### Specifications

#### General
- **Certification**
  - FCC, CE, UL, UL Class I Division 2
- **Power Consumption**
  - Unregulated: 10 – 48 VDC
  - Communication: System (1.6 second) & 2 x plug-in terminal blocks (#14 – 22 AWG) 3,000 Vdc

#### Analog Input
- **Channels**
  - 8 differential and independent configuration channels
- **Input Impedance**
  - Voltage: 20 MΩ
  - Current: 120 Ω
- **Input Type**
  - T/C, mV, V, mA
- **Input Range**
  - Thermocouple
    - J: 0 – 760°C
    - K: 0 – 1,370°C
    - T: -100 – 400°C
    - E: 0 – 1,000°C
  - Voltage: ±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V
  - Current: ±20 mA, 4 – 20 mA
- **Accuracy**
  - Voltage mode: ±0.1% or better
  - Current mode: ±0.2% or better
- **Resolution**
  - 16-bit
- **Sampling Rate**
  - 10/100 samples/sec (selected by Utility)
- **CMR @ 50/60 Hz**
  - 92 dB
- **NMR @ 50/60 Hz**
  - 60 dB
- **Overvoltage Protection**
  - ±60 VDC
- **High Common Mode**
  - 200 Vdc
- **Span Drift**
  - ±25 ppm/°C (Typical)
- **Zero Drift**
  - ±6μV/°C
- **Built-in TVS/ESD Protection**
- **Burnout Detection**

#### Digital Input
- **Channels**
  - 7
- **Input Level**
  - Dry contact:
    - Logic level 0: Close to GND
    - Logic level 1: Open
  - Wet contact:
    - Logic level 0: 3 V max
    - Logic level 1: 10 – 30 V
  - (Note: The Digital Input Level 0 and 1 status can be inverted)
- **Supports**
  - 3 kHz Counter Input (32-bit + 1-bit overflow)
  - Supports 3 kHz Frequency Input
  - Supports Invert DI Status
  - Over Voltage Protection: 40 VDC

#### Digital Output
- **Channels**
  - 8, open collector to 40 V
  - (0.6A max. load)
- **Power Dissipation**
  - 1W load max
- **RON Maximum**
  - 150 mΩ
- **Supports**
  - 1 kHz Pulse Output
  - Supports High-To-Low Delay Output
  - Supports Low-To-High Delay Output

### Ordering Information
- **ADAM-4118**
  - Robust 8-ch Thermocouple Input Module w/ Modbus
- **ADAM-4150**
  - Robust 15-ch Digital I/O Module with Modbus
- **ADAM-4168**
  - Robust 8-ch Relay Output Module with Modbus