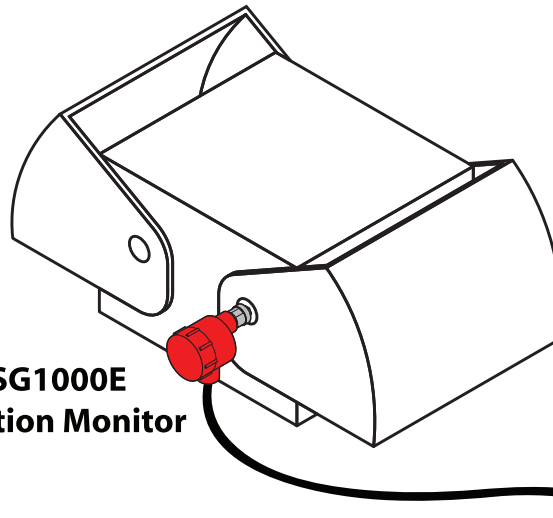


TR400SGA Remote Display

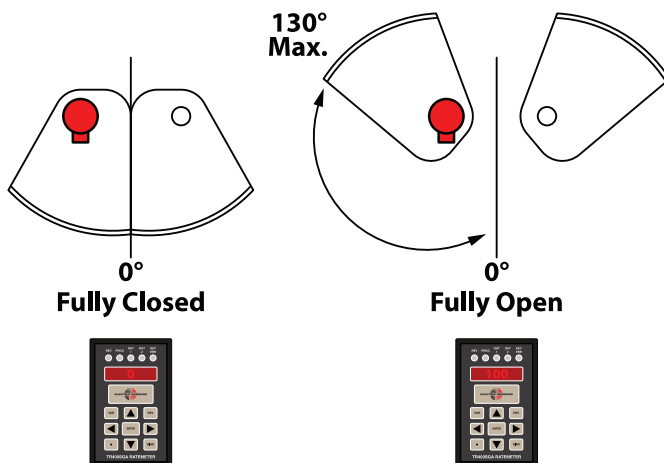


SG1000E Position Monitor



SG1000E Sub-Turn Shaft Monitor

- Accurate shaft position feedback — 0° to 130° Max
- Precisely measures shaft rotary movement
- Versatile system — works on powered or manually driven shafts
- Rugged explosionproof NEMA4X housing — long life & dependability
- Non-volatile memory — retains shaft position in the event of a power loss
- Interface with a PLC or optional TR400-SGA display unit
- UL, CSA & CE approved to applicable standards



SG1000E Product Information

Description

Electro-Sensors SG1000E Sub-Turn Shaft Position Monitor is a complete position monitoring system housed in a compact and rugged explosionproof NEMA4X housing. It is an encoder-based position sensor providing a 4-20 mA output and is used to measure a rotary process such as a shaft position having a clockwise or counter-clockwise rotary movement. The SG1000E works on rotary processes having a full-scale sweep as small as 5.6 degrees (fully-closed to fully-open), up through those having a full-scale sweep as large as 130 degrees.

Principle of Operation

The SG1000E has two modes: *calibration* and *normal operating*. After installation, a simple calibration procedure is used to program the SG1000E with the encoder values corresponding to the shaft's fully-closed and fully-open position limits. Once programmed, the SG1000E outputs a 4 mA DC signal when the shaft is in the fully-closed position, and outputs a 20 mA DC signal when the shaft is in the fully-open position. When the shaft is at any mid-span position (between fully-closed and fully-open) the SG1000E outputs a signal that is proportionally between 4 and 20 mA.

SG1000E Sub-Turn Shaft Monitor

SG1000E Position Monitor

The SG1000E Monitor provides independent and accurate feedback of shaft position via a 4-20mA signal to an external device such as a PLC or optional TR400-SGA display.

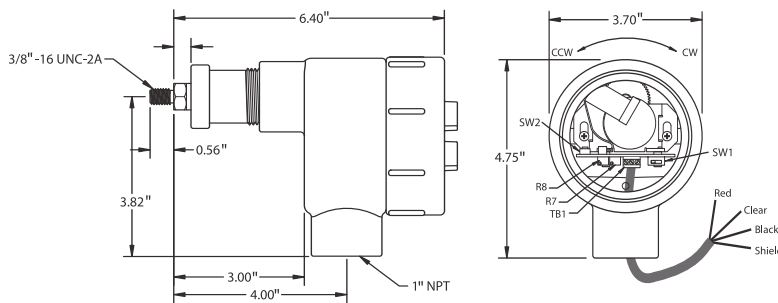


Optional TR400-SGA Remote Display

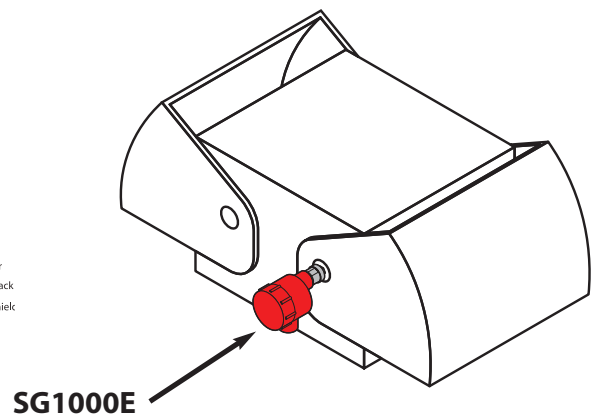
The TR400-SGA accepts the 4-20 mA signal from the SG1000E monitor and shows the shaft position in desired user units typically 0% to 100%. The TR400-SGA also offers two relays and a 4-20 mA proportional output.

Consult factory for further options.

Dimensional Drawings • SG1000E



Installation Figure 1



SG1000E • Specifications

Input Power

Voltage 24 Vdc $\pm$ 10%

Output

Type 4-20mA standard

General Specifications

Resolution 5.6° turn minimum
130° turn maximum

Accuracy 0.2% to 5% dependent on
calibration span

Environmental



Class I, Div 1, Groups C, D
Class II, Div 1, Groups E, F, G
UL File: E249019



NEMA4X Cast Aluminum Housing

Installation Center drill and tap the shaft to a depth of 0.625" for a 3/8" - 16 UNC - 2B thread. The use of a stabilizer bracket is recommended, but may not be required in all applications.

Operating Temperature -40° C to + 65° C

Terminal Block Wiring 10 Feet of 3 Conductor
Shielded Cable Standard
TB1-1 Red = Supply.
TB1-2 Clear = 4-20 mA.
TB1-3 Black = Ground.
Shield Wire

Optional TR400-SGA Display

Please consult factory for more information.

Specifications subject to change without notice.

ES-254 Rev A