

Operating Instructions
for
Rotating-Vane Flow Indicator

Model: DIG



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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 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 “Pressure Equipment Directive 2014/68/EU”

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

Diagram 8, Piping, Group 1, Dangerous Fluids

3. Regulation Use

Any use of the Rotating-Vane Flow Indicator, model: DIG, 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.

4. Operating Principles

A plastic-rotating vane wheel rotates on an axle shaft in accordance with the flow. The presence or absence of rotary motion indicates whether there is flow or not.

5. 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:

- Flow Indicator model: DIG
- Operating instructions

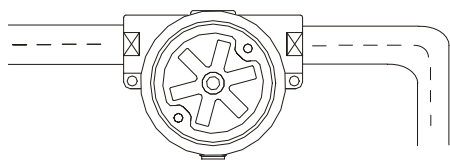
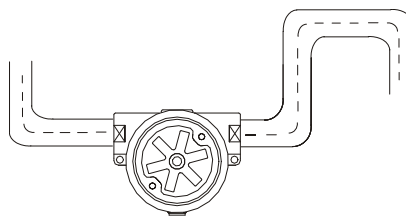
6. Mechanical Connection

Before installation

- Make sure that the actual throughput in the installation matches the scale range of the device. The device capacity is indicated on the nameplate.

Caution! If the capacity of the device is exceeded by more than 20%, its bearings will be damaged.

- Make sure that the maximum operating pressure and temperature of the device are not exceeded.
- Remove all packing materials and transport retainers and ensure that no such materials remain in the device.
- These devices can be installed in any required position. The direction of flow must always be in the direction indicated by the arrow. The front of the device must always be vertical.
- In cases where the flow is running from top to bottom, take particular care to ensure that the device housing is completely filled with fluid. Additional inlet and outlet pipe sections are not required.

Wrong!**Right**

- The threaded connections must be sealed with Teflon tape or similar sealant.
- During installation, avoid placing pressure and tension loads on the device. We recommend that the inlet and outlet lines be mechanically secured at a distance of approximately 50 mm from the connections.
- If possible, immediately after completing the mechanical installation, check the threaded connections between the device and piping for leaks.

Caution! Be sure to tighten the fittings at the device only with the correctly sized open-end wrench.

7. Technical Information

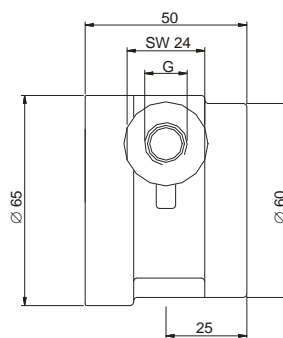
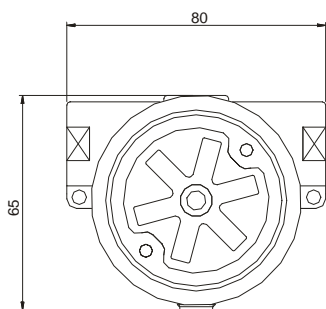
| | DIG-11 | DIG-14 | DIG-18 |
|-------------|---------------|--------------------------|---------------|
| Housing | Brass casting | Stainless steel (1.3955) | Polypropylene |
| Cover: | Polysulfone | Polysulfone | Polysulfone |
| Seal: | NBR | FPM | NBR |
| Vane wheel: | Polypropylene | Polypropylene | Polypropylene |
| Axle: | Ceramic | Ceramic | Ceramic |
| p_{max} | 16 bar | 16 bar | 7 bar |
| t_{max} | 80 °C | 80 °C | 80 °C |

8. Order Codes

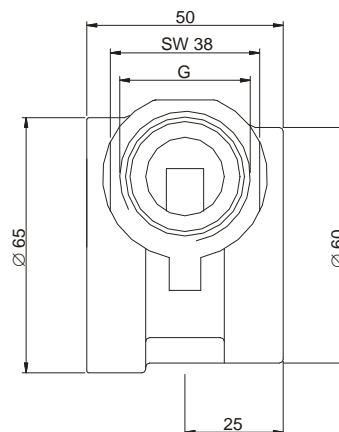
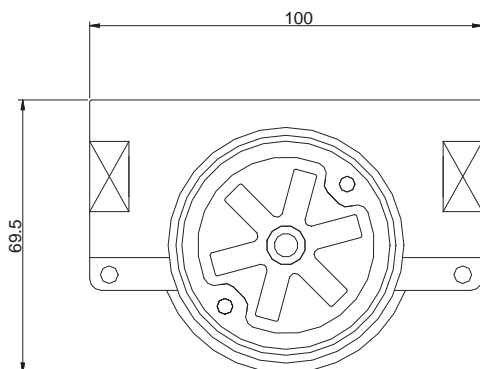
| Display Range | Connection | | | Connection | | |
|---------------|-------------|-------------------|----------|------------|--------------|-------------|
| | L/min water | ΔP (bar)* | DIG-1... | DIG-14... | DIG-18... | Standard |
| 0,5...12 | 1 | DIG-1105 | DIG-1405 | DIG-1805 | R06=G 1/8 IG | N06=1/8 NPT |
| 1...25 | 1 | DIG-1110 | DIG-1410 | DIG-1810 | R08=G 1/4 IG | N08=1/4 NPT |
| 2...45 | 1 | DIG-1120 | DIG-1420 | DIG-1820 | R15=G 1/2 IG | N15=1/2 NPT |
| 2...50 | 1 | DIG-1130 | DIG-1430 | DIG-1830 | R20=G 3/4 IG | N20=3/4 NPT |
| 3...80 | 1 | DIG-1135 | DIG-1435 | DIG-1835 | R25=G 1 IG | N25=1 NPT |

*at max.flow

9. Dimensions



SW = wrench size (A/F)



10. EU Declaration of Conformance

We, KOBOLD Messring GmbH, Hofheim-Ts, Germany, declare under our sole responsibility that the product:

Rotating-Vane Flow Indicator

Model: DIG-...

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

EN 50581:2012 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)



H. Peters
General Manager



M. Wenzel
Proxy Holder

Hofheim, 22. Nov. 2017