



- 3 DIGITAL INPUTS
- AIR QUALITY SENSORS
- VIBRATIONS WITH MEMS SENSOR
- ETHERNET/WIFI CONNECTION
- MQTT PROTOCOL WITH TLS
- MODBUS-TCP/UDP



ReSENSE-DIGITAL devices fundamentally offer 3 digital inputs with the option of pulse measurement, which can be used for frequency measurement or as a pulse counter (reading of digital electricity meters using SO output, or reading of water meters using pulses). ReSENSE-DIGITAL can also be acquired with air quality measurement — indoor temperature, humidity, pressure, and VOC gases (also calculated CO<sub>2</sub>) — as well as a vibration sensor, suitable for predictive maintenance of motors and bearings. 3-axis vibration measurement helps to better diagnose an emerging problem by also determining the direction of the vibration. FFT and 2nd and 3rd class enveloping allow for the identification of problems with bearings or gearboxes even before they become apparent, thus enabling appropriate planning of their maintenance.

## TECHNICAL SPECIFICATION

### MEASUREMENT PARAMETERS

Temperature	-40–+85 °C, ±1.0 @ 0-65°C
Humidity	0–100% r.H., ±3% @ 25°C
Pressure	300-1100 hPa, ±0.12 hPa @ 25-40°C
VOC gases	Ethane, Isoprene, Ethanol, Acetone, Carbon Monoxide ±5%, CO <sub>2</sub>
Digital input 3x	0-24V digital input with polarity protection
Vibration resolution,accuracy,sampling	16-bit, ±0.5%, 26600 SPS
Vibration sensitivity ranges	0.06mg at ±2g, 0.12mg at ±4g, 0.24mg at ±8g, 0.48mg at ±16g

### POWER SUPPLY

Type	external source/passive PoE
Voltage	9-24V
Consumption	max. 2W
Protection	against polarity reversal

### COMMUNICATION

WiFi	2.4GHz 802.11 b/g/n WEP/WPA-TKIP/WPA2-CCMP/WPA3-PSK 2 dBi internal/external (0.25m cable) antenna
Ethernet	10/100 Base-TX Auto MDI/MDI-X Passive PoE
Protocol	MQTT TLS/SSL + Modbus-TCP/UDP

### HOUSING AND ENVIRONMENTAL

Material, dimensions, weight and rating	ABS, 74x90x22mm, IP20
Terminals and mounting	screw terminals 0.5–1.5mm <sup>2</sup> (28–16 AWG), magnetic mounting
Operating (storage) conditions	-25 °C ~ +75 °C (-30 °C ~ +80 °C) 10 ~ 90% RH, non-condensing