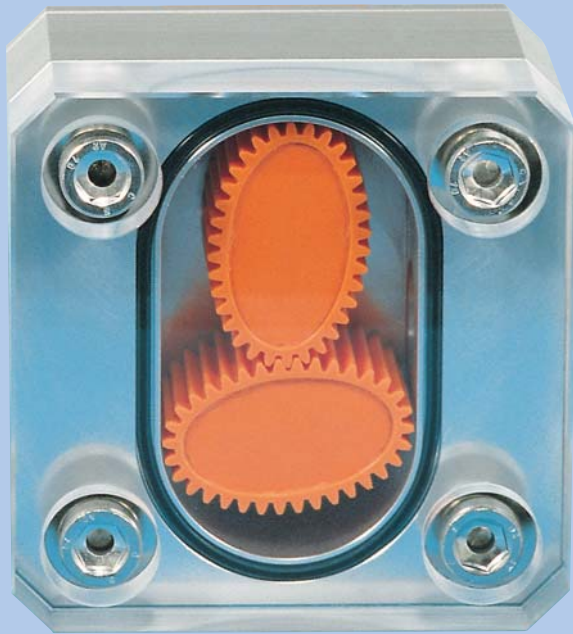


## Oval Wheel Flow Meter for Viscous Liquids Model FZ



- ◆ Measuring Range (10 mm<sup>2</sup>/s):  
0.3 - 8 to 1.6 - 40 L/min
- ◆ Pressure: max. 16 bar
- ◆ Temperature: -10...+ 80°C
- ◆ Accuracy: ±2.5% f. s.
- ◆ Material:  
POM or Aluminium
- ◆ Connection:  
G ¼ (female)...G ¾ (female)

**Cost Effective  
Measurement Technology**

INTERIN GmbH  
Nordring 24  
D-65719 Hofheim/Ts.  
Tel: +49 (0)6192 958 612-70  
Fax: +49 (0)6192 958 612-99  
E-Mail: [info@interin.de](mailto:info@interin.de)  
Internet: [www.interin.de](http://www.interin.de)

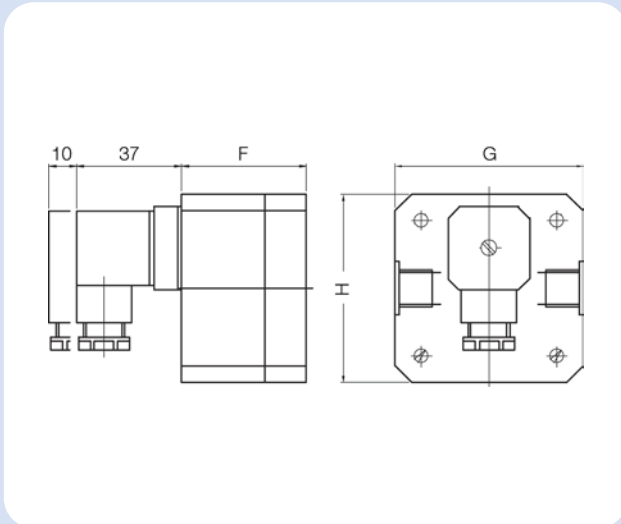
# Oval Wheel Flow Meter for Viscous Liquids Model FZ

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## Description

The INTERIN oval wheel flow meter of model FZ function on 'positive displacement' principle. The measuring element comprises of two toothed precision oval gear-wheels, which are driven by the liquid and thus roll together. A fixed quantity of liquid is transported through the chambers for every turn of the oval-wheel pair. Permanent magnets are embedded in the oval gear-wheels. The rotary motion is converted to a pulse signal through a Hall sensor. The pulse-count is a measure of the flow rate. These units operate independent of viscosity within the viscosity range of 10 to 800 mm<sup>2</sup>/s. A max. pressure-loss of 1 bar has been defined at the factory, as a result, different measuring ranges for different viscosities are available.

## Dimensions



Model	G [mm]	H [mm]	F [mm]	
			(Mat.: POM)	(Mat.: Alu)
FZ-1x08	68	68	45	43.5
FZ-1x10	68	68	49	47
FZ-1x25	99	99	73	71
FZ-1x40	119	119	87.5	86

## Technical Details

Housing:	FZ-18...: POM FZ-13...: Aluminium
Cover:	PMMA
Oval wheel:	POM
Axles:	Stainless steel, 1.4301
Sealing:	FPM
Magnets:	Ceramic-oxide
Max. temperature:	80 °C
Max. pressure:	FZ-18... (POM/PMMA): 10 bar FZ-13... (Alu/PMMA): 16 bar
Mounting position:	vertical or horizontal
Electrical transducer:	Hall sensor NPN, asymmetric 5 - 24 V <sub>DC</sub> max. 15 mA (typ. 10 mA)
Electr. connection:	Plug DIN 43 650
Accuracy:	± 2.5 % f. s.
Viscosity range:	10...800 mm <sup>2</sup> /s
Filter mesh size (medium):	max. 30 µm
Protection type:	IP 65

## Applications

- ◆ Lubrication circuits
- ◆ Paper manufacturing
- ◆ Machine-tools
- ◆ Glass-melting baths
- ◆ Cooling circuits
- ◆ Welding machines
- ◆ Induction ovens
- ◆ Pumps

## Order Details (Example: FZ-1308)

Rated Measuring Range [L/min] <sup>1</sup> (at different viscosities)				Pulses/ Liter <sup>2</sup>	Connection female	Housing POM / Cover PMMA Order No.	Housing Aluminium / Cover PMMA Order No.
10 mm <sup>2</sup> /s	100 mm <sup>2</sup> /s	320 mm <sup>2</sup> /s	800 mm <sup>2</sup> /s				
0.3 - 8.0	0.3 - 8.0	0.2 - 5.0 (0.25 - 6.6)	0.1 - 2.0 (0.1 - 3.0)	429 (364.5)	G 1/4	<b>FZ-1808</b>	<b>FZ-1308</b>
0.4 - 10.0	0.4 - 10.0	0.3 - 8.0 (0.4 - 10)	0.15 - 4.0 (0.25 - 4.5)	224 (203)	G 1/4	<b>FZ-1810</b>	<b>FZ-1310</b>
1.0 - 25.0	1.0 - 25.0	1.0 - 25.0 (0.9 - 23)	0.4 - 10.0 (0.5 - 12.5)	52,5 (46.5)	G 1/2	<b>FZ-1825</b>	<b>FZ-1325</b>
1.6 - 40.0	1.6 - 40.0	1.6 - 40.0 (1.3 - 33.5)	0.95 - 24.0 (0.8 - 20)	28 (26)	G 3/4	<b>FZ-1840</b>	<b>FZ-1340</b>

Values in brackets are for FZ-13xx only

<sup>1</sup> Max. pressure loss at max. rated flow is 1 bar

<sup>2</sup> Hz = Pulses/Liter x L/min/60