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# LEAP WIRELESS SENSOR SYSTEM

## Wiring Guide for Leap Device Nodes

Document# 53-100187-28-XX

Revision 1.0

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*The content of this document is subject to change as a result of changes in process requirements and availability of resources*

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# 1. About this Manual

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This manual contains general information about field wiring sensors to the Leap device node. It is designed to be used either as a reference tool or as a step-by-step guide to connect various sensors to the circuit board inside the Leap device node. This manual is only supplemental to standard Phase IV manuals and only contains specifics about making the low-voltage connections inside the node enclosure.

## 1.1 Audience

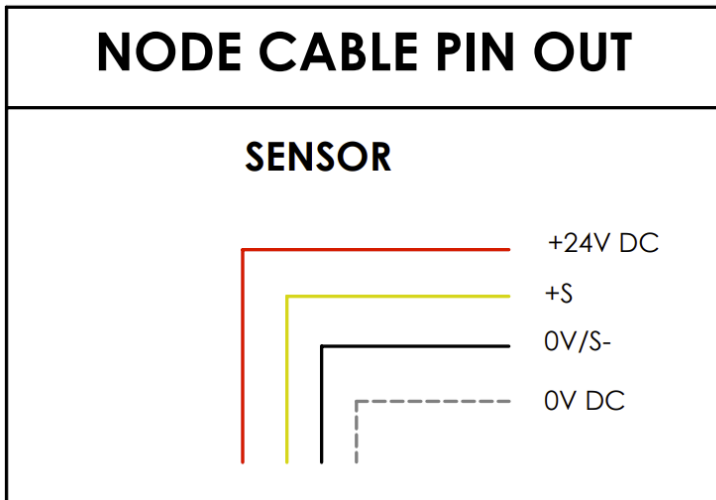
This manual assumes that you are already familiar with the [to be installed] sensor connection methods and responsible for installing and wiring the system.

## 2. Chart Industries Node

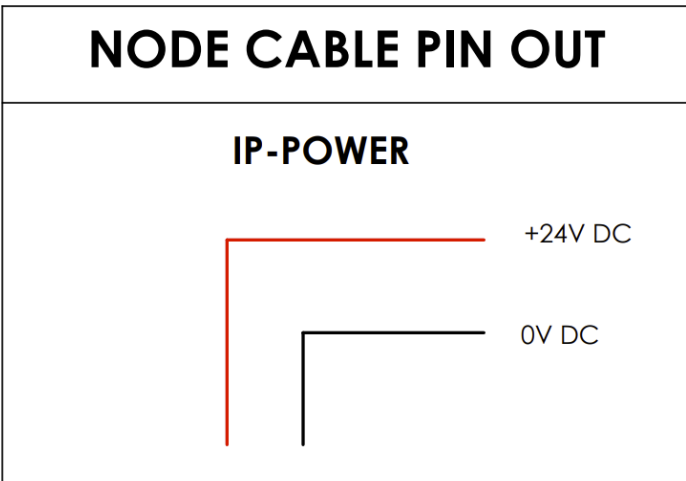
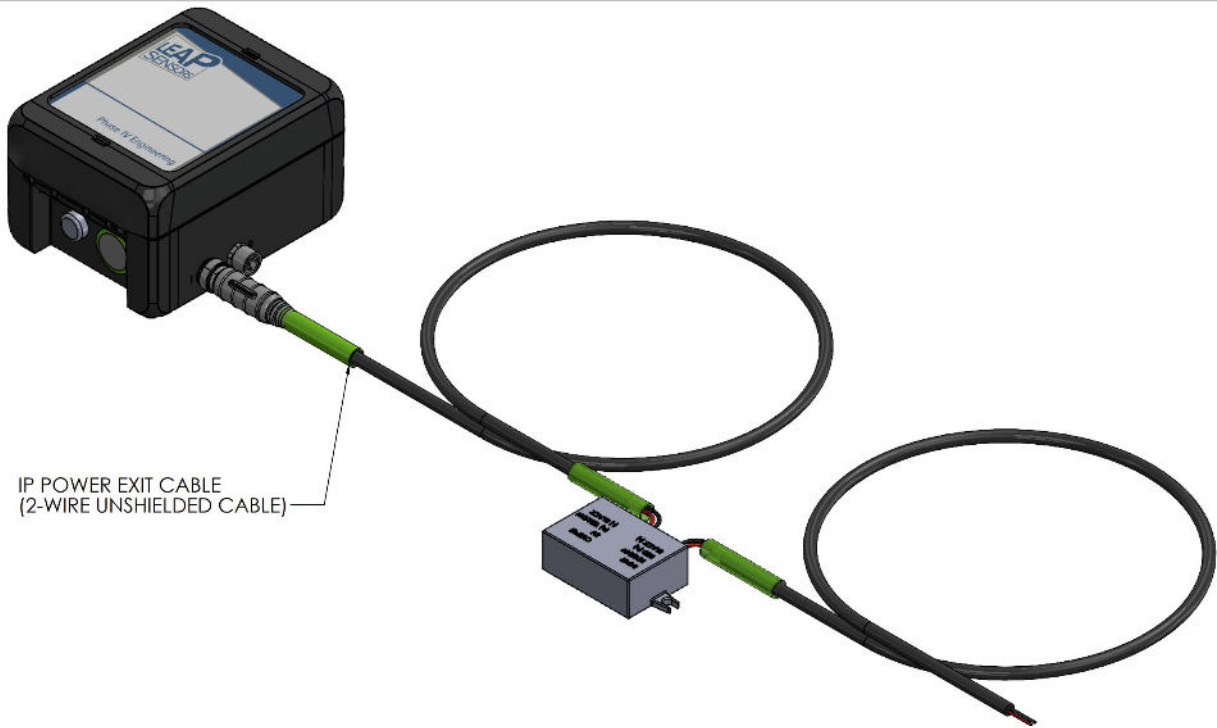
### 2.1 Sensor cable code



#### 2.1.1 3-wire sensor cable pin out – see section 4 for different sensor type connections



## 2.2 IP Cable code

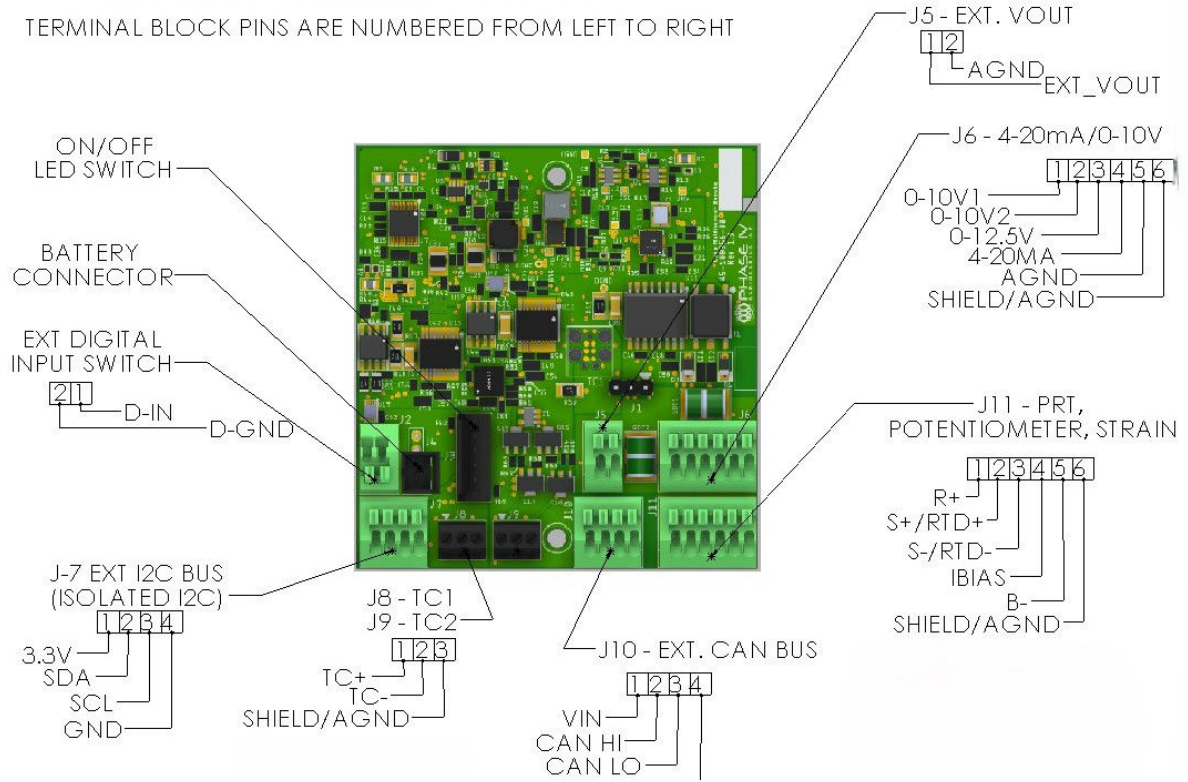


### 3. Pinout of Leap Circuit Boards

#### 3.1 Multi-Sensor Board

##### TERMINAL BLOCK LAYOUT

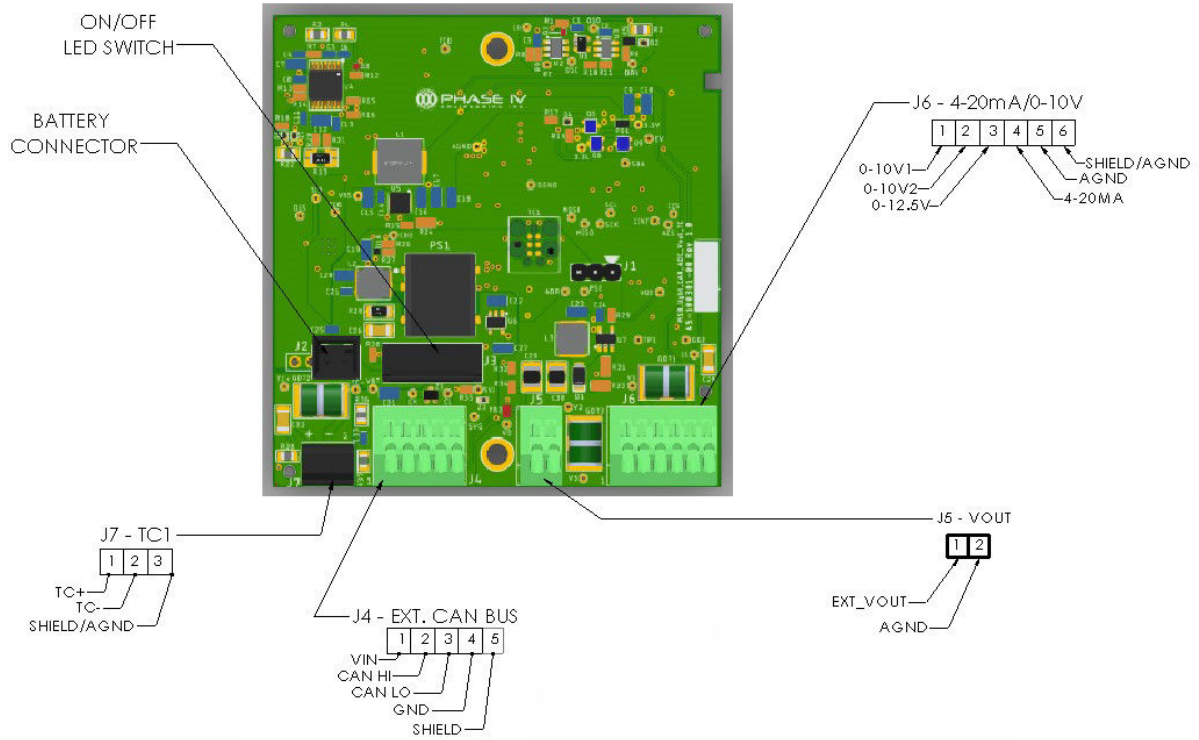
TERMINAL BLOCK PINS ARE NUMBERED FROM LEFT TO RIGHT



### 3.2 Multi-Sensor Board – Motor Monitor – Lite

## TERMINAL BLOCK LAYOUT

TERMINAL BLOCK PINS ARE NUMBERED FROM LEFT TO RIGHT





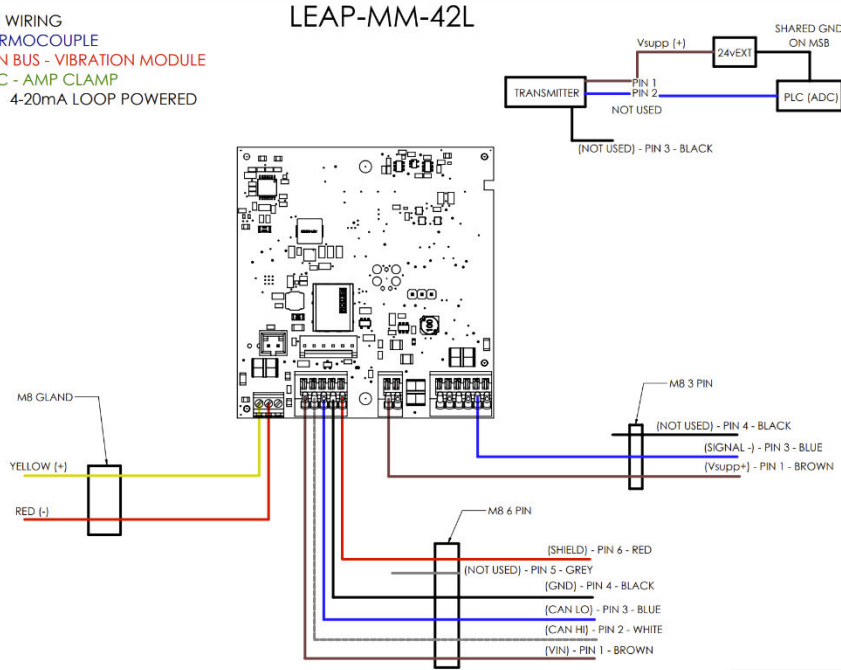
## 4. Sensor Wiring

### 4.1 Wireless Analog Input – 4-20mA, 0-5V, 0-10V

#### 4.1.1 4-20mA loop powered (2-wire), 24V excitation

MSB\_LITE WIRING

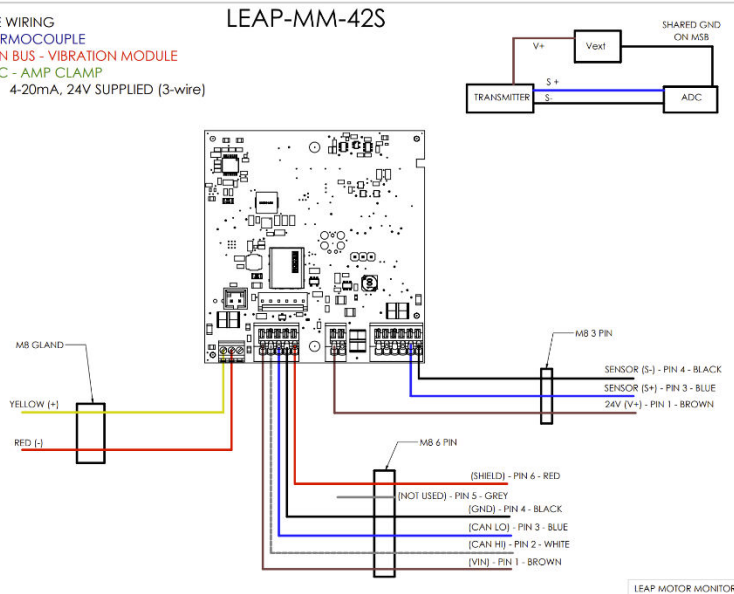
1. THERMOCOUPLE
2. CAN BUS - VIBRATION MODULE
3. ADC - AMP CLAMP
  1. 4-20mA LOOP POWERED



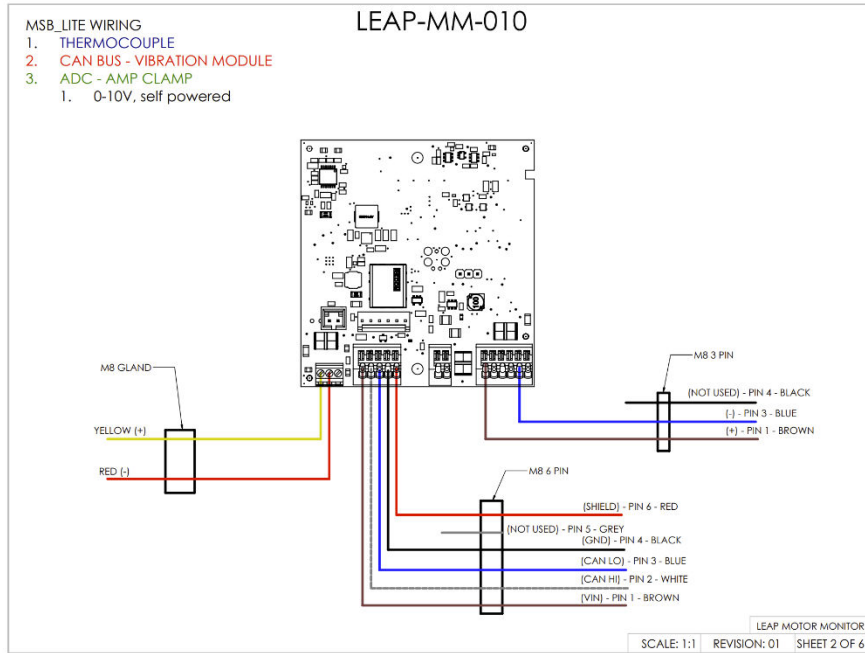
#### 4.1.2 4-20mA loop powered (3-wire), 24V excitation

MSB\_LITE WIRING

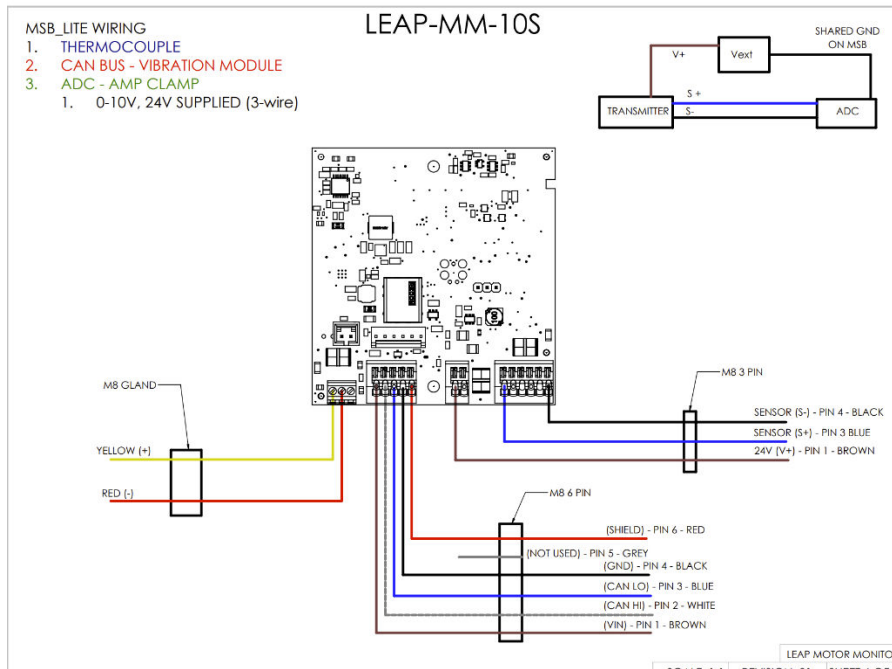
1. THERMOCOUPLE
2. CAN BUS - VIBRATION MODULE
3. ADC - AMP CLAMP
  1. 4-20mA, 24V SUPPLIED (3-wire)



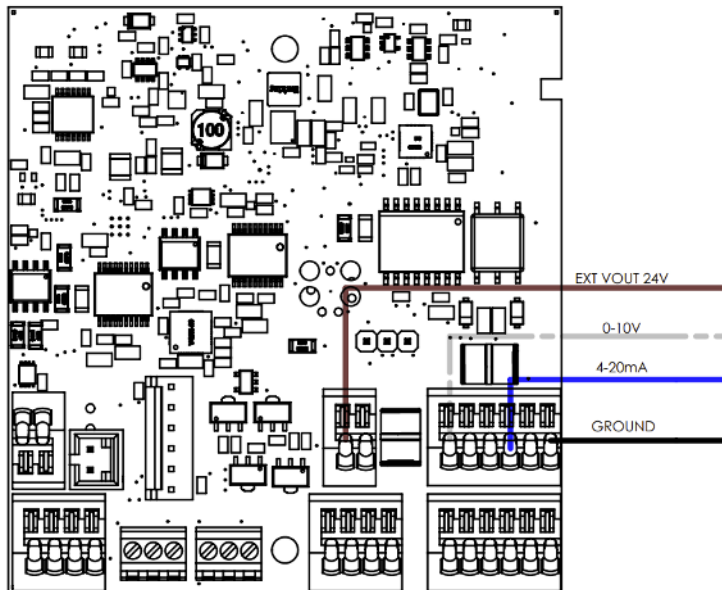
### 4.1.3 0-10V, self powered



### 4.1.4 0-10V, 24V excitation

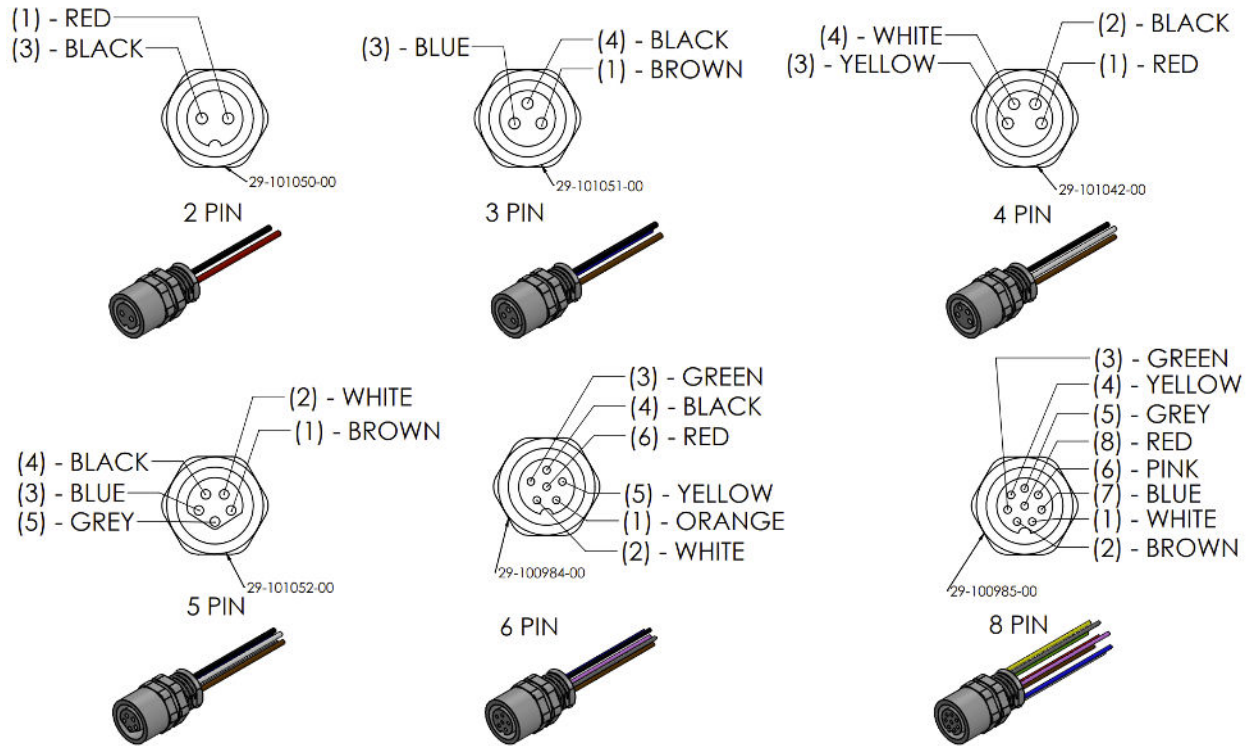


#### 4.1.5 4-20mA and 0-10V equivalent for Multi-Sensor Board

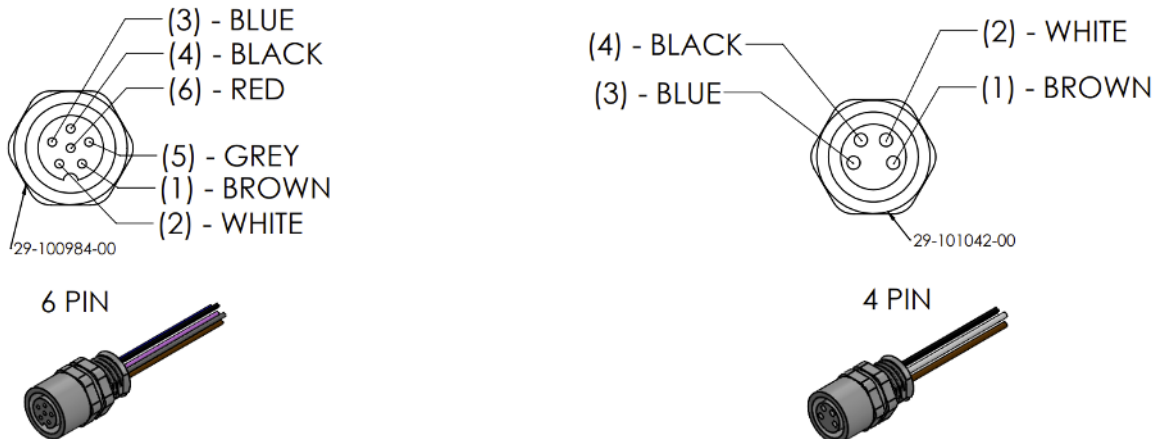


## 5. Panel Connector Pinout

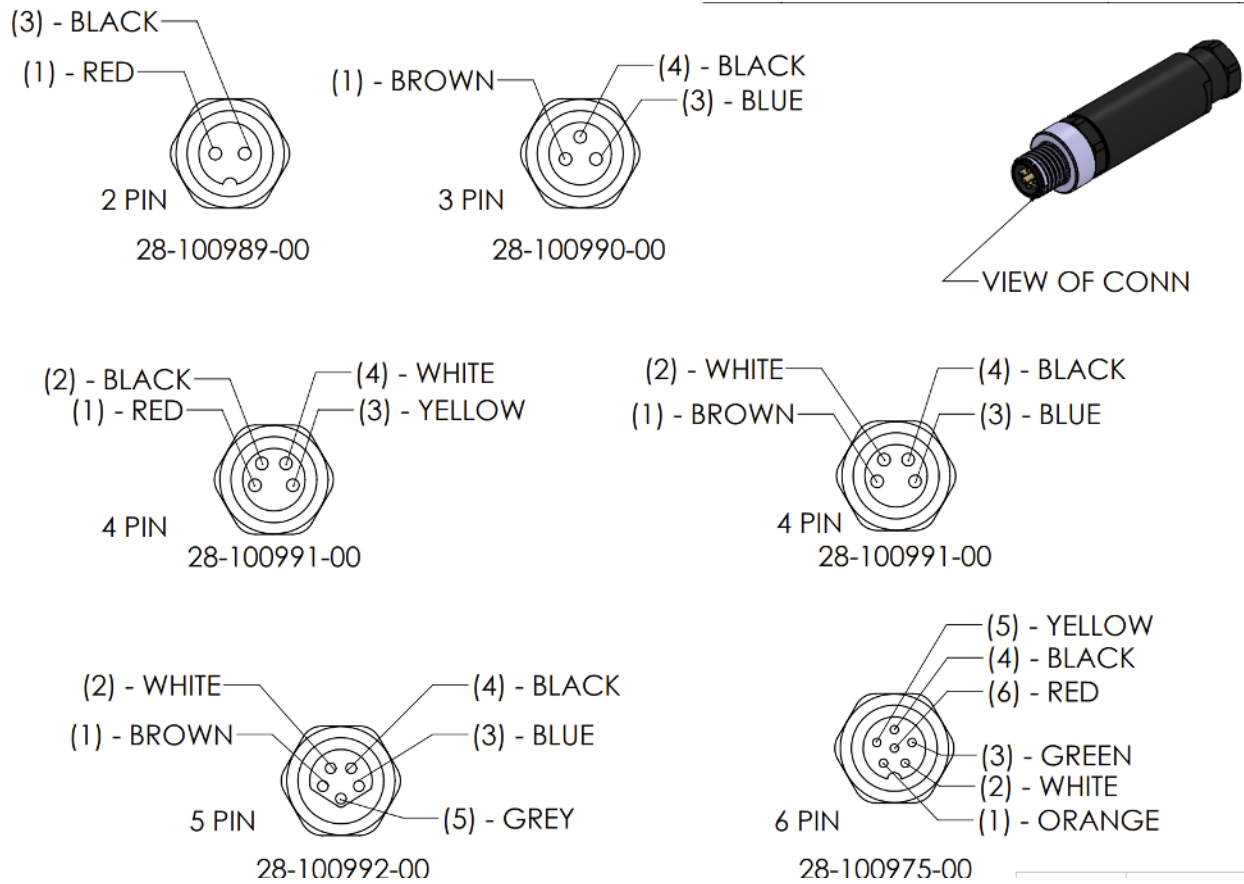
### 5.1 Panel Connectors – Node Side



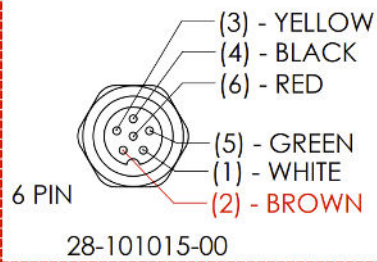
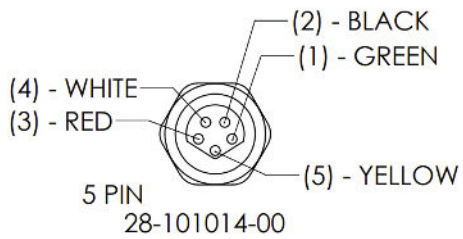
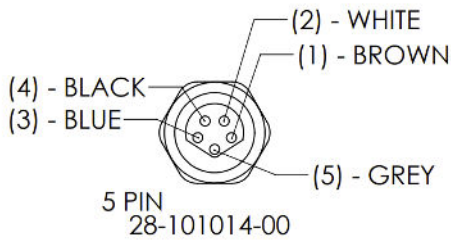
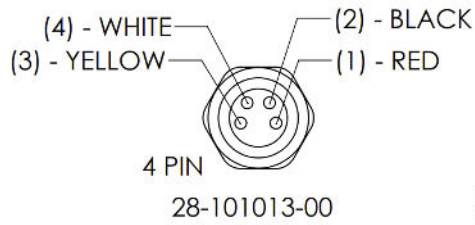
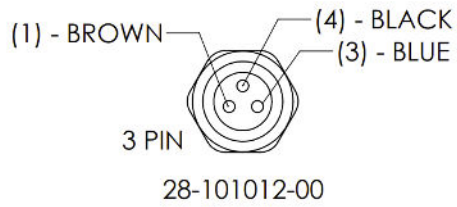
### 5.2 Panel Connectors – Node Side – variation option



### 5.3 Panel Connector – Cable Side - Unshielded



## 5.4 Panel Connector – Cable Side – Shielded



## 6. Technical Support

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