Operating Instructions

for

variable area flow meter

Model: UTS

1. Contents

Manufactured by:

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2. Note

Please read these operating instructions before unpacking and putting the unit into operation. Follow the instructions precisely as described herein.
The instruction manuals on our website www.kobold.com are always for currently manufactured version of our products. Due to technical changes, the instruction manuals available online may not always correspond to the product version you have purchased. If you need an instruction manual that corresponds to the purchased product version, you can request it from us free of charge by email (info.de@kobold.com) in PDF format, specifying the relevant invoice number and serial number. If you wish, the operating instructions can also be sent to you by post in paper form against an applicable postage fee.

The devices are only to be used, maintained and serviced by persons familiar with these operating instructions and in accordance with local regulations applying to Health & Safety and prevention of accidents.

When used in machines, the measuring unit should be used only when the machines fulfil the EC-machine guidelines.

as per PED 2014/68/EU
In acc. with Article 4 Paragraph (3), "Sound Engineering Practice", of the PED 2014/68/EU no CE mark.

3. Instrument Inspection

Instruments are inspected before shipping and sent out in perfect condition.
Should damage to a device be visible, we recommend a thorough inspection of the delivery packaging. In case of damage, please inform your parcel service / forwarding agent immediately, since they are responsible for damages during transit.

Scope of delivery:
The standard delivery includes:
- Variable area flow meter model: UTS

4. Regulation Use

Any use of the device, which exceeds the manufacturer’s specification, may invalidate its warranty. Therefore, any resulting damage is not the responsibility of the manufacturer. The user assumes all risk for such usage.

5. Operating Principle

The Kobold UTS model flowmeter/monitor works on the basis of the suspended float principle. It is used for measuring the flow rates in closed pipe line systems.

The medium flows from below through a glass measuring cone that gets wider on top. Thus, the float is raised and indicates the respective flow rate on the scale provided on the measuring cone.

6. Mechanical Connection

Before Installation:

- Remove all transportation safety locks and ensure that no packing material remains within the unit.
- Be sure that the maximum allowable operating pressure and temperature is not exceeded (see Technical data).
- Install the flow meter in the piping system, ensure the instrument is under no mechanical stress/tension (install support bracing if necessary).
- Protect the measuring tube from external damage.
- Avoid pressure peaks in the measuring tube, e.g. from sudden surges or stoppage of flow.
- If possible, immediately after making mechanical connections, check whether the connections are properly sealed with no evidence of leakage

7. Operation

Overranging
With non-pulsating flow, the maximum flow rate can be exceeded. Only an increase in pressure loss will result (max. permissible operating pressure must not be exceeded!)

8. Maintenance

If the medium to be measured is clean, the series UTS is virtually maintenance-free. If deposits form on the inner housing or parts, periodic cleaning of the unit is recommended. Remove the units from the piping with a suitable tool; clean the flow meter with a suitable cleaning agent or make use of an ultrasonic bath.

9. Technical Information

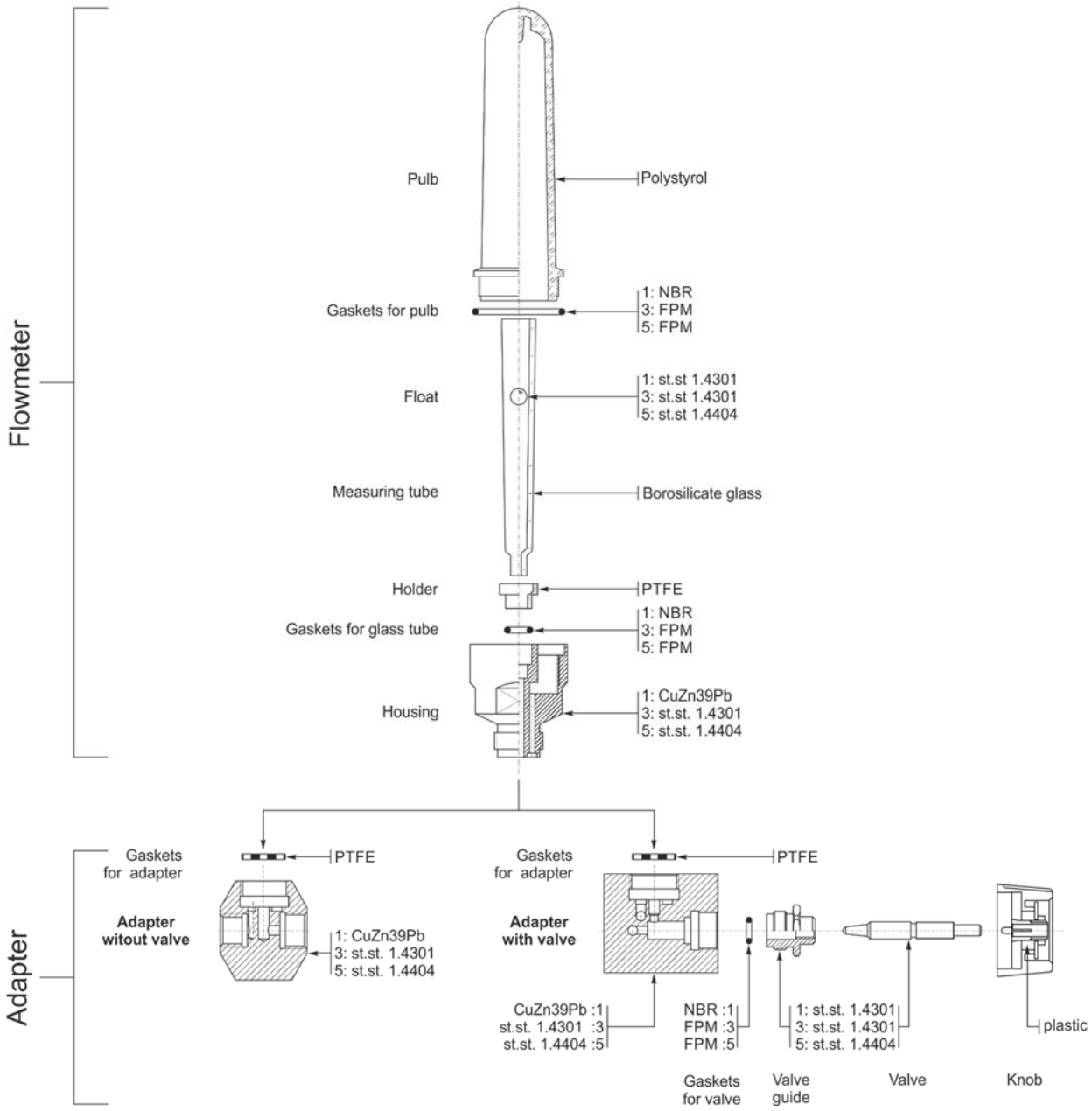
Installation position:	vertical
Accuracy class:	4 acc. to VDI
Proc. temperature:	0…+65°C
Amb. temperature:	0…+50°C
Max. pressure:	3 bar
Connections:	without adapter: M18x1.5 axial special connection with adapter: G¼ or ¼" NPT (for horizontal pipes)
Protective category:	IP 65

Materials:

Fitting:	nickel plated brass, stainless steel 1.4301, 1.4404
Measuring tube:	borosilicate glass
Bulb:	polystyrene
Float:	stainless steel 1.4401
O-ring:	NBR, FPM

10. Material combination

Model	Housing	Valve	Float	Gasket	Measuring tube	Bulb
UTS-1	nickel plated brass	1.4301	1.4301	NBR	borosilicate glass	polystyrene
UTS-3	stainless steel 1.4301			FPM		
UTS-5	stainless steel 1.4404	1.4404	1.4404			



11. Order Codes

(Example: UTS-1 10L 0I2L 0)

Model	Housing	Measuring ranges[2] Air [Nm³/h]	Connection[1]/ flow direction	Option
UTS-..	1 = brass 3 = stainless steel 1.4301 5 = stainless steel 1.4404	10L= 0.01 ...0.1 12L= 0.016 ...0.16 14L= 0.025 ...0.25 16L= 0.04 ...0.40 18L= 0.063 ...0.63 20L= 0.1 ...1.0 22L= 0.16 ...1.6 24L= 0.2 ...2.0 26L= 0.3 ...3.0 YYL= others[3]	<u>without adapter</u> 0000 = M18x1.5, from bottom <u>with adapter, without valve</u> 0I2L = G ¼ adapter, from left 0I2R = G ¼ adapter, from right 0N2L = ¼" NPT adapter, from left 0N2R = ¼" NPT adapter, from right <u>with adapter, with valve</u> 1I2L = G ¼ adapter, from left 1I2R = G ¼ adapter, from right 1N2L = ¼" NPT adapter, from left 1N2R = ¼" NPT adapter, from right	0= without Y= as specification

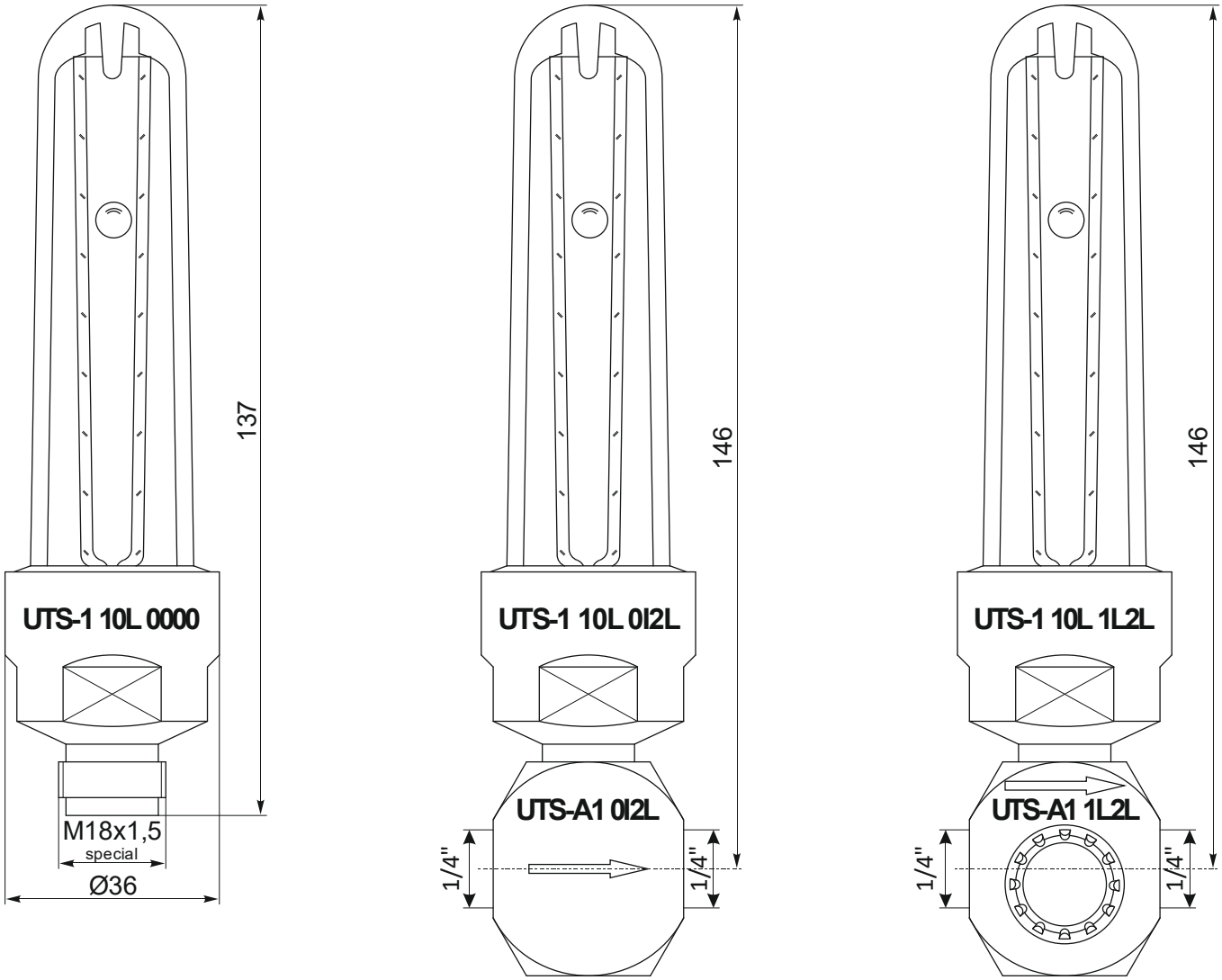
[1] Adapter material same as housing material.
[2] At 1.013 bar abs and 20 °C
[3] Customer specification on request, please specify in clear text.

Order Details Adapter (Example: UTS-A1 0I2R)

Model/ Housing	Connection[1]/ flow direction
UTS-A1 / brass UTS-A3 / stainless steel 1.4301 UTS-A5 / stainless steel 1.4404	<u>without valve</u> 0I2L = G ¼ adapter, from left 0I2R = G ¼ adapter, from right 0N2L = ¼" NPT adapter, from left 0N2R = ¼" NPT adapter, from right <u>with valve</u> 1I2L = G ¼ adapter, from left 1I2R = G ¼ adapter, from right 1N2L = ¼" NPT adapter, from left 1N2R = ¼" NPT adapter, from right

[1] Adapter material same as housing material.

12. Dimensions



13. EU Declaration of Conformance

We, KOBOLD Unirota Kft. Nyíregyháza Hungary, declare under our sole responsibility that the product:

Variable area flow meter **Model: UTS-…**

to which this declaration relates is in conformity with the standards noted below:

EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Also, the following EC guidelines are fulfilled:

2011/65/EU **RoHS** (category 9)
2015/863/EU Delegated Directive (RoHS III)

Nyíregyháza, 10 May 2022

Dénes Szabó
General Manager