


Tek-Flex 4100B



Quick Start Guide

1. Before You Begin

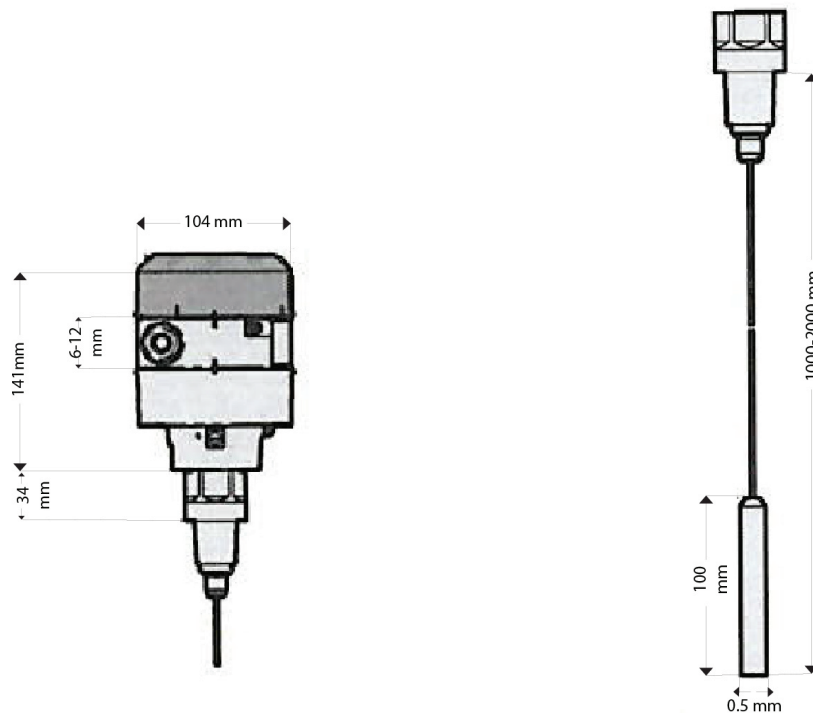
This guide provides basic guidelines to assist you in quickly getting started. Go to our website to download the full User Guide for detailed installation, maintenance, troubleshooting and safety precautions.

-  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.

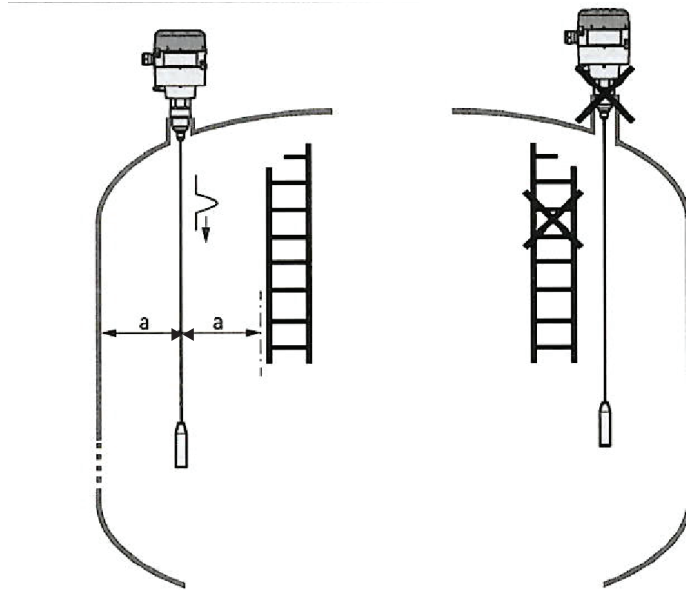
2. Unpack

Tek-Flex 4100B (Two Wire OEM TDR Level Transmitter)

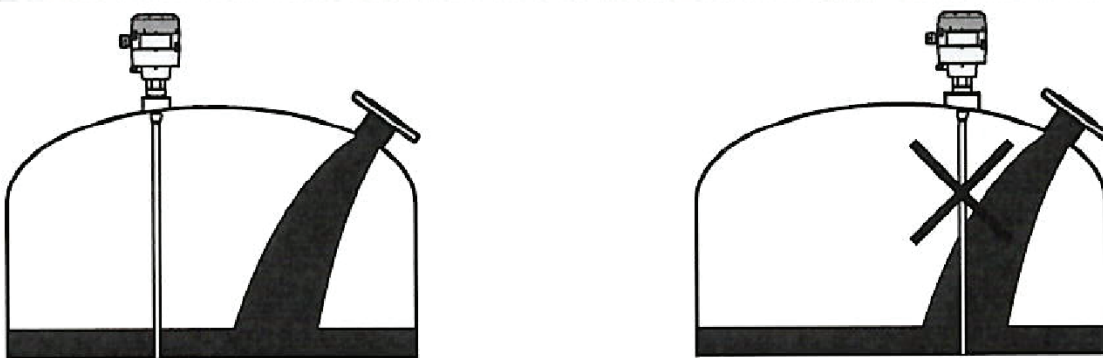
3. Dimensional Drawing



4. Mounting



Cable probe: minimum distance from metallic walls and other metal objects $a \geq 12''$ (300 mm)

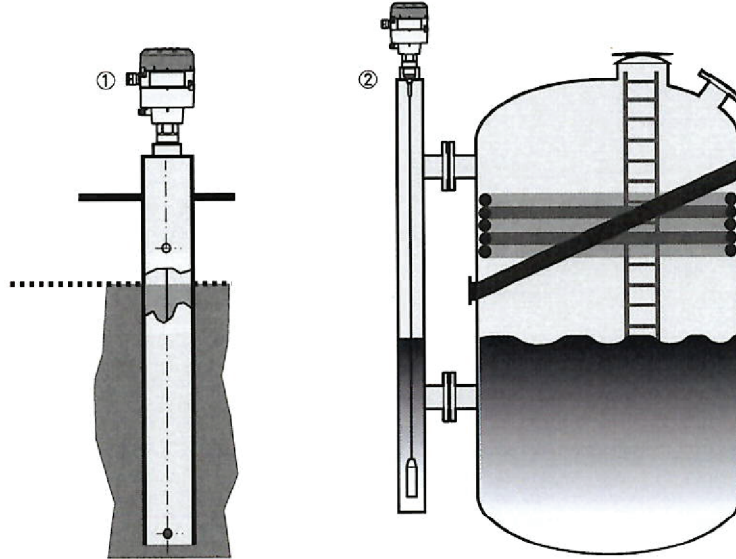


Do not install the probe near to a product inlet

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Installation in standpipes (stilling wells and bypass chambers)

Use a standpipe if there are too many other objects in the tank or the liquid is turbulent



Installation recommendations for standpipes (stilling wells and bypass chambers)

1. Stilling well
2. Bypass chambers



INFORMATION

Stilling wells are not necessary for devices with coaxial probes. But if there is a sudden change in diameter in the stilling well, we recommend that you install a device with a coaxial probe.



CAUTION

Installation requirements

- The standpipe must be made of metal.
- The standpipe must be straight. There must be no changes in diameter from the device process connection to the bottom of the standpipe.
- The standpipe must be vertical.
- Recommended surface roughness: $<\pm 0.004''$ (0.1mm)

Stilling wells

Installation in tanks that contain one liquid

- Make sure that the stilling well has a vent above the maximum level.
- If the probe has a counterweight, make sure that there is enough space between the counterweight and the wall of the stilling well.

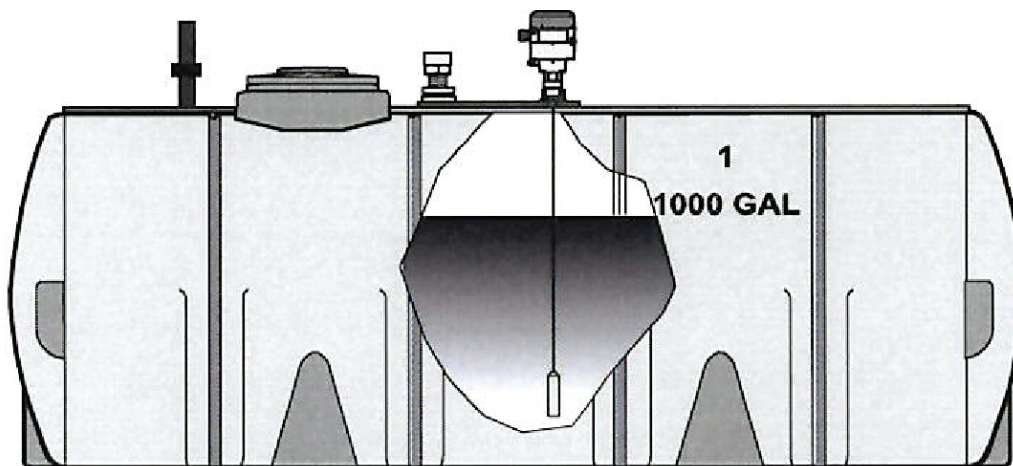
Bypass chambers

Installation next to tanks that contain one liquid

- The bypass chamber must have a process connection that is above the maximum level of liquid.
- The bypass chamber must have a process connection that is below the lowest measured level of liquid.

Mounting on a Bypass/Bridle

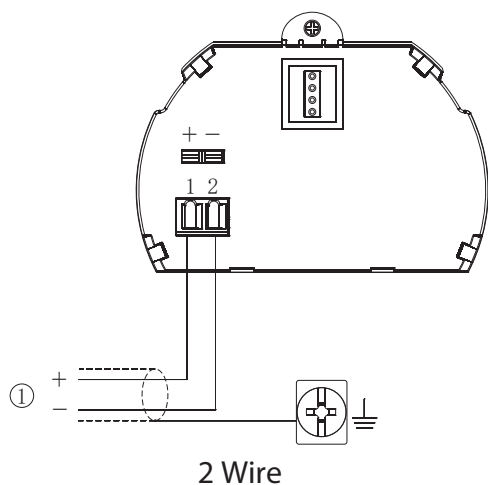
The installation requirements and procedures for vertical tanks are also applicable to horizontal cylindrical tanks.



How to install the device in a horizontal cylindrical tank


5. Power Supply

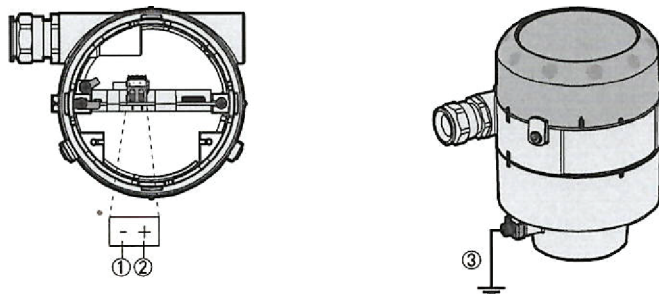
Power supply and current signal are carried by the same two-wire connection cable. See the Technical Specifications of this guide for detailed requirement on power supply.



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6. Electrical Installations

 Solid applications - risk of electrostatic discharge (ESD): Ground the tank, the product and the probe (if attached). The device is resistant to electrostatic discharges of a maximum of 30 kV, but it is the responsibility of the fitter and the user to prevent ESD.




Terminals for electrical installation

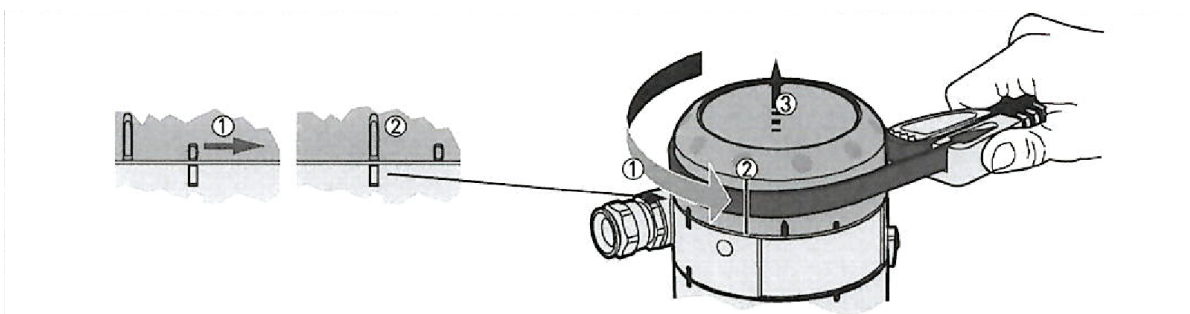
1 Current output -

2 Current output +

3 Grounding terminals between the process connection and the converter

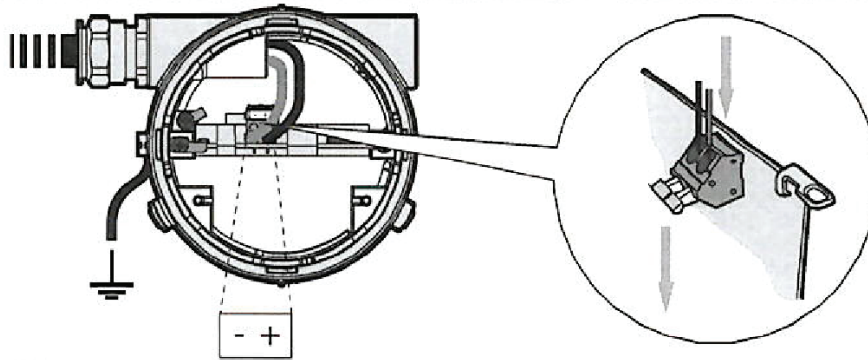
 Make sure that the polarity of the power supply is correct.


How to open the terminal compartment cover



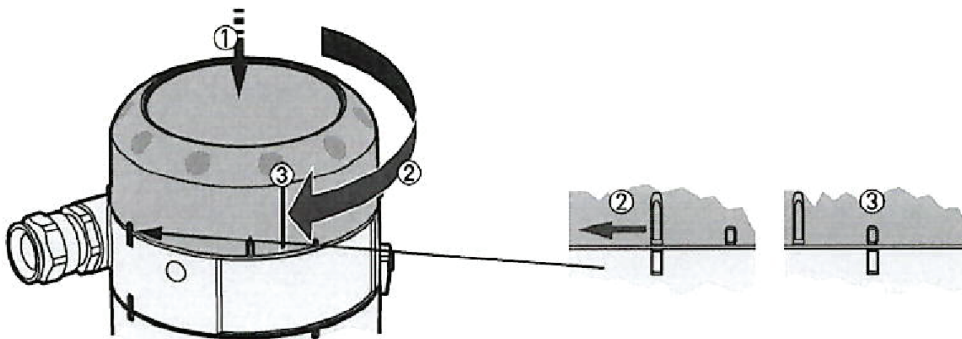
- Turn the cover counter clockwise with a strap wrench.
- Remove the cover

How to connect the device to the electrical circuit



-  If you do not push the wires away from the cover thread when you attach display unit to the signal converter, there is a risk of damage to the wires.

How to close the terminal compartment cover

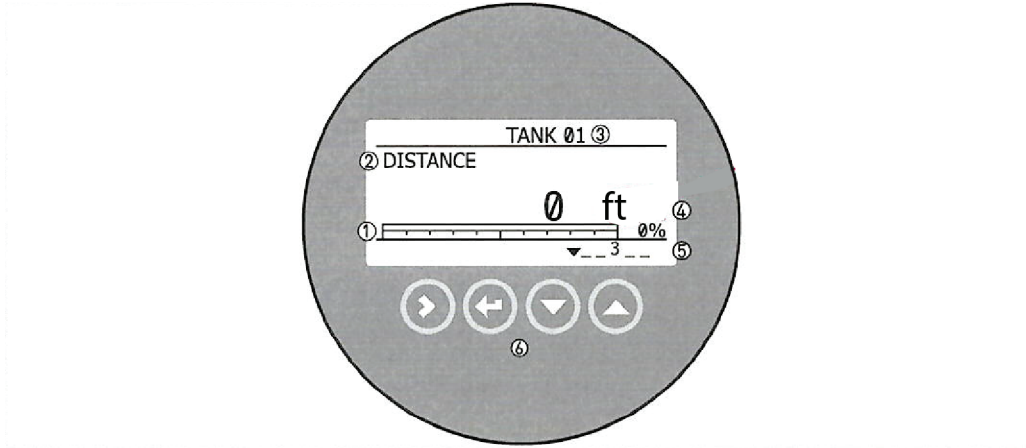


- Attach the cover.
- Turn the cover clockwise.

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7. Digital display screen





Default Display Screen



Illustration

- 1 Current output percentage (bar graph and text - only shown if the output function is the same as the measurement name on the screen in normal mode)
- 2 Measurement names (in this example, distance)
- 3 Device tag names
- 4 Measurement value and units
- 5 Device status (markers)
- 6 Keypad buttons

Keypad functions

Button	Function
	Normal mode: Enter configuration mode Configuration mode: Move cursor to the right
	Normal mode: Change the measurement units (m, cm, in ft) Configuration mode: Exit
	Normal mode: Change the measurement name (distance, level, output (%), output (mA)) Configuration mode: Decrease value or change parameter
	Normal mode: Change the measurement name (distance, level, output (%), output (mA)) Configuration mode: Increase value or change parameter



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