

2025 CALMS AIR INC.

# DATA SHEET CAL-KIT



# CAL-KIT

## PORTABLE AUDITING DEVICE

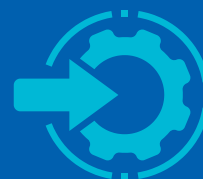
CAL-KIT is a comprehensive package designed for advanced data logging, leak detection, and system monitoring in compressors. With the free CALMS platform annual Basic subscription for five systems, users can monitor, analyze, and manage their systems in real-time, from anywhere, at any time. This kit provides a complete solution for data logging, real-time monitoring, and maintenance of compressor systems, thereby improving system efficiency and reducing energy waste.



Plug & Play



Monitoring &  
Auditing



Analog &  
Digital Inputs



# WHY USE CAL-KIT?



## WHAT IT DOES

- **Complete compressor system monitoring solution** in one rugged case
- **Streamlines auditing** – combines data logger, sensors, and accessories in one place
- **Optimizes performance and reduces energy waste** by enabling prompt, accurate leak detection and repair
- Includes a **free CALMS Basic subscription** (5x CALMS B credits) – monitor up to five systems
- **Ideal for service providers, auditors, and plant teams** needing flexible, high-precision diagnostics



## KEY COMPONENTS & SENSORS

- Central to the kit: **CAL-EDGE-8 data logger** – high-performance with eight 4–20mA analog inputs
- Includes **4x Rogowski coils** for compressor current measurement
- **Pressure transmitter** for precise pressure monitoring and leak detection
- **Connection and extension cables included** for simple setup and flexible sensor placement
- All parts are neatly packaged and protected in a **rugged Explorer case**



## MONITORING, LOGGING & VISUALIZATION

- Remote monitoring / alarming / reporting / auditing
- Data logger with **1-second sample rate**
- Detailed **web-based analysis and simulation tools**
- Compressed Air **Performance Scorecards**
- **SIMULATION module** integrated
- **Forecasting** of energy consumption



## PERFORMANCE & SAVINGS

- Supports **data-driven decision-making** with precise monitoring
- **Reduces energy loss** and improves compressor system efficiency
- Enables **cost-effective audits** and rapid performance optimization
- Perfect for **diagnosing issues**, benchmarking systems, and planning improvements



## DESIGNED FOR AUDITORS & PROFESSIONALS

- **Save time**, reduce planning complexity, and improve organization
- Increases **equipment reliability** and operational insight

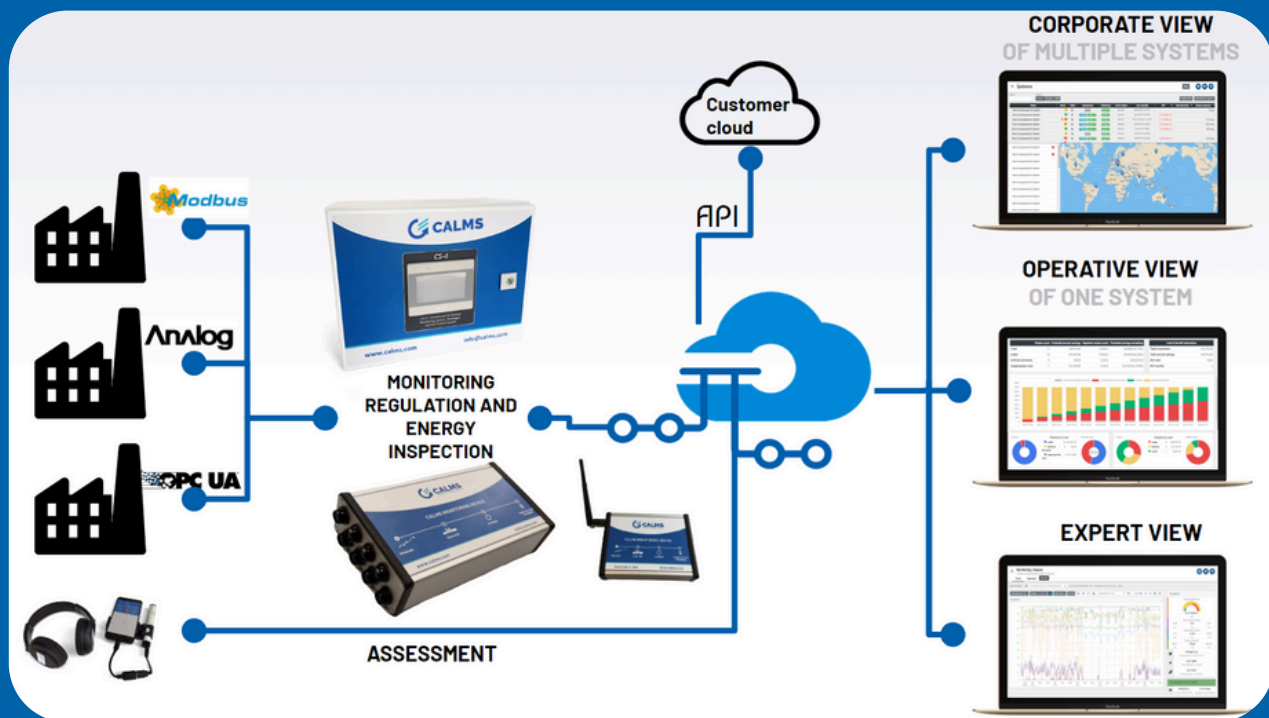
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## WHY CHOOSE CALMS?

- **Developed by compressed air experts** – built on years of field experience and industry knowledge
- **Trusted worldwide** by manufacturers, energy auditors, and service providers
- **All-in-one solution** – from monitoring to simulation and reporting
- **Faster audits, smarter decisions** – transform raw data into clear, actionable insights
- **No hidden costs** or complexity – simple to install, easy to scale, and cost-effective
- **Future-ready platform** – continuously improved with remote upgrades and feature expansions
- **Supports your sustainability goals** – optimize energy use, reduce emissions, and improve ISO 50001 compliance

# CALMS – PROCESS DIAGRAM

CAL-KIT includes: CAL-EDGE-8 data logger with LTE 4G modem, Ethernet, RS485 – Modbus RTU and TCP, 8 x Analog Inputs 4-20mA, explorer case, free CALMS platform annual Basic subscription for 5 systems, CT Rogowski Amps 4x compressor(4x CT RS 500A / 20mA) + Pressure transmitter(1x SML-10) with connection cables + 5x AI extension cables 10m + 3x AI open end short cable with connector for 4-20mA, (generic 4-20mA pasive/active sensor)





# WHAT IS INCLUDED IN THE KIT?



- 1x CAL-EDGE-8 data logger
- 1x Pressure sensor
- 4x Rogowski Coil CTs
- 3x Open end cables (0.5m)
- 5x Extension cables (10m)



## 1X CTX PRESSURE SENSOR:

- Relative pressure measurement from -1 to 200 bar
- Robust ceramic measuring cell
- Stainless steel housing
- Compact design
- Relative pressure and vacuum measurement



# 1X CAL-EDGE-8:

CAL-EDGE-8 is a next-generation IoT device for comprehensive compressed air monitoring. It builds upon the capabilities of CAL-EDGE-0 but includes 8 built-in analog sensor inputs, allowing direct integration with pressure, flow, temperature, and other critical sensors—eliminating the need for extra hardware.



## SPECIFICATIONS

Description		Remarks
Hardware	Quad core Cortex-A53 (ARM v7) 64-bit	
Processor Speed	SoC @ 1.5GHz	
RAM	1GB DDR2 RAM	
Protocol	MODBUS RTU, MODBUS TCP/IP, ADS, OPC UA, Database queries	Up to 20 sensors per one device
Interface	1x 10/100 Ethernet adapter	
Analog inputs 4...20mA	8	Passive or active connection with internal 24Vdc, 12bit resolution, with standard connectors
RS485	Standard: 1x	2-wire RS485
WEB Management	Yes	
Min logging interval	1 sec (configurable)	
CAL to CALMS web upload interval	1 sec to 24 h (configurable)	
Data Storage	eMMC 8 GB	
Cloud connection	Mobile 3G/4G / LAN	
Operating Range	0°C - 50°C (32 F - 131 F)	
Power supply	24VDC (power adapter included)	Recommended: <b>60W</b> . Depends on sensor usage.
Cellular modem	LTE (LTE-M)	Depends on network coverage.
Antenna interface	Standard SMA interface-antenna included	
Size (mm)	H 56 x W 125 x L 250 mm	
Size (Inches)	H 2.20 x W 4.92 x L 9.84 inches	
Weight	865 g /1,91 lb	
Materials	Enclosure: Aluminum	
Mounting	DIN rail or wall mounting	
EMC	EN 61000-6-2/EN 61000-6-4	
IP rating	IP54	
Approvals	CE, UL	

# 4X CT ROGOWSKI COIL:

This flexible transducer is particularly suitable for current measurements in combination with portable devices or where simplified power consumption is required. The large flexible coil makes it an excellent solution where a traditional current clamp is too difficult to fit. The coil is shielded against the influence of external magnetic fields and is suitable for high power load analysis, impulsive current monitoring and DC ripple measurements.

The inline integrator amplifies and converts the coil's output to a 4-20mA or Modbus standard signal for simple connection to your PLC or display.



## BENEFITS OF CURRENT MEASUREMENT:

- Reduce operating and energy costs
- Improve understanding of energy usage (eg spikes, variation, usage)
- Identify excess current draw issues
- Identify current imbalances on different phases
- Compare current draw to rated power usage
- Improve efficiency and reduce waste
- Monitor your mains power supply usage and peak loads
- Monitor individual equipment usage or sub system loads

## FEATURES:

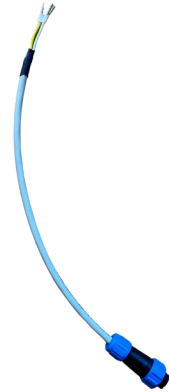
Features	Details
Output Options	4-20ma or Modbus
Rated Options	500A, 1,000A, 3,000A
Window Size	500A: 50mm, 1,000A: 100mm, 3,000A: 150mm
Coil Diameter	8 mm flexible coil for easy installation
Power Supply	24VDC
Mounting Method	Fastened by cable ties for permanent installs
Linearity	High linearity
Dynamic Range	Wide dynamic range
Power Consumption	Low power consumption
Intrusiveness	Non-intrusive, draws no power from the main circuit
Included Accessories	2m cable included
Accuracy	±0.5% over measuring range
Cable Position Adjustment	Accuracy ±1%



## 3X CAL-SENSOR OPEN END CABLE 0.5M:

The CAL-SENSOR is a 4-wire cable designed for integrating custom sensors with the CAL-EDGE-8. It features a connector on one side and open wires on the other, allowing flexible wiring for sensors with non-standard connections.

With a 0.5-meter length, it is ideal for compact installations where space is limited. Engineered for reliable signal transmission, the CAL-SENSOR ensures accurate data collection in compressed air monitoring and automation systems.



## 5X CAL-AI ANALOG INPUTS CABLE (10M):

The CAL-AI is a 4-wire cable designed for connecting analog input signals to the CAL-EDGE-8. It comes with pre-configured connectors, ensuring a secure and reliable connection to sensors and measurement devices.

The standard 10-meter length accommodates various installation needs, with custom lengths available upon request. Built for industrial environments, it provides durable performance in monitoring and automation applications.



@ 2025 CALMS AIR INC.

# LET'S WORK TOGETHER

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