



Gear Wheel Flow Meter Made of Aluminium

for Viscous Liquids



measuring
•
monitoring
•
analysing



- Measuring range:
0.16 - 16 to 1 - 65 L/min
- Measuring accuracy:
±0.3 up to ±3% of
measured value
- p_{max} : 160 bar
- t_{max} : 80 °C
- Process connection:
G 3/8, G 3/4 female
- Material:
Aluminium housing



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Model:
KZA



Principle of function

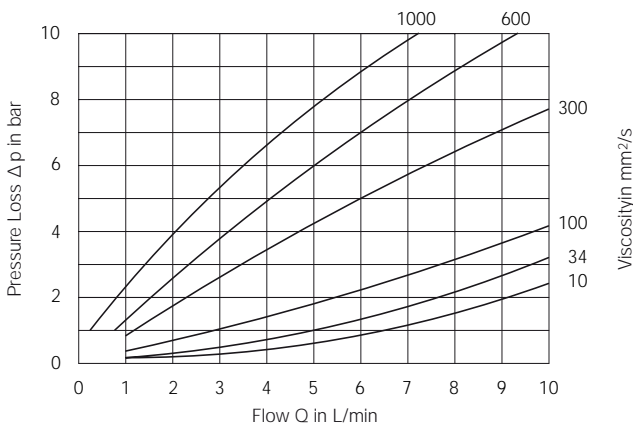
The KOBOLD gear wheel flow meter model KZA for viscous liquids is a low cost flow meter. The movement system consists of a gear set, which is propelled by the flow. The instrument movement bearing is designed for the types KZA-1810 and KZA-1865, as radial and axial gliding bearing. The type KZA-1816 has a ball bearing. The pick-up is separated from the measuring chamber and it registrates contactlessly the gear resolution through the housing wall. Easy maintenance, small pressure loss, small weight and low noise level are the outstanding features of this flow meter.

Areas of application

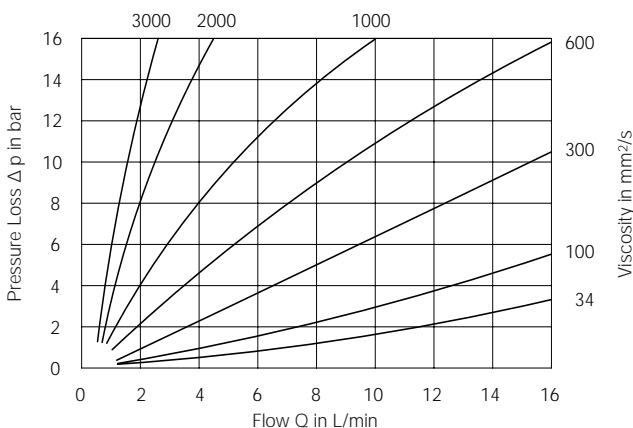
- For all viscose, non abrasive liquids like: petroleum, grease, pastes etc.
- Mixing and Batching
- Hydraulics

Pressure loss

KZA-1810



KZA-1816



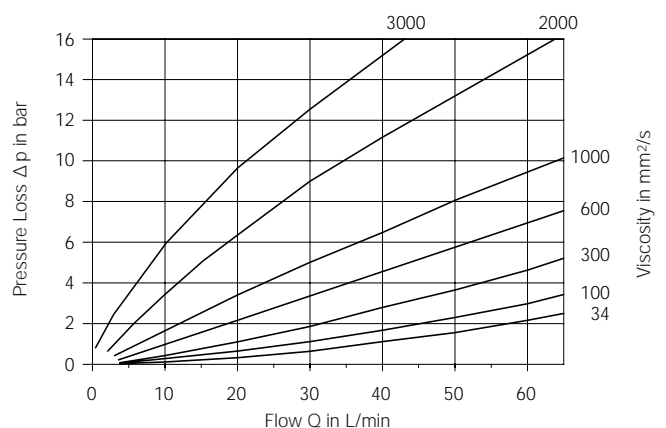
Technical specifications

- Accuracy: see Order details
- Repeatability: $\pm 0.1\%$ of measured value (only KZA-1865)
- Pressure: 160 bar maximum
- Temperature range: $-10...+80^\circ\text{C}$ (Medium) up to $+120^\circ\text{C}$ With more inaccuracy
- Viscosity range: see Order details

Materials

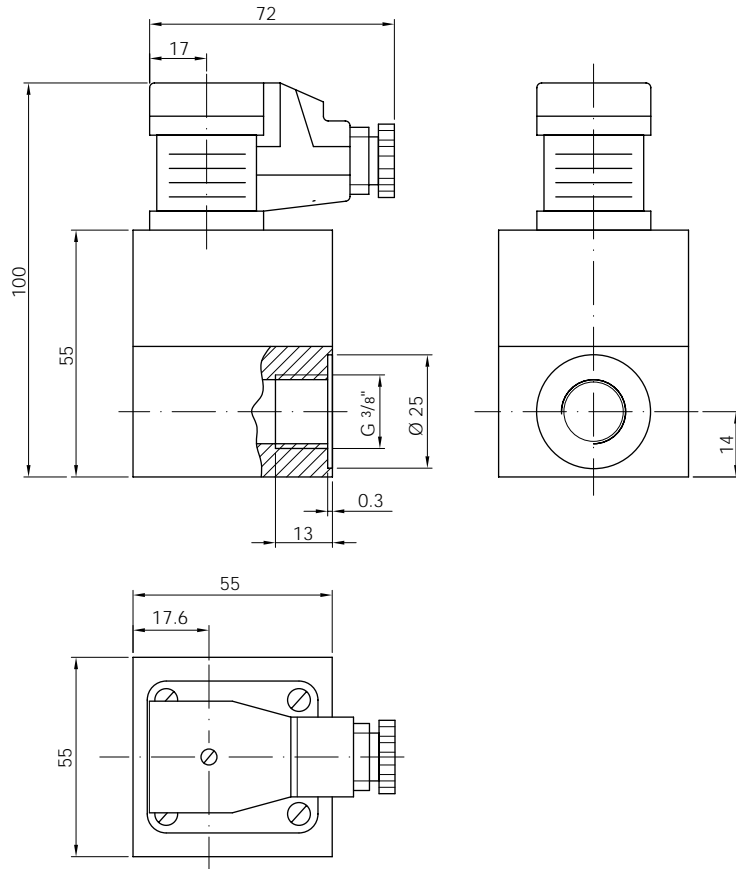
- Housing: Aluminium, anodized (KZA 1810/1865) Aluminium (KZA-1816)
- Gears: Steel
- Bearing: Plastic gliding bearing (KZA-1810) Multi-layer gliding bearing (KZA-1865) Ball bearing (KZA-1816)
- Seals: FPM
- Output Signal: 1 Pulse output (KZA-1810/1865) 2 Pulse outputs, $90^\circ \pm 30^\circ$ Disalignment (KZA-1816)
- Pulse form: Square pulse, Ratio 1 : 1 ($\pm 15\%$), short-circuit-proof
- Pulse amplitude: $\geq 0.8 U_B$
- Power Supply: 24 V_{DC} (12...30 V_{DC}) 12 V_{DC} (8...15 V_{DC}), polarized-proof
- Max. Power consumption: 0.6 W
- Max. Power output: 0.3 W
- Electr. Connection: Connector plug DIN 43650
- Protection: IP 65, DIN 40050
- Weight: KZA-1810: 0.5 kg KZA-1816: 0.7 kg KZA-1865: 1.9 kg

KZA-1865

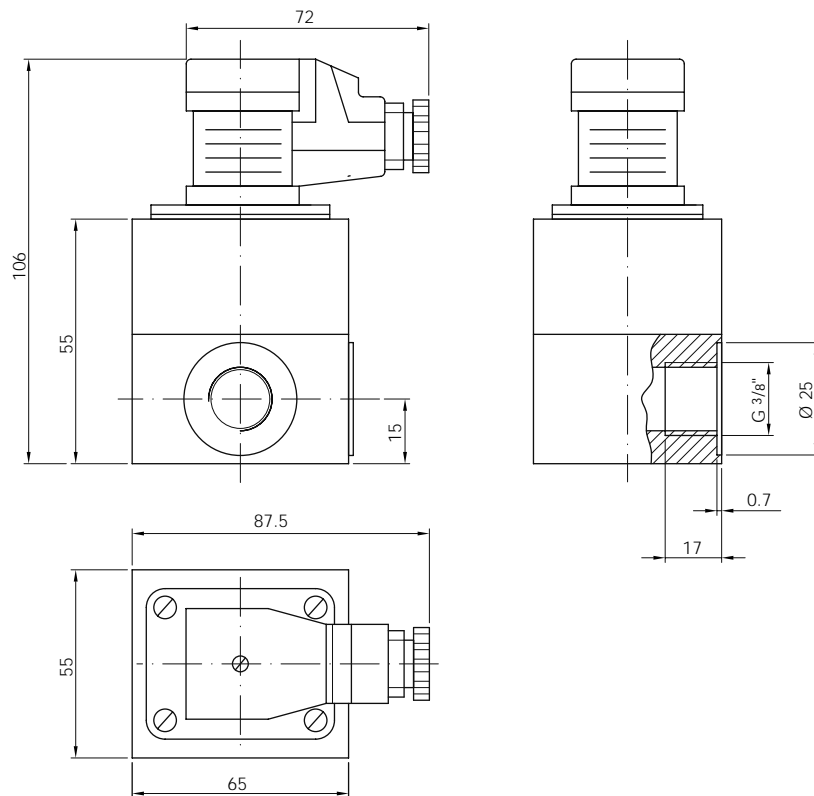


Dimensions

KZA-1810

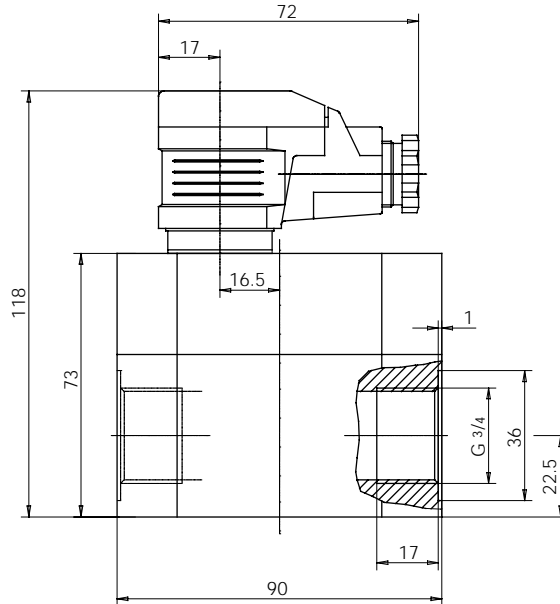


KZA-1816



Dimensions

KZA-1865



Order Details (Example: KZA-1810R10)

Measuring range [L/min]	Viscosity [mm ² /s]	Accuracy % of meas. value	Resolution [pulses/L]	Model	Connection female	Sensor
0.02...4	20...4000	± 2	25000	KZA-1804R08	G 1/4	..S3 = 24 V _{DC} ..S5 = 12 V _{DC}
0.25...10	20...4000	± 3	5000	KZA-1810R10	G 3/8	
0.16...16	1...3000	± 0.3	4082	KZA-1816R10	G 3/8	
1...65	20...4000	± 2.5	500	KZA-1865R20	G 3/4	
1...200	20...4000	± 1	191.5	KZA-1899R25	G 1	