

## IVA 409 - Flow direction switch for compressed air systems



The thermal flow direction switch IVA 409 with direction indication serves for determination of the flow direction of compressed air and gases especially in closed circular pipelines.

By means of IVA 409 with flow direction indication the flow direction of the compressed air can be determined quickly and safely. Compared with the former mechanical paddle flow switches IVA 409 is able to detect even the smallest changes in the flow direction quickly and without any mechanical movement.

The direction information in form of a potential-free contact (normally closed max. 60 VDC, 0.5 A) is transferred to the flow meters IVA 5xx or to a separate building management system (BMS). Two LEDs show the flow direction.

In connection with 2 flow sensors IVA 5xx incoming and out flowing compressed air in closed circular pipelines can be measured precisely.

### Special features:

- detects the smallest changes < 0.1 m/s relative to 20 °C and 1,000 mbar
- no mechanical wear parts
- easy installation under pressure



### TECHNICAL DATA IVA 409

<b>Response area detection of direction:</b>	< 0.1 m/s relative to 20 °C and 1000 mbar
<b>Measuring principle:</b>	Calorimetric measurement
<b>Sensor:</b>	Pt 30/ Pt 700/ Pt 330
<b>Measured medium:</b>	Air, gases
<b>Operating temperature:</b>	0...50 °C sensor tube -20...70 °C housing
<b>Operating pressure:</b>	up to 16 bar
<b>Power supply:</b>	24 VDC, 40 mA
<b>Current consumption:</b>	Max. 80 mA to 24 VDC
<b>Protection class:</b>	IP 54
<b>EMC:</b>	in acc. with DIN EN 61326
<b>Connection:</b>	2 x M12, 5-pin, plug A and plug B
<b>2 potential-free contacts:</b>	2 x U max. 60 VDC, I max 0.5 A (normally closed); on request: Normally open
<b>Housing:</b>	Polycarbonate
<b>Sensor tube:</b>	Stainless steel, 1.4301, length 160 mm, Ø 10 mm, safety ring Ø 11.5 mm, longer sensors on request
<b>Mounting thread:</b>	G 1/2"
<b>Housing diameter:</b>	65 mm
<b>Direction indication:</b>	2 LEDs

### DESCRIPTION

DESCRIPTION	ORDER NO.
Direction switch VA 409	0695 0409
Mains unit in wall housing for maximum 2 sensors of the series VA/FA 5xx, 100-240 V, 23 VA, 50-60 Hz / 24 VDC, 0,35 A	0554 0110
Connection cable for VA/FA series, 5 m	0553 0104
Connection cable for VA/FA sensors, 10 m	0553 0105