

**Operating
Data
Installation
Maintenance
Instructions**

**For
Level Transducer**

SRC Series

Level Transducer

1. Note

Please read and take note of these operating instructions before unpacking and commissioning. The instruments may only be used, maintained and installed by qualified personal familiar with the operating instructions and the applicable health and safety requirements.

2. Contents

1. Note
2. Contents
3. Specific Applications
4. Operating Principle
5. Instrument Inspection
6. Mechanical Installation
7. Technical Specifications
8. Electrical Connections
9. Set - Up
10. Troubleshooting
11. Maintenance

3. Specific Applications

The Level Control Transducer has been designed for use in rugged level monitoring applications and pump control for liquids

The probe part of the gauge can be manufactured from most non-magnetic materials including plastics. The floats can be either stainless, buna or engineered plastics.

The Level Transducer can be configured from the factory in many lengths and configurations.

4. Operating Principles

Hermitically sealed reed switches and a resistive chain are potted inside the transducer on an engineered printed circuit board. . The float (stainless, buna or plastic all contain either a rod or ring magnet potted or gripped inside. As fluid moves the float – it's magnetic lines of force change the resistance output of the transducer. Standard output is 3 wires for voltage use or for a fuel sender type using two wires from the resistance stack. – To work with specific fuel gauges – resistance should be indicted on ordering. A 4-20 option is available.

Level Transducer

5. Instrument Instructions

The instruments are thoroughly inspected by the factory prior to shipment and sent in perfect working condition. Should any damage to the device be visible, we recommend a thorough inspection of the delivery packing. In case of damage please inform your parcel service/forwarding agent immediately, since they are responsible for damages incurred during transit.

Scope of delivery:

- Level Transducer per Purchase Order
- Operation Manual
- 4-20 Operation Manual

6. Mechanical Installation

Must be installed to local piping and plumbing codes. Use caution when handling the wires, as they can be easily crushed against the head or potting. Insure that the bottom of the probe does not come in contact the tank bottom, as the probe will easily bend.

Use a wrench on the larger of the two fittings to install. Do not use any tool or clamp on the actual probe tube.

IMPORTANT: In all applications check the probe for any shipping damage. On start up watch and be ready for a leak of any kind. Even though the product is packaged well – damage can occur in shipping and handling – even form vibration.

Level Transducer

7. Technical Specifications

Preliminary Technical Data Sheet

Instrument Type	Continuous level Transducer
Model	316 Stainless Steel
Housing Size	Custom – per order
Transducer Material	316 Stainless Steel -.500" D x 0.49 wall (options)
Float	1.5" or 2" or 3" up to 8"
Flag Display	N/A
Temperature	-40 to 300 Deg. F
Reed Only	50 VAC/DC
Top Fitting	Per Customer Request
Bottom Flange	N/A
Reed position	Fixed
Ruler	N/A
Liquid Indication - OUTPUT	J Box 3 wire or 4-20 mA + J Box
No Liquid Visual Indication	N/A

Level Transducer

8. Electrical Connection

ATTENTION: Ensure that the voltage levels of your supply system are in agreement with the voltage levels given on specification sheet.

Make sure that the electric supply lines are not active during connection to this device.

- Improper wiring can lead to damage of this device as well as injury to the user.
- Make sure that installation; wiring and circuit protection are in **accordance with all local electrical codes.**
- Make sure the supply circuit **provides adequate fuse or circuit breaker protection** that is in accordance with the circuits current rating.

Electrical connections to the relay module are made by - connecting the wires to and out of the NEMA box. Wiring is per attached drawings and specifications.

Wiring Table

See 4-20 spec sheet enclosed

If voltage – Black is (-)
Red is (+)
White is (stack)

If Resistive - 12 or 24 VDC fuel sender
Black is (-)
White (+)
Red – not used

Level Transducer

Adjustments

Continuous controls are not adjustable

Operation

The resistance will change as the float moves on the transducer.

Wiring Diagram

See enclosed 4-20 spec sheet

9. Set Up

IMPORTANT INFORMATION

The unit is rugged - but the electrical controls are pilot duty devices. They should be good for millions of operations if installed correctly. CHECK AND TEST THE PRODUCT BEFORE AND AFTER INSTALLATION. CHECK FOR DAMAGE THAT MAY HAVE INCURRED, TO THE ELECTRONICS, SWITCHES OR PROBE, DURING SHIPPING AND OR INSTALLATION. FLANGE MODELS CAN EASILY BE CHECKED FOR TUBE DAMAGE, AS THE PC BOARD IS NOT POTTED. The inside is open to atmosphere when the top cover is removed. This is done in case of lightning or high voltage spikes. The electronics can be replaced with removing the probe.

10. Troubleshooting

The resistance does not change:

Not field fixable.

- Check the sensor black and white wire OHM meter scale to read from near 0 about 5000 ohms. Or :
- Check with voltage 1 to 10 VDC – Black is (-) Red is (+) white is (stack) slide the float - a mA scale should show float position

11. Maintenance

The Level Transducer requires no special maintenance other than making sure sludge or debris to not enter the gauge. If the application is dirty – wipe the unit down on a regular schedule to prevent buildup on the probe interfering with float movement. Sensors can be replaced as well as added to.

There are no user serviceable parts inside the Level Transducer. If repair is required please contact your local distributor to return for repair.