

KOBOLD companies worldwide:

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Application

The Kobold screw-type volumetric flowmeter has proven itself in many applications over a long period of time; it has now been extended with an economical alternative - the OME type series - for the economical measurement or batching of viscous media.

These measuring sensors have been designed for viscous, non-abrasive media of 1-5000 mm²/s; they have been introduced as a response to today's innovative metrology and its demands for greater accuracy and reliability.

The screw-type volumetric meter works with the principle of positive displacement. Two cycloidal spindles, whose rotation is sensed by one or two sensors, are at the heart of the flowmeter. A new technique has been patented to sense the spindles directly, thus providing a compact and economical volumetric meter. The axial flow of the forced measured medium causes the pair of spindles to rotate in a uniform, non-pulsating manner.

The spindles have been manufactured with extreme precision. They are supported at their ends by ball bearings. The pair of spindles form volumetrically defined measuring chambers, which are a measure of the delivered volumetric flow. These unit volumes are evaluated by downstream electronics.

A double pulse generator can be used for direction sensing and doubling the pulses of pulse generator.

Technical Details

Max. pressure:	40 bar
Operating temperature:	-20°C+125°C
Accuracy:	±0.1 % of reading
Viscosity:	110 ⁶ mm ² /s

Order Details (Example: OME-15R15 /60)

Flow rate Connection¹⁾ Impulse/I²⁾ Frequency²⁾ Model Double pulse at Q_{nominal} G generator (Q_{min}...Q_{nominal}) [l/min] [Hz] 1214 OME-15R15 **/60** = BEG60 0.1...10 G1/2 202 0.3...30 G¾ 321 161 OME-20R20 /61 = BEG 61 1...100 G1 78 130 OME-25R25 /62 = BEG 62 3.5...350 G1½ 17.73 104 OME-40R40 **/62** = BEG 62 1214 OME-15F15 **/60** = BEG 60 0.1...10 **DIN flange DN15** 202 0.3...30 DIN flange DN 20 321 161 OME-20F20 /61 = BEG 61 1...100 DIN flange DN 25 78 130 OME-25F25 **/62** = BEG 62 3.5...350 DIN flange DN 40 17.73 104 OME-40F40 /62 = BEG 62

¹⁾ Other connections upon request

²⁾ Please refer to the accompanying test certificate for exact values.

Upon request, flow rates may deviate by up to ±50% depending on viscosity and accuracy.

Materials (media-contacting)

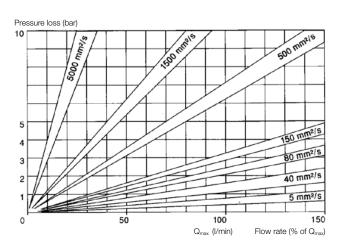
Housing:	aluminium (material no. 3.0615)
Spindles:	nitrated steel
O-rings:	FPM
Bearings:	deep-grooved ball bearing
Flange:	aluminium (material no. 3.0615)
Filter:	≤300 µm

Double pulse generator

Model BEG 60/BEG 61/BEG 62

Push-Pull, 10-30 V_{DC} -20...+125°C protection IP 65 temperature sensor PT100, Class B, 3-wire

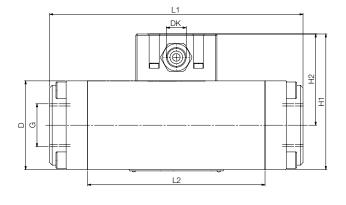
Pressure Loss Diagram



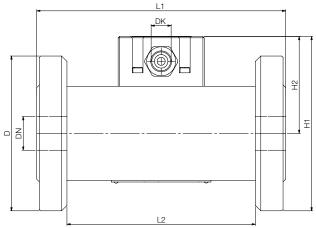


Dimensions and Weights

OME with BSPP thread



OME with DIN flange



Model	D [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	Weight [kg]
OME-15	45×45	110	65	82	59,5	0,7
OME-20	55×55	145	95	92	64,5	1,2
OME-25	70×70	200	140	107	72,0	3,0
OME-40	110×110	310	225	147	92,0	9,0

Model	D [mm]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	Weight [kg]
OME-15	95	105	65	107,0	59,5	2
OME-20	105	135	95	117,0	64,5	2
OME-25	115	185	140	129,5	72,0	4
OME-40	150	325	225	167,0	92,0	12