



# Application Note: OEM sensor communication and supply connections

## Introduction

This Application Notes describes the OEM connections required for interface.

### Caution

While working with the supply connections you must be sure to correctly identify the pin orientation as improperly connecting a sensor to voltage could cause permanent damage.

## Connection Information for OEM Sensors

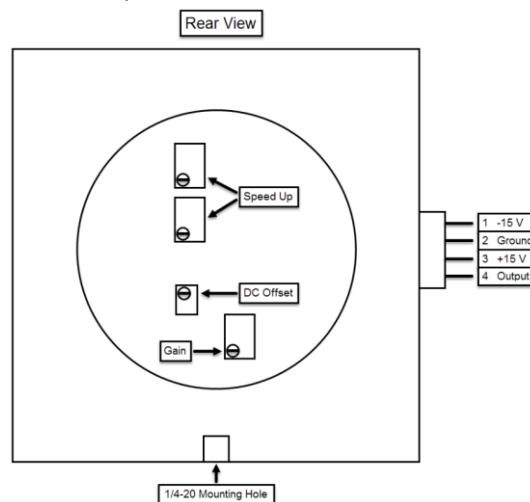
This section provides information about requirements to connect OEM sensors.

### Passive Models: PM10-19B, PM150-19B, PM150-50B, PM150-50XB, PM1K-36B

- Connection to sensor: BNC with positive center conductor electrically floating above ground
- Output impedance: Close to 2.5 k $\Omega$ , needs to be run into a high impedance of at least 1 M $\Omega$

### Amplified Models: PM10-19A, PM150-19A, PM150-50A

- Connection to sensor: 4-pin (Molex part # 22-12-2044)
  - Pin 1: -15 V supply voltage
  - Pin 2: Ground
  - Pin 3: +15 V supply voltage
  - Pin 4: Output signal
- Supply voltage range:  $\pm 10$  V to  $\pm 20$  V
- Current draw: Approximately 8 mA at -15 V and 18 mA at +15 V
- Output impedance: 100  $\Omega$
- Compatible connector: (not included) Molex 4-pin housing P/N 22-01-3047, wire crimp P/N 08-50-0114



## PowerMax-RS Models: PM10-19C, PM150-19C, PM150-50C & PowerMax-Pro RS Models: PMP 150HD, HP

- PC Interface: RS232
- Connector: DE-9F
- Power input connector: 6 mm barrel with 2 mm pin, center positive
- Required Power: +5 VDC  $\pm 5\%$  with less than 100 mV RMS noise
- Current draw: <300 mA
- Power Supply: Optional equipment; order P/N 1105557 for UL and PSE certified power supply with power cord.
- Alternate OEM power input:
  - Pin 1: +5 VDC
  - Pin 5: Ground (shared with Signal Ground)
- Communication:
  - Pin 2: Receive Data (into PC)
  - Pin 3: Transmit Data (out of PC)
  - Pin 5: Signal Ground
- Cable length: 300 mm. Use standard RS-232 cable to extend length and connect to PC or interface board.

## Contact Coherent

For additional information, contact Coherent Technical Support as follows:

- Contact your local Coherent Service Representative (or visit [www.Coherent.com](http://www.Coherent.com) to view a list of contacts worldwide)
- Send an e-mail to: [LSMservice@Coherent.com](mailto:LSMservice@Coherent.com)
- Call the Coherent Technical Support Hotline
  - Within the USA: 1-(800)-343-4912
  - Outside of the USA: 1-(408)-764-4042

For additional information about **sensor products**, go to:

<https://www.coherent.com/measurement-control>

To download the **current software** for sensor products, go to this link and scroll down to the Software, Drivers & Manuals section:

<https://www.coherent.com/measurement-control/measurement/laser-measurement-and-control-help-center>