

Flow switch

Licensed: TÜV HE

Application

For monitoring flow of fluid media in piping of 1/2" to 8" diameter.

For use in mechanical engineering and apparatus construction for supervision of oil, cooling agent and lubrication circuits or as a water shortage switch in the case of sprinkler systems, in heating systems and heating steam boilers, cold water plants and heat pumps.

Adjusting/Wiring

The units are set at the works to the minimum switch-off value. A higher switch -off value can be set by turning the range screw in the clockwise direction.

The actual flow rate is irrelevant but must be higher than the switch - on value quoted on the specifications tables.

On installation, attention must be paid to the direction of flow and the correct paddle length. All dimensions and data are based on the use of T-junctions conforming to DIN 2950 and horizontal piping.

In the case of large diameters, the shorter vanes likewise have to be secured for stability reasons.

A steadying zone of at least 5 x D must be provided in front and after the location of installation.

Connect the 1 -2 contacts of the micro-switch. They open when the flow drops below the value set.

The 1 -4 contact closes at the same time and can be used as a signal contact.



Text for tender

TÜV.S.93-16 flow switch JSF... for DN 1" bis 8".

Rated load 15 (8) A, 24 - 250 V~.

Enclosure IP 65.

Caution!

The electrical installation must be made by a certified electrician only.

Make sure, that the directions of your local power station, as well as the regulations of VDE, TÜV a.s.o., according to the application are observed. Not meeting these directions and our operating instructions may cause malfunctions with consequential damages and personal injuries.

Wrong connections exchanging of leads to heating-, cooling-, or other units with ground wire can be dangerous.

Technical data

- Rated load: 15 (8) A, 24-250V~
- Differential: see specifications tables
- Contacts:
 - dust-protected micro-switch with SPDT contact as per VDE 0630, UL and CSA approved
- Protection: class I acc. to VDE 0100
- Enclosure:
 - IP 65 acc. to DIN 40050 and IEC 144
- Ambient temperature: -40 ... +85°C
- Max. temperature of fluid: +120°C
- Max. working pressure:
 - 11 bar (30 bar)
- Pressure drop: see delivery program
- Weight: 690g
- Casing: impact-resistant plastic, ABS screw-in body R1" of brass for normal media or stainless steel (- 2E, -2RE) for aggressive media, NPT1" also available, vanes of stainless steel
- In the event of vertical piping, the weight of the vanes must be compensated for on the range screw, which will however lead to different response values.

Equipment supplied

Types JSF 3 E and JSF 4 E are supplied with a built on T-junction of grey cast iron.

Subject to technical changes.

Delivery program

Pipe DN	max. pressure	Pressure drop	Type
1/2"	11 bar	22 – 200 mbar	JSF 3E
3/4"	11 bar	21 – 100 mbar	JSF 4E
1"-8"	11 bar	5 – 22 mbar	JSF 1E
1"-8"	11 bar	5 – 22 mbar	JSF 1RE
1"-8"	30 bar	5 – 22 mbar	JSF 2E
1"-8"	30 bar	5 – 22 mbar	JSF 2RE

Specifications tables

DN	A	E	A	E	DN	A	E	A	E
	min.		max.			min.		max.	
E 1"	0,6	1,0	2,0	2,1	E 5"	22,9	28,4	53,3	55,6
RE 1"	0,2	0,6	1,0	1,1	RE 5"	9,7	22,4	34,0	37,9
E 1 1/4"	0,8	1,3	2,8	3,0	E 5" Z	9,3	12,9	25,2	26,8
RE 1 1/4"	0,25	0,9	1,4	1,6	RE 5" Z	5,0	11,5	17,5	19,6
E 1 1/2"	1,1	1,7	3,7	4,0	E 6"	35,9	43,1	81,7	85,1
RE 1 1/2"	0,5	1,2	1,9	2,2	RE 6"	13,6	31,5	47,6	53,2
E 2"	2,2	3,1	5,7	6,1	E 6" Z	12,3	16,8	30,6	32,7
RE 2"	0,9	2,3	3,6	4,1	RE 6" Z	6,1	14,1	21,4	23,9
E 2 1/2"	2,7	4,0	6,5	7,0	E 8"	72,6	85,1	165,7	172,5
RE 2 1/2"	1,2	3,1	4,9	5,5	RE 8"	25,7	59,6	90,1	100,7
E 3"	4,3	6,2	10,7	11,4	E 8" Z	38,6	46,5	90,8	94,2
RE 3"	2,1	4,9	7,4	8,2	RE 8" Z	21,7	36,5	55,3	61,8
E 4"	11,4	14,7	27,7	29,0					
RE 4"	4,9	11,3	17,1	19,1	JSF-3E / 4 E [l/h]				
E 4" Z	6,1	8,0	17,3	18,4	E 1/2"	174	480	846	948
RE 4" Z	3,3	7,7	11,6	13,0	RE 3/4"	138	408	768	858

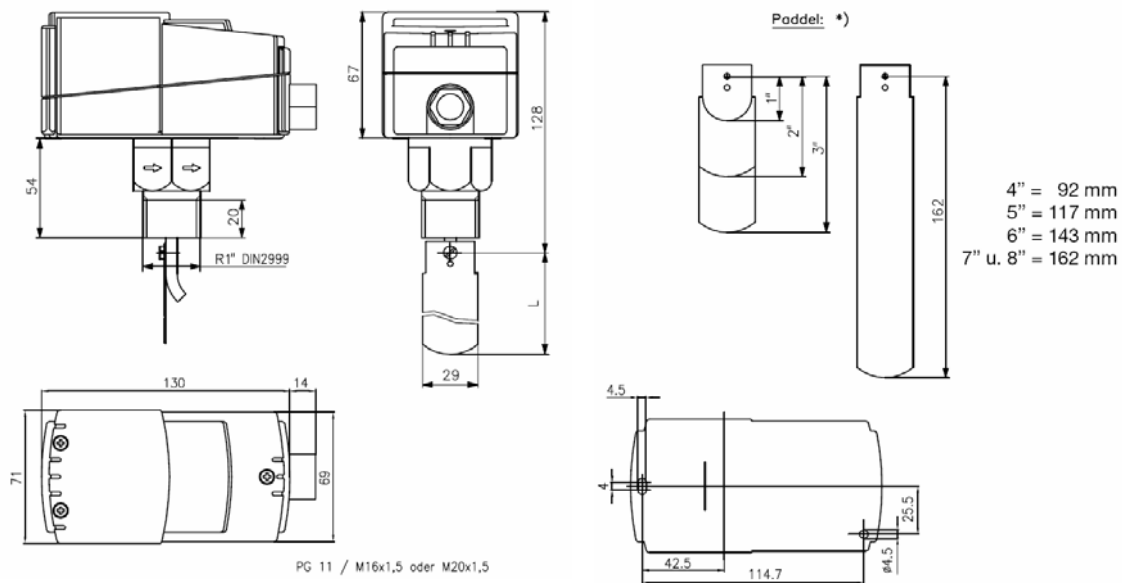
DN = Pipe DN

E = Cut – in value

A = Cut – out value

For models with suffix "Z" the longer paddle must be used.

Dimensions



Wiring diagram

