DATA SHEET

CAL-PM-BASIC-4

CALMS AIR INC.

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CAL-PM-BASIC-4 Monitoring & Control device

Device CAL-PM-BASIC-4 is for basic permanent monitoring and PLC control system for compressed air applications. It covers all fields such as remote energy management systems, data logger and compressed air control system. System is doing real time access to data from any web browser for end users and their service partner.
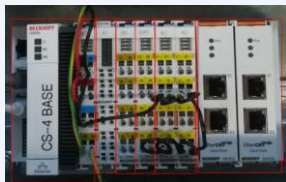
Key features and benefits:

> An advanced and integrated system for remote monitoring, auditing, alarming, reporting and PLC control in compressed air applications.
> System customizable according to the customer`s needs;
> Save on energy costs and improve your energy efficiency;
> Improve the reliability of your equipment;
> Improve your environmental image;
> Industrial and robust design;

Specifications

CAL-PM-BASIC-4 device represents a hardware that connects compressed air system to web based application for energy management and optimization:

CAL-PM-BASIC-4 DEVICE

PLC with digital input and output terminals, analog inputs/outputs terminals and other additional terminals.

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CAL-PM-BASIC-4 Device:

Specification	CAL-PM-BASIC-4
S-PLC Controller	Processor Arm® Cortex®-A53, 1.2 GHz micro SD 16GB, internal memory 1GB LPDDR4 RAM6
Analog inputs	8 (4-20mA, single-ended, 12 bit with terminal fuse)
Digital inputs	24 (24VDC)
Digital outputs	16 (relay output terminal, 4-20mA, 125VAC/30VDC, 0.5A AC/2A DC, potential-free make contacts)
Analog outputs	4 (4-20mA for VSD regulation)
Protocol	Real-time Ethernet, ADS TCP, Modbus TCP, TCP/IP, UDP/IP, EAP
Interfaces	3x Ethernet 10/100Mbit/s (2x network adapter)
UPS	1-second UPS (for 1 MB persistent data)
Max. number of compressors	4
WEB Management	Yes
EMCS, CFC, SOV	Yes (optional)
Visualization	10" Touch HMI
Logging interval	5 sec (configurable)
CALMS upload interval	5 min (configurable)
Cloud connection	3G/4G or LAN (optional)
Operating range	0-50°C 32-131F
Power supply	100 - 240VAC 50-60Hz
Size	H210 x W500 x L500 [mm] H8.26 x W19.69 x L19.69 [inches]
Materials	Enclosure: Steel cabinet, Cable Entry ICOTEK
Mounting	Mast or wall mounting
EMC	EN IEC 61326-1
Class	IP23
Approvals	CE

Accessories:

Accessory	
CAL-SIM	SIM LTE (3G/4G) subsctription per audit device – charged annualy
CAL-OPT	Fiber optic converter kit with SC duplex connection (1310 nm) for 100Base-TX to multimode fiber optics, DIN rail mountable, without fiber optic cable!
CAL-485-PM	2 port RS422-RS485 Expansion for MODBUS RTU communication (First port for 5 slave devices-> up to 10 measurements per slave (if more addiotional rpogramming labour needed), Second port for external master communication)
CAL-485-IM	1 port RS422-RS485 Expansion for MODBUS RTU communication with compressor controller
Analog inputs	4 (4...20mA, 12 bit, 4 x 2-wire system) 8 (4...20mA, 12 bit, 8 x 2-wire system)
Digital inputs	8 (24VDC, filter 3.0ms, 2-wire system)
Analog outputs	4 (4...20mA, 12 bit, 4 x 2-wire system)
Digital outputs	4 (relay output terminal, 4-20mA, 125VAC/30VDC, 0.5A AC/2A DC, potential-free make contacts)
CAL-PROFIBUS	PROFIBUS Master/Slave Expansion (without programming labour)
CAL-PROFINET	PROFINET Master/Slave Expansion (without programming labour)
CAL-OPCUA-GW	OPC UA Gateway, installed in CAL-PM-BASIC-4 cabinet (without programming labour)
CAL-PM-LAN	Router to establish internet communication to CALMS cloud via customer's LAN network