

ZDM POSITIVE DISPLACEMENT FLOW METER



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



- Viscosities up to 100,000 cSt
- Accuracy: $\pm 0.3\%$ of Flow
- To 6500 PSIG Pressure
- Can Detect Flow Direction
- Handles a Variety of Lubricating Fluids



Contact:
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Model:
ZDM

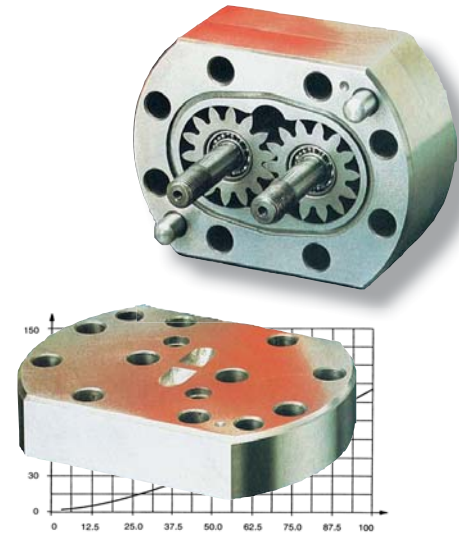


Description

When your metering problem gets particularly difficult or when the absolute in precision is a must, the ZDM positive displacement flowmeter is the choice for you. Available in either stainless steel or cast iron, the ZDM offers a state-of-the-art solution.

Capable of operating at pressures to 6500 PSI and temperatures from -40°F to +410°F, the ZDM is rugged enough to operate with some fairly demanding requirements. Add to this the ability to precisely meter fluids with viscosities ranging from 0.3 cSt to 100,000 cSt, and the range of possible applications for the ZDM becomes truly enormous.

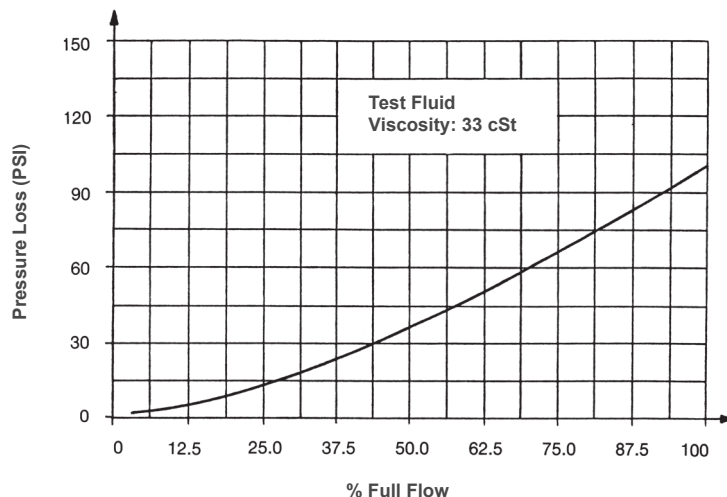
All liquids that can be pumped and have known lubrication properties can be measured with the ZDM, for example: gasoline, paraffin, kerosene, diesel, Skydrol, mineral oils, hydraulic oils, inks, dyes, paints, greases, polyurethane, glues, pastes, creams, resins, waxes, and many others.



Specifications

<p>Accuracy: ±0.3% of reading for viscosity >20 cSt</p> <p>Repeatability: ±0.05% of reading</p> <p>Orientation Sensitivity: None</p> <p>Inlet/Outlet Location: Bottom; Parallel or Side; 180° Opposed</p> <p>Construction Housing: Cast Iron or Stainless Steel (DIN 1.4305)</p> <p>Gears: Stainless Steel (DIN 1.4305)</p> <p>Seals Cast Iron Unit: FKM Stainless Steel Unit: FKM Optional: EPDM, PTFE</p> <p>Bearings Cast Iron Unit: Stainless Steel Stainless Steel Unit: Stainless Steel</p>	<p>Max. Pressure Cast Iron: 4500 PSIG Stainless Steel: 6500 PSIG</p> <p>Max. Temperature Standard: -40 to 248°F Ex-design: -4 to 212°F Option-C: -40 to 410°F</p> <p>Filtering ZDM- ..02, ZDM- ..04, ZDM- ..07: 10 µm ZDM- ..08, ZDM- ..09: 20 µm ZDM- ..10, ZDM- ..20, ZDM- ..40, ZDM- ..150: 50 µm</p> <p>Protection: NEMA 3S</p> <p>Electrical Input Power: Vs; 10-28 V_{DC} (±4 V_{DC}) 40 mA max.</p> <p>Output Signal: Push/Pull voltage pulse (0...Vs-1VDC)</p>
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Typical Pressure Loss vs Flow Rate Behavior



No responsibility taken for errors; subject to change without prior notice.



Ordering Information				Optional Fitting Size Add Suffix ..B
Fitting Style	Body Material	Range oil [GPM]	Fitting Size [NPT]	
ZDM-1.. = Bottom Ports, bsp threads	..1.. = Cast Iron ..2.. = Stainless Steel	..02 = 0.0005 - 0.53	3/8"	-
		..04 = 0.0011 - 1.06	1/2"	-
		..07 = 0.0026 - 2.64	1/2"	-
ZDM-2.. = Side Ports, bsp threads		..08 = 0.0053 - 4.76	1/2"	-
ZDM-3.. = Bottom Ports, NPT		..09 = 0.0079 - 10.57	1/2"	3/4"
ZDM-4.. = Side Ports, NPT		..10 = 0.0132 - 21.13	3/4"	1"
		..20 = 0.0264 - 31.70	3/4"	1"
	..40 = 0.2642 - 66.00	1 1/4"	1 1/2"	
	..50 = 0.39 - 138.00*	1 1/2"	2"	

*Range code 50 only for cast iron versions

** 5 meter 4-pin Micro-DC M12 shielded electrical cable and DIN calibration certificate included

Options	
Description	Suffix
Larger fitting size (see table above)	..B
EPDM seals in place of standard FKM seals	..E
PTFE seals in place of standard FKM seals	..T
Intrinsically safe 10-28 V _{DC} pulse sensor (incl. 1 Zener barriers)	..EX
Externally mounted sensor pre-amplifier for temperatures above 248°F (internal mounting is standard)	..C

Order Details (Example: **ZDM-3204 B**)



ZDM for High Temperature (Option C)

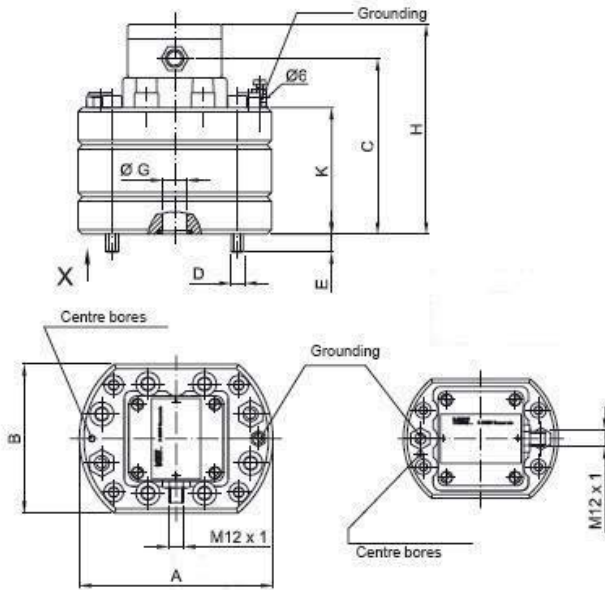


ZDM with Mounting Plate

ZDM- ..02 to ZDM- ..40

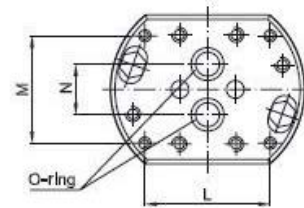
Dimensions

Cast Iron Version

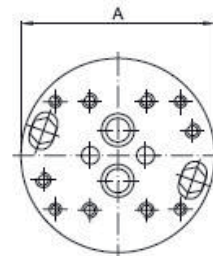


Connection Drawings

Cast Iron Version



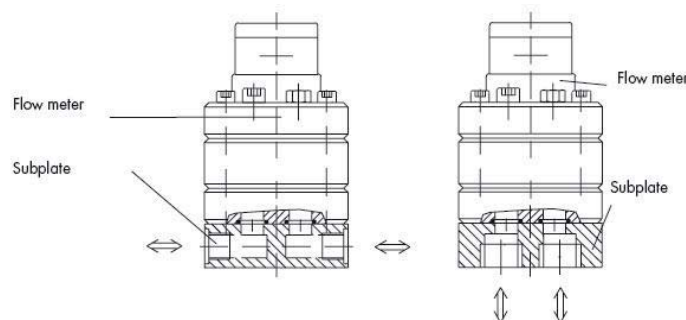
Stainless Steel Version



Model Number	Size [inch]												Weight [lbs]
	A	B	C	D	E	G	H	K	L	M	N	O-ring	
ZDM- ..02	3.94	3.15	3.58	M 6	0.49	0.35	4.49	2.28	2.76	1.57	0.79	0.43 x 0.08	6.17
ZDM- ..04	3.94	3.15	3.60	M 6	0.45	0.35	4.51	2.30	2.76	1.57	0.79	0.43 x 0.08	6.17
ZDM- ..07	3.94	3.15	3.70	M 6	0.35	0.35	4.61	2.40	2.76	1.57	0.79	0.43 x 0.08	6.17
ZDM- ..08	3.94	3.15	3.68	M 6	0.37	0.35	4.59	2.38	2.76	1.57	0.79	0.43 x 0.08	6.61
ZDM- ..09	4.53	3.54	3.80	M 8	0.45	0.63	4.70	2.50	3.15	1.50	1.34	0.71 x 0.10	8.82
ZDM- ..10	5.12	3.94	3.98	M 8	0.47	0.63	4.88	2.67	3.31	2.83	1.34	0.71 x 0.10	11.7
ZDM- ..20	5.12	3.94	4.65	M 8	0.59	0.63	5.55	3.35	3.31	2.83	1.34	0.71 x 0.10	14.8
ZDM- ..40	7.09	5.51	5.63	M 12	0.79	1.18	6.54	4.33	1.81	3.74	1.77	1.42 x 0.10	32.4

Side Ports

Bottom Ports

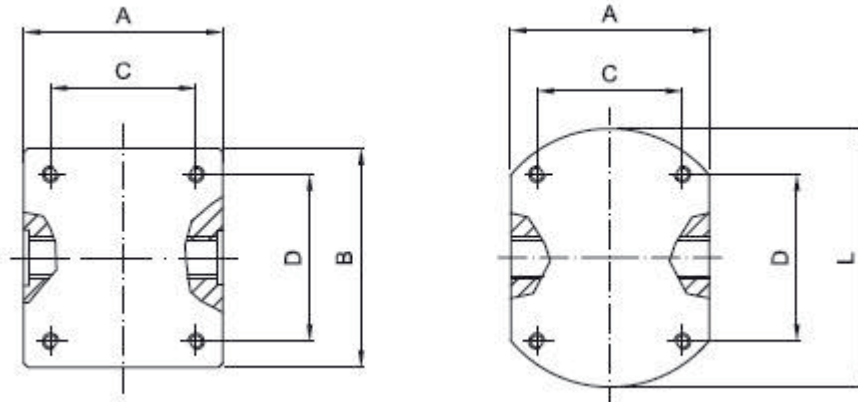


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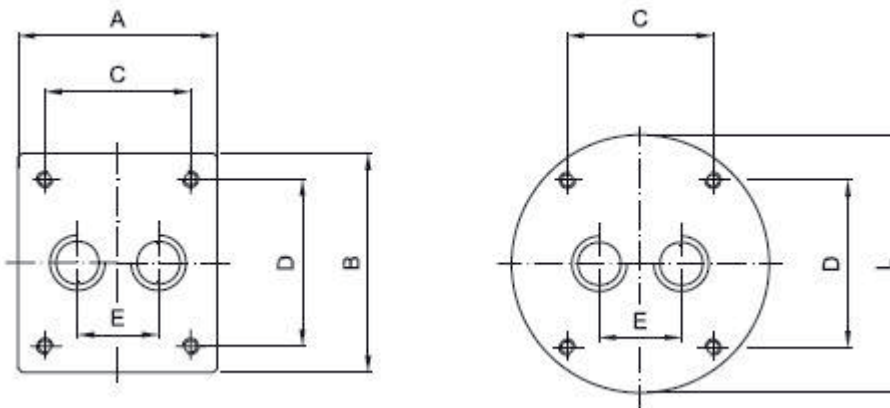
ZDM- ..02 to ZDM- ..40

Subplate Dimensions

Side Ports



Bottom Ports

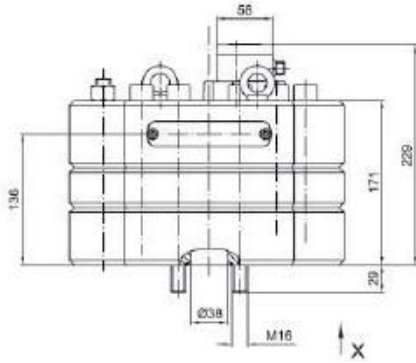


Model Number	Size [inch]					Weight [lbs]
	A	B	C	D	L	
ZDM- ..02, ZDM- ..04, ZDM- ..07, ZDM- ..08	3.15	3.54	1.57	2.76	3.94	3.97
ZDM- ..09	3.54	3.94	1.49	3.15	4.53	5.95
ZDM- ..10, ZDM- ..20	3.94	4.33	2.83	3.31	5.12	7.94
ZDM- ..40 Cast Iron 1 1/4"	4.72	5.12	3.94	4.33	-	16.31
ZDM- ..40 Cast Iron 1 1/2"	5.51	4.72	4.72	3.94	-	16.31
ZDM- ..40 Stainless Steel	5.51	-	3.94	4.33	7.09	26.46



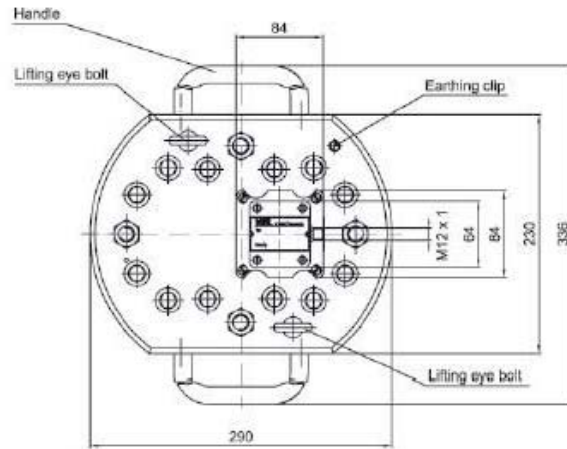
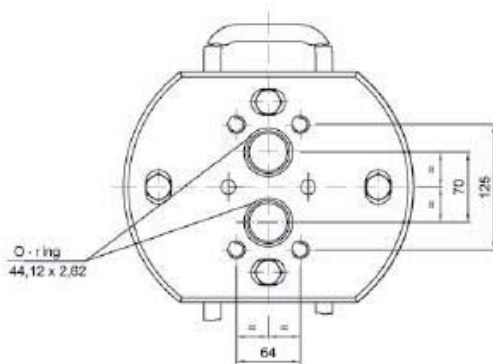
ZDM- .150

Dimensions



View X

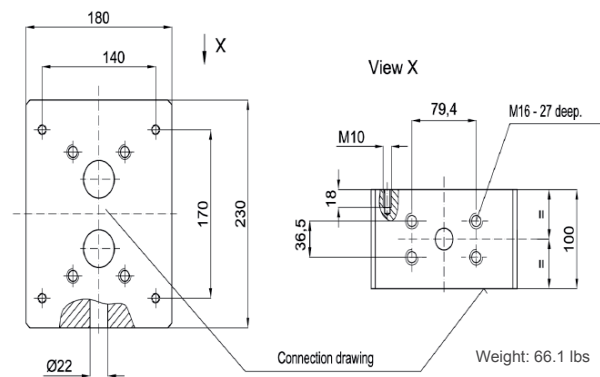
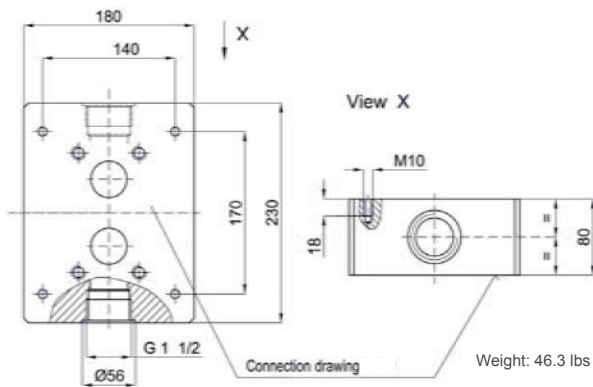
Connection drawing



Subplate Dimensions

ZDM- .150 with connection thread NPT 1 1/2"

ZDM- .150 with connection thread SAE 1 1/2"



Dimensions in mm

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