



TWSTM-100

SERIAL LINE OF TEMPERATURE SENSORS

APPLICATIONS

- Distributed temperature monitoring of stator core and stator windings on:
 - hydrogenerators
 - turbogenerators
 - large electric motors
 - various other applications

FEATURES

- Real-time multipoint temperature monitoring
- 100 temperature sensors maximum per serial line; several lines can be installed on each generator
- Measuring Range: -25°C to 125°C (-13°F to 257°F)
- Individual measurement and alarms per sensor; each sensor operates independently
- Low profile sensor, only 4.78 mm (0.188 in.) thick
- 30 cm (12 in.) nominal cable between each sensor, custom length capability
- Up to 100 m (330 ft) between the farthest sensors and the conditioner

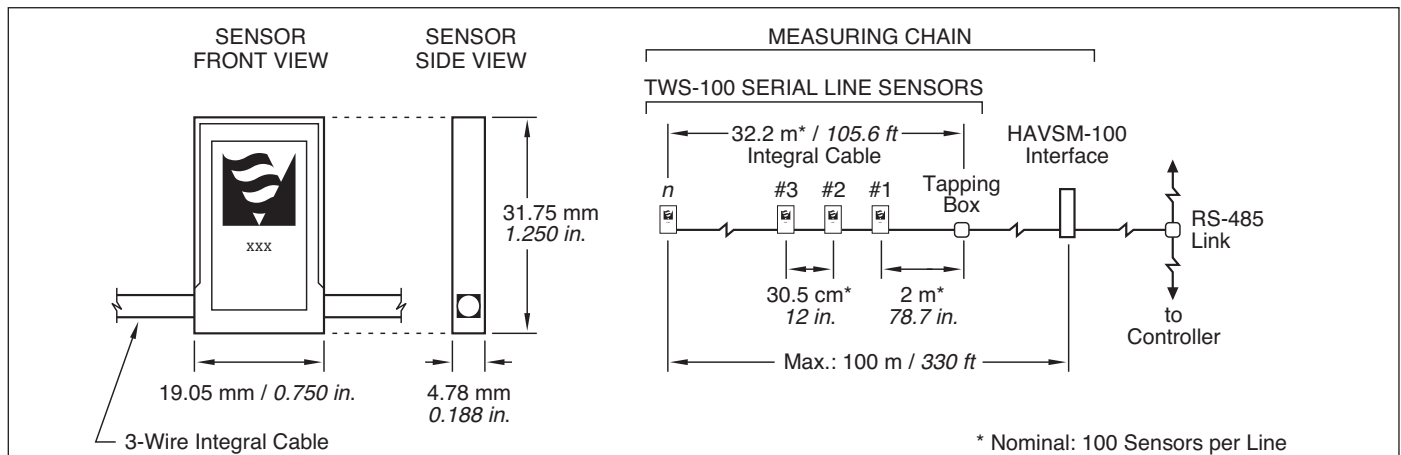
DESCRIPTION

The ThermaWatch[®] Stator (TWSTM-100) Serial Line Sensor is a distributed sensing device for temperature monitoring and protection of stator core and windings. It provides greater coverage than traditional RTD and thermocouple technologies. The sensors are either cemented to the back of the stator core forming a matrix over the circumference or a specific area, or glued on each stator bar close to the stator core exit. In both cases, several serial lines of sensors may be required (layout specific to each installation).

A typical serial line is comprised of a maximum of 100 sensors, 30 cm (12 in.) apart, on a single integral cable. Custom serial lines are available. Each sensor operates independently with its own alarm level settings. The sensor accuracy is accuracy is $\pm 0.5^{\circ}\text{C}$ ($\pm 0.9^{\circ}\text{F}$) between -10 and 85°C (14 and 185°F).

ThermaWatch is compatible with ZOOM software for thermal mapping and correlation with other parameters.

DIMENSIONS





TWS™-100 GENERAL SPECIFICATIONS

Operating

- Measuring range -25°C to 125°C (-13°F to 257°F)
- Accuracy ±0.5°C [-10°C to 85°C] (±0.9°F [14°F to 185°F])
- Sampling 50 msec. per point
- Destructive Temperature 200°C (392°F)
- Nbr of sensors per line 100 nominal, customizable between 1 and 100

Connection

- Integral cable
 - Type 3-wire cable
3.3 mm (130 mils) diameter
 - Length 32.2 cm (105.6 ft) nominal,
 - Sensor-sensor distance 30.5 cm (12 in.) nominal, customizable according to installation
- Extension cable
 - Type 1 pair shielded, Belden 8723
4.3 mm (168 mils) diameter
 - Length Custom
 - Max. Length 100 m (330 ft) between farthest sensor and HAVSM Interface

Environmental

- Temperature range
 - Operating -25°C to 125°C (-13°F to 257°F)
 - Storage -25°C to 125°C (-13°F to 257°F)
 - Destructive 200°C (392°F)

Physical Characteristics

- Probe body FR4
- Probe overall dimension
 - Width 19.05 mm (0.750 in.)
 - Height 31.75 mm (1.250 in.)
 - Depth 4.78 mm (0.188 in.)

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Published: 04.11.19 **Revised:** 11.08.04



WARNING – Installation on High Voltage Equipment



Improper installation of TWS-100 Serial Line Sensors can cause physical injuries and equipment damage.

TWS-100 must not be installed in the air gap.

TWS-100 should be installed by VibroSystM authorized specialists only.