Operating Instructions

for

Flow Restrictors

Model: REG

1. Operating Principle

KOBOLD model REG flow restrictors serve to maintain constant flow rates of liquids in pipework systems. The REG flow rate regulators are ideally suited for the simple restriction of a preset value of water flow or of liquids similar to water. The flow restrictors ensure the desired flow rate, particularly in systems with many consumers and pressure fluctuations caused by random flow conditions. In other words, the desired throughput is maintained, regardless of pressure fluctuations.
Constant flow is achieved by the use of 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 conversely, closes as the pressure increases, thus maintaining a constant flow volume through the device.

2. 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 section 3. Technical Information)
- 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.

Maximum tightening torques for process connection:

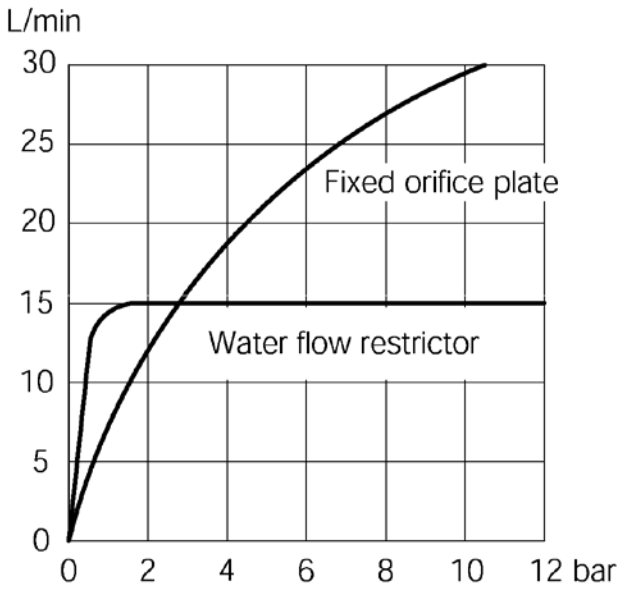
½" & ¾" 22 lb-ft (30 Nm)

Warning! The differential pressure must not exceed 145 PSIG.

3. Technical Information

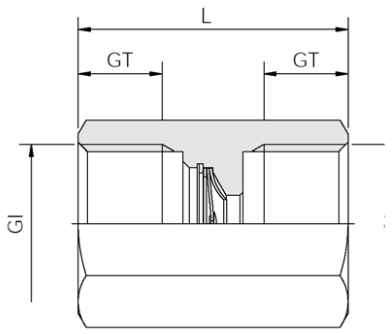
Available Connections:	Female thread G ½, G ¾ Female/male thread G ½, G¾ Male thread G ¾ Female thread ¾ NPT female/ Male thread ¾ NPT
Service temperature:	+14...+572 °F
Operating pressure:	max. 2900 PSIG
Differential pressure:	min. 29 PSIG max. 145 PSIG
Wetted Materials:	
Brass-version:	Brass and stainless steel
Stainless steel-version:	All stainless steel
Viscosity:	Max. 30 cSt

4. Differential Pressure Curve

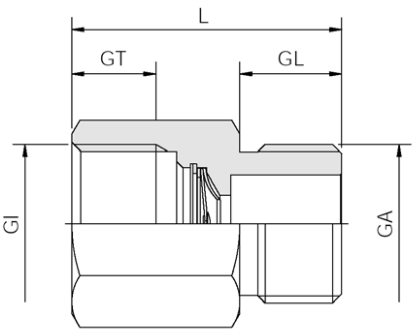


5. Dimensions

REG-1x/REG-2x/REG-5x



REG-3x/REG-4x/REG-6x



6. Order Details

REG- w/NPT screw thread (example: REG-5101)

Dimensions		Female/female thread ¾ NPT		Female/male thread ¾ NPT	
L [mm]		45		45	
GT [mm]		14		14	
GL [mm]		-		17	
GI		¾ NPT		¾ NPT	
GA		-		¾ NPT	
AF [mm]		30		30	
Flow GPM	**Tolerance GPM**	**Brass**	**Stainless Steel**	**Brass**	**Stainless Steel**
0.13	± 0.05	**REG-5100**	**REG-5200**	**REG-6100**	**REG-6200**
0.26	± 0.05	**REG-5101**	**REG-5201**	**REG-6101**	**REG-6201**
0.53	± 0.05	**REG-5102**	**REG-5202**	**REG-6102**	**REG-6202**
0.79	± 0.11	**REG-5103**	**REG-5203**	**REG-6103**	**REG-6203**
1.05	± 0.11	**REG-5104**	**REG-5204**	**REG-6104**	**REG-6204**
1.32	± 0.13	**REG-5105**	**REG-5205**	**REG-6105**	**REG-6205**
1.59	± 0.13	**REG-5106**	**REG-5206**	**REG-6106**	**REG-6206**
2.11	± 0.13	**REG-5108**	**REG-5208**	**REG-6108**	**REG-6208**
2.38	± 0.18	**REG-5109**	**REG-5209**	**REG-6109**	**REG-6209**
2.64	± 0.18	**REG-5110**	**REG-5210**	**REG-6110**	**REG-6210**
2.91	± 0.18	**REG-5111**	**REG-5211**	**REG-6111**	**REG-6211**
3.17	± 0.18	**REG-5112**	**REG-5212**	**REG-6112**	**REG-6212**
4.23	± 0.32	**REG-5116**	**REG-5216**	**REG-6116**	**REG-6216**
5.28	± 0.32	**REG-5120**	**REG-5220**	**REG-6120**	**REG-6220**
6.60	± 0.40	**REG-5125**	**REG-5225**	**REG-6125**	**REG-6225**
7.93	± 0.40	**REG-5130**	**REG-5230**	**REG-6130**	**REG-6230**
10.57	± 0.53	**REG-5140**	**REG-5240**	**REG-6140**	**REG-6240**