

CATEGORY:

- ☐ Temperature
☒ Pressure
☐ Flow
☐ Speed
☒ Weighing
☒ General Info

TROUBLESHOOTING A PRESSURE TRANSDUCER OR LOAD CELL/STRAIN GAGE BRIDGE

Using a meter with at least ten (10) Meg ohm input impedance measure the voltage coming from the strain gage at the locations shown. (Note: Sensitivity is measured in mV/V.)

****With No pressure/load applied to the strain gage:**

Positive Meter lead	Negative Meter lead	Reading
+ Exc	- Exc	Excitation Voltage
+ Sig	- Exc	+ ½ Excitation Voltage
- Sig	- Exc	+ ½ Excitation Voltage
+ Sig	- Sig	Zero Volts

****With Full pressure/load Applied to the strain gage:**

Positive Meter lead	Negative Meter lead	Reading
+ Exc	- Exc	Excitation Voltage
+ Sig	- Exc	+ (½ Excitation Voltage) Plus (½ x Excitation Voltage x Sensitivity)
- Sig	- Exc	+ (½ Excitation Voltage) Minus (½ x Excitation Voltage x Sensitivity)
+ Sig	- Sig	+ (Excitation Voltage x Sensitivity)

Typical Wiring Color Code For Load Cells

Manufacturer	+ Exc.	- Exc.	+ Sig.	- Sig.	Shield
A & D	red	white	green	blue	yellow
Allegany	green	black	white	red	bare
Artech	red	black	green	white	bare
BLH	green	black	white	red	yellow
HBM	green	black	white	red	yellow
National	green	black	white	red	yellow
Pennsylvania	orange	blue	green	white	bare
Revere	green	black	white	red	orange
Rice Lake	red	black	green	white	bare
Sensortronic	red	black	green	white	bare
Tedea	green	black	red	white	bare
Toledo	green	black	white	red	yellow
Totalcomp	red	black	green	white	bare
Transducer	red	black	green	white	orange
Weightronix	green	black	white	red	orange

Did You Know ... ?

The Api 4059G Isolated Strain Gauge Input to DC Transmitter module uses state-of-the-art optical isolation and has NON-INTERACTIVE zero and span controls.