Alledio Indoor

Modbus & BACnet Sensor

Temperature I Humidity I VOC I CO2 I Pressure I Enthalpy I Dew Point I Density of Moist Air I Presence

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Notes	Data and descriptions in this document are subject to change without notice. Product photos and pictures are for illustrations purposes only and may differ from the real product appearance.

Parameter	Technical data
Housing Material	ABS (flame resistant)
Power Supply	AC: 24 VAC DC: 12-35 V; max expected power: 1,1W
Sensor Measuring Ranges – Output Data	Temperature: -40°C to +125°C Humidity: 0 – 100 % VOC Index points: range 1 – 500 VOC Index points (0-100%). This is based on the measurement range within of 0 – 1000 ppm Ethanol in clean air; specified range: 0,3 – 30 ppm Ethanol in clean air. CO2: 0 – 5000 ppm Pressure: 300 - 1200 hPa (300 mbar – 1200 mbar) Presence: detected / undetected (1/0) from min 1.0m to max 10.5m
Sensor Accuracy:	Temperature: average ±0,5 °C (at 0 – 65°C); available upon request: ±0,2 °C Humidity: ±1,8 % RH (30 – 70%), ±2 % RH (10-30%, 70-90%); available upon request: ±1% RH VOC: < ± 15 VOC Index points (< ± 3%); algorithm stability maintains <5 index point drift/year under continuous operation CO2: ± (50 ppm + 5% of reading) at 400 – 2000 ppm; upon request: ± (30 ppm + 3% of reading) at 400 – 5000 ppm Pressure: relative accuracy: ± 0.06 hPa (or ±0.5 m); absolute accuracy: ± 1 hPa (or ±8 m)
CO2 Auto Calibration	The CO2 sensor is designed to perform automatic self-calibration every 7 days. To ensure optimal calibration and maintain long-term accuracy, the sensor should be exposed to low CO2 levels (ideally around 400-500 ppm which is considered an unoccupied environment), at least once per week.
Communication Protocols	Modbus RS485, BACnet MS/TP, BACnet IP
NFC	Used to pair with Android and iOS smart phones
WiFi	WiFi is activated as an internal hidden network working in the proximity of ~2 meters. Once connected, you can set up Modbus Settings, BACnet Settings and Offset Settings of the Sensors and view the current measured values in real time (automatic reading every 3 seconds). Stay in Wi-Fi range in order to stay connected. WiFi will automatically disconnect after 15 minutes.
Electrical Insulation	Not in standard version; optional upon special request: Isolated RS-485; Up to 1kV (optional); prevents interference transmission, potential differences, and protects against over voltages between devices.
Cable Connections	Solid conductor 0.2 … 0.75 mm^2 / 24 … 18 AWG Fine-stranded conductor 0.2 … 0.75 mm^2 / 24 … 18 AWG Fine-stranded conductor; with insulated ferrule 0.25 … 0.34 mm^2 Fine-stranded conductor; with uninsulated ferrule 0.25 … 0.34 mm^2
Communication Cable	Twisted pair with drain wire and foil wrap or equivalent. Must Be suitable for RS485 Standard.
Ingress Protection	IP30
Ambient condition	From -10 °C to +50 °C, max. 85% rH non-condensing
Product dimensions	87 mm x 87 mm x 19 mm
Product weight	55 g
Package dimensions	115 mm x 115 mm x 42 mm (protective case)

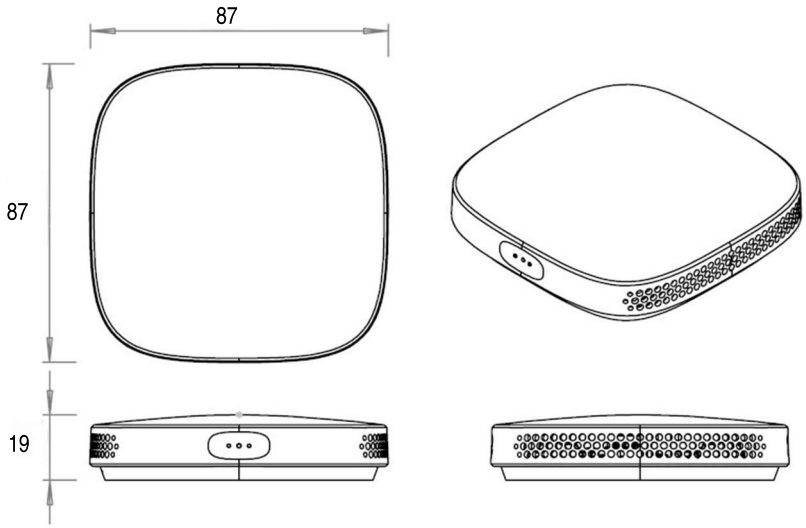
Package weight	90 g (optional bulk packaging – quantity dependent)
Standard	CE
Country of origin	Slovenia, EU
Warranty	1 year

Sensor Variations for ANM-[...] with Modbus & ANB-[...] with Modbus & BACnet

ANM-[...]	Temperature	Humidity	Pressure	VOC	CO2	Presence	Dew Point	Enthalpy	Density of Moist Air	Modbus	BACnet
TH	×	×								×	
THPV	×	×	×	×			×	×	×	×	
THPC	×	×	×		×		×	×	×	×	
THPVC	×	×	×	×	×		×	×	×	×	
THPVCP	×	×	×	×	×	×	×	×	×	×	
ANB-[...]											
TH	×	×								×	×
THPV	×	×	×	×			×	×	×	×	×
THPC	×	×	×		×		×	×	×	×	×
THPVC	×	×	×	×	×		×	×	×	×	×
THPVCP	×	×	×	×	×	×	×	×	×	×	×

Case - Dimensions

L × W × H	87 mm × 87 mm × 19 mm



Mounting

Mounting Location	Wall-mounted, approx. 1.5m from floor level; avoid direct blow or other intense airflow
EU	flush mounted with standard EU box (Ø=60 mm), 3.5mm countersunk screw (wood screw)