

Datasheet

UMS Air - CO₂ and Relative Humidity Sensor

Part No: UMS Air



Bisly Air is a ventilation CO₂ and RH sensor for intelligent building automation control. UMS Air is mounted in the exhaust port of the mechanical ventilation system. UMS Air has following functionalities:

- Air purity sensing of CO₂, VOC and dust particle concentration (options)
- Air temperature and humidity sensing
- Encrypted communication in Bisly RS-485 device network

Electrical Data

Supply voltage	16 - 30 VDC, reverse polarity protected
Power consumption	0.7W avg @24V 1,5W max @24V all sensors active, sensor internal overcurrent protection at ca 0.7A
Security	- Fully encrypted RS485 communication data - Unique AES128 encryption keys for each device - Remotely upgradable software
Sensors	- Air temperature: ± 0.5 °C (max), -10 to 85 °C - Air relative humidity: $\pm 4\%$ rH (max), 0 – 80% rH. - CO2 concentration: 0 - 2000 ppm, ± 150 ppm $\pm 0,5\%$ of reading - Air small particles concentration (optional): software selectable particles size 1.0 - 2.5 μm, 2.5 - 10 μm; counting efficiency 98% @$\geq 0.5\mu\text{m}$; $\pm 10\%$ @100 - 500 $\mu\text{g}/\text{m}^3$, $\pm 10\mu\text{g}/\text{m}^3$ @0 - 100 $\mu\text{g}/\text{m}^3$ - VOC (eTVOC) sensor (optional): 0 - 30000 ppb range
Communication interfaces	RS-485 Bisly Secure network interface , $\pm 50\text{V}$ overvoltage and 4kV ESD (EN 61000-4-2) protected, without internal bus termination
Ambient operating temperature	-10 ... 50°C
Humidity	max. 90% r.H. (non condensing)

Product Characteristics

Mounting type	Magnet strips (on the back side of the device)
Cable	90cm, stranded 4x0.5mm ² Pinout: - Green - RS-485 B (-) - Blue - GND - Red - +24 VDC - Black – RS-485 A (+)
Colours	White
Finish	Matte
Flammability of casing	Fire retardant according to UL94 V0
Total weight	150 g
Product dimensions	100 x 100 x 35 mm

Certifications & Standards

Certifications	CE, WEEE, RoHS
Standards compliance	EN 63044-1, EN 63044-3, EN 63044-5, EN 50130-4, EN 60950-1

Installation must be carried out by a qualified electrician in accordance with the relevant regulations.