COMPRESSED AIR TECHNOLOGY

S 409 FLOW DIRECTION SWITCH FOR COMPRESSED AIR/GASES

Features

Measurement of liquid flows and consumption such as:

- Detects smallest changes < 0.1 m/s referred to 20°C and 1000 hpa
- No mechanical wear parts
- Easy installation under pressure

Technical data S 409	
Detection range	0.02 ... 25 m/s @ 7barg, 20°C
Sensor	2 x Pt 1000
Medium	air, gases
Medium humidity	< 100% (no condensation)
Medium temp.	-20° ... +80°C
Ambient temp.	-20° ... +70°C
Operating pressure	0 ... 1.6 MPa
Power supply	24 VDC, 60 mA
Output	2 x Relay, 60V, 1A
Process connection	1/2" G type (ISO 228-1)
Sensor material	Stainless steel 1.4404 (SUS 316L)

The thermal mass flow direction switch S 409 allows the detection of direction of the flow. It can be used in compressed air and non-corrosive gases.

The sensor element is very robust and completely of stainless steel. Through a 1/2"G-type ball valve the switch can be inserted into the pipe under pressure.

The flow and direction information is output through 2 normally open relay switches. The signals can be transferred to the SUTO flow sensor to activate and deactivate the flow measurement depending on the flow direction.

Thermal mass flow sensor element

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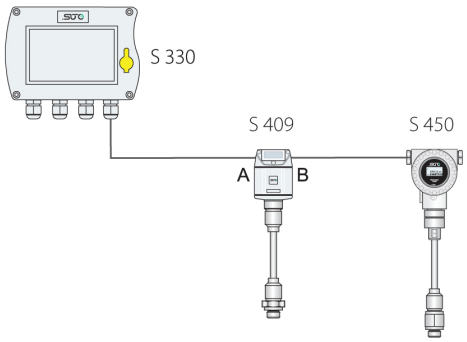
Pin arrangement of flow switch

	Pin1	Pin2	Pin3	Pin4	Pin5
A	SDI	-VB	+VB	DIR1	DIR1
B	SDI	-VB	+VB	DIR2	DIR2

Relay output at switch

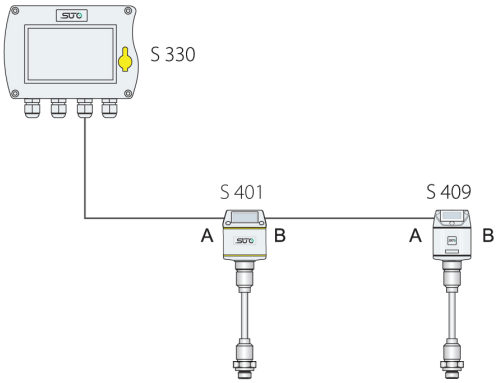
Connection of S 330 to S 450 via flow switch



S 409 (B)	S 450
1	4
2	3
3	2
4	5
5	6

Connection between S 409 and S 450/452

Connection of S 330 to S 401 with flow switch



Attention: Flow sensors S 450/S 401 need to have the bi-directional calibration option to operate in both directions

Order No.	Description
S695 0409	S 409, flow direction switch, insertion type
A554 0007	Mains unit in wall housing
A553 0104	Sensor cable 5 m, with M12 connector, open wires, AWG24 (0.2 mm^2)
A553 0105	Sensor cable 10 m, with M12 connector, open wires, AWG24 (0.2 mm^2)
A1005	NPT ½" adaptor
A1006	PT ½" adaptor