



Sensors

Controlled Ventilation System (DCV)

Sensors designed to work with Plum controllers.

Sensors are a key component of the Controlled Ventilation System (DCV), which effectively manages air quality in buildings. DCV monitors environmental parameters such as CO₂ levels, humidity and the presence of pollutants. Their use allows the DCV system to adjust ventilation operation to current conditions, minimizing energy consumption and ensuring optimal comfort conditions for occupants.

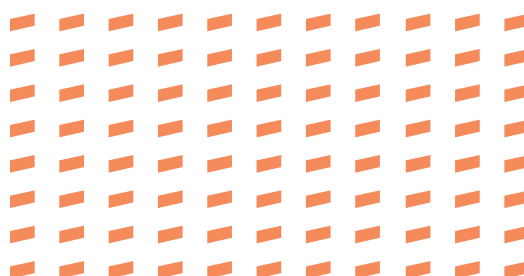
Benefits:

- Optimize energy consumption by adjusting performance to the actual needs of the room.
- Improved air quality thanks to sensors monitoring CO₂ and humidity levels.
- Safety, a sensor thanks to OCP used for flame detection, allowing a quick response to a potential threat.

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SCO2

sensor for measuring CO₂, temperature and humidity



The duct sensor is designed to measure CO₂ concentration, temperature and humidity for ventilation control systems. The sensor is designed for internal installation, on the flat surface of ventilation ducts or inside air handling units.

power supply	3,0 - 5,5 VDC
operating conditions	min.-10°C, max. +60°C, 0 - 100 %RH (non-condensing)
storage temperature	min.-40°C, max. +70°C, 10 - 95% RH (non-condensing)
humidity measurement range / accuracy / response time	0- 100% RH, non-condensing/ ±6%/ 90 sec.
temperature measuring range / accuracy / response time	min. -10°C, max. +60°C/ ±0,8°C/ 120 sec.
CO₂ measuring range / accuracy / response time	400 - 2000 ppm/ ±(50 ppm +5% of the measured value read)/ 60 sec.
digital transmission	I2C
measurement resolution	14 bit for 0.01 % RH and 0.01°C
dimensions	30 x 18 x 12 mm
installation method	on a flat mounting surface
holder	mounting screw

SRHT

temperature and humidity sensor



Capacitive relative humidity sensor with integrated temperature sensor is designed to measure humidity and temperature levels in a ventilated room.

measuring range	0 - 100% RH
output	digital I2C or analog PDM
measurement resolution	relative humidity measurement: 14 bits (0.01% RH) temperature measurement: 14 bits (0.01°C)
accuracy of measurement at 25°C	relative humidity measurement: ± 2.0% RH (20 - 80% RH), ± 4.0% RH (0 - 20% RH), ± 4.0% RH (80 - 100% RH) temperature measurement: ± 2.0°C (min. -40°C, max. +20°C), ± 0.5°C (min. 20°C, max. 40°C), ± 2.0°C (min. 40 °C. max. 70°C)
repeatability of measurement	relative humidity measurement: ± 2.0% RH temperature measurement: ± 0.1°C
hysteresis	± 1,0% RH
linearity	< 2,0% RH
screw terminals	cable cross-section: 0.25 - 1.5 mm ²
control	1x touch-sensitive capacitive button
self-clamping connector	wire cross-section: 0.25 - 0.75 mm ² , insulation length: 8- 9mm
dimensions	80 x 80 x 10mm

CT temperature sensors

Temperature sensors for measuring temperature in central heating, ventilation, and solar installations.



internal measuring element	NTC 10K Ω in 25°C, B25/85=3977K
temperature measurement range	min. -40°C, max. +100°C
measurement accuracy	± 5%, 25°C
cable type	PVC, 2x0.35 mm ² or 2x0.5 mm ²
sealing	IP 68

evoPRESS pressure difference transducer



Transducer for measuring differential pressure with a voltage analog output.

degree of contamination	12 - 24 VDC 12 - 15 VAC
current consumption	0,05 A
protection level	IP54
ambient temperature	min. 0°C, max. +50°C
storage temperature	min. -10°C, max. +60°C
relative humidity	5 - 85%, non-condensing
analog output	voltage 0 - 10V
digital transmission connector	RS485
terminals	screwed in 5 mm raster; cable cross section from 0.75 to 1.5 mm ² , tightening torque 0.4 Nm, stripping length 6 mm
external dimensions	70 x 50 x 37 mm
weight	0,05 kg
mounting	wall-mounted
standards	PN-EN 60730-2-9
protection class	II
pollution degree	2 degree
software class	A
measuring range	- evoPRESS-01-500: 500 Pa - evoPRESS-01-2500: 2500 Pa - evoPRESS-01-7000: 7000 Pa
measurement accuracy	- evoPRESS-01-500: ±0,25 % range - evoPRESS-01-2500: ±1,5% range - evoPRESS-01-7000: ±1,5 % range