CAL-SENSOR-WBOX

CALMS AIR INC.

CALMS d.o.o.
Dolenjska cesta 83, 1000 Ljubljana, Slovenia

+386 1 563 13 52
www.calms.com
info@calms.com

CAL–SENSOR–WBOX Device

The CAL-SENSOR-WBOX device is a modern and affordable extension module for compressed air systems, designed to work alongside the CALMS CAL-EDGE-8 data logger. It connects sensors via wireless Modbus protocol, enabling cable-free installation even in remote or hard-to-reach locations.

Key features and benefits:

> Ability to connect to even the most distant sensors via Wireless Modbus, eliminating the need for physical cabling;
> Enabling fast, flexible and cost-effective system expansion in any environment;
> CALMS web application that provides real time access to data from any web browser for any end user and their service partner;
> Increases your environmental image;
> Increases the reliability of your equipment;
> Robust industrial design.

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Specifications:

Description	CAL-SENSOR-WBOX	Remarks
Hardware	Cortex-M4, 32-bit SoC Cortex-M3, 32-bit RISC core	
Protocol	MODBUS RTU, W-MODBUS	Up to 16 sensor per one device
Supported data rates-Wired	1,2 kbps to 1 Mbps	
Analog inputs 4…20mA	2	Passive or active connection with internal 24Vdc, 12–18-bit resolution, with standard connectors
Digital inputs	2	Isolated inputs for 24VDC. Insulation for up to 850V
Digital outputs	2	Isolated outputs for 24VDC. Max. switching current of 3A @ 230VAC
RS485	Standard: 1x	2-wire RS485
Operating Range	-40°C - 85°C (-40 F - 185 F)	
Power supply	24VDC (power adapter included) 5 VDC (via USB type C)	Recommended: 60W (power adapter). 25 W (USB type C) (*depends on sensor usage*)
Wireless Modbus	Frequency band: 2.45 GHz, ISM band (2402-2480 MHz)	w-Modbus mesh
Number of wireless nodes	Up to 100	
Range	Indoor: 10-40 meters Outdoor: 240 meters line-of-sight	For single node
Antenna interface	Standard SMA interface-antenna included	
Size	H 2.20 x W 103 x L 120 mm H 0.087 x W 4.06 x L 4.72 Inches	
Materials	Enclosure: Aluminum	
Mounting	DIN rail or wall mounting	
EMC	EN 61000-6-2 EN 61000-6-4	
Approvals	CE / UL / FCC Class A	