

OMH Series.

For high pressures with highest precision.

High measurement precision at high pressures or high flow rates. The KRAL OMH series was especially designed to handle high pressures of up to 420 bar that can occur in the field of mechanical engineering, at test benches and in hydraulic applications.

OMH is also designed to handle high flow rates. Such devices usually require large pipe cross sections and are therefore bulky devices. Due to the compact screw pump measuring element, the OMH series fits into a small housing and offers

the significant advantage of being compact and lightweight in this pressure class, even for high flow rates.

The pressure resistance is provided by a very rigid housing, maintaining the compact dimensions, and at the same time the proven precision of the KRAL flowmeters, even at extreme pressure stages. The measurement devices from the OMH series thus meet the high precision standard that KRAL applies to all of their products, even at extreme pressure stages and flow rates.



Mechanical engineering.  
Determining the position of hydraulic cylinders.



Oil and gas.  
Consumption measurement for gas turbines.



Mechanical engineering.  
Test benches (pumps, gear units, etc.).

Technical data.		OMH-013.	OMH-020.	OMH-032.	OMH-052.	OMH-068.	OMH-100.
Nominal diameter. DN [inch]		½	¾	1	1 ½	2	4
Total length with threaded flange G. [mm]		150	185	255	320	385	500
Weight with threaded flange G. [kg]		7	12	29	55	81	150
Flow rate l/h.	Q <sub>max</sub>	900	2,700	9,000	31,500	63,000	180,000
	Q <sub>nom</sub>	600	1,800	6,000	21,000	42,000	120,000
	Q <sub>min</sub>	6	18	60	210	420	1,200
Flow rate l/min.	Q <sub>max</sub>	15	45	150	525	1,050	3,000
	Q <sub>nom</sub>	10	30	100	350	700	2,000
	Q <sub>min</sub>	0.1	0.3	1.0	3.5	7.0	20
Max. pressure. [bar]		420	420	420	420	420	250
Temperature. [°C]		-20 to +200	-20 to +200	-20 to +200	-20 to +200	-20 to +200	-20 to +200
Viscosity. [mm²/s]		1 to 1x10 <sup>6</sup>	1 to 1x10 <sup>6</sup>	1 to 1x10 <sup>6</sup>	1 to 1x10 <sup>6</sup>	1 to 1x10 <sup>6</sup>	1 to 1x10 <sup>6</sup>
Precision of measurement value.		±0.1 %	±0.1 %	±0.1 %	±0.1 %	±0.1 %	±0.1 %
Repeatability.		±0.01 %	±0.01 %	±0.01 %	±0.01 %	±0.01 %	±0.01 %
K-factor.	K2 [P/l]	2,432	1,280	468	142	79.6	33.6
	K3 [P/l]	7,296	2,560	1,014	302	167	57.6
	K4 [P/l]	7,296	2,560	1,014	302	167	87.6
Frequency.	f2 at Q <sub>nom</sub> [Hz]	405	640	780	828	929	1,120
	f3 at Q <sub>nom</sub> [Hz]	1,216	1,280	1,690	1,760	1,949	1,920
	f4 at Q <sub>nom</sub> [Hz]	1,216	1,280	1,690	1,762	1,948	2,920



- Technical data.
- Media: Chemically neutral, lubricating, clean, non-abrasive.
  - Flow direction detection: Extended sensor range optional.
  - Temperature measurement: Additional sensor optional.
  - Signal: PNP, Namur and Push-pull.
  - Signal detection: Via the pole wheel.
  - Process fittings: DIN, thread.

- Your benefits.
- Functions under high pressure up to 420 bar.
  - High precision.
  - Very rigid spheroidal graphite iron housing.
  - Compact size, light weight.
  - Low friction and minimal loss of pressure.
  - Stabilization zones unnecessary.
  - Universally applicable.

- Materials.
- Housing: Spheroidal graphite iron.
  - Screws: Nitrided steel.
  - Bearings: Steel bearings.
  - Sealing: FKM, other seal materials upon request.

Sensor.	BEG 06 / BEG 06A*.	BEG 44.	BEG 45 with BEV 13.	BEG 53A / BEG 54A*.
Application.	Ex-range.	High pressures, broad temperature range.	High pressures, broad temperature range.	Flow direction detection.
K-factor.	K1.	K2.	K3.	K4.
Signal.	Namur.	PNP.	PNP.	Push-pull.
Temperature. [°C]	-25 to +85.	-40 to +150.	-40 to +250.	-40 to +125.
Max. pressure. [bar]	350	420	420	650
* Dependent on nominal value.				