

DP06

Paddle-Bellows Flow Meter and Switch

- for liquids
- large 270°-dial gauge display for flow rate
- simple switch-point adjustment over the entire switching range on a separate small scale
- bellows keep liquid hermetically separated from the switching element
- insensitive to dirty / contaminated fluids
- high electrical loading capacity through use of 1 or 2 independently adjustable microswitches
- insensitive to electromagnetic fields
- easy installation, for pipes up to DN 600



Description:

The flow meters and switches model DP06 operate according to the paddle-bellows principle. The flowing liquid pushes against the surface area of a paddle mounted at the end of a pivoting arm.

The arm is deflected against the force of a spring. This deflection is mechanically transmitted to a 270° dial-gauge display and a separately adjustable contact unit. A bellows system seals the liquid off from the mechanism. In case of malfunction, the spring returns the paddle plate to the zero position (no flow), which causes the system to automatically signal a fault.

Typical Applications:

The DP06 paddle-bellows flow meter and switch is suitable for monitoring thin and low-viscosity liquids in average to large flow volumes, e.g. for industrial water circuits because they are relatively insensitive to dirty / contaminated fluids.

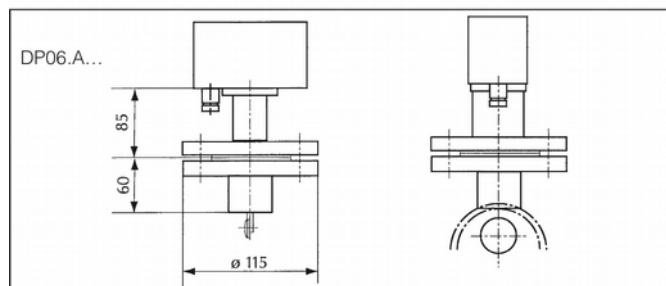
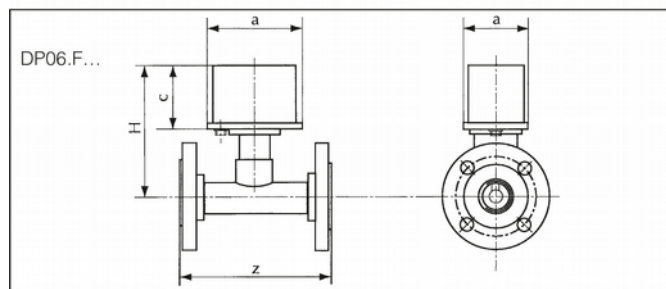
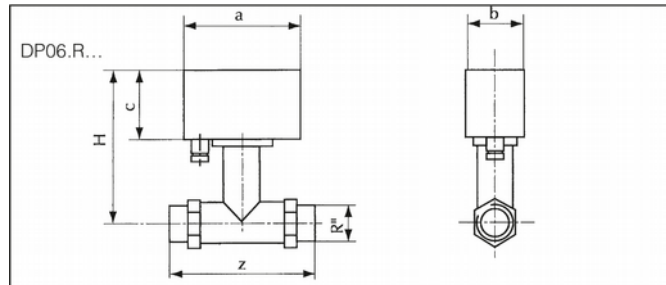
For nominal pipe sizes over DN 50, installation with an intermediate mounting flange yields a price/ performance ratio of exceptional economy.

Models:

Each of the 3 types of DP06 flow meters and switches are available in 3 material combinations:

DP06.R...	with T-fitting and pipe size connection from R 3/8 to R 2 male thread
DP06.F...	with T-fitting and DIN-flange from DN 10 to DN 50
Material-combination A	T-fitting made of brass pivoting system made of brass bellows made of st. steel 1.4571 flange made of galvanized carbon steel
Material-combination B	T-fitting made of st. steel 1.4571 pivoting system made of st. steel 1.4571 bellows made of st. steel 1.4571 flange made of st. steel 1.4571
Material-combination C	T-fitting made of PVC pivoting system made of st. steel 1.4571 bellows made of st. steel 1.4571 flange made of PVC
DP06.A...	with weld on flange for nominal pipe size DN 65 to DN 600
Material-combination A	housing made of brass pivoting system made of brass bellows made of st. steel 1.4571 weld on flange made of carbon steel, painted
Material-combination B	housing made of st. steel 1.4571 pivoting system made of st. steel 1.4571 bellows made of st. steel 1.4571 weld-on flange made of st. steel 1.4571

Dimensions:



Order Code:

Order number: DP06. R025. B. 1. 20-100

Paddle bellows flow meter and switch

Process connection

(xx=nominal pipe size):

R0xx = with male thread (R 3/8 to R 2 only)

F0xx = with flange (DN 10 to DN 50 only)

Axxx = with weld on flange (from DN 40 to DN 600)

Material combination:

A = brass / st. steel / steel zinc plated

B = completely of st. steel

C = PVC / st. steel (not for DP06.A..)

Contact:

1 = 1 microswitch (250 V / 10 A)

2 = 2 microswitches (250 V / 5 A)

Switching range:

xxxx-xxxx = min. - max. flow rate (see table „Measuring ranges“)

Additional specifications:

- medium density and viscosity (if different from water)
- process pressure and temperatures
- mounting position and direction of flow
- ratings of electrical connections

Measuring ranges:

Process-connection DP06.R... DP06.F...	Flow rate [l/min]		Flow-ratio	Process-connection DP06.A...	Flow rate [m³/h]		Flow-ratio
	min.	max.			min.	max.	
3/8"/DN 10	1	25	1:5	DN 40	1,2	24	1:4
1/2"/DN 15	1	55	1:5	DN 50	3	36	1:4
3/4"/DN 20	5	100	1:5	DN 65	4,8	60	1:4
1"/DN 25	6	150	1:5	DN 80	7,2	90	1:4
1 1/4"/DN 32	10	250	1:5	DN 100	12	144	1:4
1 1/2"/DN 40	20	400	1:5	DN 125	18	255	1:4
2"/DN 50	50	600	1:5	DN 150	24	330	1:4
Switching ranges apply to water at, 20 °C. Within the specified limits, all switching ranges can be achieved, on condition that the max./min. ratio for the switching point is not exceeded. e.g. in the case of 1/2": 1-5, 2-10 or 11-55 is possible.				DN 200	42	600	1:4
				DN 250	72	900	1:4
				DN 300	102	1.200	1:4
				DN 350	150	1.800	1:4
				DN 400	180	2.400	1:4
				DN 500	300	3.600	1:4
				DN 600	420	4.500	1:4

Nominal size	Installation length Z [mm]		Installation height H [mm]
	DP06.R...	DP06.F...	
3/8"/DN 10	135	155	145
1/2"/DN 15	135	155	145
3/4"/DN 20	135	160	145
1"/DN 25	135	160	145
1 1/4"/DN 32	170	190	150
1 1/2"/DN 40	170	190	155
2"/DN 50	170	190	160

Technical Data:

Max. pressure: 16 bar

Max. med.-temperature: 100 °C (higher on request)

Accuracy:

± 5 % up to 20 l/min

± 4 % from 21...200 l/min

± 3 % > 200 l/min

Switching hysteresis:

10 % (bis 2 bar)

Contacts:

microswitch, 250 V, 10 A

Status display:

glow lamp or LED

(depending on the con. voltage)

Protection Class:

IP55 (IP65 on request)

Please specify the connection voltage 24 V or 230 V.