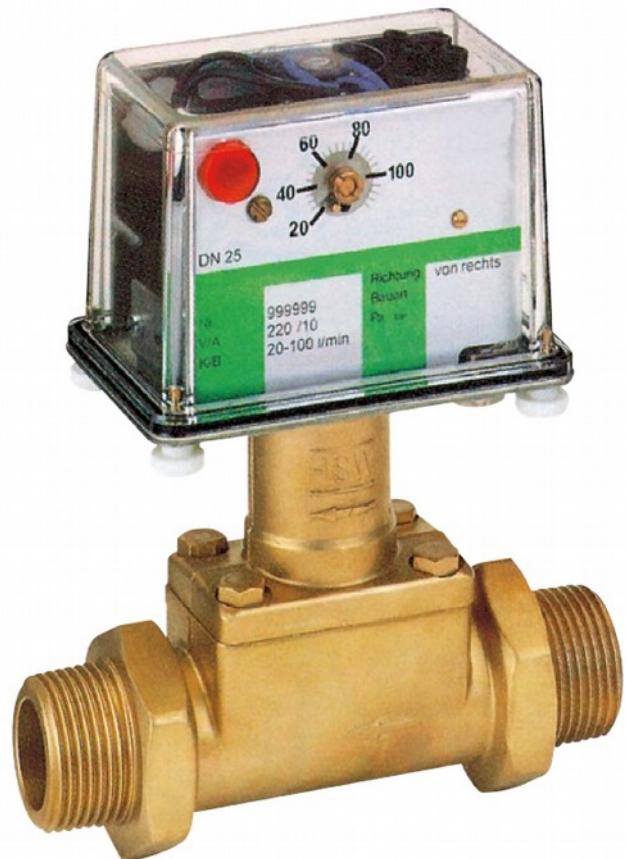


DP05

Paddle-Bellows Flow Switch with Variable Switching Point

- for liquids
- easy switching-point adjustment with 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 piping up to DN 600
- optical switching display by signal lamp



Description:

The flow switches model DP05 operates 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 an adjustable contact unit. A bellows system seals the mechanism hermetically from the liquid.

In case of malfunction, the spring returns the paddle plate to the zero position (no flow), which causes the system to signal a fault automatically.

Typical applications:

The DP05 paddle-bellows flow switch is suitable for monitoring thin and low-viscosity liquids in average to large flow volumes, eg. for industrial water circuits because they are relatively insensitive to dirty/contaminated fluids. For nominal pipe sizes over DN 50, installation with a special intermediate mounting flange yields a price/performance ratio of exceptional economy.

Models:

Each of the 3 types of DP05 flow switches are available in 3 material combinations:

DP05.R... with T-fitting and pipe-thread connection from R 3/8 to R 2 male thread

DP05.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
flanges made of galvanized 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
flanges made of st. steel 1.4571

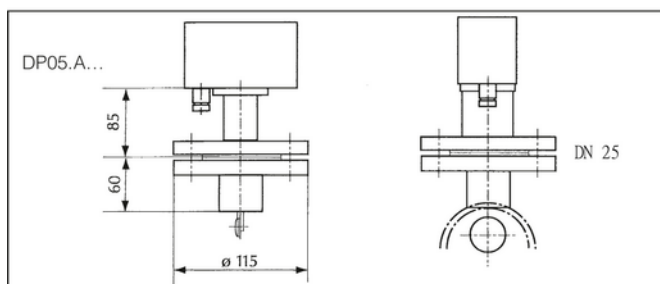
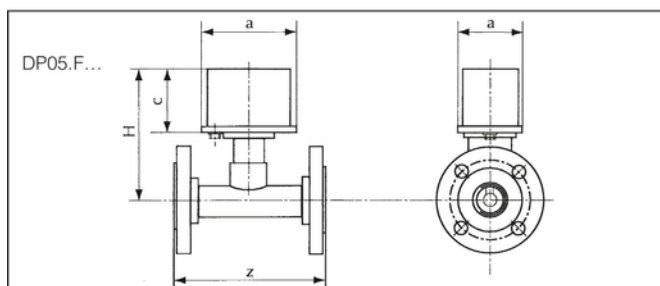
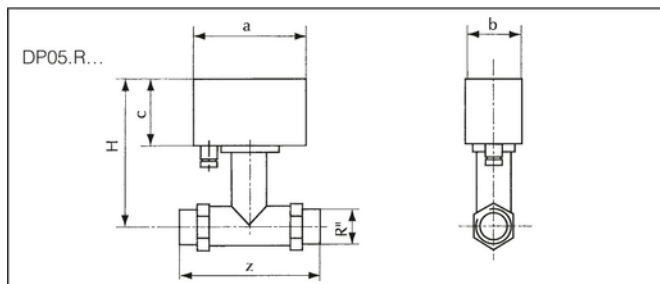
Material-combination C T-fitting made of PVC
pivoting system made of st. steel 1.4571
bellows made of st. steel 1.4571
flanges made of PVC

DP05.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 steel, coated, DN 25

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, DN 25

Dimensions:



Order Code:

Order number: DP05. R025. B 1. 20-100

Paddle-bellows flow switch

Process connection (xx= nominal pipe size):

R0xx = with male thread (only R 3/8 to R 2)
F0xx = with flange (only DN 10 to DN 50)
Axxx = with weld-on-flange (from DN 40 to DN 600)

Material combination:

A = brass / stainless steel / steel zinc plated
B = completely made of stainless steel
C = PVC / stainless steel (not for DP05.A..)

Switching output:

1 = 1 microswitch (250 V / 10 A)
2 = 2 microswitches (250 V / 5 A)

Switching range:

xxxx-xxxx = min. - max. switch point (see table „Measuring ranges“)

Additional specifications:

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

Measuring ranges:

Process-connection DP05.R... DP05.F...	Flow rate [l/min]		Flow-ratio	Process-connection DP05.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
				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

Switching ranges apply to water at 20°C. Within the specified limits, all switching ranges can be achieved, provided that the max./min. ratio for the switching point is not exceeded. e.g. in the event of 1/2": 1-5, 2-10 or 11-55 possible.

Nominal size	Installation length Z [mm]		Installation height H [mm]
	DP05.R...	DP05.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 % (up to 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.