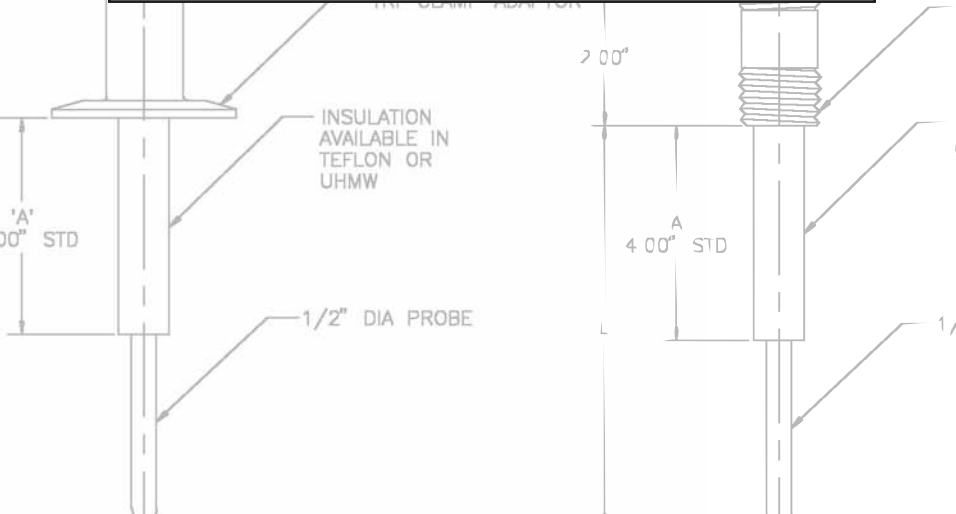
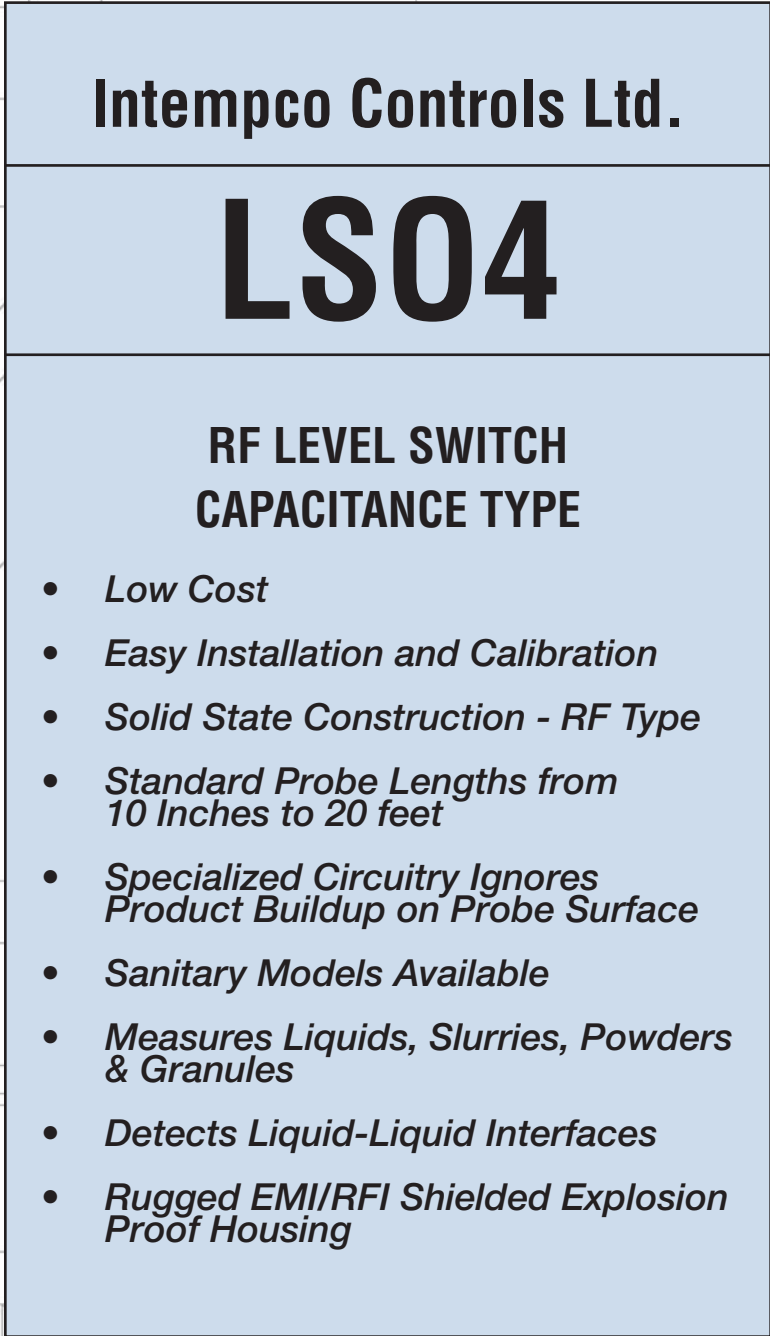
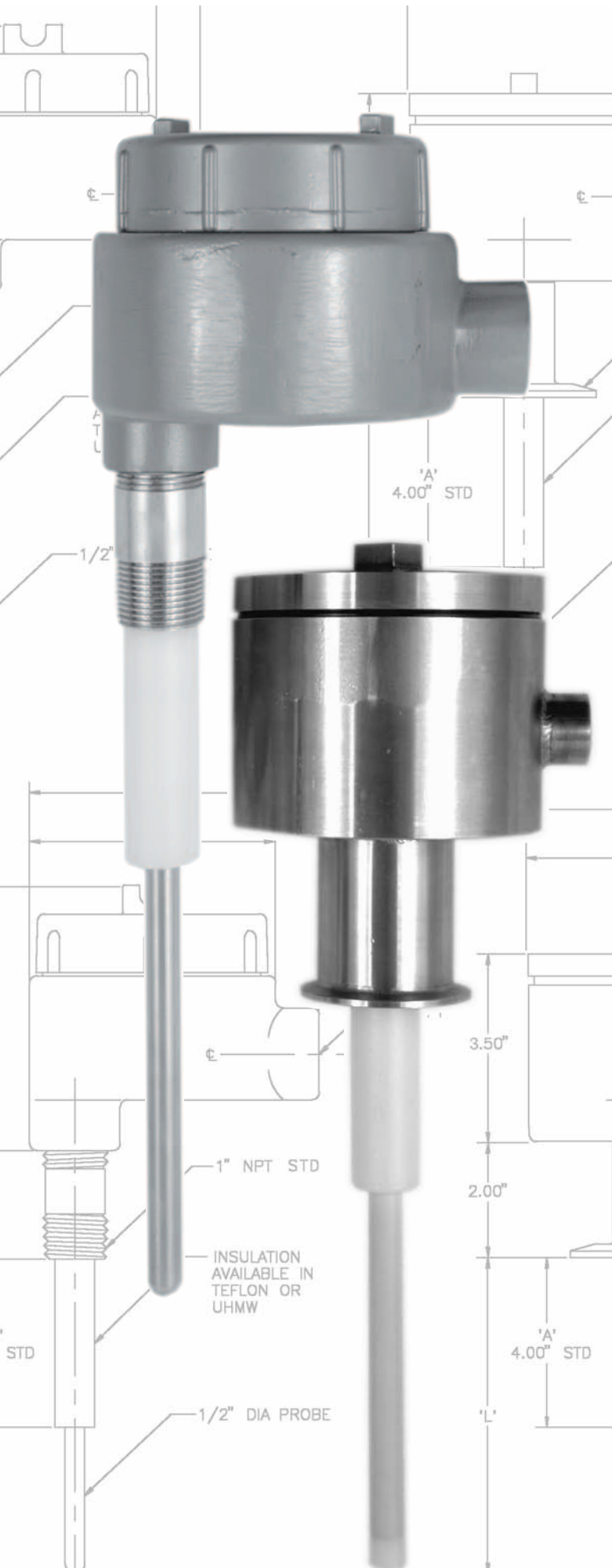


Intempco Controls Ltd.

LS04

RF LEVEL SWITCH CAPACITANCE TYPE

- *Low Cost*
- *Easy Installation and Calibration*
- *Solid State Construction - RF Type*
- *Standard Probe Lengths from 10 Inches to 20 feet*
- *Specialized Circuitry Ignores Product Buildup on Probe Surface*
- *Sanitary Models Available*
- *Measures Liquids, Slurries, Powders & Granules*
- *Detects Liquid-Liquid Interfaces*
- *Rugged EMI/RFI Shielded Explosion Proof Housing*



Description

The Intempco LS04 level switch is a highly reliable sensor which can detect the presence of solids, liquids, as well as liquid-liquid and solid-liquid interfaces. It has both N/O and N/C contacts for high and low level indication. The LS04 has a stainless steel probe with either Teflon or UHMW insulation, and has its solid state circuitry housed in a cast aluminum, moisture sealed explosion-proof NEMA 4X head. The LS04 holds calibration over a wide range of temperatures, making it ideal for outdoor as well as plant use.

Mounting & Calibration

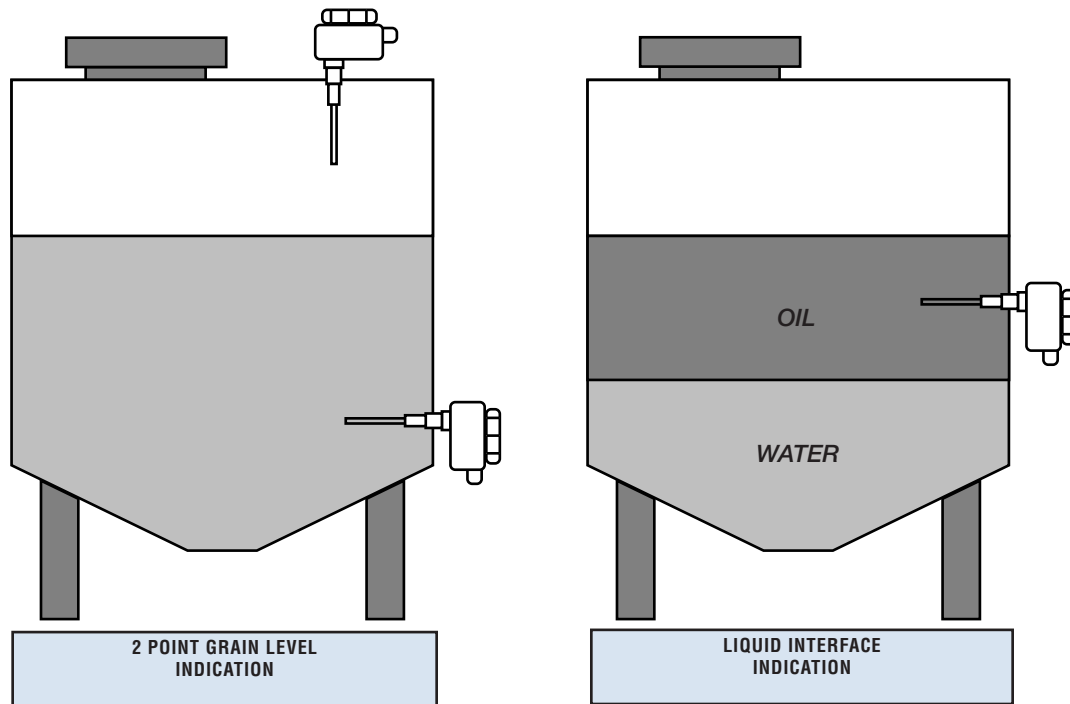
The probe is available in standard industry 1" NPT process connections for industrial applications, as well as a variety of connections for sanitary use. Calibration is simple and can be performed with a screwdriver.

Technical Description

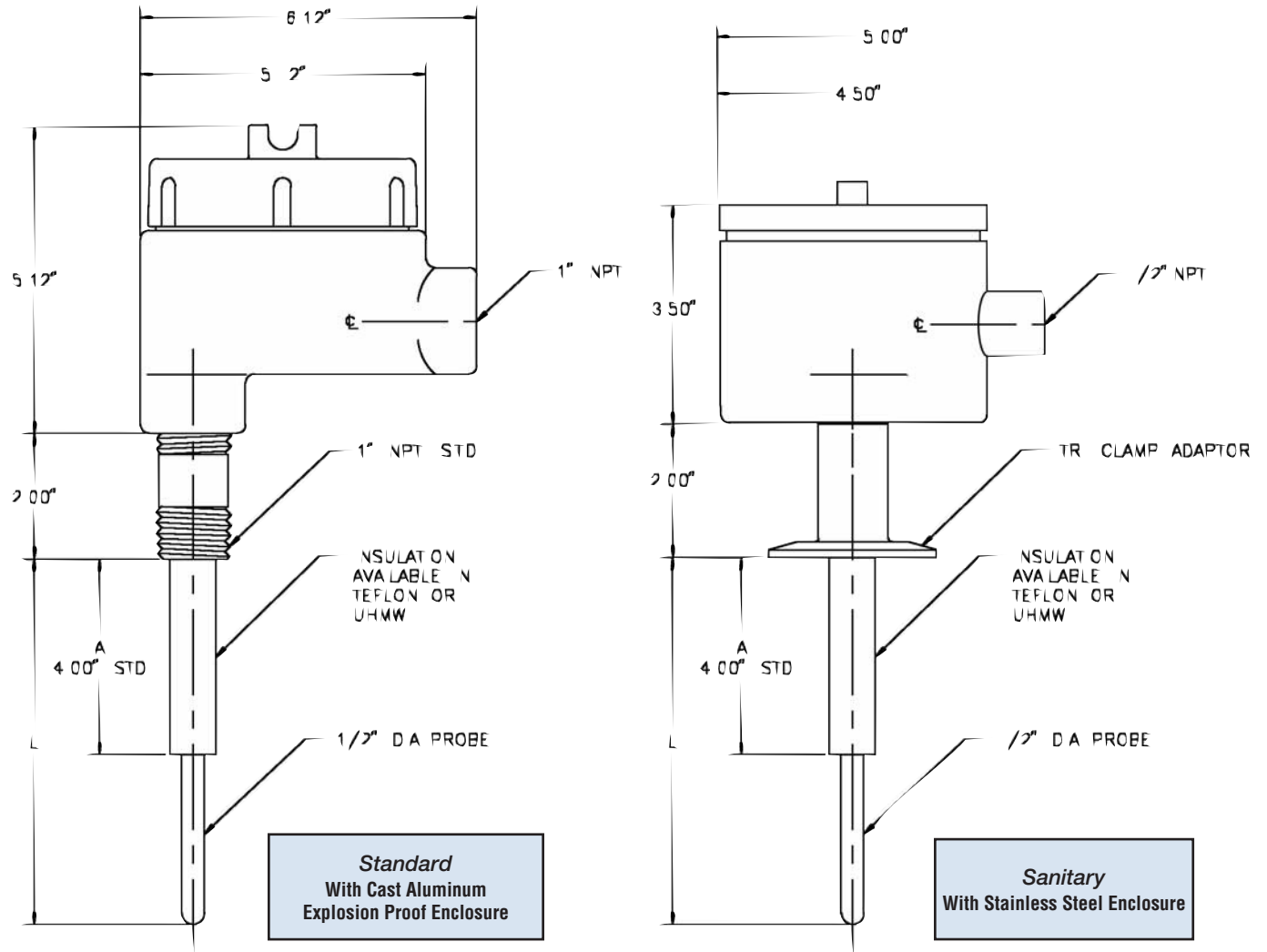
The LS04 detects the presence of solids or liquids by means of the change in capacitance as seen at the probe. The probe is connected to an oscillator whose frequency is linearly dependent on the capacitance of the probe. The number of pulses emitted by the oscillator within a preset time span are counted and compared to an adjustable set point. If the set point is surpassed, the LS04 determines that material is present and causes the relay to change state accordingly. This method is known as RF impedance, point level control. The relay is configurable for normally open, or normally closed operation, allowing the LS04 to function as a low or high level indicator.

The LS04 is equipped with a standard 5 Amp relay which is capable of controlling most common control circuit components. Solenoids, lights, motors, and alarms are all examples of devices which can be directly connected to the LS04 without further hardware.

LS04 - TYPICAL APPLICATIONS



LS04 - DIMENSIONS



Specifications

ELECTRICAL	
Voltage	115 VAC (±15%), 50/60 Hz Standard Optional 230 VAC.
Power Consumption	Less than 5W
Output	SPDT Relay, 5 Amps @ 115, 230 VAC, 30 VDC
RF Frequency	0.6 MHz
MECHANICAL	
Process Connections	1" NPT or Sanitary Standard (others available)
Probe	1/2" DIA 316 Stainless Steel (Teflon coating available)
Housing	NEMA 4X Explosion Proof, Cast Aluminum, Stainless Steel for Sanitary
Insulator	Teflon (200°C max) or UHMW (100°C max)
ENVIRONMENTAL	
Temperature Range	-20°C to 70°C (electronics)
Hazardous Environments	Class I, Group C, D; Class II, Group E, F, G / NOT Applicable for Sanitary
Max. Probe Pressure	Special designs available up to 1500 PSI maximum, Consult Factory

LS 04 - PART NUMBERS

Standard

INTEMPCO MODEL	SUPPLY VOLTAGE	INSULATION LENGTH + MAT'L	PROCESS CONNECTION	PROBE MATERIAL	PROBE LENGTH "L"
LS04		4 U			

(in inches)

Sanitary

INTEMPCO MODEL	SUPPLY VOLTAGE	INSULATION LENGTH + MAT'L	PROCESS CONNECTION	PROBE MATERIAL	PROBE LENGTH "L"
LSS04		4 U	()		

(in inches)

Example: LSS04-G-4T-T(3)-SS-10

This example specifies a standard sanitary probe with a supply voltage of 115 VAC, 4" Teflon® insulation, a 3" Tri-Clover sanitary cap, and a stainless steel probe.

PARAMETER	AVAILABLE	CODE
Supply Voltage	115 Volts AC 230 Volts AC	G H
Insulation Length "A"	4" Standard Custom Length	4 X
Insulation Material	UHMW Teflon®	U T
Process Connection	1" NPT 3/4 NPT	1 3/4
Sanitary Cap Specification	Ladish Tri-Clover Alfa Laval Cherry-Burrel Alloy Products	T(Size) L(Size) C(Size) A(Size)
Probe Material	Stainless Steel Teflon® Coated SS UHMW Coated SS	SS SS(T) SS(U)
Probe Length "L"	10" Standard Custom Length	10 X

Standard Construction in Bold

"X" Indicates a Custom Dimension - Specify

Intempco Controls

Intempco Controls manufactures a wide variety of industrial and scientific sensors, accessories, and control systems. Products include:

- ☐ Thermocouples
- ☐ RTD's
- ☐ RTD & Thermocouple Transmitters
- ☐ Thermowells
- ☐ Thermocouple Wire
- ☐ Humidity Sensors and Controllers
- ☐ Data Acquisition and Process Control Systems
- ☐ Microprocessor Based Continuous Capacitance Level Transmitters
- ☐ Microprocessor based Integrated Sensor Transmitter - MIST



ONE-YEAR PRODUCT WARRANTY

Intempco Controls Ltd. products will be replaced, put in good operating condition, or the purchase price refunded, at the option of Intempco Controls Ltd. free of charges except transportation, if defective in their manufacture, labeling, packaging, or shipping, and if notice of said defect is received by Intempco Controls Ltd. within one year from the date of shipment. The cost of such replacement, repair or refund of purchase price shall be the exclusive remedy for any breach of any warranty, and Intempco Controls Ltd. shall not be liable to any person for consequential damages for injury or commercial loss resulting from any breach on any warranty. Intempco Controls Ltd. makes no warranty of fitness for a particular purpose, and makes no other warranty, express or implied, including implied warranty arising from course of dealing or usage of trade.