Quick Start Guide

Tek-Flex 4100A

Explosion Proof Guided Wave Radar Level Transmitter

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Quick Start Guide

1. Before You Begin

This guide provides basic guidelines to assist you in quickly getting started. Go to our website to download the full User Guide for detailed installation, maintenance, troubleshooting and safety precautions.

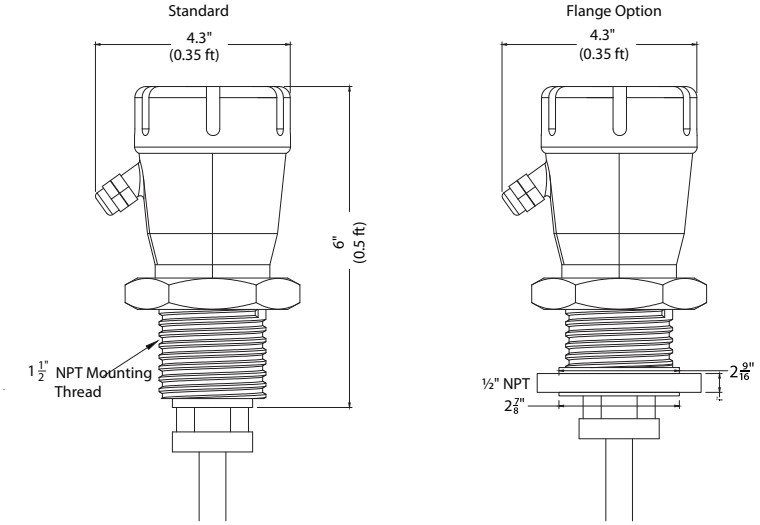
⚠ The user must take note of the safety instructions in this operating instructions manual, the country specific installation standards as well as all prevailing safety regulations and accident prevention rules. The instrument must only be operated in a technically flawless and reliable condition. The operator is responsible for trouble-free operation of the instrument. During the entire duration of use, the user is obliged to determine the compliance of the required occupational safety measures with the current valid rules and regulations and also take note of new regulations.

2. Unpack

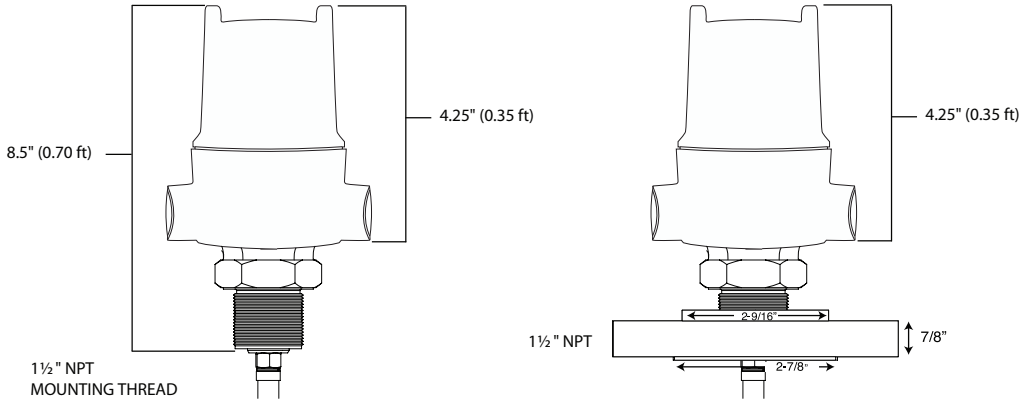
One Tek-Flex 4100A Explosion Proof Guided Wave Radar Level Transmitter

3. Dimensional Drawing

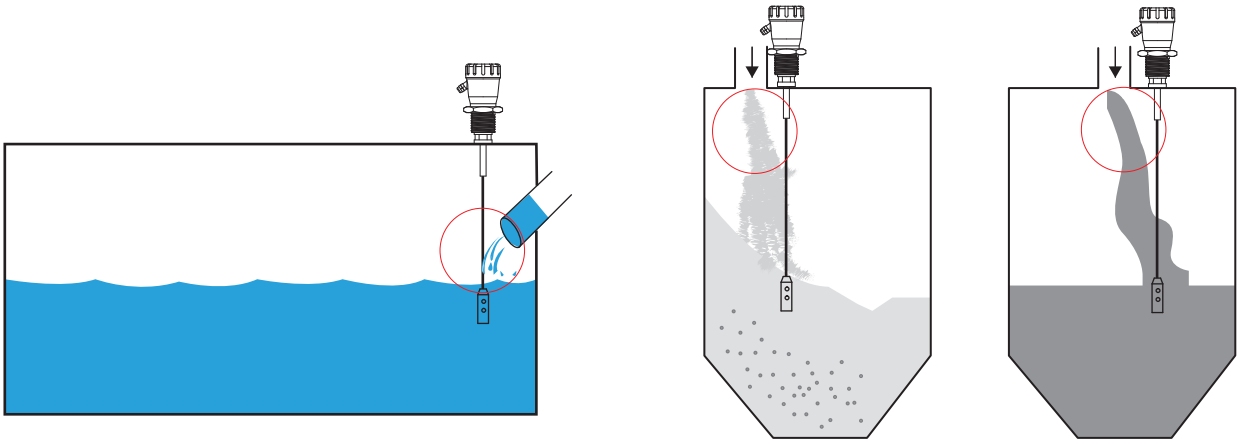
NEMA 4 (IP66) Enclosure



NEMA 7 Enclosure



4. Mounting



- Minimum nozzle diameter should be 2” from the probe at initial installation.
- Probes should not contact metallic tank walls, obstructions or structures.
- If using cable probes, take into account the possibility of cable sway encroaching clearance requirements of agitators and augers. If this possibility occurs, secure a ring or mounting connection to the cable weight and to the vessel floor.

Note: The Tek-Flex 4100A will come factory set for mounting to a metallic flange or fitting unless otherwise instructed at time of order.

Tek-Flex 4100A with 1½" NPT mounting in liquids, slurries or solids applications.

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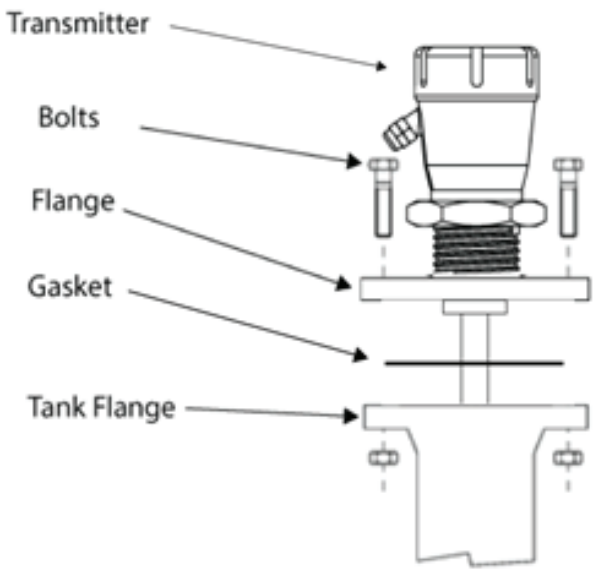
Flange Mount

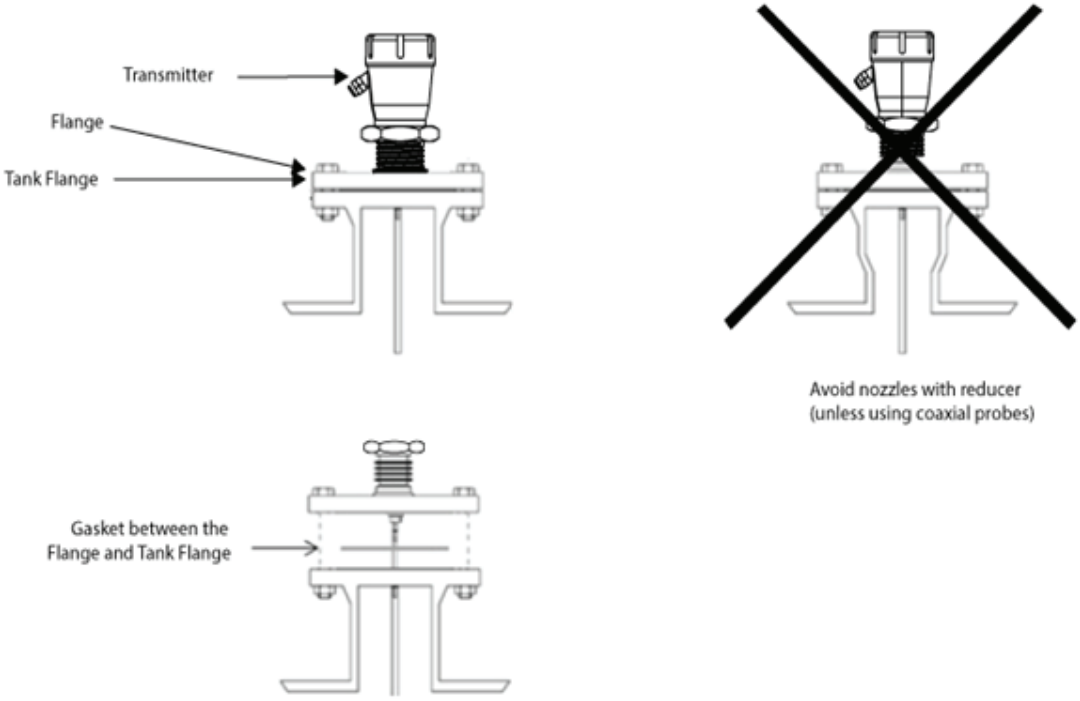
To mount a flanged transmitter, bolt the transmitter's flange to the flange pipe on the wall of the tank.



Flanged Tank Connection

Nozzle Mount

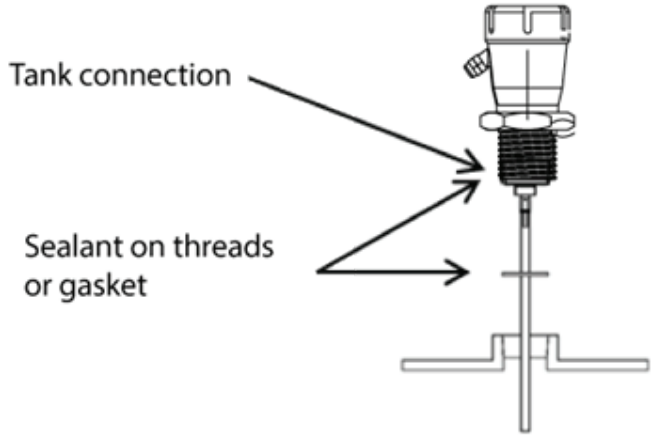
The transmitter can be mounted to a tank nozzle using the appropriate flange.



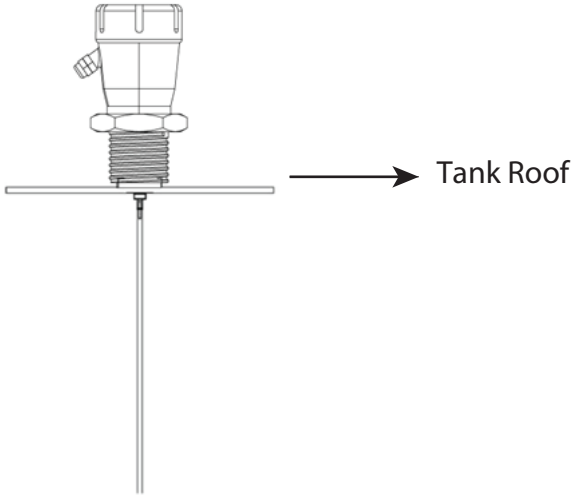
Flange Mounting

Threaded Mount

Transmitters with threaded process connectors can be screwed to tanks or nozzles with threaded bosses.



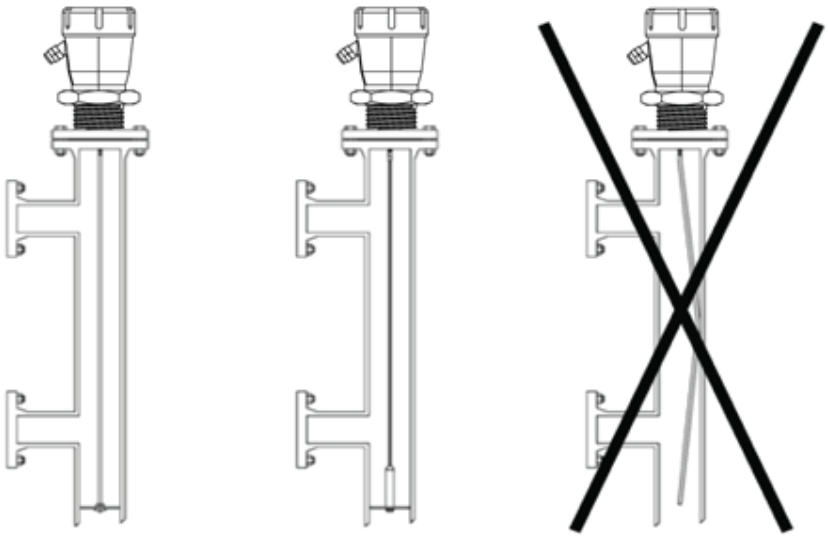
Threaded Tank Connection



Tank roof mounting using a Threaded Connection

Mounting on a Bypass/Bridle

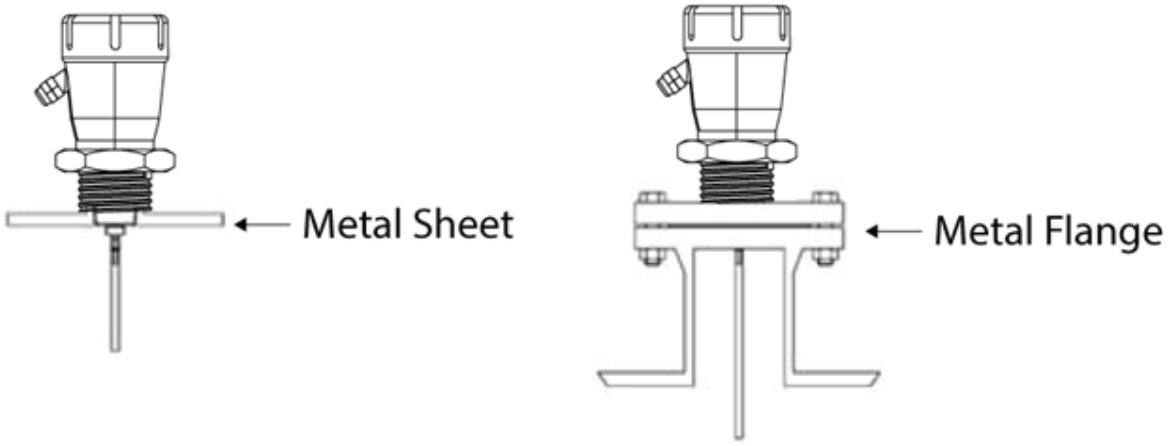
Tek-Flex 4100A transmitter can be successfully installed in a new or existing bypass pipe, bridle, or a side pipe as shown in the figure. This type of installation is often simple and allows the addition of radar level measurement to an otherwise busy installation.



Bypass Installation

Mounting on a Non-Metallic Container

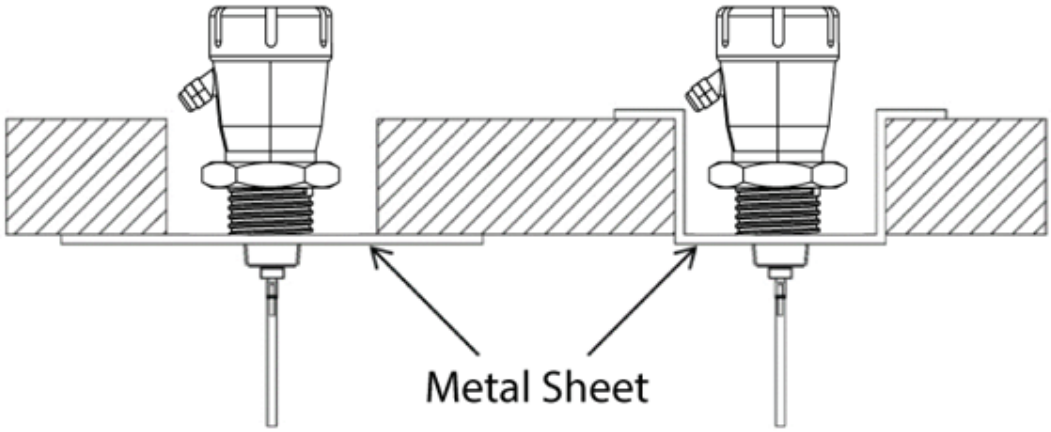
In case of non-metallic container, the Tek-Flex 4100A should be mounted with a metal plate of minimum 8" (0.66 ft) diameter. Use metal shielding for the conduit connections.



Mounting on a non-metallic vessel

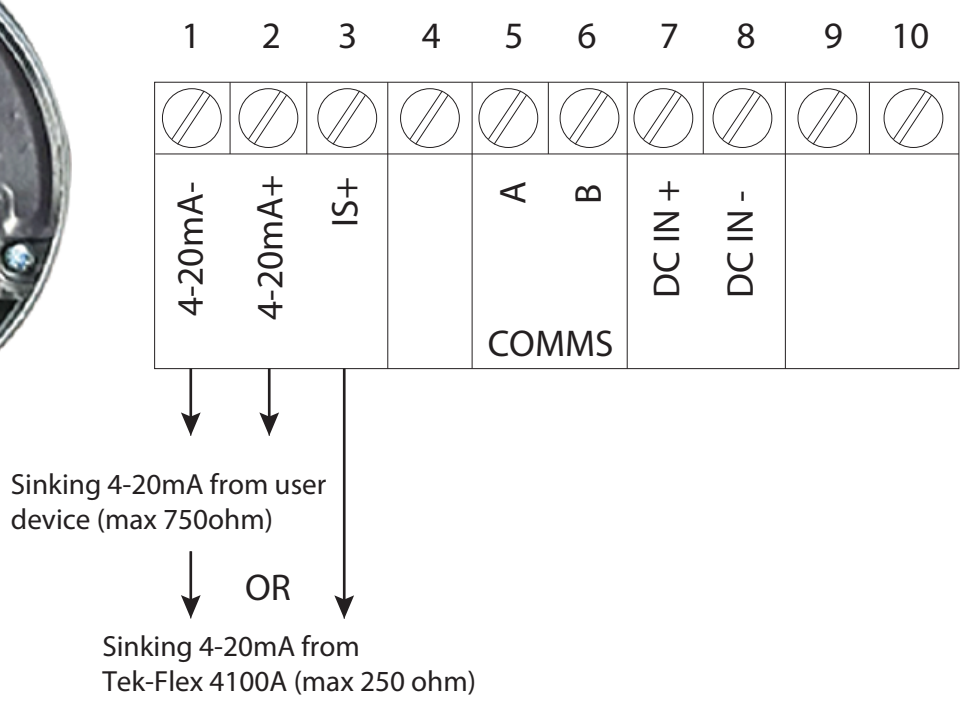
Mounting in Concrete Silos

In case of concrete silos, the Tek-Flex 4100A should be mounted with a metal plate of minimum 8" (0.66 ft) diameter.



Mounting in concrete silos

5. Power Supply



Power Supply	DC In +
	DC In -
Communication	A
	B
Output (Sinking)	4-20 mA -
	4-20 mA +
Output (Sourcing)	4-20 mA -
	IS+

Quick Start Guide

Powering the Tek-Flex 4100A for the first time:

- Confirm if the Tek-Flex 4100A is mounted within the recommended specifications.
- Confirm the wiring is correct and all connections are as shown above
- Apply power to the Tek-Flex 4100A.
- The Tek-Flex 4100A will take up to 30 seconds to warm up and stabilize upon initial start-up. It will then perform a scan to locate the level which will take approximately 1 sec or less. Once the load sequence is complete and the Tek-Flex 4100A has taken the first measurement, the analog output indicates the material level (factory default) or distance measurement. If the proper analog output is not achieved, please contact your Tek-Trol representative for further instructions.

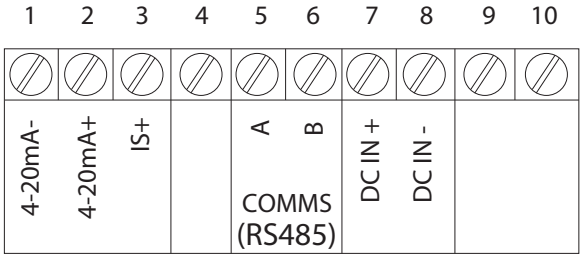
Note: For additional information for display, please contact Tek-Trol technical support.

Before connecting power in an explosive atmosphere, ensure the instrument is installed in accordance with intrinsically safe or non-incendive field wiring practices.

Verify that the operating atmosphere of the transmitter is consistent with the appropriate hazardous locations certifications.

6. Communication

The Tek-Flex 4100A Level Transmitter leaves Tek-Trol's factory pre-configured to the customer's application settings, but if adjustments need to be made in the field the RS485 Communication Tool is recommended. RS485 Communication can be connected in the A & B terminals (COMMS) as shown below:



7. Configuration

For any configuration related queries, please contact Tek-Trol technical support.

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