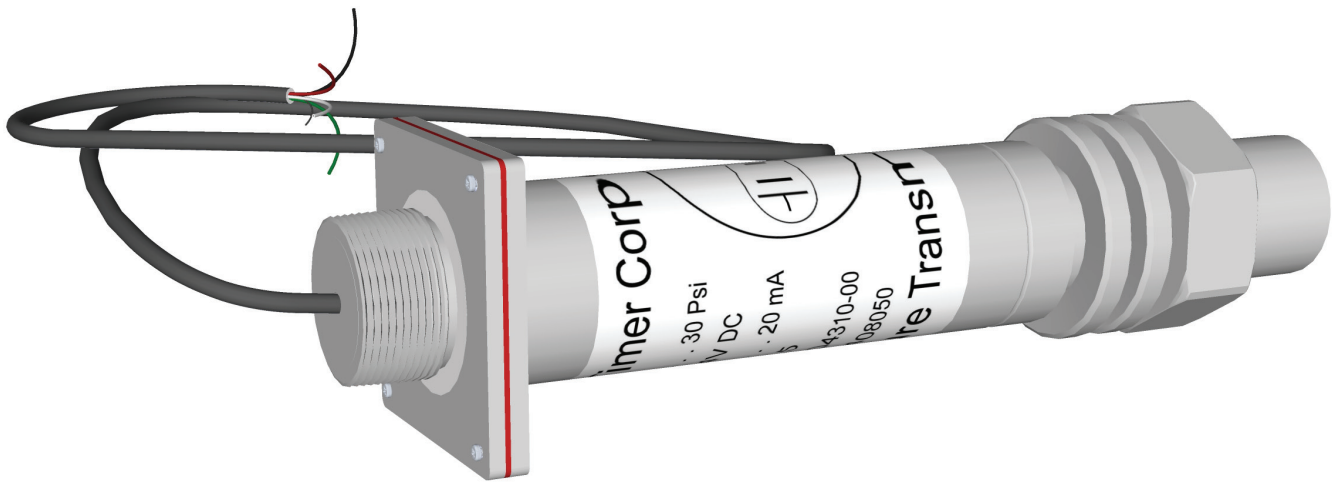


Pressure and Vacuum Transducers



⚠ WARNING

This Heat-Timer transducer should never be used as a primary limit or safety device. All equipment must have its own certified limit and safety devices required by local codes. The installer must verify proper operation and correct any safety problems prior to the installation of this Heat-Timer transducer.

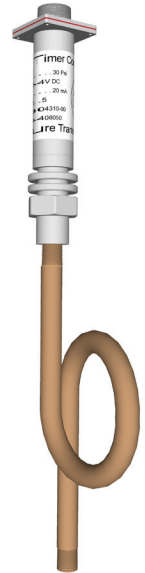
OVERVIEW

Heat-Timer pressure, vacuum, and humidity transducers are designed to connect to a variety of controls including many Heat-Timer controls. They use a 4-20mA signal and require a voltage source for the signal. All Heat-Timer controls provide the necessary voltage source.

Pressure transducers come for different pressure ranges. When choosing a transducer for an application, choose a transducer that has a higher limit than the system maximum pressure. For example, a low-pressure steam system (15 psi) must use a 30 psi pressure transducer and a high-pressure system (150 psi) must use a 200 psi pressure transducer.

Most Heat-Timer controls use different types of sensors. When that is the case, the control's Sensor Type setting must match the transducer selected.

Heat-Timer pressure and vacuum transducers are designed to measure gas, vapor, or liquid mediums with great accuracy. Heat-Timer requires the use of an isolation tube (pigtail) to help protect the transducer from the extreme system temperatures and the damaging hammer effect caused by system valve or pump operation. Pigtails must be ordered separately (Straight Pigtail HT# 135020-00) (Angle Pigtail HT# 135021-00).



⚠ WARNING

Fluid hammer and surges can destroy any pressure transducer and must always be avoided. A Pig Tail should be installed to eliminate the damaging hammer effects.

INSTALLATION

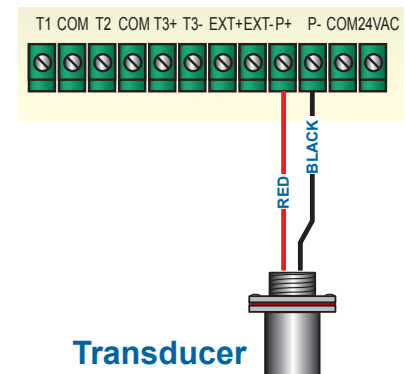
- Heat-Timer requires the installer to connect the transducer to a pigtail (isolation tube). The pigtail protects the transducer from the damaging effects of excessive system temperature and valve operation hammer.
- The transducer should be installed approximately 10' past the boiler/steam source on the supply main but before any major takeoffs.
- In case of a vacuum transducer, it should be installed approximately 10' past the vacuum pump.

WIRING

- Heat-Timer controls provide the transducer with the voltage required to use the 4-20mA signal.
- However, if the transducer is used with non-Heat-Timer controls that does not source power, an external power source must be used (between 12 VDC and 30 VDC).
- Use only the transducer's Red and Black wires and cut the rest of the wires.

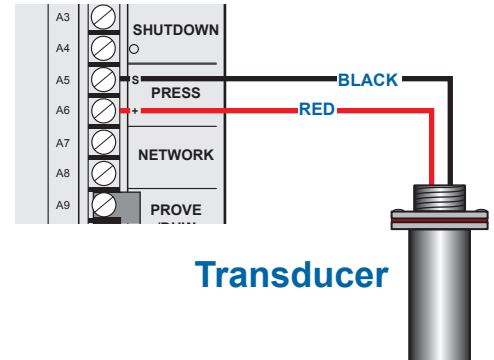
WIRING TO DIGI-ELITE

- The Heat-Timer SPC, TSC, MC Digi-Elite controls are capable of reading a variety of sensors. The Sensor Type selected from the control's Startup menu determines the terminals the control will use to read the system sensor.
- Set the Digi-Elite Sensor Type to match the transducer selected.
- Connect the transducer's Red wire to the (P+) terminal.
- Connect the transducer's Black wire to the (P-) terminal.



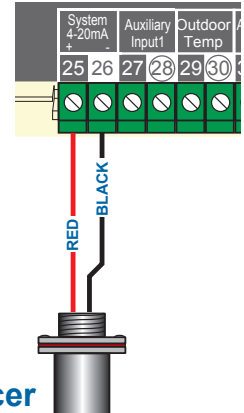
WIRING TO PLATINUM CONTROLS

- The Heat-Timer Multi-MOD Platinum control is capable of reading a variety of sensors. The Sensor Type selected from the control's Startup menu determines the terminals the control will use to read the system sensor. Set the Multi-MOD Sensor Type to match the transducer selected.
- The MPCQ Platinum uses only 30 PSI transducers.
- Connect the transducer's Red wire to the (A6 PRESS (+)) terminal.
- Connect the transducer's Black wire to the (A5 PRESS (-)) terminal.



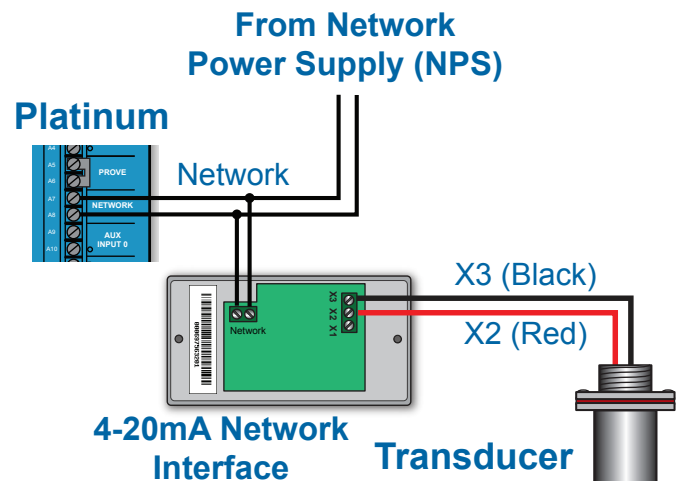
WIRING TO SQ-ELITE

- The Heat-Timer SQ-Elite-8S control is capable of reading a variety of sensors. Set the SQ-Elite-8S Sensor Type to match the transducer selected.
- Connect the transducer's Red wire to terminal (25) (System 4-20mA (+)).
- Connect the transducer's Black wire to terminal (26) (System 4-20mA (-)).



WIRING TO RINET CONTROLS

- Use a 4-20mA Network Interface (HT# 904043-00) to connect the transducer to the Platinum control's Network terminals.
- To power the transducer use Network Power Supply (HT# 926670-00).
- To power the transducer use Network Power Supply (HT# 926670-00). The NPS can power up to five transducers and network sensors.
- Connect the transducer's Red wire to 4-20mA Network Interface terminal (X2).
- Connect the transducer's Black wire to 4-20mA Network Interface terminal (X3).
- Connect the 4-20mA Network Interface Network terminals to the Platinum control's Network terminals.
- Connect the NPS Network terminals to the Platinum control's Network terminals.



TRANSDUCER TYPES

Name	Part #	Description	Type
0-15 PSI Pressure Transducer	904316-00	For Multi-MOD and SQ-Elite-8S	Pressure
0-30 PSI Pressure Transducer	904310-00	For Multi-MOD, MPCQ Platinum, SQ-Elite-8S, Digi-Span	Pressure
0-30 PSI Pressure Transducer	904340-00	For MPCQ Gold	Pressure
0-100 PSI Pressure Transducer	904312-00	For Multi-MOD, SQ-Elite-8S, Digi-Span	Pressure
0-200 PSI Pressure Transducer	9043110-00	For Multi-MOD, SQ-Elite-8S, Digi-Span	Pressure
0-300 PSI Pressure Transducer	904313-00	For Multi-MOD, SQ-Elite-8S, Digi-Span	Pressure
0-30 Hg Vacuum Transducer	904317-00	For SQ-Elite-8S and Digi-Span	Vacuum
0-100 % RH Humidity	904035-00	For Digi-Span	Humidity
4-20mA Network Interface	904043-00	For Platinum Network Connections	All Transducers
NPS (Network power Supply)	926670-00	For Platinum Network Connections	All Transducers

SPECIFICATION:

Sensitive Element: ceramic piezoresistance
 Overpressure: 3 times the full scale
 Accuracy: 0.25%, 0.5%
 Output: 4-20mA DC
 Supply Power: 12-30V DC
 Load Resistance: 350 Ω (750 Ω Max)
 Operating Temperature: -40°F/-40°C to 257°F/-125°C
 Compensated Range: 32°F / 0°C to 158°F/70°C
 Stability: <+/- 0.2% F.S. /year
 Suitable media: liquid, gas and steam

HT# 059045-00 B



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