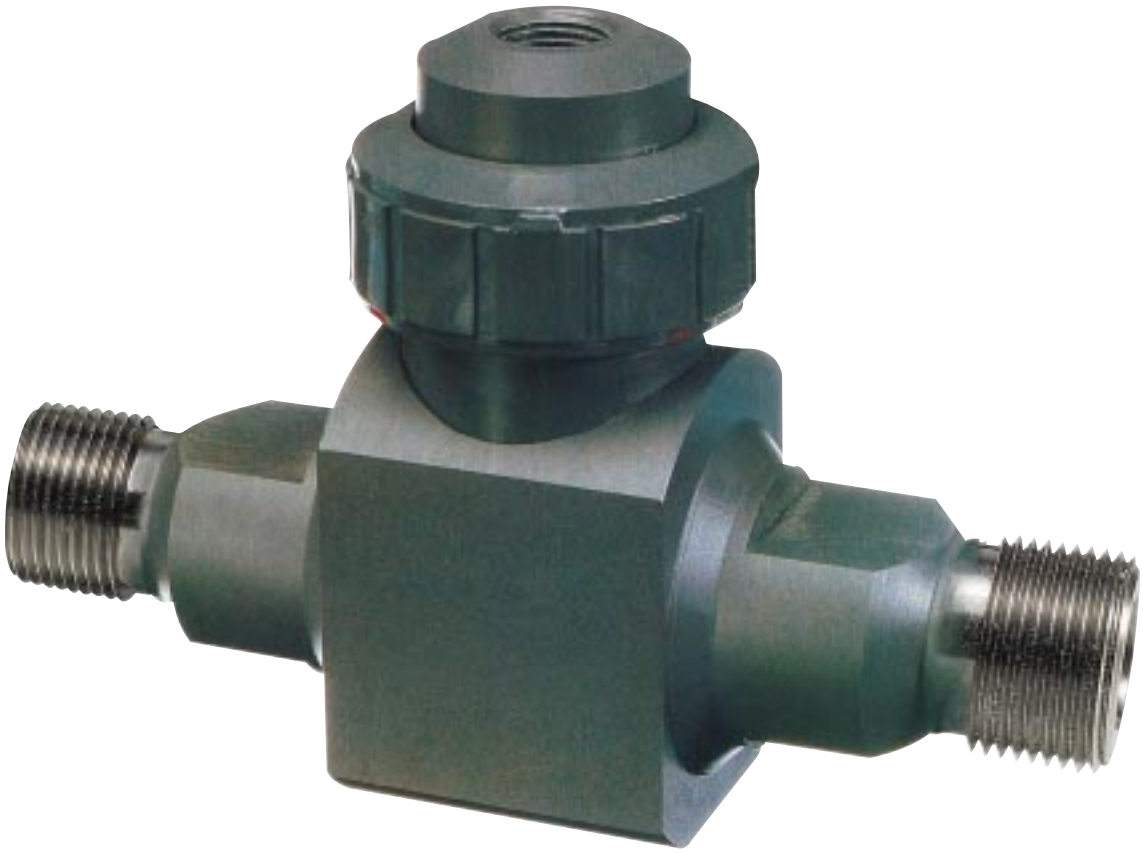
Vortex Flow Meter
for liquids

Flow
Pressure
Level
Temperature
measurement
monitoring
control



- No moving parts
- Accuracy: 1% f.s.
- Output: 4-20 mA
- for low viscosity liquids
- Material: PVDF or PVC

Model:
KUV

Theory of operation

The operation of the model KUV vortex flow meter is based on the well-known vortex principle. The fluid flow causes vortexes to be formed behind a baffle. The number of vortexes formed is proportional to the flow velocity

Each vortex produces a force, which is detected by a piezo-electric sensor, and converted into an electrical pulse. Downstream electronics converts the frequency signal to a standard signal (4-20 mA).

The devices are calibrated at the factory at the measuring range given in the table.

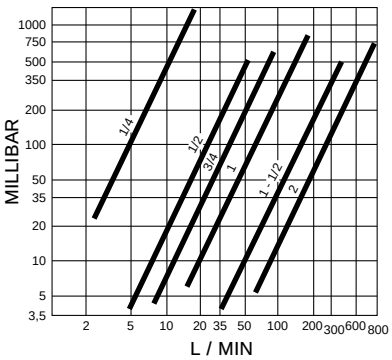
The customer may adjust zero-point and span of the analog signal with a potentiometer.

Fields of application

The flowmeter based on the vortex principle of measurement is used for measuring low viscosity liquids.

All wetted parts are manufactured from high-quality plastic. This means that the device is ideal for measuring aggressive, soiled, or purified liquids, such as, sea water, deionized water and chemicals. It is not suited for use with abrasive media, or with media with large fibre content.

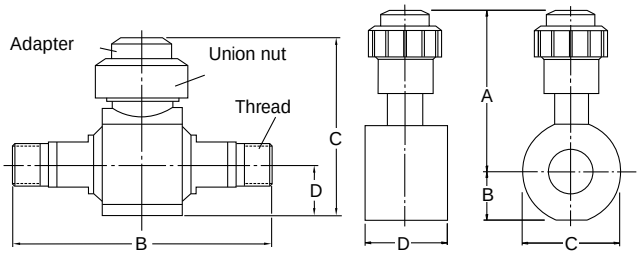
Pressure loss



Technical details

Accuracy:	± 1% f.s.
Reproducibility:	± 0,25 % f.s.
Max. working pressure / temperature:	
	PVC: 21° C up to 10 bar
	60° C up to 3,5 bar
	PVDF: 40° C up to 10 bar
	95° C up to 6 bar
Max. viscosity:	20 cP
Supply voltage:	13-30 VDC
Output signal:	4-20 mA (2-wire)
Burden:	max. 1000 Ω, (with 30 VDC supply)
Electrical connection:	terminal block
Max. overrange:	up to 125 % f.s. (max. 0,5 h)
Material:	PVC or PVDF
Response time:	approx. 1,5 s

Dimensions



	Threads				Wafer					
Thread NPT	B	C	D	kg	for pipe	A	B	C	D	kg
1/4“	133	141	40	0,7	1/2“	146	20	44	52	0,4
1/2“	181	141	40	0,8	3/4“	146	24	54	52	0,4
3/4“	194	141	40	0,8	1“	149	30	64	58	0,5
1“	203	141	40	0,8	1 1/2“	158	38	83	67	0,8
1 1/2“	213	156	44	1,4	2“	168	48	102	82	1,2
2“	213	156	44	1,4	3“	177	64	133	108	2,2

Order details

Measuring range	Connection	Order No. threads		Order No. Wafer			Options (Please append letter to order no.)
l/min.	NPT	PVC	PVDF	for pipe diameter	PVC	PVDF	
2,5...19	1/4“	KUV-1005	-	-	-	-	—
5...57	1/2“	KUV-1015	-	1/2“	-	KUV-4015	
8...95	3/4“	KUV-1020	-	3/4“	-	KUV-4020	
16...190	1“	KUV-1025	-	1“	-	KUV-4025	
32...380	1 1/2“	KUV-1040	-	1 1/2“	-	KUV-4040	
63...760	2“	KUV-1050	-	2“	-	KUV-4050	
95...1130	-	-	-	3“	-	KUV-4080	