



RC SYSTEMS

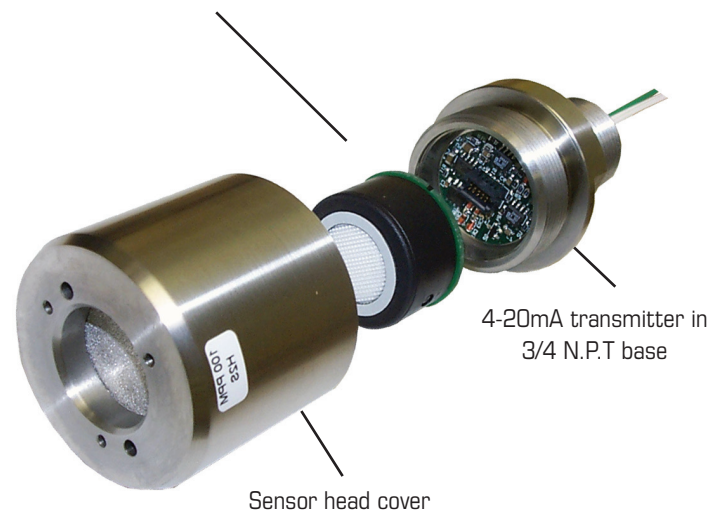
RC Systems has engineered and manufactured industrial electronic products for the instrumentation industry since 1979. As critical alarm monitoring experts, we specialize in interfacing various sensors and analyzer devices to our alarm and display products. Our products are known for their reliability, performance, and ease of use for applications where maintenance and safety are crucial. Some of these applications include fixed and temporary ambient gas detection as well as numerous other multi signal monitoring applications. In addition, we provide various solutions for hard wire or wireless systems. Our wireless monitoring ability/strategy continues to provide recognized solutions for countless customers worldwide.



ST-49 Toxic/ Oxygen 2-wire 4-20mA sensor Transmitter With Fault

The RC Systems Model ST-49 is a 2-wire 4-20mA Sensor Transmitter . It accepts low power toxic or oxygen electrochemical sensor modules and functions in a 2-wire 4-20mA "sink" mode to transmit gas values to an appropriate receiver device.

Electrochemical toxic/oxygen sensor element



4-20mA transmitter in
3/4 N.P.T base

Sensor head cover

FEATURES

- Field replaceable toxic/oxygen sensor module.
- Range and target gas configured on sensor module.
- Improves system noise immunity because low level sensor signals are protected within the stainless steel sensor head.
- Industry standard 4-20mA signal may be transmitted thousands of feet on 2-wires.
- Suitable for Division 1 and 2 hazardous areas. May be installed as an intrinsically safe device with a barrier, or, explosion-proof for NEMA 7 installations.
- Missing sensor forces <2mA FAULT indication.
- Designed for use with our 1, 2, 4, 16 or 64 channel Controllers. Calibration is not possible at the ST-49 and may only be performed at the 4-20mA receiver.
- 2-wire 4-20mA signal is nonpolar with protective "steering diode" interface.
- Standard "Fault Supervision" circuitry continuously monitors for failed sensor. 4-20mA output transmits <2mA during failures.

SPECIFICATIONS

SENSOR INTERFACE MODULE

Industry standard electrochemical type sensor with range configuration resistor and shorting transistor integrated into "smart" sensor module. 10-0242EC for "Series 7" or 10-0272EC for "Series 4" sensors

ANALOG OUTPUT

2-wire 4-20mA current sink; 9-36 VDC; less than 2mA FAULT value transmitted in case of missing or faulty sensor module. Max output = 25mA

NRTL CSA APPROVALS (File # 219995)

ST-49 (10-0248) is Division 1 and 2 Group A,B,C,D Exia. Suitable for Explosion Proof and Intrinsically Safe installations
ST-48IS (10-0248IS) without flame arrestor is Division 1 and 2 Group A,B,C,D. Suitable for Intrinsically Safe installations only
IMPORTANT: Intrinsically Safe installations require IS barrier number 10-0263 (MTL 7787P+) or equivalent

CALIBRATION

None. Calibration function must be provided by the 4-20mA receiver. RC Systems ST-90, ST-71 and ST-72 controllers are designed to provide this function

ACCURACY

± 5% of full scale

AMBIENT TEMPERATURE RANGE

-40 - 60 degrees C

TEMPERATURE DRIFT

Less than .1% per degree C over ambient temperature range

POWER SUPPLY

9-36 VDC @ 25mA

HOUSING

316 Stainless or aluminum (10-0248 IS) enclosure suitable for Class 1, Groups A,B,C,D; Class 2, Groups E,F,G

ST-49 MODELS

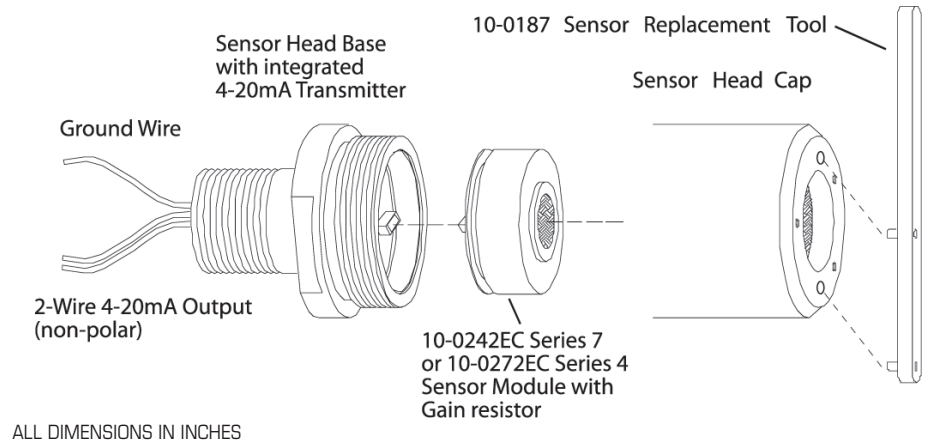
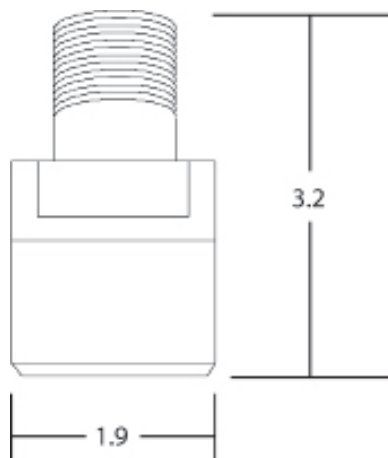
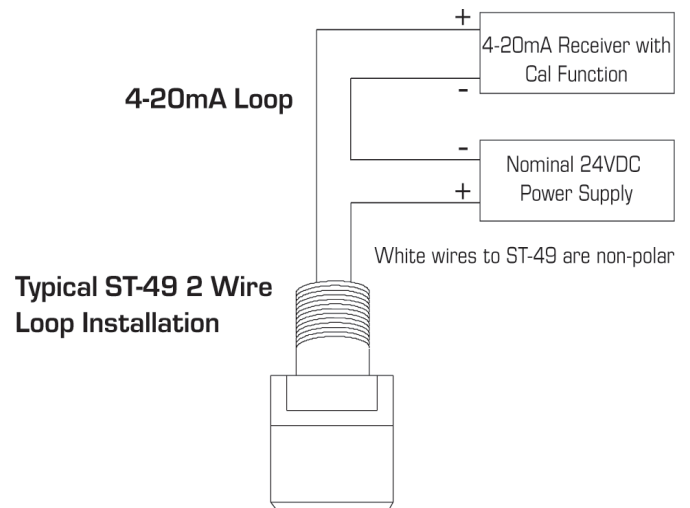
10-0248 T-49 Stainless Steel with flame arrestor
10-0248IS ST-49 Aluminum without flame arrestor

Series 4 or 7" industry standard Echem sensors supplied by user. Specify micro amps full scale and when ordering. For sensors requiring bias, add "-BIAS" suffix when ordering.

ST-49 ACCESSORIES

*10-0242EC Series 7 Echem Interface PCB without sensor
*10-0272EC Series 4 Echem Interface PCB without sensor
10-0193 ST-49 junction box
10-0198 Sensor splash guard with remote calibration port
10-0203 Sensor calibration cup
10-0205 Sensor flow cell for process monitoring
10-0187 Sensor replacement tool kit

*Either a Series 7 or Series 4 Sensor Interface PCB is required



ALL DIMENSIONS IN INCHES



Representative: **C A Briggs Company** - 632 Davisville Road - Willow Grove, PA 19090
Phone: 215-784-9250 - Fax: 215-784-0611 - E-Mail: Sales@cabriggs.com - www.cabriggs.com

8621 Highway 6, Hitchcock, TX 77563
Tel: (409) 986-9800 • Fax: (409) 986-9880
www.rcsystemsco.com