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## Operating Instructions

### Series TED Optical Liquid Level Sensor

KOBOLD offers a wide range of process sensors and technologies. While each of these technologies are designed to operate in a wide variety of applications, it is the user's responsibility to select a technology that is appropriate for the application, to install it properly, to perform tests of the installed system, and to maintain all components. The failure to do so could result in property damage or serious injury.

As this is an electrically operated device, only properly trained personnel should install and maintain this product. Be sure that the power supplied to the unit is appropriate for the device. Electrical wiring of the sensor should be performed in accordance with any applicable national, state and local codes.

Use only PTFE pipe tape as the thread sealant in all installations. Never overtighten the sensor within its fittings. Always check for leaks prior to system start-up.

The optical switch is not recommended for use in emulsions or phase-change liquids.

This product is not recommended for use with organic solvents or highly viscous or coating type liquids, which can remain on the lens surface.

Clean the lens periodically using appropriate methods and compatible products. Do not use organic solvents or scrub while cleaning to avoid scratches on the lens surface.

The tip of the optical sensor must remain at least 2" from any physical interference or reflective surface, such as a tank wall, pipe wall or other surface.

Do not install sensor close to other infrared sources.

The TED is designed for use with temperatures and pressures as listed in the product datasheet. Operation outside these limitations will cause damage to the unit.

Be sure that the TED is chemically compatible with the application liquids. While the sensor's outer housing is liquid resistant when installed properly, it is not designed to be immersed. It should be mounted in such a way that the electrical connections are not exposed to the media.

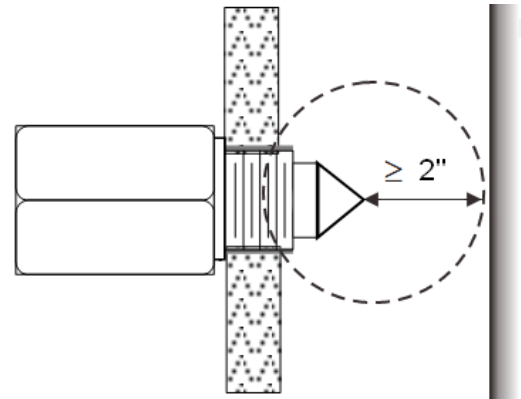
The TED is NOT an Explosion-Proof or Intrinsically Safe design.

Design a fail-safe system that accommodates the possibility of sensor or power failure. In critical applications, KOBOLD recommends the use of redundant backup systems and alarms in addition to the primary system.

### Specifications:

<b>Wetted Parts:</b>	TED-3611 TED-2511F	PFA / PTFE Polysulfone (PSU)
<b>Max. Pressure @ 70°F:</b>	200 PSIG	
<b>Process Fitting:</b>	3/8" MNPT	
<b>Installation Torque:</b>	55 in.-lbs. max.	
<b>Temperature Range:</b>	-40°F to +230°F	
<b>Electrical Protection:</b>	NEMA 4	
<b>Power Supply:</b>	5 - 35 VDC, 33 mA (excluding load)	
<b>Switch Type:</b>	NPN open collector, 300 mA max.	
<b>Electrical Connection:</b>	18" Wires, Polyethylene Insulation 1/2" male conduit (PSU models only)	

### Minimum Clearance Requirement:



### Wiring Diagram:

