

Variable LPG Installation Kit

Installation instructions



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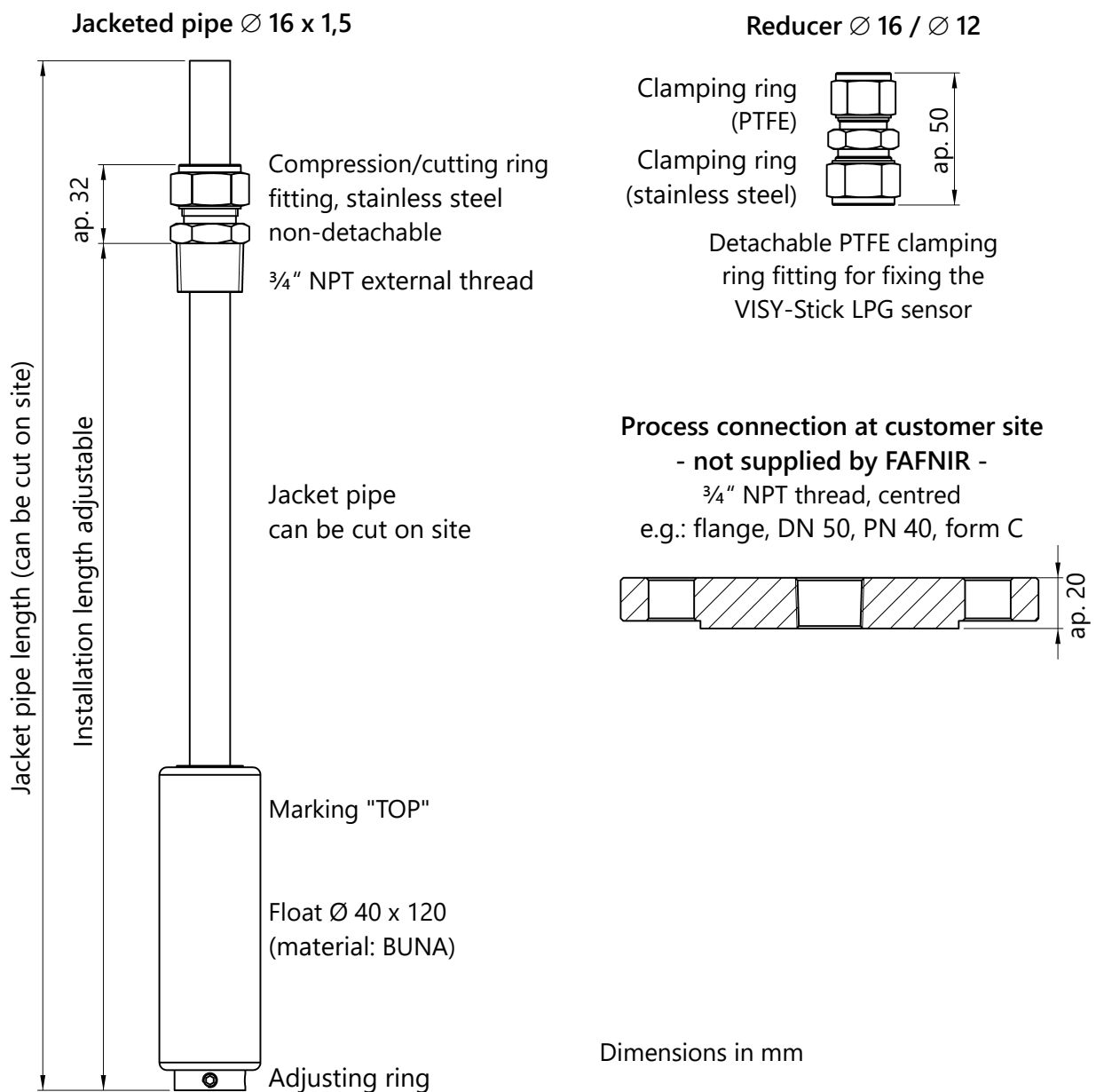
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1 Design and Construction

The Variable LPG Installation Kit has been developed for FAFNIR sensors to measure the level in LPG tanks without having to mount the sensor directly in the tank. This allows to install and to remove the sensor without having to open the tank every time.

The Variable LPG Installation Kit consists of a jacketed pipe with an LPG float (BUNA), a compression/cutting ring fitting (non-detachable) with 3/4" NPT external thread for process connection, and a reducer with PTFE clamping ring fitting (detachable) for fixing the VISY-Stick LPG sensor (see figure below).



2 Installation

2.1 What you need

- (1) FAFNIR sensor, without process fitting, without float
- (2) Variable LPG Installation Kit, consisting of:
jacketed pipe, PTFE compression ring fitting, compression/cutting ring fitting with $\frac{3}{4}$ " NPT fitting, float, and adjusting ring
- (3) Flange/Process connection, with $\frac{3}{4}$ " NPT internal thread or reducer, not supplied by FAFNIR
- (4) Tube cutter for stainless steel (if required)



2.2 Remove the adjusting ring from the bottom of the jacketed pipe and remove the float




2.3 Push the jacketed pipe through the flange / process fitting and screw in the $\frac{3}{4}$ " NPT fitting; use a reducer, if the thread is larger than $\frac{3}{4}$ "




Do not tighten the cutting ring fitting yet. The jacketed pipe must be easy to move.



2.4 Slide the float on the jacketed pipe and fix the adjusting ring

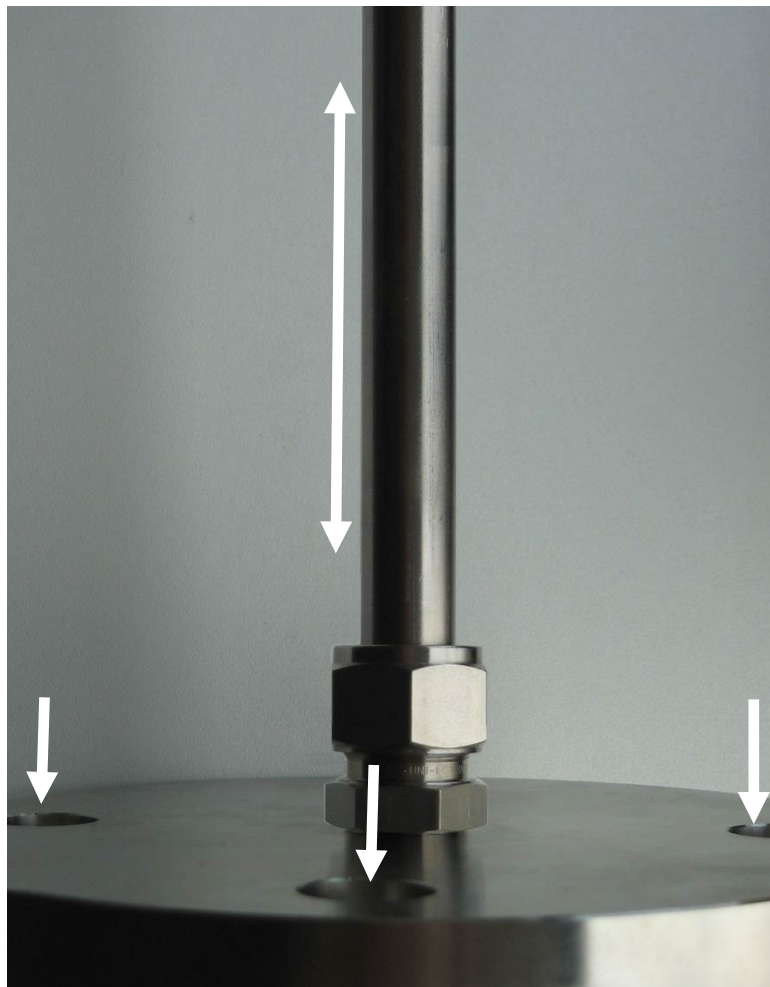
 *Make sure that the adjusting ring is fixed.*

 *Make sure that the float points with the TOP mark toward the flange.*



2.5 Insert the jacketed pipe in the tank opening and fix the flange to the tank

 *Make sure that the jacketed pipe is still movable.*



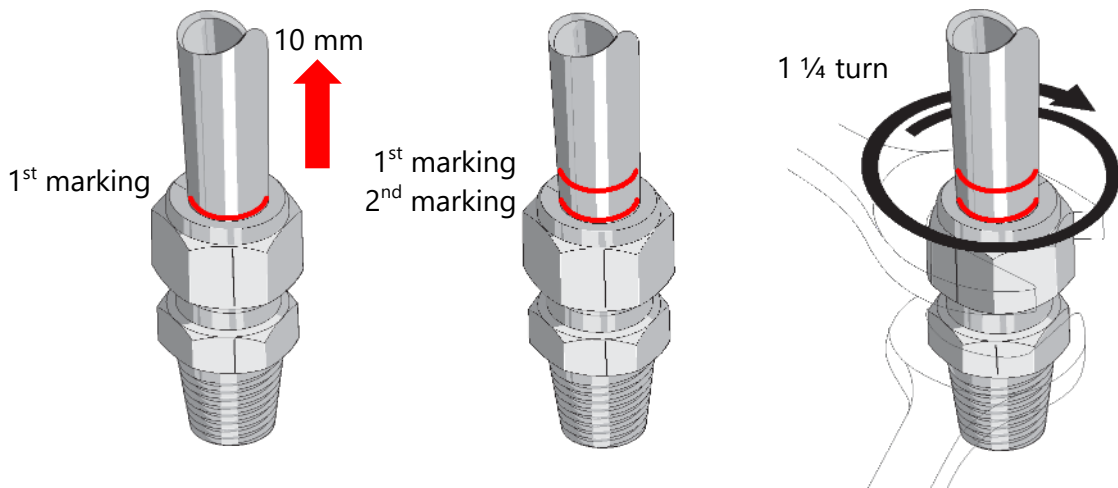
2.6 After the flange is tightened

- (1) Press the jacketed pipe gently down until it touches the bottom of the tank.
- (2) Mark this 1st position on the jacketed pipe (1st marking), see figure below.
- (3) Move up the jacketed pipe for 10 mm and mark this 2nd position on the pipe with a 2nd marking under the 1st marking (safety distance to tank bottom).



If there is no safety distance between the jacketed pipe and the bottom of the tank, the pipe can be bent and damaged during the installation process.

- (4) Hand-tighten the union nut of the cutting ring fitting at the 2nd marking (safety distance).
- (5) Hold the fitting body and fix the cutting ring fitting with a 1 ¼ clockwise turn of the nut.



After fixing, the cutting ring fitting can no longer be dismantled.



After fixing the cutting ring fitting, the tank is sealed.

- (6) In case of VISY-X level gauging, 18 mm must be entered in VISY-Setup as an offset (safety distance 10 mm + jacketed pipe bottom 8 mm) and LPG as the type of product.

2.7 Cut the jacketed pipe only if required



It must be ensured that the sensor stands on the bottom of the jacketed pipe. For this purpose, the jacketed pipe can be shortened.



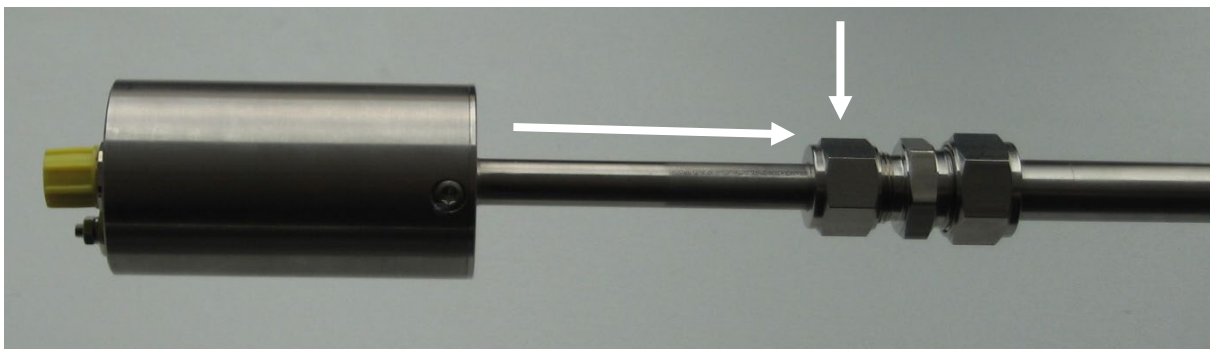
Observe the following installation instructions:

- For cutting use a tube cutter for stainless steel only
- Protect the jacketed pipe against bending

- (1) Remove the compression fitting from the upper end of jacketed pipe.
- (2) Shorten the jacketed pipe to the desired length.
- (3) Put back the compression fitting on the jacketed pipe and fix it.



2.8 Slide the sensor gently into the compression fitting and jacketed pipe until it touches the ground and fix it with the PTFE clamping ring fitting



2.9 The installation is finished



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