

Operating Instructions for Sight Glass Flow Indicator

Model: DAI



We don't accept warranty and liability claims neither upon this publication nor in case of improper treatment of the described products.

The document may contain technical inaccuracies and typographical errors. The content will be revised on a regular basis. These changes will be implemented in later versions. The described products can be improved and changed at any time without prior notice.

© **Copyright**

All rights reserved.

1. Contents

1. Contents.....	2
2. Note	3
3. Instrument Inspection.....	3
4. Regulation Use	3
5. Operating Principle.....	4
6. Installation.....	4
6.1 Installing the instrument.....	4
7. Setting at work	5
8. Calibration.....	5
9. Maintenance	5
9.1 Notices.....	6
9.2 Tightening	6
10. Technical Information.....	7
11. Order Codes	7
12. Dimensions	7
13. Disposal	8
14. EU Declaration of Conformance	9

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.

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:

- Sight Glass Flow Indicator model: DAI

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 operating principle is based on the fluid passing through the instrument and its display through a transparent sight glass.

This passage can be further displayed with fixed paddle chain, rotor, ball or drips.

6. Installation

6.1 Installing the instrument

Before installation, check the line connections and the instrument connections for compatibility.

In cases when the instrument shows an arrow that indicates the direction of the flow, please comply with that indication at the assembling stage. Moreover, if the passage fluid is at high temperature or very cold, the user shall adopt insulation/protections that are able to minimize all differences in temperature from room temperature.

Burdening the unit with external loads is strictly prohibited and it is the user's duty to protect it from whatever stress; all uses as a point of support is not allowed.

To avoid all effects of galvanic corrosion, never use materials featuring a different electrochemical potential, the user shall take all actions that are aimed at preventing such condition for the unit.

The system shall be equipped with the prescribed safety valve, to remedy over pressure values that exceed the maximum value. For installation on piping exposed to strong vibration, please contact the customer service department.

7. Setting at work

Ensure that the use of the instrument does not range out of the admitted ones, with higher pressure and temperature values and lower flow rates.

The user shall absolutely avoid the occurrence of the so-called “water hammers”, taking care to always start the fluid in a gradual manner.

8. Calibration

The instrument is factory-set and does not require any calibration to be performed.

9. Maintenance

Owing to their constructional simplicity and the remarkable mechanical sturdiness, these instruments do not require any routine maintenance.

At all events, it is however advisable to check, every now and then, the service state of the seals and the integrity of glass discs or tubes. Ensure there is no fluid leaking out of the seals and that the porthole does not show marks of erosion/corrosion (a possible sign of corrosion is the dulling of the glass), scratches (≥ 0.5 mm in depth) or marks of fracture.

If necessary, immediately replace the glass and its gaskets.

These checks shall be made without dismounting the glass component from the porthole flange.

In cases when, no matter why, the user decides to dismount the glass components, the latter and the dismounted seals, even if they do not show any deep mark of failure or wear, shall never be put back in place; they will need to be replaced with new parts.

All maintenance activities shall take place when the unit is disconnected from the system, without pressure and fluid, and at room temperature (in the vent of instruments that work at high or low temperature).

9.1 Notices

- NEVER use the unit with a pressure or temperature value that exceeds the rating data;
- NEVER make adjustments or replace parts without having first carefully read the relevant instructions; in case of doubts, please consult our customer service department;
- NEVER lubricate parts of the instrument;
- In cases when the instrument is used with high temperatures, please take all measures required to safeguard and protect the service staff at all maintenance stages.

9.2 Tightening

The edge of the glass shall not lie against the edges of the porthole flanges, whereas there must be a space of at least 1 mm between the glass and its seating (to compensate for all thermal expansion possibly occurring).

Unless specifically instructed otherwise, the bolts must be tightened following an alternate scheme, so that the gasket is compressed for 1/3 of its thickness.

The tightening shall occur in a gradual manner and in such a way as to avoid excessive local stress.

Tighten the tie rods in a sequence, in at least two subsequent stages.

10. Technical Information

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

11. Order Codes

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

12. Dimensions

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

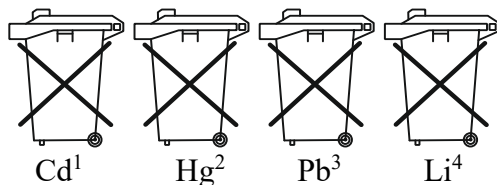
13. Disposal

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.

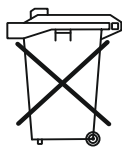
Batteries

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



14. EU Declaration of Conformance

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

Model Description

Model: DAI-...

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

2011/65/EU

RoHS (category 9)

2015/863/EU

Delegated Directive (RoHS III)

2014/68/EU

PED

Hofheim, 04 Sept 2023



H. Volz
General Manager



J. Burke
Compliance Manager