

Optional
TR400-SGA
Remote
Display

Electro-Sensors SG1000A
Slide Gate Monitor

SG1000A Slide Gate Monitor

- Accurate gate or valve position feedback — ideal for product proportioning.
- Simple "one-size-fits-all" calibration allows use with most gate sizes.
- Versatile system — interface with a PLC or optional TR400-SGA display unit.
- Rugged explosionproof NEMA 4 housing — long life & dependability.
- Non-volatile memory — retains gate or valve position in the event of a power loss.
- No bracket required — easily mounts to gate drive shaft.
- Works on electrically or manually driven rack and pinion gates.

SG1000A Product Information

Description

Electro-Sensors SG1000A Slide Gate Monitor is a complete monitoring system housed in a compact and rugged explosionproof NEMA 4 enclosure. It provides independent and accurate feedback of slide gate or valve position to an external device such as a PLC or optional TR400-SGA slide gate display. The optional display decodes the signal from the SG1000A monitor and shows the percentage open between zero (fully closed) and 100 (fully open), allowing the gate to be accurately positioned when regulating the flow of a product or proportioning more than one product. The SG1000A monitor when used with a PLC or optional TR400-SGA display provides the operator with immediate at-a-glance information on the position of the gate or valve. The optional slide gate display also offers two relays for desired gate or valve position indication, and the option of a 4-20mA proportional output. Electro-Sensors' SG1000A Slide Gate Monitor improves the efficiency and safety of operations by preventing machine damage, product waste and costly downtime.

Principle of Operation

The SG1000A Slide Gate Monitor mounts directly to the end of the slide gate drive shaft and is easily calibrated with a single push button for setting the fully open and fully closed limit points of the gate. A second directional switch (clockwise/counterclockwise) enables the user to mount the SG1000A monitor on either side of the gate. As the drive shaft rotates, the SG1000A measures the rotation and transmits a 4-20mA signal to an external device such as PLC or optional TR400-SGA display. The optional slide gate display provides not only a visual indication of gate or valve position, but also two relay outputs set up to indicate when a desired gate position is reached. All of the above functions can also be achieved with a PLC.

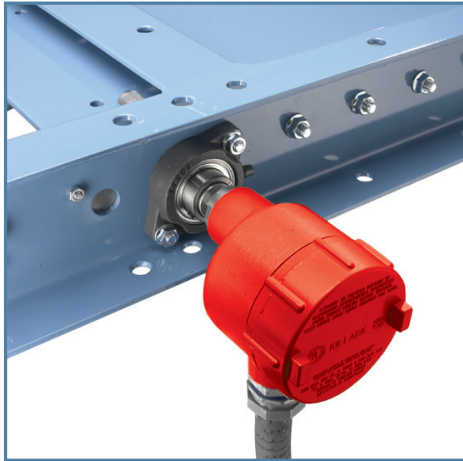
SG1000A Slide Gate Monitor

The SG1000A Monitor provides independent and accurate feedback of gate or valve position via a 4-20mA signal to an external device such as a PLC or optional TR400-SGA display.



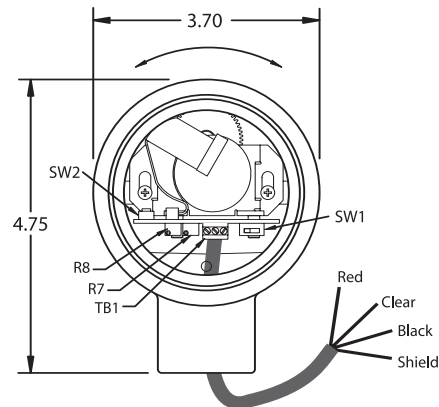
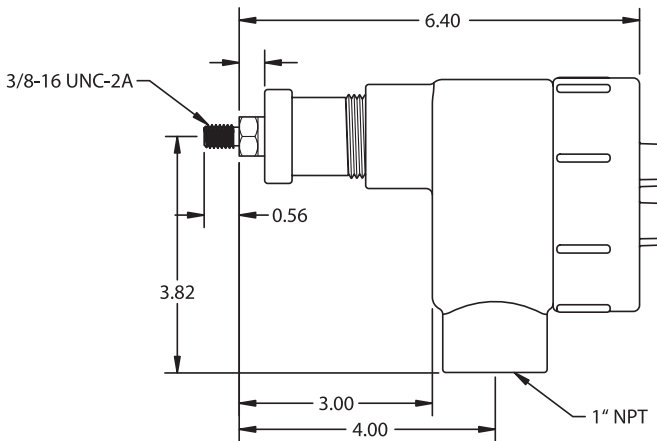
Optional TR400-SGA Remote Display

The TR400-SGA accepts the 4-20mA signal from the SG1000A monitor and shows the percentage open between zero (fully closed) and 100 (fully open). The TR400-SGA also offers two relays and the option of a 4-20mA proportional output.



Consult factory for further options.

Dimensional Drawings • SG1000A



SG1000A • Specifications

Input Power

Voltage..... 24 Vdc \pm 10%

Output

Type 4-20mA standard

General Specifications

Resolution 1/4 turn minimum,
6 turns maximum
Accuracy 0.2% to 5% dependent upon
calibration span.
Housing and Cover NEMA 4, cast aluminum,
CSA Approved. UL rated:
Class I, Zone 1 — Groups IIA, IIB
and Groups C & D; Class II —
Groups E,F, G.

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

Operating Temperature -40° C to + 70° C

Wiring Code Information 10 Feet Standard

Red = Supply
Clear = 4-20 mA
Black = Ground
Shield Wire

Optional TR400-SGA Display

Please consult factory for more information.

Specifications subject to change without notice.

ES-250 Rev C