



Operating Instructions for Flow Restrictors

Model: REG



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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.

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.

3. Instrument Inspection

All 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 Restrictors model: REG

4. Regulation Use

Any use of the Flow Restrictor, model: REG, which exceeds the manufacturers 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

KOBOLD model REG flow restrictors serve to keep constant quantities of liquids in pipework systems. The REG rate regulators are ideally suited for the simple restriction of a preset value of throughputs of water or of liquids similar to water. The flow restrictors ensure an equilibrium, particularly in systems with many consumers and resulting pressure fluctuations caused by random flow conditions. In other words, the desired throughput is not exceeded.

Constant flow is achieved by two stainless steel spring plates that are crosswise mounted and riveted together. The gap between the spring-loaded stainless steel plate and the seal-surface is continuously varied as the differential pressure changes. As the differential pressure decreases, the gap widens, and it closes as the pressure increases, thus maintaining a constant flow volume through the device.

6. Mechanical Connection

Before installation:

- Remove all transport securing devices and make sure that there are no more packaging parts left in the device.
- Make sure that the permitted maximum operating pressures and temperatures for the device are not exceeded (see **Fehler! Verweisquelle konnte nicht gefunden werden. Fehler! Verweisquelle konnte nicht gefunden werden.**)
- Install the flow limiter into the piping without mechanical stress.
- Protect the measuring pipe against external damage.
- Avoid pressure surges in the measuring pipe e.g. by blocking the flow quickly.
- If possible, after mechanical installation, make sure that the connection between screw connection and pipe is tight and does not leak.
- Inlet and outlet run: the flow restrictor generally does not require any inlet and outlet runs.

However, if a significant diameter reduction is necessary directly before or after the restrictor, an inlet and outlet section of ~ 3x DN must be set up.

Note the direction of flow: Depending on the design, the REG are marked with a direction arrow or a label e.g. "IN".

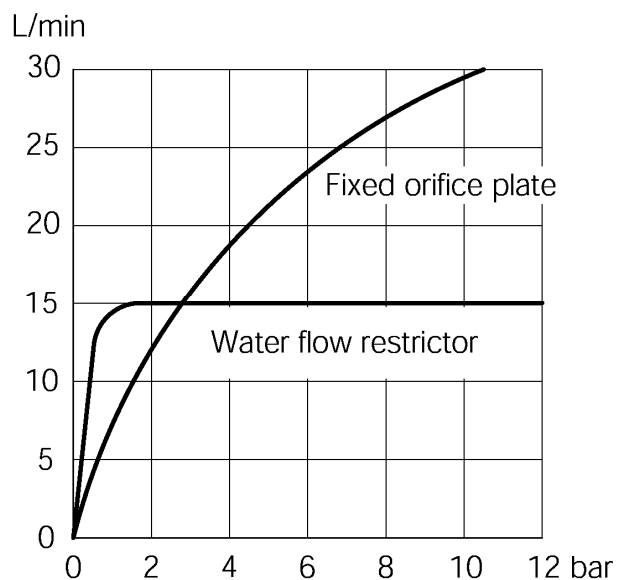
Maximum tightening torques for process connection:

G 1/2	30 Nm
G 3/4	30 Nm
G1	38 Nm



Warning! The differential pressure must not exceed 10 bar.

7. Differential Pressure Curve



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

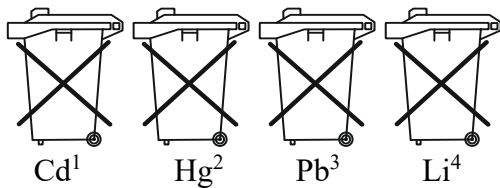
11. Disposal

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.

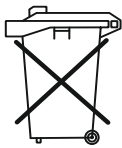
Batteries

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:

Flow Restrictors **Model: REG-...**

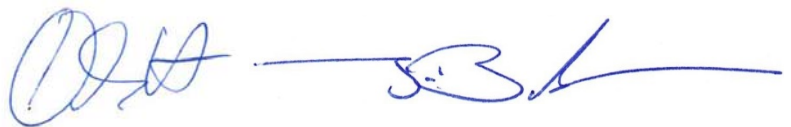
to which this declaration relates is in conformity with the following EU directives stated below:

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 standards are fulfilled:

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

Hofheim, 25 Sept 2023



H. Volz
General Manager

J. Burke
Compliance Manager

13. UK Declaration of Conformity

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

Flow Restrictors

Model: REG-...

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

S.I. 2012/3032 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Also, the following standards are fulfilled:

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

Hofheim, 25 Sept 2023



H. Volz
General Manager

J. Burke
Compliance Manager

14. REACH-SCIP Declaration

Kobold Messring supports the goals of REACH (Registration, Evaluation and Authorization of Chemicals, No. 1907/2006) and is aware of the company's obligations to comply with the directive, including informing our customers if substances registered on the SVHC candidate list are contained within our products.

With this declaration, we are fulfilling our obligation to provide this information.

The following product(s) contain(s) one or more substances listed in the candidate list and Annex XVII for which there is an obligation to provide information according to Article 33 of the REACH Regulation.

Product	Model-Codes	Affected Parts
REG	REG-x1xx	Brass Fitting

Where; X denotes a non-relevant model-code position

These products are registered in the SCIP database as follows:

Substance:	Contained in:	CAS N°:	Homogeneous Concentration:
Lead	Alloying Component of Brass (CuZn39Pb3)	7439-92-1	< 3,5 %
SCIP Reg. N°.	b5620b5a-b832-4c5a-ad8e-fa8c55216985		

Additional Information regarding lead content in Brass:

Lead is known to be toxic for reproduction, for this reason it was included in the candidate list. However, lead as an alloy component is "bound" in the brass, so no exposure is to be expected. Therefore, no additional information for its safe use is required.

The use of copper alloys with up to 4% lead content has however been regulated for many years, for example, in the relevant RoHS Directive 2011/65/EU. Here, Copper alloys containing lead are explicitly excluded from the prohibited substance list, exception 6(c).

The information contained herein is based on declarations obtained from our sub-suppliers and is correct and reliable to the best of our knowledge and belief at the time of publication. However, if this is not the case, we assume no liability for the accuracy and completeness of this information.

Hofheim, 08 Feb. 2024



J. Burke
Compliance Manager