

BAFFLE FLOW SWITCH FOR DN25 TO DN150



IP67 Protective shell

- ONE PART NUMBER · FIVE BAFFLES SUPPLIED · 20 ... 1800 L/MIN
- SPDT 250 VAC, 3 A · 16 BAR · PRESSURE LOSS 0.08 BAR
- IP33 · IP67 WITH THE OPTIONAL PROTECTIVE CASE

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	90 °C · ambient -25 ... +80 °C	Process connection	R1 male thread
Protection grade	IP33 · IP67 with the optional case	Materials	Body and baffle stainless · connections brass

A spring-loaded baffle stands across the pipe; the flow pushes it aside and a linkage operates a microswitch on top. 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 above the process connection
Setting range	20 ... 1800 L/min across the whole product, depending on 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. They are part of the delivery
Repeatability	± 2.5 % of the total range
Hysteresis	8 ... 80 L/min by pipe bore and baffle
Media	Liquid and gaseous. Industrial automation, machinery, air compression, refrigeration and air conditioning, for pipes of DN25 and above

MATERIALS AND PROCESS

Body	Stainless steel · baffle stainless steel
Process connection	Brass · connecting rod brass
Seal	NBR · outer housing ABS
Thread	R1 male thread — one size, for pipes of DN25 and above
Pressure range	16 bar · pressure loss 0.08 bar at maximum flow
Medium temperature	90 °C · ambient -25 ... +80 °C
Protection grade	IP33 as supplied · IP67 with the optional case, order field L
Weight	0.55 kg

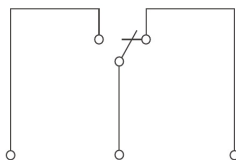
ELECTRICAL PROPERTIES

Output	One microswitch, SPDT — normally open and normally closed together
Switching capacity	250 Vac, 3 A
Connection	Screw terminals inside the housing · PG7 gland on the IP67 case
Microswitch	An imported microswitch can be fitted on request
Isolation	The mechanical and the electrical part are completely separated

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
Mounting	The baffle stands at 90° to the flow direction

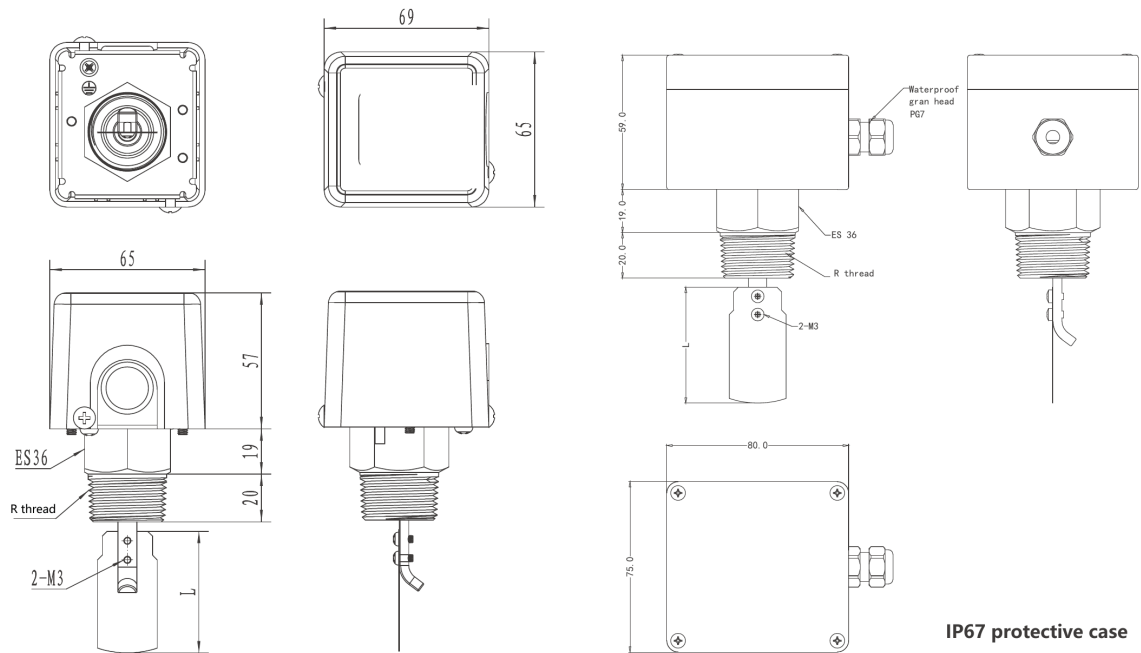
WIRING



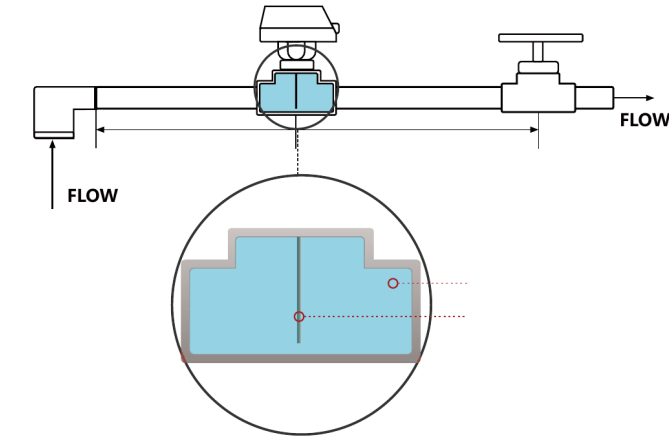
The changeover contact: a common terminal, a break contact and a make contact.



DIMENSIONS (mm)



The switch as supplied on the left, the same switch inside the optional IP67 case on the right.



Mounting. The switch goes into the top of a horizontal line with a shut-off valve downstream; the baffle stands at 90° to the flow.



OVERALL DIMENSIONS (mm)

Feature	mm	Note
Housing width	69	Across the cover
Housing depth	65	The second side of the cover
Housing height	57	Above the process connection
Hex height	19	Between housing and thread
Thread length	20	R1 male
Across flats	36	Marked ES36 on the drawing
Baffle screws	2 × M3	The baffle is bolted to the rod
IP67 case, height	59	Above the process connection
IP67 case, plan	80 × 75	The optional protective case, with a PG7 gland



COMPLIANCE AND CERTIFICATION

Measuring principle	Mechanical, spring-loaded baffle and microswitch
Repeatability	± 2.5 % of the total range
Protection grade	IP33 as supplied, IP67 with the optional case
Pressure rating	16 bar
Wetted materials	Stainless steel body and baffle, brass process connection and connecting rod, NBR seal
Temperature	Medium 90 °C · ambient -25 ... +80 °C
Contact rating	250 Vac, 3 A

RANGES AND ORDER CODE

Ranges

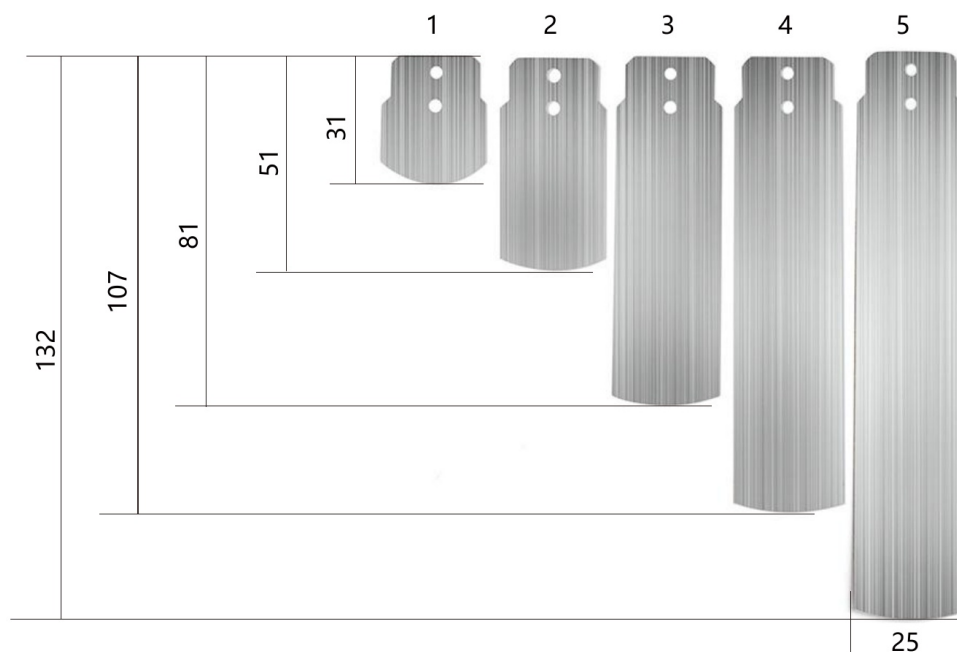
- The five baffles come with the switch. The IP67 protective case is chosen in the order code.



IP67 Protective shell

Pressure
16 bar

Protection
IP33 · IP67



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: QSKL-025-M-L. 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	QSKL	QSKL baffle flow switch
2 Connection	025	R1 male thread
3 Thread form	M	External thread
4 Housing	—	Standard housing, IP33
	L	IP67 protective case

