

**DVZ
COMPACT VORTEX FLOWMETER**



Flow
Pressure
Level
Temperature
measurement
monitoring
control



DVZ-...S30



**DVZ-...C30M
DVZ-...C30R
DVZ-...C34N
DVZ-...C34P**



DVZ-...L443

- Flow Ranges from 0.13-1.2 GPM to 1.1-8.5 GPM
- Accuracy 2.5% of Full Scale
- Vortex Shedding Technology with No Moving Parts
- Ryton Body with Nickel Plated Brass or 316 SS Fittings
- Frequency, Current or Switch Outputs Available
- Economically Priced



**DVZ-...L443
w/ AUF-3000**



**DVZ-...F300
DVZ-...L343**

S5



USA

KOBOLD Instruments Inc.
1801 Parkway View Drive
USA- Pittsburgh, PA 15205
% +1 412-788-2830
Fax +1 412-788-4890
E-mail: info@koboldusa.com



CANADA

KOBOLD Instruments Canada Inc.
9A Aviation
Pointe-Claire, QC H9R 4Z2
% +1 514-428-8090
Fax +1 514-428-8899
E-mail: kobold@kobold.ca

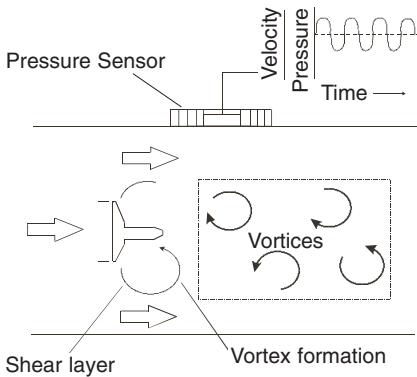
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Model:
DVZ

Features

- Flow Ranges from 0.13-1.2 GPM to 1.1-8.5 GPM
- Accuracy 2.5% of Full Scale
- Vortex Shedding Technology with No Moving Parts
- Ryton Body with Nickel Plated Brass or 316 SS Fittings
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The KOBOLD DVZ series vortex flowmeters are the perfect solution for applications where reliability and low cost are desired. The DVZ senses the flowrate of low viscosity liquids using the vortex shedding principle. A small obstruction called a bluff body is placed in the flow-path. As fluid flows across the bluff body, a small low-pressure area called a vortices is created just behind the bluff body. The position of the vortices alternates to either side of the bluff body in a uniform pattern. The frequency of the vortices shift is directly proportional to flowrate. This shift in the vortices is detected by a very sensitive pressure sensor and processed as a flowrate signal.



The vortex flowmeter has no moving parts and thus is very reliable. The DVZ series is available with a Ryton body and a choice of either nickel plated brass or 316 stainless steel fittings. The bluff body is available in either ryton or ceramic, which has excellent long term wear characteristics. The available outputs are frequency, 4-20 mA, adjustable relay, and compact electronics with digital flowrate display, 4-20 mA output and adjustable transistor switch options.



KOBOLD DVZ Vortex Flowmeter

Specifications

- Available Ranges:** 0.13-1.2 through 1.1-8.5 GPM water
- Max. Liquid Viscosity:** 3 Centistoke
- Accuracy:** ± 2.5% of full scale
- Repeatability:** ± 1% of full scale
- Straight Pipe Requirement:** 10 X Diameter upstream and downstream
- Oper. Temp. Range:** 32-176°F
- Maximum Pressure:** 145 PSIG
- Max. Pressure Drop:** 3.6 PSI @ 100% rated flow

Wetted Parts

- Sensor Housing:** Ryton®
- Sensing Diaphragm:** PVDF
- Bluff Body:** Ryton® or ceramic depending on model code
- Seals:** Buna-N, EPDM or Viton® depending on model code
- Fittings:** Nickel plated brass or 316 SS depending on model code

Electrical Specifications

- Output S300, Adjustable Relay**
- Power Supply:** 24 VDC ± 20%
- Relay Rating:** SPDT, Max. 1amp @ 30 VDC
- Electrical Connection:** Micro-DC, 5-pin male
- Electrical Protection:** NEMA 4X/IP 65
- Output F300, PNP Frequency**
- Power Supply:** 24 VDC ± 20%
- Output:** PNP open collector, 200 mA Max.
- Electrical Connection:** Micro-DC, 4-pin male
- Electrical Protection:** NEMA 4X/IP 65
- Output L343, L443, Analog**
- Power Supply:** 24 VDC ± 20%
- Output:** 4-20 mA, 3-wire
- Max. Load:** 500Ω
- Electrical Connection:** L343: Micro-DC, 4-pin male
L443: DIN 43650 Plug
- Electrical Protection:** NEMA 4X/IP 65

DVZ - Compact Vortex Flowmeter



Output C30M, C30R Compact Electronics (Dual Switches)

Power Supply: 24 VDC ± 20%
Output
 C30M: 2-NPN open collector switches
 C30R: 2-PNP open collector switches
Switch Ratings: 300 mA Max.
Programming: Switch setpoint, reset point, switching logic, dampening, lock out code via 2-button keypad
Electronic Connection: Micro-DC, 5-pin, male
Electronic Protection: NEMA 4X/IP 65

Note: One of the two switches can be field programmed as a pulse frequency transmitter.

Output C34N, C34P Compact Electronics (Switch & 4-20 mA)

Power Supply: 24 VDC ± 20%
Output
 C34N: 4-20mA, 3-wire and 1-NPN open collector
 C30P: 4-20mA, 3-wire and 1-PNP open collector
Max. Loop Load: 500Ω
Switch Rating: 300 mA Max.
Programming: Switch setpoint, reset point, switching logic, 4-20 mA span and zero, dampening and lockout code via 2 button keypad
Electronic Connection: Micro-DC, 5-pin, male
Electronic Protection: NEMA 4X/IP 65

Note: The switch can be field programmed as a pulse frequency transmitter.

Ordering Information

Housing/Bluff Body	Fitting/Seals	Flow Ranges	Connections		Output
			Fixed	Rotatable	
DVZ-1... = Ryton/Ryton DVZ-2... = Ryton/Ceramic	...1... = Brass/Buna-N ...2... = Stainless/Buna-N	...04... = 0.5-4.5 LPM ...07... = 0.8-7.0 LPM ...10... = 1.3-10.0 LPM ...U1... = 0.13-1.2 GPM ...U2... = 0.2-1.9 GPM ...U3... = 0.4-2.6 GPM	...G2... = 1/4" BSP ...G3... = 3/8" BSP ...G4... = 1/2" BSP ...N2... = 1/4" NPT ...N3... = 3/8" NPT ...N4... = 1/2" NPT	...B2... = 1/4" BSP ...B3... = 3/8" BSP ...B4... = 1/2" BSP ...P2... = 1/4" NPT ...P3... = 3/8" NPT ...P4... = 1/2" NPT	C30M = Compact electronics w/ 2 NPN switches C30R = Compact electronics w/ 2 PNP switches C34N = Compact electronics w/ 4-20 mA + 1 NPN switch C34P = Compact electronics w/ 4-20 mA + 1 PNP switch F300 = Frequency w/ Micro-DC plug L343 = 4-20 mA, 3-wire w/Micro-DC plug L443 = 4-20 mA, 3-wire w/ DIN 43650 plug S300 = Adjustable SPDT switch w/ Micro-DC plug
	...4... = Brass/EPDM	...16... = 2.0-16.0 LPM ...U4... = 0.6-4.2 GPM	...G3... = 3/8" BSP ...G4... = 1/2" BSP ...G5... = 3/4" BSP ...N3... = 3/8" NPT ...N4... = 1/2" NPT ...N5... = 3/4" NPT	...B3... = 3/8" BSP ...B4... = 1/2" BSP ...B5... = 3/4" BSP ...P3... = 3/8" NPT ...P4... = 1/2" NPT ...P5... = 3/4" NPT	
	...5... = Stainless/EPDM	...22... = 3.2-22.0 LPM ...32... = 4.0-32.0 LPM ...U5... = 0.9-5.8 GPM ...U6... = 1.1-8.5 GPM	...G4... = 1/2" BSP ...G5... = 3/4" BSP ...G6... = 1" BSP ...N4... = 1/2" NPT ...N5... = 3/4" NPT ...N6... = 1" NPT	...B4... = 1/2" BSP ...B5... = 3/4" BSP ...B6... = 1" BSP ...P4... = 1/2" NPT ...P5... = 3/4" NPT ...P6... = 1" NPT	
	...7... = Brass/Viton® ...8... = Stainless/Viton®				

Accessories

Part Number **807.037** = Mating 4-Pin Micro-DC plug with 6 Ft. cable for output F300 & L343
807.007 = Mating 5-pin Micro-DC plug with 6 Ft. cable for output C30M, C30R, C34N, C34P & S300

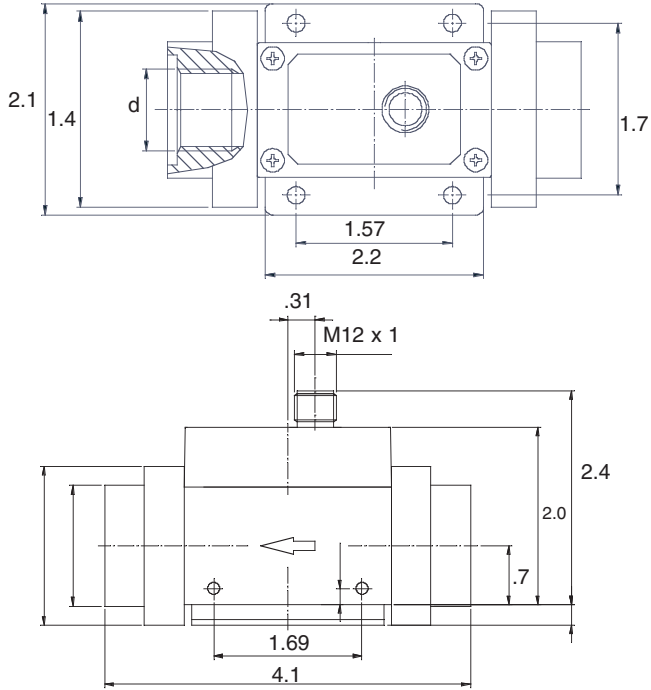
Model	Weight	
	Fixed Connections	Rotatable Connections
DVZ...S300 DVZ...F300 DVZ...L343/L443	1.1 LBS/0.50 KG	2.0 LBS/0.90 KG
DVZ...C34P, C34N, C30M, C30R	1.5 LBS/0.65 KG	2.5 LBS/1.10 KG

Sample Ordering Code:
 DVZ-1107N2C34P

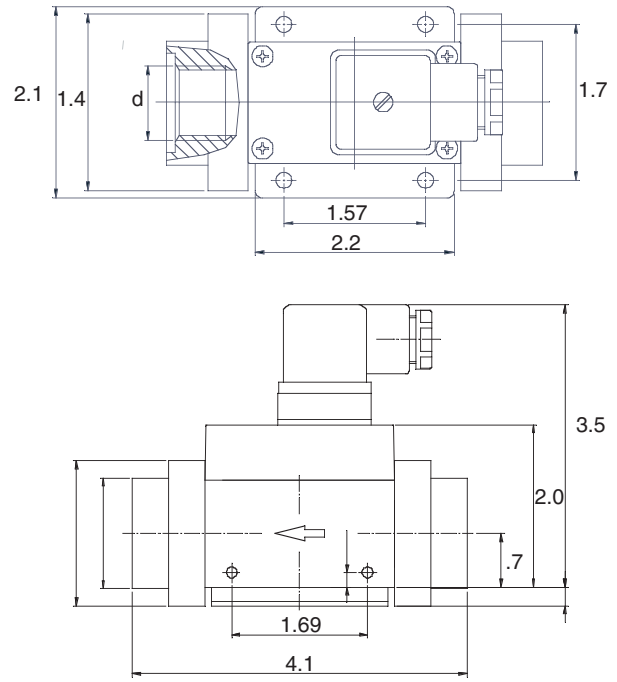
S5

Dimensions

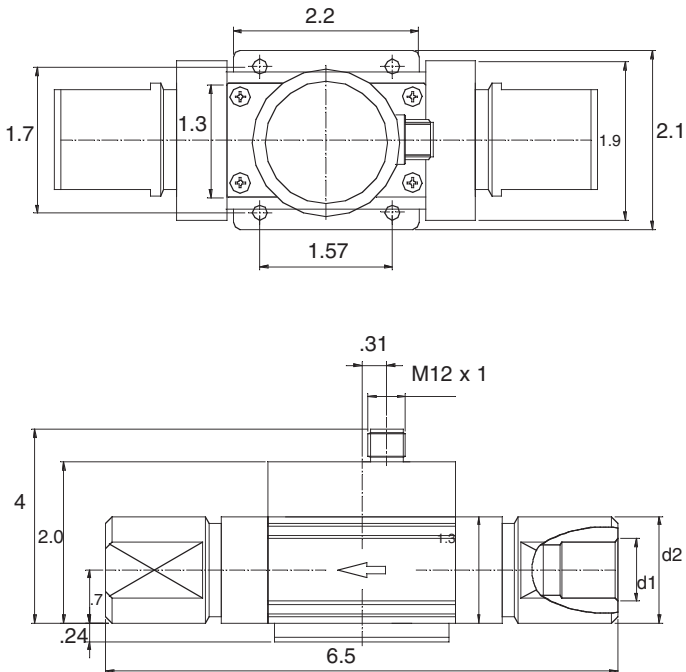
DVZ-...S300, DVZ-...F300, DVZ-L343
with fixed connections



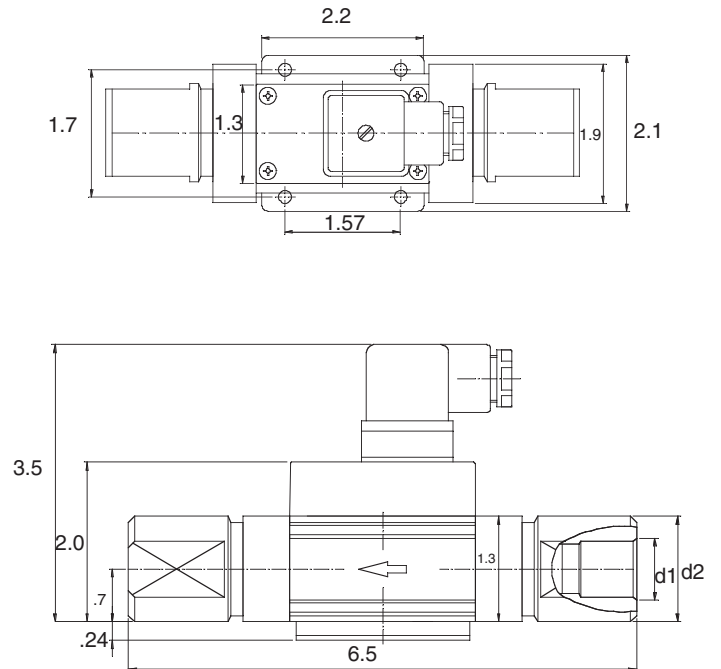
DVZ-...L443
with fixed connections



DVZ-...S300, DVZ-...F300, DVZ-L343
with rotatable connections

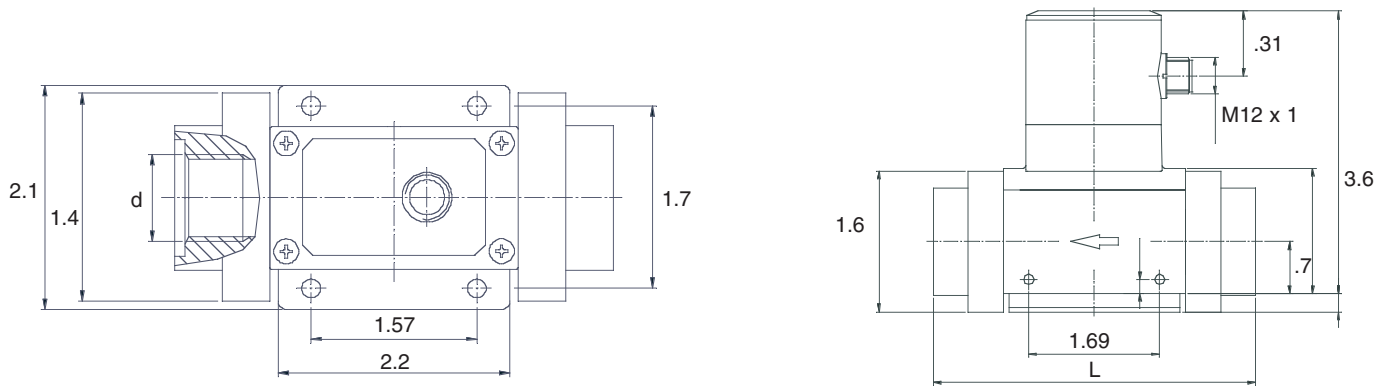


DVZ-...L443
with rotatable connections

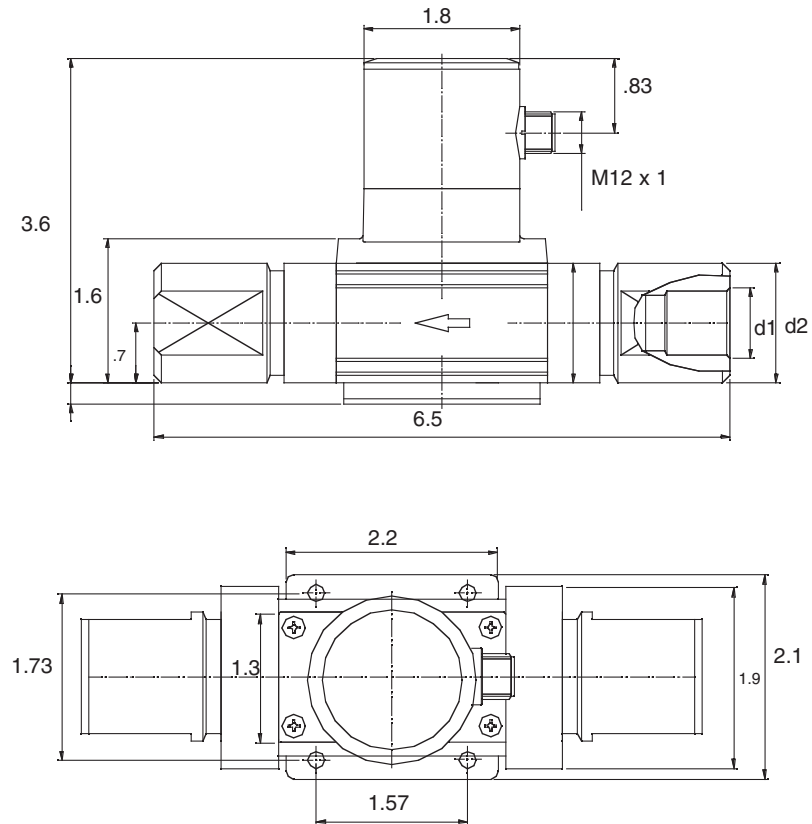


Dimensions

DVZ-...C3xx
with fixed connections



DVZ-...C3xx



S5