

Certified according to DIN EN ISO 9001

Technical Datasheet



ZHM 01/3*.*

Gear Flow Meter for Test Rigs, Diesel Fuel,
Chemical Injection

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Application

The PD Flow Meter ZHM 01/3.*.* is particularly well suited for test rig applications. Its gear design has been optimised for extremely low flow volumes and low medium viscosities. High grade stainless materials permit the use with different fluids.

The Flow Meter was also especially engineered for Diesel and Fuel Consumption Applications.

Features

- Measuring from 0.002 up to 0.5 ltr./min
- High resolution 40,000 pulses/ltr
- Range 1:250
- Designed for Diesel Fuel Consumption

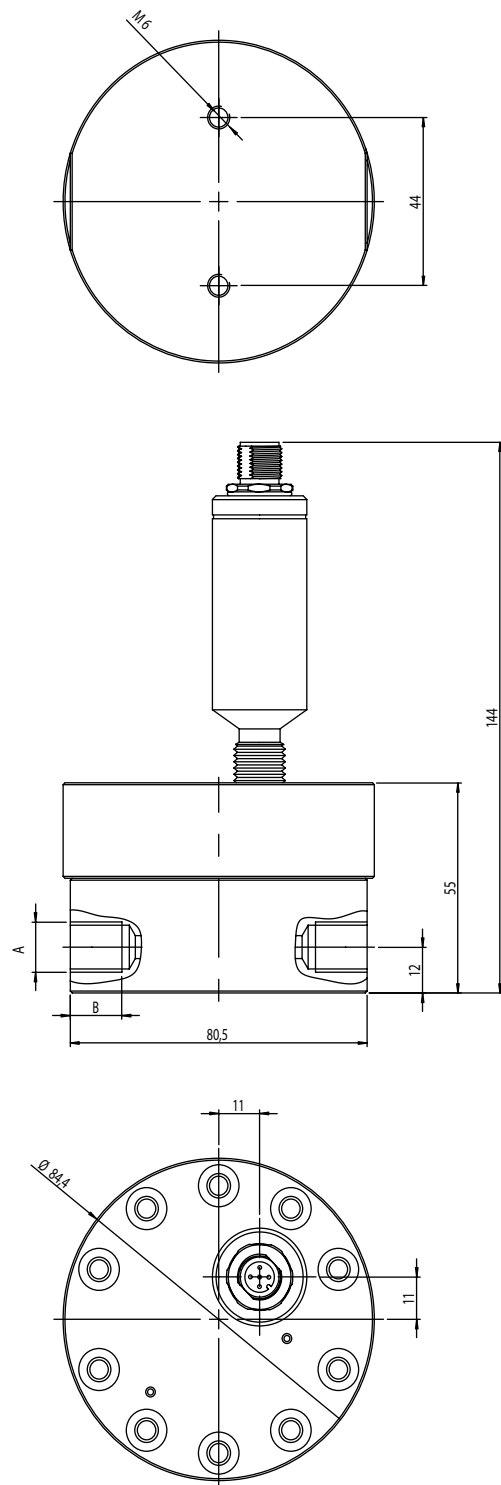
Technical Data - ZHM

Measuring range	0.002 up to 0.5 ltr/min
Linearity	± 2.5% of measured value (subject to viscosity)
Repeatability	± 0.1%
K-Factor	approx. 40,000 pulses/ltr
Temperature of medium	-20 up to +120 °C
Operating pressure	max 315 bar
Filtration	< 15 µm
DIN-Materials	housing: stainless steel 1.4404 (SS136L) gears: stainless steel 1.4122 (SS303) spindles 1.4034 sealing: FKM
Pick up	WT.02 (see page 4)

Technical Data - Filter Element

Type	series 4F (s.a. LFM 10)
Fitting position	horizontal / vertical
Max. pressure	max. 200 bar (with +37 °C) max. 160 bar (with +120 °C)
Material	stainless steel 1.4401 (316)
Mesh size	< 15 µm
Pressure drop	see pressure drop chart
Fitting length	approx. 80 mm
Connection	6 mm pipe

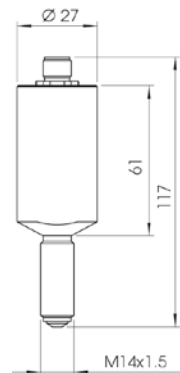
Dimensional Drawing (mm)



Type	A	B
ZHM A7	G 1/4"	14 mm
ZHM 80	G 1/4" NPT	13 mm

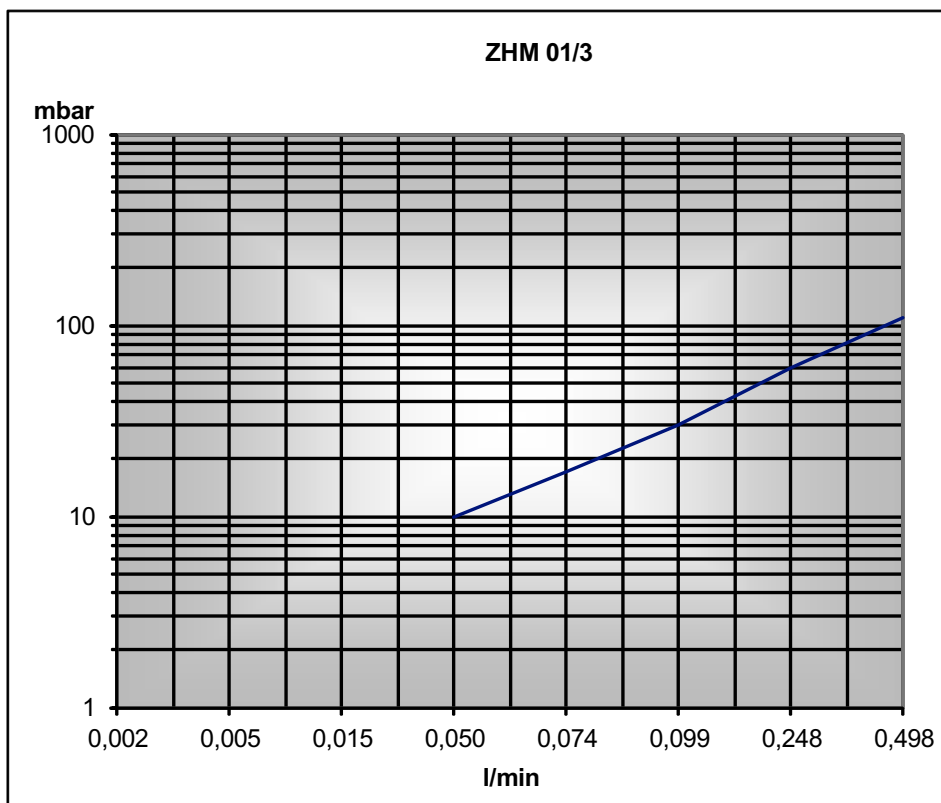
Electrical Connection - WT.02 Local Converter

Analogue signal	
Type	4-20 mA, 2-wire (passive)
Resolution	5 μ A
Supply voltage	12-30 V, regulated
Allowable load	(UB - 12 V) / 20 mA, max. 800 Ω
Operating modesn	ON (frequency proportional current) OFF (supply current 4 mA independet of frequency)
Digital output	
Type	open collector, potential free
Protective resistor	1.600 Ω
Frequency range	1-3.000 Hz
Operating modes	OFF (frequency output disabled) 1:1 (output frequency = input frequency) CORR (scaleable output frequency) SW (switch output)
Further specifications	
Measuring frequency	1-3.000 Hz
Response time	250 ms (for input frequencies > 5 Hz)
Temperature drift	< 100 ppm/K
Connector	M12; 5pin 1 = +I 2 = -I 3 = emitter (digital ground) 4 = collector (frequency output) 5 = remote input
Ambient temperature	-20 bis +50 °C
Medium temperature	-20 bis +120 °C with a distance of at least 25 mm between flow meter and electronic housing
Dimensions	see drawing (show K or R version)
Material	stainless steel
Protection class	IP65



Pressure Drop - ZHM 01/3.*.*

Medium = Diesel / Oil 3,5 cSt 23,4°C



This pressure drop is only valid for ZHM 01/3 without filter element.

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