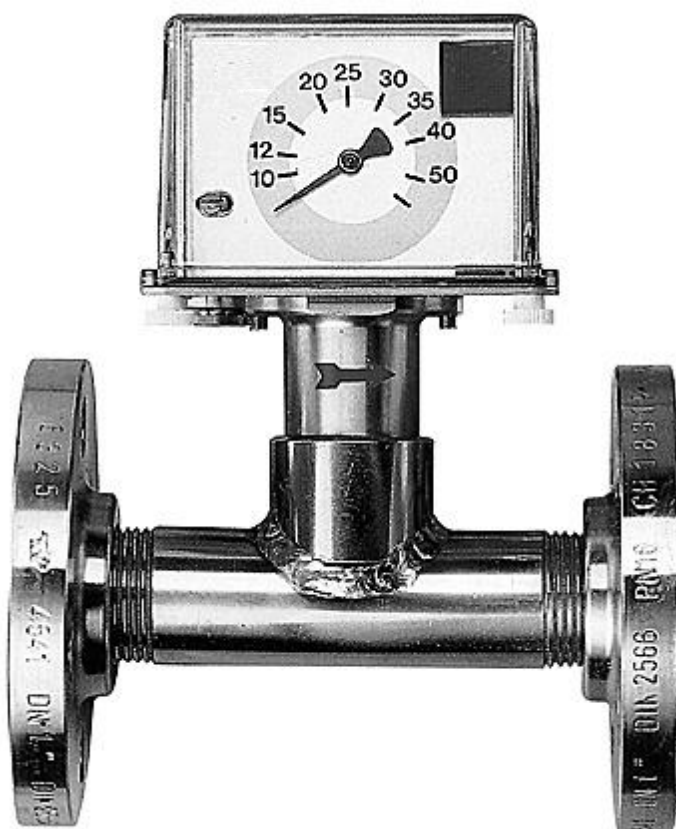




Flowmeter / Flow Control DW-U

Flow monitor after the baffle plate principle for liquids



- Easy switch point adjustment in small scale steps
- Compulsive motion transfer to a micro-switch
- Hermetic separation from the medium by means of bellows
- High power handling capacity
- Insensitive to magnetic fields
- High resistance to dirt and high operational safety
- Available for all flow directions
- Very economical monitoring of large pipes
- Output signal 0/4-20 mA for type DW-U-AN
- Without flow indication for type DW-N

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Measuring method

The DW-U functions according to the reliable way deflection system. The pendulum system with the baffle plate (deflector) is moved by the flowing medium against the strength of a spring. A metal bellows seals the system from the medium to the measuring and display part. The movement transmission is effected compulsorily. A micro-switch arranged in the measuring part and a control lamp is activated, if the set switch point over- or undershoots. Corresponding switching processes are triggered by this micro-switch. Furthermore, a display system is activated that shows the current flow rate on the scale.

The baffle plate or at small flow rates the combination nozzle / baffle plate can be referred as the most secure system, as the motion transmission of the baffle plate in the measurement part takes place compulsorily. If the T-piece in these flow meters / flow monitors are clogged by lime, extraneous matters or dirt, the system reports "no flow." It is virtually impossible that the system gets stuck in a position indicating that there is "no flow".

Characteristics

- Display of the current flow
- Simple adjustment of the switching points in accordance with small scale
- Hermetic separation of the medium from the micro-switch using the bellows
- Insensitive to pollution and magnetic fields
- High electrical resilience
- Maximum operating reliability and serviceability
- Can be supplied for all flow directions and installation positions
- **Also available in Ex-version**
- Version with two switches is available

If other than the specified operating ranges or points are desired, please request separately.



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Flow rate for water at 20°C						
Connection thread	Nominal width DN	min H ₂ O		max. H ₂ O		Flow rate ratio*
		l/min	m ³ /h	l/min	m ³ /h	
3/8"	10	1		25		1:5
1/2"	15	1		55		1:5
3/4"	20	5		100		1:5
1"	25	6	0.36	150	9	1:5
1 1/4"	32	10	0.6	250	15	1:5
1 1/2"	40	20	1.2	400	24	1:5
2"	50	50	3.0	600	36	1:5
2 1/2"	65	80	4.8	1000	60	1:4
3"	80	120	7.2	1500	90	1:4
4"	100	200	12	2400	144	1:4
5"	125	300	18	4000	255	1:4
6"	150	400	24	5500	330	1:4
8"	200	700	42	10000	600	1:4
10"	250	1200	72	15000	900	1:4
12"	300	1700	102	20000	1200	1:4
14"	350	2500	150	30000	1800	1:4
16"	400	3000	180	40000	2400	1:4
20"	500	5000	300	60000	3600	1:4
24"	600	7000	420	75000	4500	1:4

*Measuring ranges from viscous media, gases, etc. on request., *e.g. 2–10 l/min., lower flow ratios are possible at any time, higher ones on request*

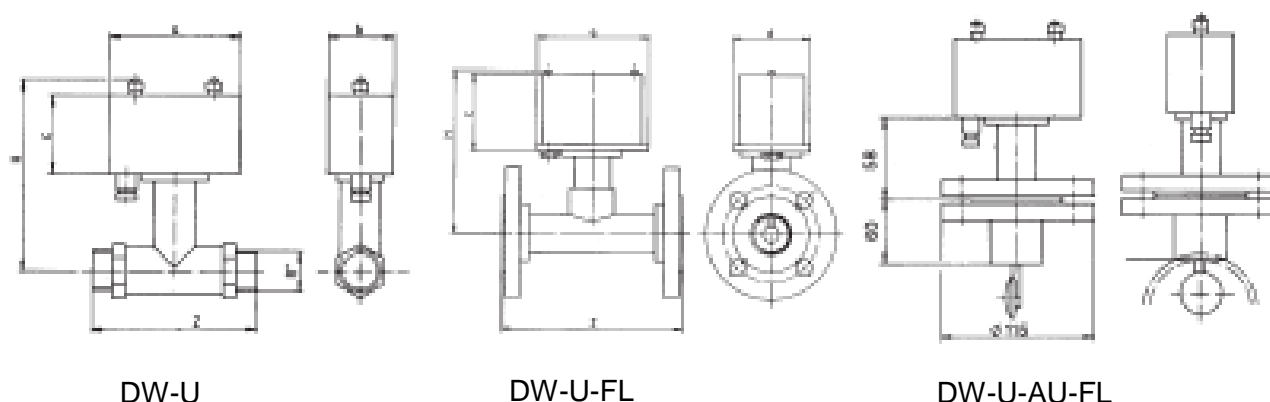
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Flowmeter / Flow Control DW-U

Flow monitor after the baffle plate principle for liquids

Technical drawings



DW-U

DW-U-FL

DW-U-AU-FL

Dimensions							
DN (mm)	10	15	20	25	32	40	50
Connection thread R"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Length Z without flange	135+1	135+1	135+1	135+1	170+2	170+2	170+2
Length Z with side flanges	155+2	155+2	155+2	155+2	190+2	190+2	190+2
Height H	145+1	145+1	145+1	145+1	150+2	155+2	160+2
Measuring part	a x b x c = 100 x 70 x 70 (mm)						

Materials			
T-piece	Pendulum system	Bellows	Maximum permitted operating pressure
Brass; W.-No. 2.0380.10	Brass; W.-No. 2.0380.10	Stainless steel; W.-No. 1.4571	10 bar
Stainless steel; W.- No. 1.4571	Stainless steel; W.-No. 1.4305	Stainless steel; W.-No. 1.4571	10 bar
PVC	Stainless steel; W.-No. 1.4305	Stainless steel; W.-No. 1.4571	10 bar

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Flowmeter / Flow Control DW-U

Flow monitor after the baffle plate principle for liquids

Design Types	
DW-U:	Flow indication and adjustable switch contact
DW-U-AN:	Flow indication and analog output (and contacts)
DW-N:	Adjustable switch contact

Technical Data	
Flow rate ratio	1: 5 max. (for type DW-U(N)-AU-FL) 1: 4 max. (for all EX-types)
Switch/Measuring accuracy up to 20 l/min 21 – 200 l/min 201 and more l/min (depending on the calibration position and the medium at 20 ° C)	± 5% (of final value) ± 4% (of final value) ± 3% (of final value)
Pressure drop	0,1 – 0,3 bar (average loss of pressure, values on request)
Switch hysteresis	up to 2 bar 10% (furthermore pressure dependent, values on request)
Operating temperature	max. 100°C (higher temperatures on request)
Ambient temperature	max. 70°C
Power supply	250 V / 10 A
Protection type	IP 55 (IP 65 on request)
Glow lamp	250 V / 2 mA (other voltages are available on request)
Version with 2 micro switches	available on request
Availability in EX-version (ATEX):	Possibility of operating the switch with an intrinsically safe circuit. For this purpose, we offer the transistor relay WE/Ex-1 and WE/Ex-2 (protection class [EEx ia] IIC or [EEx ib] IIC according to DIN 19234 and NAMUR).

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Flowmeter / Flow Control DW-U

Flow monitor after the baffle plate principle for liquids

Enquiry and ordering data

For smooth processing of an enquiry or order we require the following information:

1. Type of device
2. Material combination
3. Connection type, e.g. NW 15 with R 1/2" external thread or mountable with flange on NW 80
4. Medium. If the medium is not water, the respective viscosity data at operating temperature. For acids and alkaline solution the pH value.
5. Operating pressure and maximum pressure
6. Switch point
7. Adjustment range (freely selectable in a ratio of 1:5 or 1:4 within the zones specified in the switching range table, e.g. NW 15 3-15 l/min or 10-50 l/min, etc.)
8. Installation length / position and flow direction (with vertical position the installation length, in addition, the make, i.e., whether the measuring part should be installed on the left or on the right of the pipe)
9. Electrical connection values (if they deviate from 230 V)
10. For re-ordering, please simply provide the device number specified on the device's rating plate

Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at www.schmidt-messtechnik.com.