

FEATURES:

- Allows "one man" sensor calibration in hazardous areas without area declassification.
- Provides true one man calibration.
- Requires only a simple magnetic wand. No other special electronic devices are needed.
- Provides continuous digital readout of the engineering units being monitored by the sensor.
- 4-20mA output sends constant 1.5mA "In Cal" signal during calibration periods.
- 1 minute "Power-Up" & "Post Cal" Delay Modes lock 4-20mA output at 4 mA to allow sensor stabilization and prevent erroneous alarm trips.
- Standard "Fault Supervision" circuitry continuously monitors for failed sensor. 4-20mA output transmits 0mA during failures.
- Standard ST-46 models include the ST-46LEL for catalytic bead sensors, the ST-46EC for electrochemical sensors and the ST-46I for 4-20mA inputs.
- The NEMA 7 (Explosion-Proof) instrument enclosure also meets NEMA 4 requirements with the standard "O" ring.
- Available options include isolated 4-20mA output, 5 amp form "C" HIGH - WARN - FAULT alarm contacts and RS-485 Modbus® interface.



The R. C. Systems Co., Inc. Model ST-46 Non-Intrusive Sensor Transmitter allows complete "end to end" calibrations be performed on sensors and analyzers without opening their enclosures. This is useful when the area is potentially hazardous and declassification is required to open explosion-proof enclosures. The only tool required is a small magnetic wand designed to be carried on a technician's key chain. The 3½ digit L.C.D. readout may be calibrated in engineering units to allow direct reading of units measured by the sensor.

Calibration is accomplished by first activating the unit by briefly holding the magnet to the front panel "CAL" location. The ST-46 responds by illuminating a steady arrow on the L.C.D. Next, excite the sensor with ZERO & SPAN values and hold the magnet to the UP / DOWN ZERO or UP / DOWN SPAN controls as needed to obtain the desired readings. Any "Power On" or "CAL exit" is followed by a 1 minute delay during which the 4-20mA output is locked at 4mA.

Non-volatile memory retains all calibration values during power interruptions.

Three ST-46 models are available. The ST-46I accepts 4-20mA inputs. The ST-46LEL accepts catalytic bead combustible detectors. The ST-46EC accepts electrochemical sensors. Each provide calibrated 4-20mA outputs. All models include dual ¼ inch N.P.T. conduit hubs. One of these may be used for mounting the sensor head.

A "Unity Gain Reset" control allows instant recall of ZERO and SPAN settings at the time a new sensor was installed. By recording the "new sensor" readings, it may be possible to monitor a sensor's signal response degradation over time. This may allow a prediction of sensor life expectancy for preventative maintenance purposes.

Three option boards are available to provide an isolated 4-20mA output, 5 amp HIGH, WARN and FAULT alarm contacts, or Modbus® protocol RS-485 serial interface.

