MEDIDOR DE VAZÃO TIPO VORTEX

PARA LIQUIDO

SÉRIE DVW

- Measuring range: 0.5-4 to 5-40 l/min
- Accuracy: ±5% f.s.
- for low viscous liquids
- Two outputs PNP
- LED switching indication
- Compact and separate version

Description

The digital KOBOLD flow meter/monitor model DVW serves to measure and monitor small and average flows of low viscous liquids similar to water in piping.

The device requires very little maintenance and uses the vortex method. An sharp edges bluff body (vortex generator) is fitted in the flow passage. Vortices whose frequency is proportional to the flow rate of the liquid are formed downstream of this object. The flow can be determined very accurately by measuring the vortex frequency. A high degree of linearity can be assumed over the entire measuring range. The switch state is signalled by two LEDs (ON: LED on; OUT 1*: green, OUT 2*: red).

The KOBOLD digital flow meter type DVW works with practically no pressure loss. The wetted materials are stainless steel or plastic (PPS). The special design of the sensor causes vibrations up to 500 Hz in the pipework to be eliminated (device adaptation or zero-point adjustment are not required).

Typically, the device is available in two different versions (display and sensor as compact instrument, or display and sensor separated but connected with a 3 m cable) with the necessary screw connections.

* The two outputs OUT 1 and OUT 2 can only be activated by flow measurement per unit of time, and not by totalizing

Areas of Application

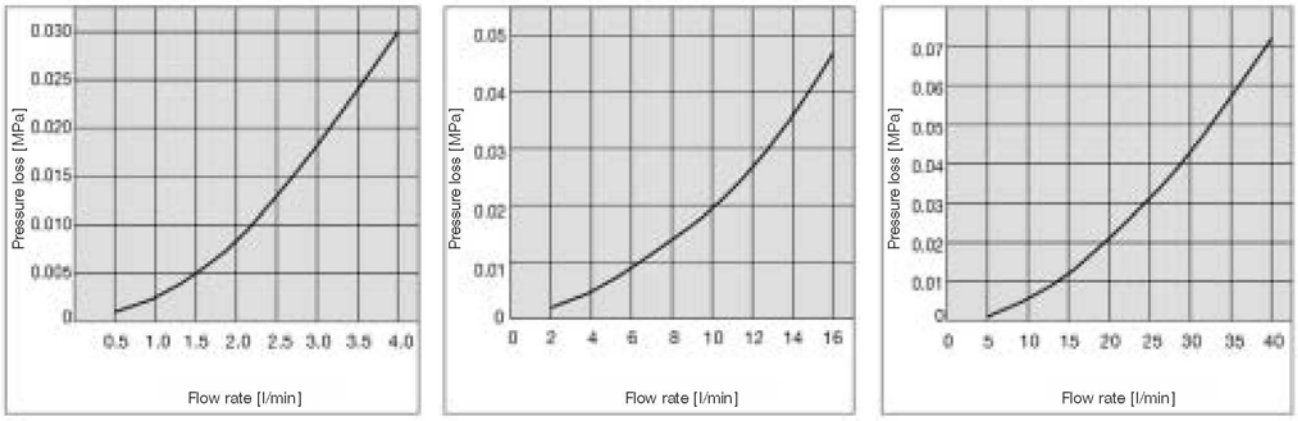
- flow monitoring of low viscous liquids
- measuring aggressive, highly purified and saline solutions
- unsuited for abrasive media or media with large fibre content

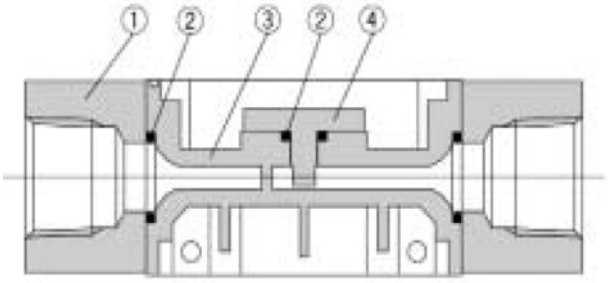
Technical details

Method of measurement:	Vortex principle any, flow in direction of arrow
Mounting position:	
Measuring ranges:	0.5-4 l/min; 2-16 l/min; 5-40 l/min
Linearity: Repeatability:	±5% f.s. ±3% f.s.
Temperature characteristic:	±5% f.s. (0 -50°C)
Operating pressure:	0 -10 bar
Service temperature:	0 -50°C
Material:	
connections:	stainless steel
sensor and housing:	PPS (polyphenylene sulphide)
Response time:	1 s
Connections:	G 3/8; G 1/2; G
Display:	3/4 3-digit 7-segment LCD, 90° rotatable
Totalizing:	0 - 999999 litres or gallons (US), resettable
Supply:	12...24 V_{DC}, < 70 mA without load
Outputs:	2 x PNP open collector, 80 mA, only active with flow measurement
Switching indication:	2 x LED (OUT 1: green, OUT 2: red)
Minimum switching adjustment:	0.05 l/min / 0.1 l/min / 0.5 l/min GPM (gallons/min) selectable
Hysteresis:	adjustable
Shock resistance:	490 m/s² in X-, Y-, Z-direction (3 x each direction)
Vibration resistance:	10 - 500 Hz at amplitude <1.5 mm or acceleration of 98 m/s² in X-, Y-, Z-direction (2 hours per direction)
Protection:	IP 65
Weight:	< 700 g (without connecting lead)

Pressure loss

DVW-..04 DVW-..16 DVW-..40





Direction of flow

List of components

Item	Name	Material
1	Housing	Stainless steel
2	Seal	NBR
3	Housing	PPS
4	Sensor	PPS

Order details (example: DVW-12 04R10)

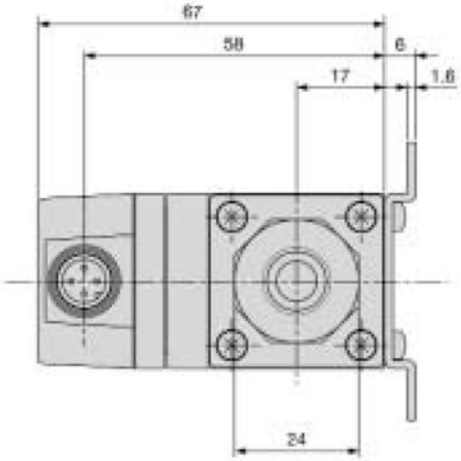
Description	**Model**	**Measuring range/connection**
Flow meter compact version	DVW-12...	04R10 = 0.5-4 l/min; G 3/8 16R15 = 2-16 l/min; G ½ 40R20 =5-40 l/min; G 3/4
Flow meter sensor unit*	DVW-22...	
Display unit for DVW-22 DIN rail, wall mounting	DVW-32...	
Display unit for DVW-22 panel mounting	DVW-42...	

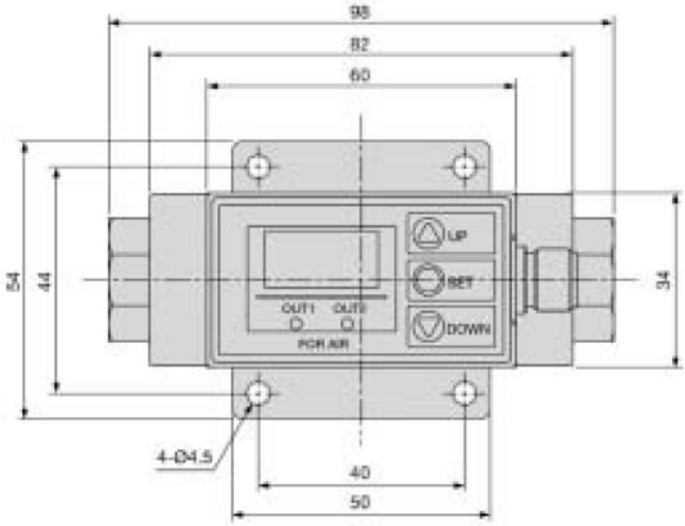
*Display unit DVW-32 or DVW-42 is required for sensor unit DVW-22.

Accessories: electrical connection

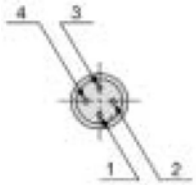
Description	**Model**
M12x1 box with 2 m cable	ZUB-KAB-12K002
M12x1 box with Quickon plug connector	ZUB-KAB-12Q000

Dimensions



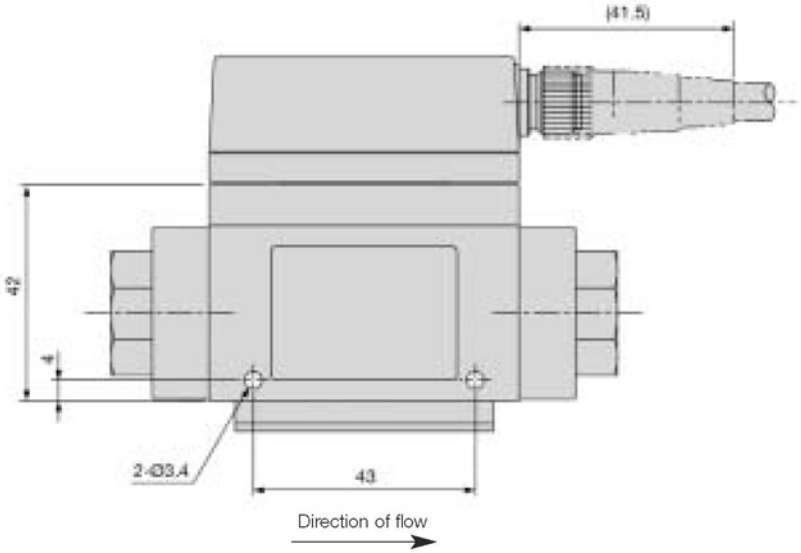


Electrical connection



Number	Pin name
1	DC (+)
2	OUT 2
3	DC (-)
4	OUT 1

Connector thread M12



Display unit