



Zertifiziertes  
QM-System  
DIN EN ISO 9001  
Zertifikat-Nr. 01017

## Flow Restrictors

for Flow Rates 0.5 L/min to 280 L/min



measuring  
•  
monitoring  
•  
analysing



- $p_{max.}$  200 bar
- $t_{max.}$  +300 °C
- Connections:  
Screw thread G 1/2, G 3/4,  
G 1 1/2, G 2, G 2 1/4, G 2 1/2  
and 3/4 NPT
- no auxiliary power required
- easy to assemble
- compact design
- reliable - no wearing parts
- energy-saving
- easy to fit



KOBOLD companies worldwide:

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Model:  
REG



**Design**

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 to a preset value of throughputs of water, or of liquids similar to water. The flow restrictors ensure equilibrium, particularly in systems with many users 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 diaphragms that are crosswise mounted and riveted together. The gap between the spring-loaded stainless steel plate and seal face 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.

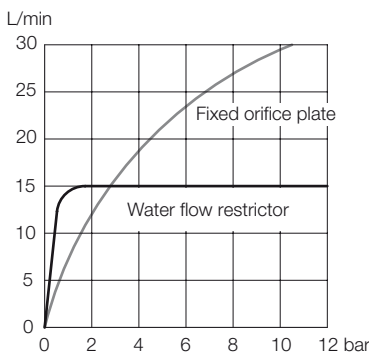
**Notable benefits**

- no auxiliary power required
- easy to assemble
- compact design
- reliable - no wearing parts
- energy-saving
- easy to fit

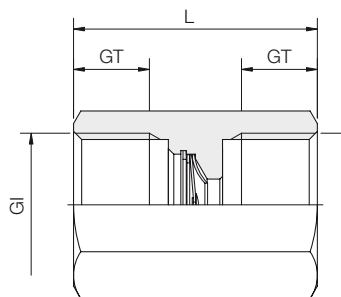
**Technical Details**

- Connections: female thread G 1/2, G 3/4  
female/male thread G 1/2 - G 3/4  
male thread G 3/4
- female thread 3/4 NPT  
female/male thread 3/4 NPT
- multiple element  
G 1 1/2, G 2, G 2 1/4, G 2 1/2  
male thread
- Service temperature: -10... 300 °C
- Operating pressure: max. 200 bar
- Differential pressure: min. 2.0 bar
- Differential pressure: max. 10 bar
- Materials  
(see drawing for details)
- Brass-version: brass and stainless steel
  - Stainless steel-version: all stainless steel
- Viscosity: max. 30 mm<sup>2</sup>/s

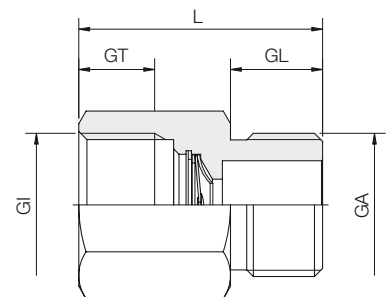
**Differential pressure curve**



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

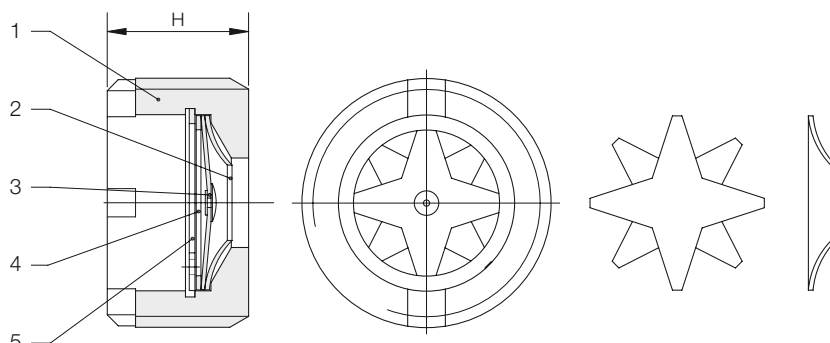


**REG-3x/REG-4x/REG-6x**



**REG-0x/REG-7x with design and materials**

- |               |                                 |
|---------------|---------------------------------|
| 1 Valve body  | Brass Ms 58 or St. steel 1.4301 |
| 2 Pan         | St. steel 1.4301                |
| 3 Spring star | St. steel 1.4310                |
| 4 Ring        | St. steel 1.4301                |
| 5 Circlip     | St. steel 1.4122                |





**Dimensions and Order Details G screw thread** (example: REG-0101)

Dimensions		Male thread G 3/4		Female/female thread* G 1/2		Female/female thread G 3/4		Female/male thread G 1/2		Female/male thread G 3/4			
L [mm]		-		36 (42)		45 (50)		36 (42)		45 (50)			
GT [mm]		-		12 (14)		14 (16)		13 (14)		14 (16)			
GL [mm]		-		-		-		12 (14)		17 (16)			
GI		-		G 1/2		G 3/4		G 1/2		G 3/4			
GA		-		-		-		G 1/2		G 3/4			
AF [mm]		-		24 (27)		30 (36)		24 (27)		30 (36)			
H [mm]		15		-		-		-		-			
Through-put L/min	Tolerance L/min	Brass		Stainless steel		Brass		Stainless steel		Brass		Stainless steel	
		REG-0100	REG-0200	REG-1100	REG-1200	REG-2100	REG-2200	REG-3100	REG-3200	REG-4100	REG-4200		
0,5	± 0,2	REG-0100	REG-0200	REG-1100	REG-1200	REG-2100	REG-2200	REG-3100	REG-3200	REG-4100	REG-4200		
1	± 0,2	REG-0101	REG-0201	REG-1101	REG-1201	REG-2101	REG-2201	REG-3101	REG-3201	REG-4101	REG-4201		
2	± 0,2	REG-0102	REG-0202	REG-1102	REG-1202	REG-2102	REG-2202	REG-3102	REG-3202	REG-4102	REG-4202		
3	± 0,4	REG-0103	REG-0203	REG-1103	REG-1203	REG-2103	REG-2203	REG-3103	REG-3203	REG-4103	REG-4203		
4	± 0,4	REG-0104	REG-0204	REG-1104	REG-1204	REG-2104	REG-2204	REG-3104	REG-3204	REG-4104	REG-4204		
5	± 0,5	REG-0105	REG-0205	REG-1105	REG-1205	REG-2105	REG-2205	REG-3105	REG-3205	REG-4105	REG-4205		
6	± 0,5	REG-0106	REG-0206	REG-1106	REG-1206	REG-2106	REG-2206	REG-3106	REG-3206	REG-4106	REG-4206		
8	± 0,5	REG-0108	REG-0208	REG-1108	REG-1208	REG-2108	REG-2208	REG-3108	REG-3208	REG-4108	REG-4208		
9	± 0,7	REG-0109	REG-0209	REG-1109	REG-1209	REG-2109	REG-2209	REG-3109	REG-3209	REG-4109	REG-4209		
10	± 0,7	REG-0110	REG-0210	REG-1110	REG-1210	REG-2110	REG-2210	REG-3110	REG-3210	REG-4110	REG-4210		
11	± 0,7	REG-0111	REG-0211	REG-1111	REG-1211	REG-2111	REG-2211	REG-3111	REG-3211	REG-4111	REG-4211		
12	± 0,7	REG-0112	REG-0212	REG-1112	REG-1212	REG-2112	REG-2212	REG-3112	REG-3212	REG-4112	REG-4212		
16	± 1,2	REG-0116	REG-0216	REG-1116	REG-1216	REG-2116	REG-2216	REG-3116	REG-3216	REG-4116	REG-4216		
20	± 1,2	REG-0120	REG-0220	REG-1120	REG-1220	REG-2120	REG-2220	REG-3120	REG-3220	REG-4120	REG-4220		
25	± 1,5	REG-0125	REG-0225	REG-1125	REG-1225	REG-2125	REG-2225	REG-3125	REG-3225	REG-4125	REG-4225		
30	± 1,5	REG-0130	REG-0230	REG-1130	REG-1230	REG-2130	REG-2230	REG-3130	REG-3230	REG-4130	REG-4230		
40	± 2	REG-0140	REG-0240	REG-1140	REG-1240	REG-2140	REG-2240	REG-3140	REG-3240	REG-4140	REG-4240		

\*Values in brackets for versions with extended thread (please add D to the order number)

**Dimensions and Order Details NPT screw thread** (example: REG-5101)

Dimensions		Female/female thread 3/4 NPT		Female/male thread 3/4 NPT	
L [mm]		45		45	
GT [mm]		14		14	
GL [mm]		-		17	
GI		3/4 NPT		3/4 NPT	
GA		-		3/4 NPT	
AF [mm]		30		30	
H [mm]		-		-	
Through-put L/min	Tolerance L/min	Brass		Stainless steel	
		REG-5100	REG-5200	REG-6100	REG-6200
0,5	± 0,2	REG-5100	REG-5200	REG-6100	REG-6200
1	± 0,2	REG-5101	REG-5201	REG-6101	REG-6201
2	± 0,2	REG-5102	REG-5202	REG-6102	REG-6202
3	± 0,4	REG-5103	REG-5203	REG-6103	REG-6203
4	± 0,4	REG-5104	REG-5204	REG-6104	REG-6204
5	± 0,5	REG-5105	REG-5205	REG-6105	REG-6205
6	± 0,5	REG-5106	REG-5206	REG-6106	REG-6206
8	± 0,5	REG-5108	REG-5208	REG-6108	REG-6208
9	± 0,7	REG-5109	REG-5209	REG-6109	REG-6209
10	± 0,7	REG-5110	REG-5210	REG-6110	REG-6210
11	± 0,7	REG-5111	REG-5211	REG-6111	REG-6211
12	± 0,7	REG-5112	REG-5212	REG-6112	REG-6212
16	± 1,2	REG-5116	REG-5216	REG-6116	REG-6216
20	± 1,2	REG-5120	REG-5220	REG-6120	REG-6220
25	± 1,5	REG-5125	REG-5225	REG-6125	REG-6225
30	± 1,5	REG-5130	REG-5230	REG-6130	REG-6230
40	± 2	REG-5140	REG-5240	REG-6140	REG-6240

Model	Weight
REG-0xxx	approx. 35 g
REG-1xxxD	approx. 130 g
REG-2xxxD	approx. 300 g
REG-3xxxD	approx. 110 g
REG-4xxxD	approx. 250 g

**Order Details multiple element** (example: REG-92 R402 080)

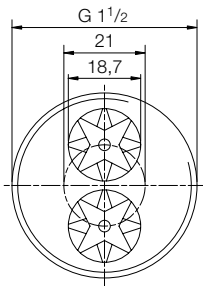
Design	Size	Throughput* in L/min
REG-92... Multiple element made of stainless steel 1.4301	..R402.. = G 1 1/2; 2-fold	1.0...080
	..R403.. = G 1 1/2; 3-fold	1.5...120
	..R503.. = G 2; 3-fold	1.5...120
	..R504.. = G 2; 4-fold	2.0...160
	..R585.. = G 2 1/4; 5-fold	2.5...200
	..R656.. = G 2 1/2; 6-fold	3.0...240
	..R657.. = G 2 1/2; 7-fold	3.5...280

\*The throughput is calculated by adding the regulating inserts (see also single elements).

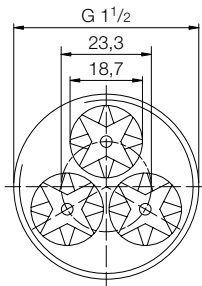
**Example:** The throughput 55 L/min is obtained with one restrictor with two regulating inserts (30 plus 25 L/min).

**Dimensions**

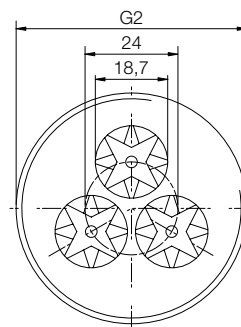
REG-92R402



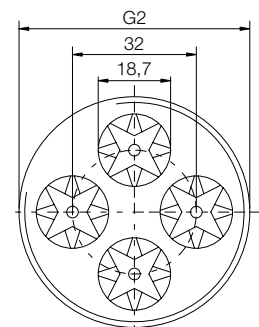
REG-92R403



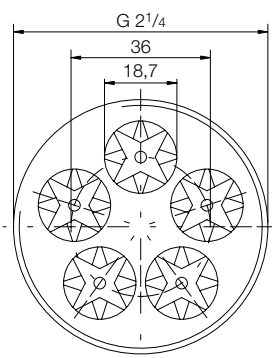
REG-92R503



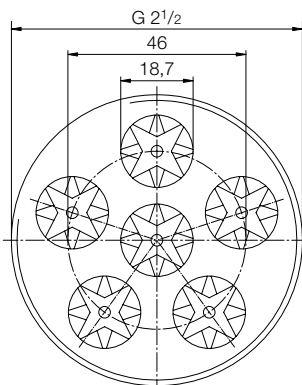
REG-92R504



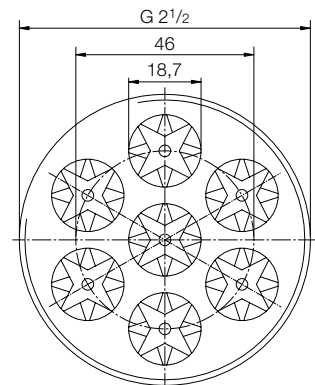
REG-92R585



REG-92R656



REG-92R657



**Thickness: 15 mm**