



# DP-10N

## Vane operated Flowswitch



## Features

- / Proven technology
- / Easy to install
- / Low pressure drop
- / Brass and stainless steel
- / Good repeatability

## Description:

The DP-10N series of flowswitches transmits the movement of the vane mounted in the pipe which is proportional to the flow over a spring-supported rocker mechanically to a high-performance micro-switch. The setpoint can be modified by customizing the spring tension. The 3 standard vanes can be deployed for a nominal diameter range of 1" to 3". A fourth vane can be customized for larger nominal diameters or for reducing the switching values by shortening it to a desired length. In addition, the DP-10N can be supplied designed for a reduced adjustment range so that it can be deployed also for minimum switching values.

## Application:

The DP-10N vane switches are used wherever fluid or air flows need to be reliably monitored. The switches are used for monitoring minimum as well as maximum flow. Typical areas of application include monitoring of coolant and lubricating circulation, protection against dry-runs in pumps or safeguard against defects. The DP-10N is designed as robust device to allow its use across the entire industry.



# Technical Specifications:

<b>max. Pressure /</b>	DP-10N.1.1:	8 bar
	DP-10N.1.2:	5 bar
	DP-10N.2.1:	13 bar
	DP-10N.2.2:	5 bar
<b>max. Media temp. /</b>	DP-10N.1/2.x:	-20...+120°C
	DP-10N.3.1:	-20...+80°C
<b>max. Ambient temp. /</b>	DP-10N.1/2.x:	-20...+85°C
	DP-10N.3.1:	-40...+80°C
<b>Materials /</b>	see Table 1.2	
<b>Mounting position /</b>	any, vane to the top not recommended, mounting position affects setpoint	
<b>Process connection /</b>	DP-10N.1/2.x:	R1"-male,
	DP-10N.3.1:	flange 89 x 63.5 mm
<b>Media /</b>	DP-10N.1/2.x: water (lubricants and aggressive Media on request)	
	DP-10N.3.1: air and gases	
<b>Range of adjustment /</b>	see Table 1.1	
<b>Tolerance /</b>	± 15% of FS	
<b>Weight /</b>	DP-10N.1/2.x:	
	brass:	0.95 kg,
	st. steel:	1.1 kg
	DP-10N.3.1:	0.5 kg

# Table 1.2 - Materials:

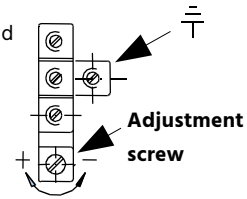
Type	DP-10N.1.x	DP-10N.2.x
cap	ABS	ABS
housing	brass CW614N	st. steel 1.4571
vane	st. steel 1.4571	st. steel 1.4571
bellow	tombac	st. steel 1.4571

Type	DP-10N.3.x
cap	ABS
vane	st. steel 1.4571
vane bracket	brass
mounting plate	zinc-plated steel

# Electrical Specifications:

<b>Electrical output /</b>	micro-switch, change-over contact, 250 VAC, 15 A (8 A inductive)
<b>Cable gland /</b>	DP-10N.1/2.x: M16 x 1,5 DP-10N.3.1: PG11
<b>Protection class /</b>	IP65 with protective conductor conn.

**Adjustment:** untighten screws and remove cap, use screw to set to demanded setpoint, remount cap.



# Table 1.1 - Adjustable range

## DP-10N.1.x and DP-10N.2.x:

Pipe Ø DN	Qmax. in m³/h	Adjustable range in m³/h	Adjustable range reduced in m³/h	Vane
25	3.6	0.55...2.0	0.19...1.0	1
32	6.0	0.82...2.8	0.24...1.4	1
40	9.0	1.1...4.0	0.5...1.9	1
50	15	2.1...7.3	0.9...3.6	1, 2*
65	24	2.8...9.8	1.2...4.9	1, 2*
80	36	4.0...13.8	2.1...7.4	1, 2, 3*
100	60	10.4...32.0	4.9...17.1	1, 2, 3*
		7.0...21.7	3.3...11.6	1, 2, 3, 4*
125	90	20.8...63.5	9.7...34.0	1, 2, 3*
		10.7...33.3	5.0...17.5	1, 2, 3, 4*
150	120	29.2...89.1	13.6...47.6	1, 2, 3*
		13.1...39.9	6.1...21.4	1, 2, 3, 4*
200	240	72.6...165.7	25.7...90.1	1, 2, 3*
		38.6...90.8	21.7...55.3	1, 2, 3, 4*

Adjustable range is indicated for horizontally decreasing flow (medium water), \*have to be installed together.

## DP-10N.3.1

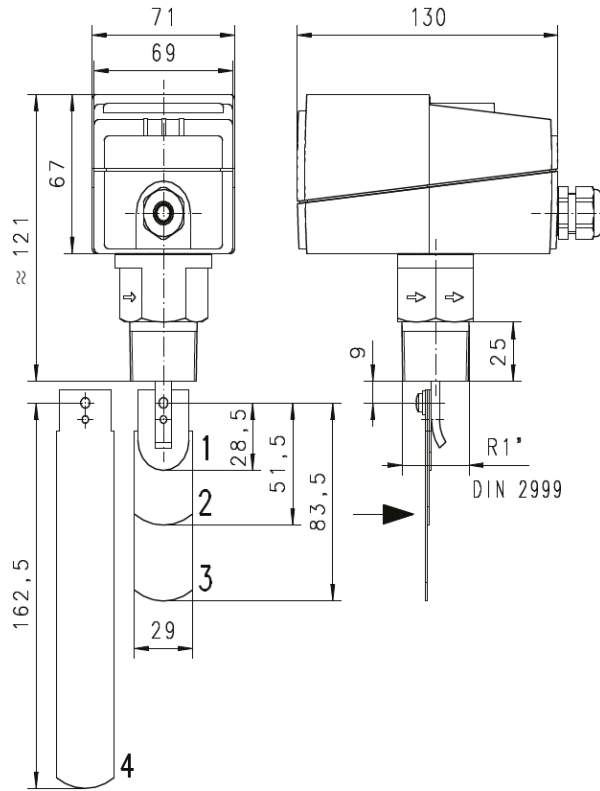
min. cut-out value (m/s)	max. cut-out value (m/s)	min. cut-in value (m/s)	max. cut-in value (m/s)
1.0	8.0	2.5	9.2

# Ordering Codes:

<b>Order number</b>	DP-10N.	1.	1
<b>DP-10N Vane operated Flowswitch</b>			
<b>Version /</b>	1 = for fluids (brass housing, stainless steel vane, cap ABS) 2 = for fluids (stainless steel housing, stainless steel vane, cap ABS) 3 = for air		
<b>Adjustment range /</b>	1 = standard 2 = reduced (only for DP-10N.1 and DP-10N.2)		

## Dimensions in mm:

Type: DP-10N.1.x and DP-10N.2.x:



Type: DP-10N.3.1

