



## Description

The air quality sensor serie SAV for mixed gases (VOC) measures the air quality from 450...2000 ppm referring to the calibration gas. The sensors with provided by linear output signal 0...10 V DC or 4...20 mA.

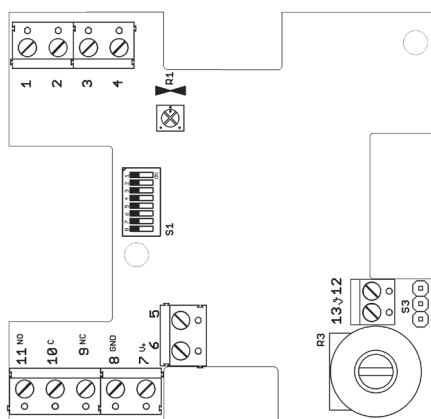
## Technical specifications

<b>Measurement range VOC</b>	450...2000 ppm
<b>Tolerance</b>	±2% FS
<b>Measurement range °C (optional)</b>	see configuration
<b>Accuracy °C</b>	±0,3°C (5...60°C) + 2,5% FS
<b>Measurement range RH (optional)</b>	0...100% RH
<b>Accuracy RH</b>	±2% RH (20...80%RH) + 2% FS
<b>Power supply</b>	12...34 V AC/DC
<b>Power consumption</b>	40...100 mA
<b>Working resistance at 0...10 V DC</b>	10...100 kOhm
<b>Working resistance at 4...20 mA</b>	50...500 Ohm
<b>Electrical connection</b>	Screw terminal for cables 1,5 mm <sup>2</sup>
<b>Housing</b>	ABS (plastic) colour white RAL9010
<b>Weight</b>	approx. 70 g
<b>Protection type</b>	IP30
<b>Working range RH</b>	0...98% RH in contaminant-free, non-condensing air
<b>Working temperature</b>	0...+50°C
<b>Standards</b>	CE conformity, RoHS



Models	Temperature	Humidity	Output
SAVV	-	-	0...10 V DC
SAVTV	●	-	0...10 V DC
SAVTHV	●	●	0...10 V DC
SAVC	-	-	4...20 mA
SAVTC	●	-	4...20 mA
SAVHC	-	●	4...20 mA

## Electrical wirings



Output 0...10 V				Output 4...20 mA			
PIN	VOC	VOC/T	VOC/T/H	PIN	VOC	VOC/T	VOC/H
1	ppm	temp	temp	1	-	-	-
2	-	ppm	humidity	2	-	-	-
3	-	-	ppm	3	ppm	temp	humidity
4	-	-	-	4	-	ppm	ppm
7		+		7		+	
8		GND		8		GND	

## Dip-switch setting

### SAVT

Temperature range selection	Range	1	2	3	4	5	6	7	8	Temperature range selection	Range	1	2	3	4	5	6	7	8
	-100...+50°C	OFF	OFF	OFF	OFF	OFF	OFF	-	-		-	-10...+120°C	OFF	OFF	ON	ON	OFF	-	-
-50...0°C	ON	OFF	OFF	OFF	OFF	OFF	-	-	-	0...+40°C	ON	OFF	ON	ON	OFF	-	-	-	-
-50...+50°C	OFF	ON	OFF	OFF	OFF	OFF	-	-	-	0...+50°C	OFF	ON	ON	ON	OFF	-	-	-	-
-50...+150°C	ON	ON	OFF	OFF	OFF	OFF	-	-	-	0...+70°C	ON	ON	ON	ON	OFF	-	-	-	-
-30...+20°C	OFF	OFF	ON	OFF	OFF	OFF	-	-	-	0...+100°C	OFF	OFF	OFF	OFF	ON	-	-	-	-
-30...+60°C	ON	OFF	ON	OFF	OFF	OFF	-	-	-	0...+150°C	ON	OFF	OFF	OFF	ON	-	-	-	-
-30...+70°C	OFF	ON	ON	OFF	OFF	OFF	-	-	-	0...+160°C	OFF	ON	OFF	OFF	ON	-	-	-	-
-20...+50°C	ON	ON	ON	OFF	OFF	OFF	-	-	-	0...+200°C	ON	ON	OFF	OFF	ON	-	-	-	-
-20...+80°C	OFF	OFF	OFF	ON	OFF	OFF	-	-	-	0...+250°C	OFF	OFF	ON	OFF	ON	-	-	-	-
-20...+120°C	ON	OFF	OFF	ON	OFF	OFF	-	-	-	0...+400°C	ON	OFF	ON	OFF	ON	-	-	-	-
-20...+150°C	OFF	ON	OFF	ON	OFF	OFF	-	-	-	0...+600°C	OFF	ON	ON	OFF	ON	-	-	-	-
-10...+15°C	ON	ON	OFF	ON	OFF	OFF	-	-	-	+10...+35°C	ON	ON	ON	OFF	ON	-	-	-	-

### SAVTH

Temperature range selection	Range	1	2	Humidity range selection	Range	3	4	5	6	7	8
	0...+50°C	OFF	OFF		Relative humidity	0...100%	OFF	OFF	OFF	OFF	-
0...+100°C	ON	OFF	Absolute humidity	0 g/m³...30g/m³	ON	OFF	OFF	OFF	-	-	
-20...+80°C	OFF	ON	0 g/m³...50g/m³	ON	ON	OFF	OFF	-	-	-	
-30...+70°C	ON	ON	0 g/m³...80g/m³	ON	ON	ON	OFF	-	-	-	
			Mix ratio	0 g/kg...30g/kg	OFF	OFF	OFF	ON	-	-	
			0 g/kg...50g/kg	OFF	OFF	ON	ON	-	-	-	
			0 g/kg...80g/kg	OFF	ON	ON	ON	-	-	-	
			Dew point	0...+50°C	OFF	ON	ON	OFF	-	-	
			-50...+100°C	ON	OFF	OFF	ON	-	-	-	
			-20...+80°C	OFF	ON	OFF	ON	-	-	-	
			Enthalpy	0 kJ/kg...85kJ/kg	ON	ON	ON	ON	-	-	

**WARNING:** At the sensor is needed warming up at powering, therefore it takes about 15 minutes before having a signal. In this phase, the sensor must be placed in the fresh air to take it as a reference. If you remove the power supply voltage it is necessary to wait 15 minutes. Generally the sensor should be placed into fresh air at least once a day. This procedure prevents a long-term drift.

## Dimensions (mm)

