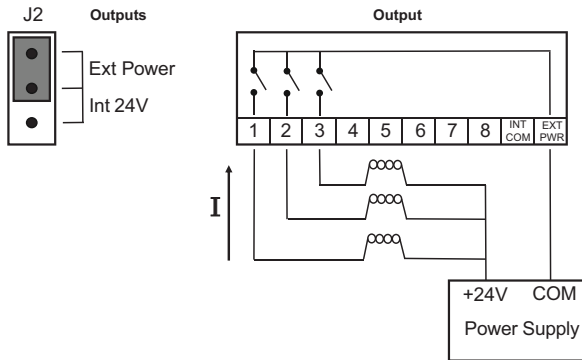
Maximum combined current is equal to 3A.



Wiring Outputs using External Power Supply (Sinking)

NOTICE

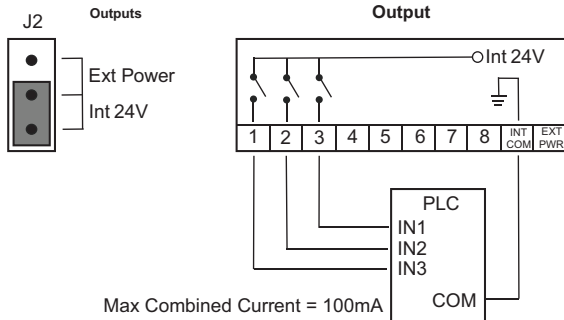
Maximum combined current is equal to 3A.



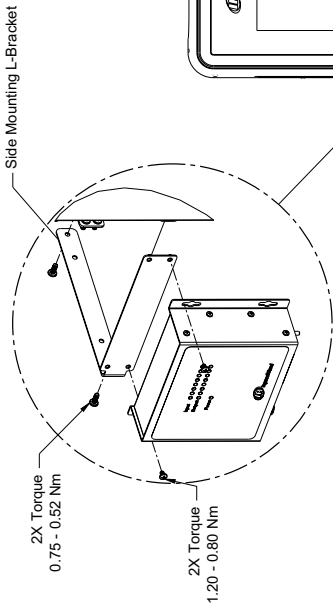
Wiring Outputs using Internal Power Supply

NOTICE

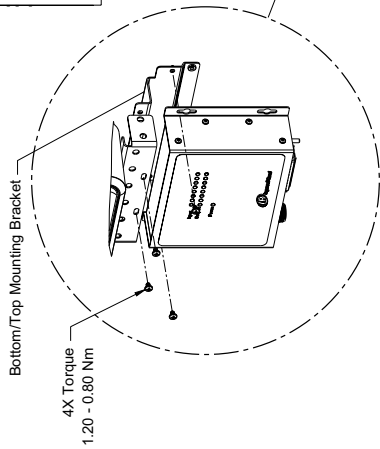
- Outputs may become unstable or fail to turn On, an external power supply is recommended to place converter box in service.
- Maximum combined current is equal to 3A.



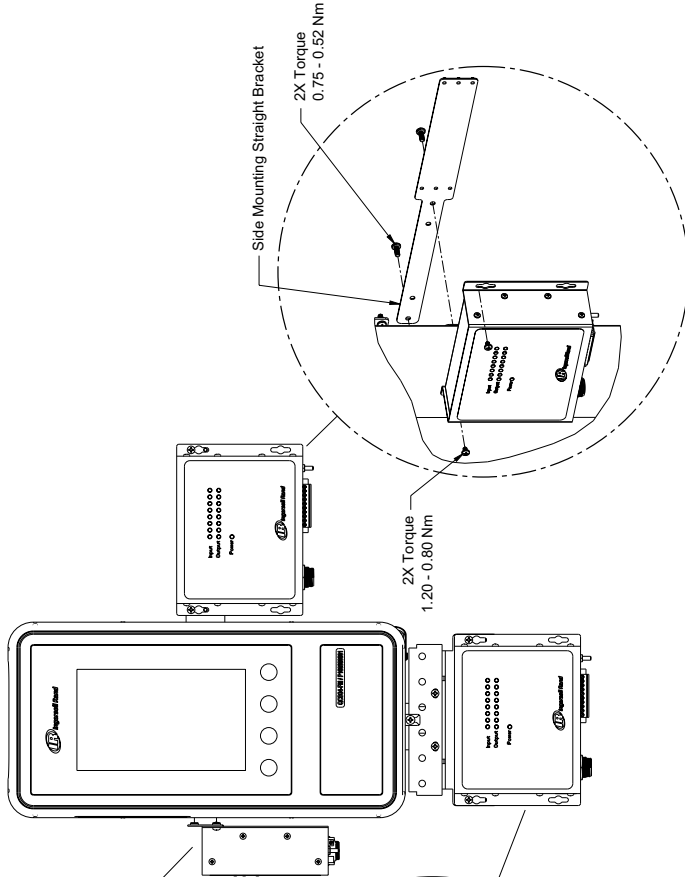
Mounting



**DIO Box mounted on side (L/R) of the Controller,
Perpendicular to Controller Display**



DIO Box mounted at bottom of the Controller



**DIO Box mounted on side (L/R) of the Controller,
parallel to Controller Display**

Notes:

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