

Operating Instructions for Low Volume Rotating Vane Flow Meter

Model: DTK



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Manufactured and sold by:

Kobold Messring GmbH
Nordring 22-24
D-65719 Hofheim
Tel.: +49(0)6192-2990
Fax: +49(0)6192-23398
E-Mail: info.de@kobold.com
Internet: www.kobold.com

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.

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

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.

Diagram 8, Pipe, Group 1 dangerous fluids

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:

- Low Volume Rotating Vane Flow Meter model: DTK

4. Regulation Use

Any use of the Low volume rotating vane flowmeter, model: DTK", 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 medium flows through a specially shaped flow housing and causes a vane to rotate. The vane has imbedded permanent magnets. Which are detected by a Hall Effect sensor as they pass. The Hall Effect sensor generates a voltage pulse each time a magnet passes. The frequency of the pulses is directly proportional to the flow velocity.

6. Mechanical Connection

Before installation:

- Remove all transport packaging and ascertain that no packaging material is left in the instrument
- Please ascertain whether the allowable maximum operating pressure and operating temperature of the instruments will not be exceeded (see standard material combinations).
- Please ascertain after completing of mechanical installation, whether the connection between fitting and pipe is tight.



Warning! Overflows of more than 20 % might damage the bearings and cause larger measuring errors or malfunction.

7. Electrical Connection

7.1 General

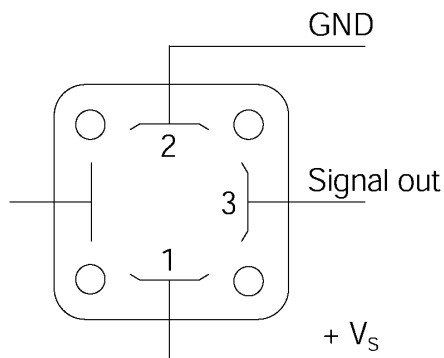
- Make sure that the power supply wires are de-energized.
- Connect the power supply and output signal wires according to the wiring diagrams under 7.2



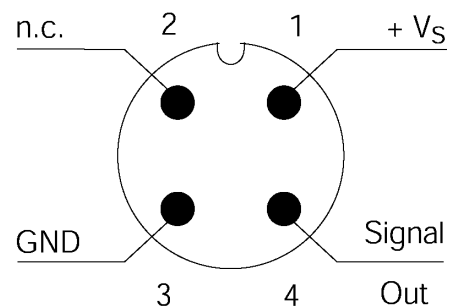
Caution! Incorrect connection will destroy the electronics. Make sure that the power supply values of your system are matching the power supply values of this instrument.

7.2 Plug Connection

DTK-...0400
NPN open collector



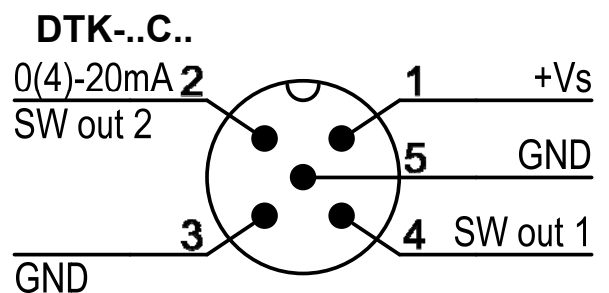
DTK-...F3; DTK-...L3
PNP open collector



7.3 Cable Connection

DTK-...0P00; DTK-...0S00

white: + Vs
brown: GND
green: signal NPN open collector



7.4 Compact Electronics: (..C30R, ..C30M, ..C34P, ..C34N)

see
Instruction Manual-Supplement
for Compact Electronics

8. Technical Information

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

9. Order Codes

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

10. Dimensions

Operating instructions, data sheet, approvals and further information via the QR code on the device or via www.kobold.com

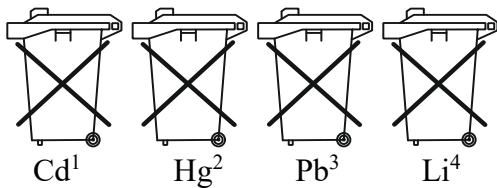
11. Disposal

Note!

- Avoid environmental damage caused by media-contaminated parts
- Dispose of the device and packaging in an environmentally friendly manner
- Comply with applicable national and international disposal regulations and environmental regulations.

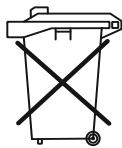
Batteries

Batteries containing pollutants are marked with a sign consisting of a crossed-out garbage can and the chemical symbol (Cd, Hg, Li or Pb) of the heavy metal that is decisive for the classification as containing pollutants:



1. „Cd" stands for cadmium
2. „Hg" stands for mercury
3. „Pb" stands for lead
4. „Li" stands for lithium

Electrical and electronic equipment



12. EU Declaration of Conformance

We, KOBOLD Messring GmbH, Nordring 22-24, 65719 Hofheim, Germany, declare under our sole responsibility that the product:

Low Volume Rotating Vane Flow Meter

Model: DTK-...

to which this declaration relates is in conformity with the following EU directives stated below:

2011/65/EU
2015/863/EU

RoHS (category 9)
Delegated Directive (RoHS III)

Also, the following standards are fulfilled:

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

Additionally for products with compact electronics ...C...:

2014/30/EU

EMC Directive

EN IEC 61326-1:2021 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements, Industrial area

Additionally for products with frequency output ..F... and analogue output ..L...:

2014/30/EU

EMC Directive

EN IEC 61326-1:2021 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements, Industrial area, Measurement of interference immunity to HF fields up to 1 GHz

Hofheim, 19 Oct. 2023



H. Volz
General Manager



J. Burke
Compliance Manager