

BAFFLE FLOW SWITCH IN A STAINLESS ENCLOSURE



- ALL STAINLESS · FIVE BAFFLES SUPPLIED · 20 ... 1800 L/MIN
- SPDT 250 VAC, 3 A · 16 BAR · PRESSURE LOSS 0.08 BAR
- MEDIUM UP TO 250 °C · R1 TAPER THREAD

KEY DATA

Property	Value	Property	Value
Setting range	20 ... 1800 L/min, set by the baffle and the pipe bore	Repeatability	± 2.5 % of the total range
Output	Microswitch SPDT, normally open and closed	Switching capacity	250 Vac, 3 A
Pressure range	16 bar	Pressure loss	0.08 bar at maximum flow
Medium temperature	250 °C	Ambient temperature	-25 ... +80 °C
Process connection	R1 taper thread	Materials	All wetted parts stainless steel

A spring-loaded baffle stands across the pipe; the flow pushes it aside and a linkage operates a microswitch inside a stainless enclosure. The range is set by the baffle fitted and the pipe bore.



MEASUREMENT

Measuring principle	Mechanical — a spring-loaded baffle across the pipe; the flow deflects it and a linkage operates a microswitch inside the enclosure above
Setting range	20 ... 1800 L/min across the whole product, set by the pipe bore and the baffle fitted — see the parameter table
Baffles supplied	Five, 31, 51, 81, 107 and 132 mm long and 25 mm wide
Repeatability	± 2.5 % of the total range
Hysteresis	8 ... 80 L/min by pipe bore and baffle
Media	Liquid and gaseous. Fire protection, chemicals, industrial automation, machinery, smelting and hydraulic lubrication

MATERIALS AND PROCESS

Body	Stainless steel · baffle stainless steel
Process connection	Stainless steel · connecting rod stainless steel
Enclosure	Stainless steel junction box
Thread	R1 taper thread — one size, for pipes of DN25 and above
Pressure range	16 bar · pressure loss 0.08 bar at maximum flow
Medium temperature	250 °C · ambient -25 ... +80 °C
Weight	0.55 kg

WIRING

The output is a single changeover contact on screw terminals inside the enclosure.

ELECTRICAL PROPERTIES

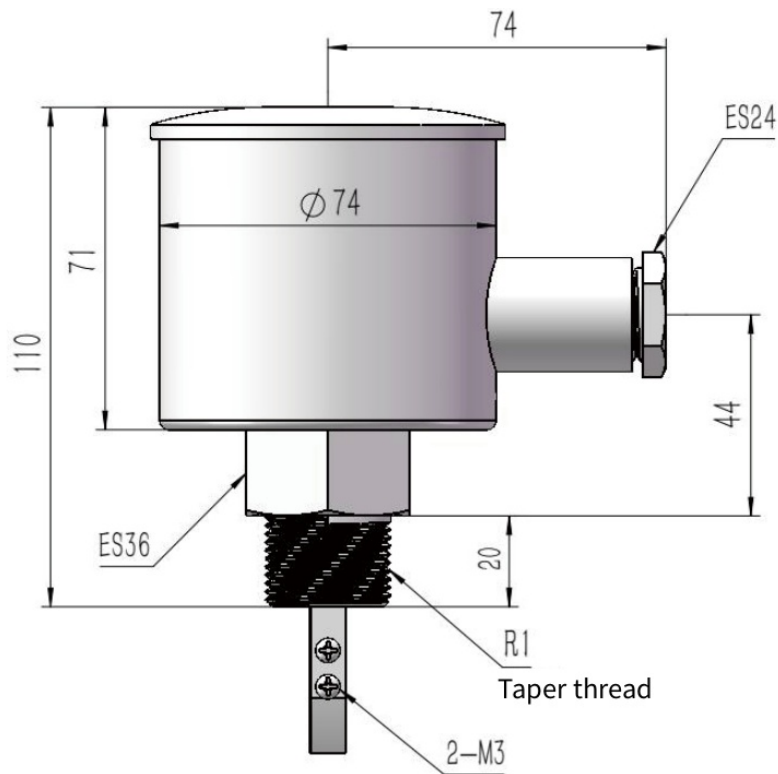
Output	One microswitch, SPDT — normally open and normally closed together
Switching capacity	250 Vac, 3 A
Connection	Screw terminals inside the enclosure · one cable entry
Microswitch	An imported microswitch can be fitted on request

SETTING AND MOUNTING

Setting	By the choice of baffle and the pipe bore
Ordering	State the flow direction, the medium, the pipe bore and the wanted switching value with the order; the switch can be set before delivery

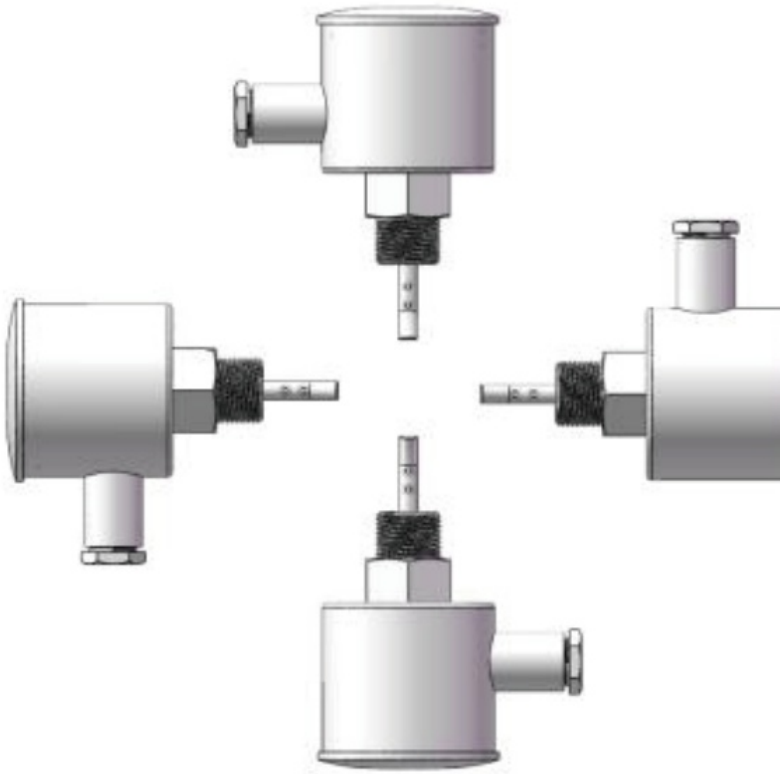


DIMENSIONS (mm)



The round stainless enclosure with the cable entry on the side and the R1 taper thread below. The rod carries the baffle on two M3 screws.





Four mounting positions: from above, from either side and from below.

OVERALL DIMENSIONS (mm)

Feature	mm	Note
Enclosure diameter	Ø74	The round stainless housing
Enclosure height	71	Without the process connection
Overall height	110	From the thread to the top of the lid
Cable entry height	44	Centre of the entry above the thread
Across flats, entry	24	Marked ES24 on the drawing
Across flats, process	36	Marked ES36 on the drawing
Thread length	20	R1 taper thread
Baffle screws	2 x M3	The baffle is bolted to the rod



COMPLIANCE AND CERTIFICATION

Measuring principle	Mechanical, spring-loaded baffle and microswitch
Repeatability	± 2.5 % of the total range
Pressure rating	16 bar
Wetted materials	Body, process connection, connecting rod and baffle all stainless steel
Temperature	Medium 250 °C · ambient -25 ... +80 °C
Contact rating	250 Vac, 3 A

RANGES AND ORDER CODE

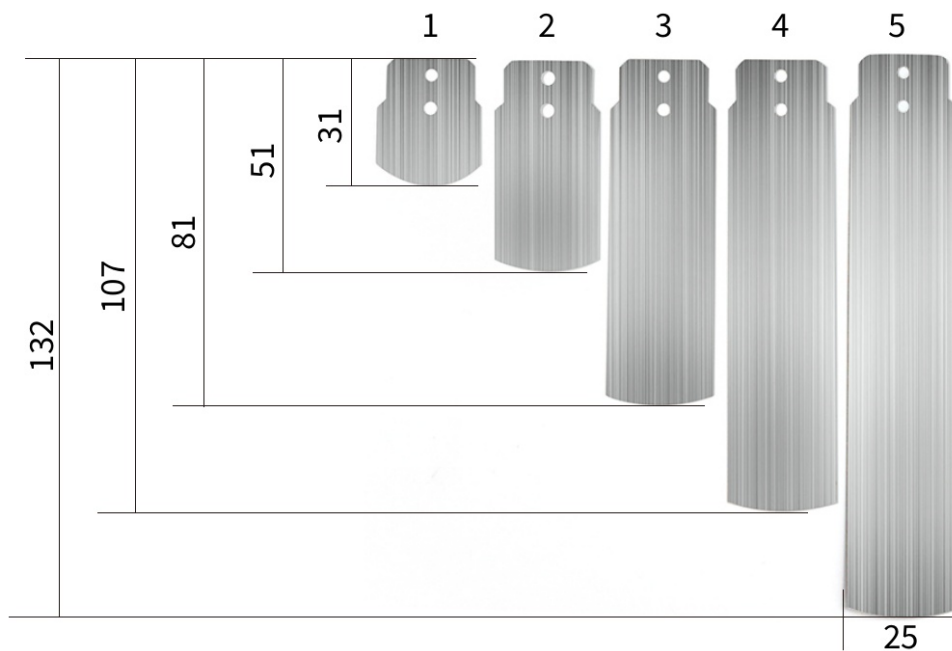
Ranges

- The five baffles come with the switch.



Pressure
16 bar

Weight
0.55 kg



The five baffles, numbered 1 to 5: 31, 51, 81, 107 and 132 mm long and 25 mm wide. The baffle fitted and the pipe bore decide the range.



Fourteen combinations of pipe bore and baffle, all at 16 bar and all weighing 0.55 kg.

PIPE BORE, BAFFLE AND RANGE

Pipe bore	Baffle	Adjustable range L/min	Hysteresis L/min
1"	1	20 ... 48	8
1 1/4"	1	34 ... 100	10
1 1/2"	1	65 ... 160	14
2"	1	120 ... 280	26
2 1/2"	1	210 ... 550	18
3"	1	380 ... 750	20
2"	2	40 ... 140	18
2 1/2"	2	110 ... 340	15
3"	2	180 ... 470	18
4"	4	350 ... 920	20
3"	3	115 ... 220	20
4"	3	210 ... 590	20
5"	3	380 ... 1200	40
6"	3	550 ... 1800	80

Example: QSKN-025-M. The range is set by the baffle and the pipe bore, not in the order code. With the order, state the flow direction, the medium, the pipe bore and the wanted switching value; the switch can be set before delivery.

ORDER CODE

Field	Code	Meaning
1 Series	QSKN	QSKN baffle flow switch in a stainless enclosure
2 Connection	025	R1 taper thread
3 Thread form	M	External thread

