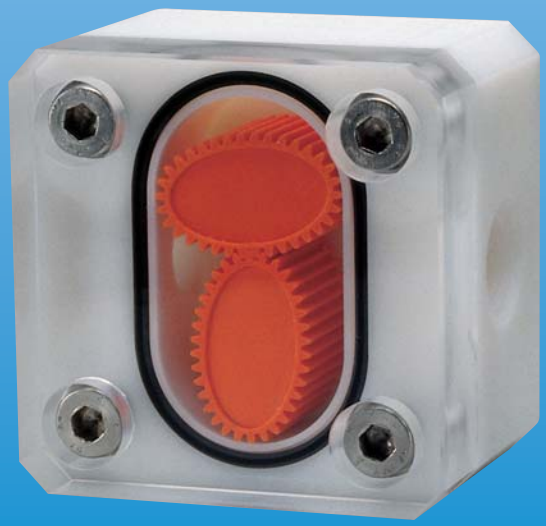
OVZ OVAL GEAR FLOWMETER

Flow
Pressure
Level
Temperature
measurement
monitoring
control

- **Suitable for Viscous Liquids**
- **Maintains Precision with Viscosity Change**
- **Five Material Combinations Available**
- **Economically Priced**
- **Easy to Maintain**
- **Electronic Outputs**
- **Analog Output, Digital Indication on Request**



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Model:
OVZ

Features

- Suitable for Viscous Liquids
- Maintains Precision with Viscosity Changes
- Economically Priced
- Easy to Maintain
- Electronic Outputs
- Analog Output, Digital Indication on Request

KOBOLD OVZ flowmeters offer users the advantages of positive displacement technology at a rotameter price. Suitable for viscous media ranging from hydraulic oils to light gear oils, the OVZ eliminates problems associated with viscosity changes during operation.

The OVZ's cost conscious design allows for easy maintenance. Since the only wear components are the gears and their axles, the two step rebuild process can be performed in a few minutes with no recalibration required.

The OVZ is available with either Hall-effect, or inductive sensors, giving the user a selection of output signals. Available are NPN, PNP or Namur configurations ideal for connecting to a wide variety of controller devices, including KOBOLD's full line of frequency input devices.

Typical applications for the OVZ include central lubrication systems for paper machines, filling transmission fluid into gearboxes, and hydraulic systems.

KOBOLD OVZ Oval Gear Flowmeter

Specifications

Accuracy:	±2.5% of full scale
Turn-Down:	10:1
Viscosity Range:	10 to 800 cSt
Required Filtration:	30 micron filter recommended
Temp. Range:	32 to 175°F

Maximum Pressure Limits

Differential:	15 PSI
Static	
Material I:	145 PSIG
Material II:	145 PSIG
Material III:	230 PSIG
Material IV:	230 PSIG
Material V:	580 PSIG

Wetted Parts

Oval Gears:	Delrin®
Axle:	Stainless steel
Housing:	Delrin® or aluminum
Housing Cover:	Delrin®, plexiglass aluminum, or polysulfone
O-Ring:	Buna-N
Option-OR2:	Viton

Sensor Electrical Characteristics

Power Requirements

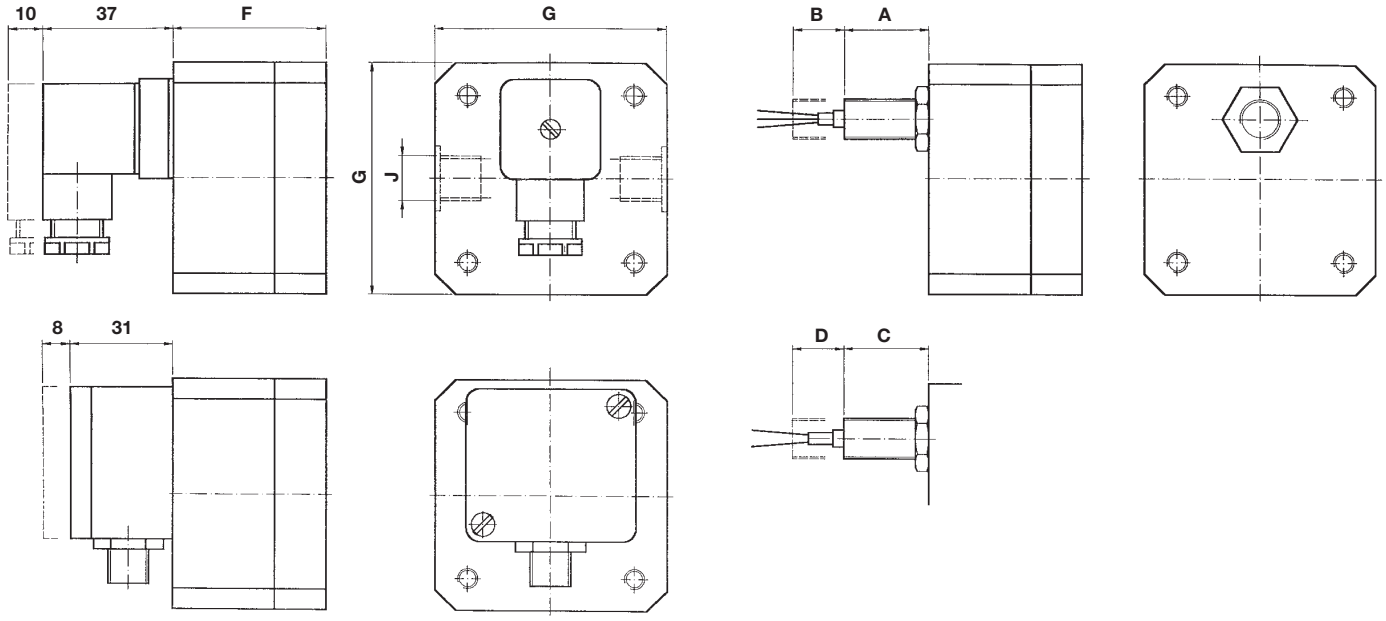
NPN Hall Effect:	5–30 VDC @ 15 mA max.
PNP Inductive:	18–30 VDC @ 120 mA max
Namur:	5–15 VDC @ 3.5 mA max.
Protection:	NEMA 4X/IP65

Applications

- Batching Systems
- Lubrication Circuits
- Hydraulic Systems
- Soap/Wax Dispensing
- Painting Systems
- Printing Presses

OVZ Ordering Information		
OVZ	= Oval Gear Flowmeter	
-02	= 2.1 GPM (8 l/min)	**Maximum Flow Rate**
-04	= 2.6 GPM (10 l/min)	
-15	= 6.6 GPM (25 l/min)	
-30	= 10.6 GPM (40 l/min)	
1	= Delrin® body with Delrin® cover	**Body Materials**
2	= Delrin® body with Plexiglass cover	
3	= Aluminum body with Plexiglass cover	
4	= Aluminum body with Polysulfone cover	
5	= Aluminum body with Aluminum cover	
01	= NPN Hall Sensor with Hirschmann connector	**Sensor Style**
02	= NPN Hall Sensor with Terminal box & PG-9 cable gland (Aluminum bodies only)	
03	= NPN Hall Sensor with Round plug & M12x1 socket	
04	= PNP Inductive Sensor with 6 foot pigtail (Delrin® bodies only)	
05	= NAMUR Inductive Sensor with 6 foot pigtail (Delrin® bodies only)	
N	= NPT threaded connections	**Process Connections**
R	= BSP threaded connections	
OVZ	**-04**	**2**	**01**	**N**	**Sample OVZ Specification**

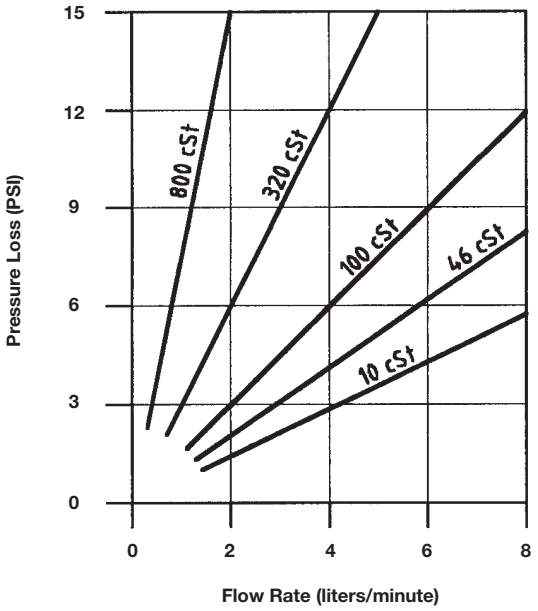
OVZ Dimensions (mm)



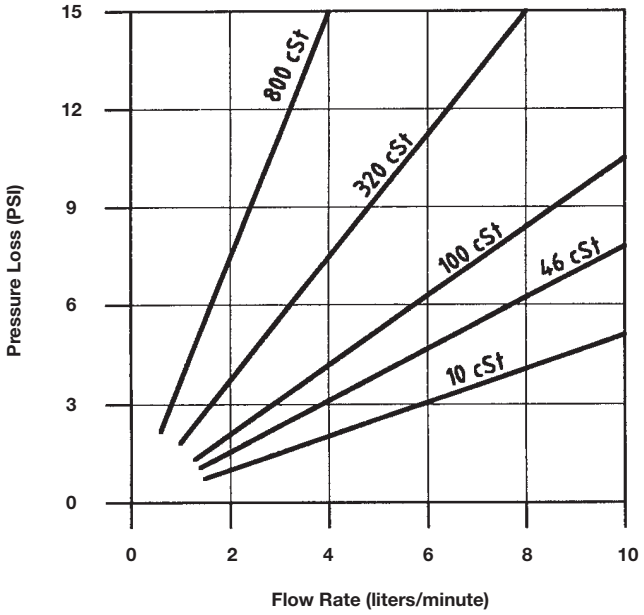
Range	G	F (per Body Materials) 1	2	3/4	5	J Fitting Size
OVZ-02	68	45	45	43.5	41	1/4”
OVZ-04	68	49	49	47	44.5	1/4”
OVZ-15	99	71	73	71	66	1/2”
OVZ-30	119	84.5	87.5	86	79.5	3/4”

Range	PNP A	PNP B	NAMUR C	NAMUR D
OVZ-02	21.5	13.5	16.5	13.5
OVZ-04	21	14	16	14
OVZ-15	19	16	14	16
OVZ-30	17	18	12	18

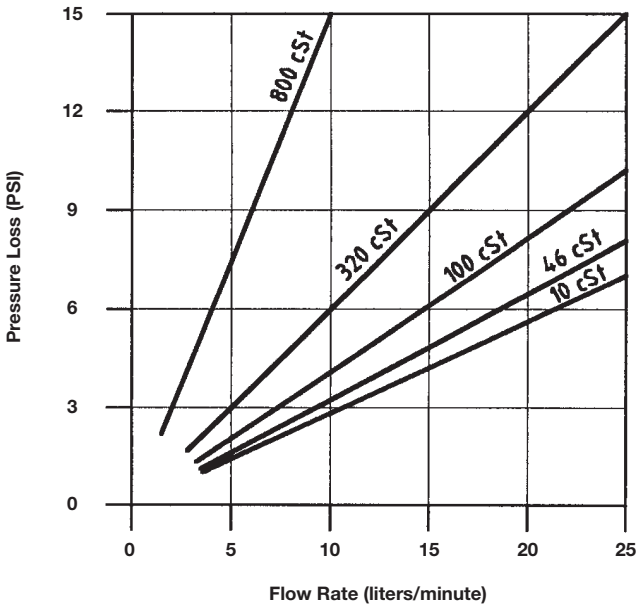
Pressure Loss Tables



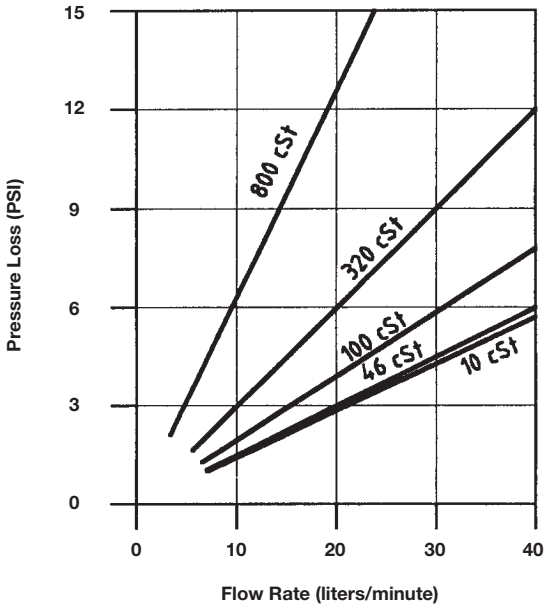
OVZ-02



OVZ-04



OVZ-15



OVZ-30

NOTE: Maximum pressure loss may not exceed 15 PSI