Bell & Gossett
a xylem brand

TECHNICAL BROCHURE
D-162A

SENSOR/TRANSMITTERS (ST-SERIES)

PYROMATION TEMPERATURE AND TRANSMATION DIFFERENTIAL TEMPERATURE SENSOR/TRANSMITTER

POWERSAV®
VARIABLE SPEED PUMPING SYSTEMS

Temperature Transmitter ST-103

Sensor/Transmitters are the nerves of the Powersav system.

The rugged Bell & Gossett Temperature (ST-103) or Differential Temperature (ST-103DT) Sensor/ Transmitter precisely measures system conditions and transmits a proportional 4 to 20 mA dc signal to the Technologic™ Pump Logic Controller.

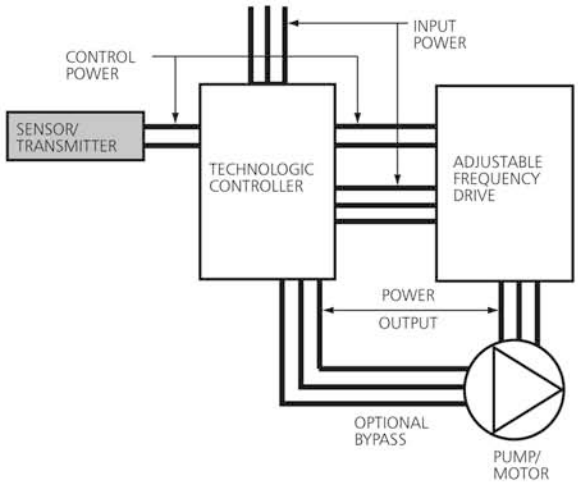
INSTALLATION CONSIDERATIONS

- Standard 18 gauge 2 wire shielded cable located in a conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller
- ½ inch male NPT process connection required for the RTD
- Takes accurate readings and relays them to the Technologic Controller up to 2000 feet away
- 4½" well insertion length

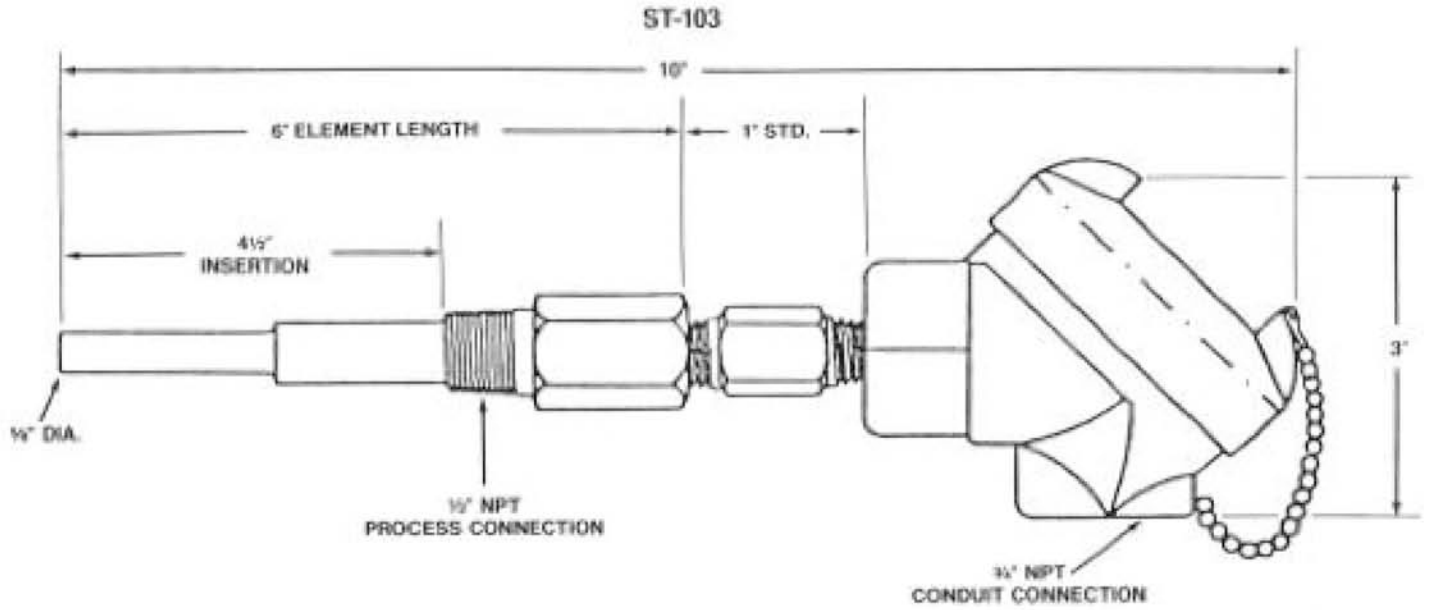
STANDARD FEATURES

- High accuracy
- Excellent repeatability
- Long term stability
- High noise immunity
- Completely self-contained unit
- Resistance Temperature Detecting (RTD) elements mounted to a transmitter for measuring temperature or differential temperature
- RTD's have 316 stainless steel sheath, spring loaded into a 304 stainless steel well
- Transmits an isolated linear 4-20mA dc output signal through a two wire system
- Transmitter housed in a water tight NEMA 4 enclosure with a ¾ inch NPT female conduit connection
- EMI/RFI protection
- Maximum span range of 0°F to 225°F

POWERSAV®
BLOCK DIAGRAM



DIMENSIONS



NOTE: Dimensions are approximate. Do not use for construction. ST-103DT Dimensions are not shown. Contact factory for certified dimensions.

Sensor/Transmitter Specification

Temperature or Differential Temperature Transmitter(s) ST-103 and ST-103DT

Furnish ( ) field mounted temperature transmitter(s) as indicated on plans, each with a 100 ohm platinum RTD sensing element with a 0.00385 temperature coefficient, directly mounted to a transmitter for measuring temperature (or differential temperature with (2) RTDs), and transmitting an isolated linear 4 to 20 mA dc output for use in a standard two-wire 24 V dc system. The unit shall be accurate to ± 0.25% of span over its span range of 0°F to 225°F. It shall have a 1/4" O.D. 316 SS element sheath, spring loaded into a 304 SS well with a 4½" insertion length. The unit shall have a ½" male NPT process connection and a ¾" female NPT conduit connection. The RTD is mounted in a NEMA 4 enclosure with an integrally mounted 4-20 mA transmitter calibrated to its span range. The maximum span range shall not exceed 0°F to 225°F.

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