INGESYS

CMS

Condition Monitoring System









INGESYS $^{\text{TM}}$ CMS is a customizable and internally modular online monitoring system, that anticipates the appearance of functional anomalies in the machine, based on the analysis of its variables (vibrations, temperature, position, etc.).

Online condition monitoring system for rotary machines

Main Functional Features

- · Modular architecture that can be adapted to the needs of each machine
- Open system, programmable by the user in SIMULINK, IEC61131 or C/C++
- Capture and treatment of a wide range of signals (position, speed, accelerometers, temperatures, analogue values in V/I, digital signals, etc.)
- · Distributed capturing via Ethernet RT
- · Data logger functionality
- Integration with other automation elements using fieldbuses (CAN, RS485, etc.), Ethernet networks with MODBUS TCP, ETHERNET/IP or ETHERNET RT with PROFINET or ETHERCAT
- · Communication protocols for connection to the cloud (SFTP, MQTT)
- · Expandable memory for logging information
- INGESYS™ ACM, powerfull diagnosis & analysis software utilities, for an easy and accurate detection
 of upcomming failures.

Advantages

- ✓ Hardware and software user customizable system
- ✓ Maintenance program optimization
- ✓ Spare parts saving
- ✓ Plant lifetime extension



Technical Data INGESYS

	System
Main Power Supply	24Vdc (+25% / -30%) Class S1
Maximum Consumption	24V @ 300mA / 110V @ 80mA
Dissipated Power	8W (max.)
Dissipated Fower	Program: 1Mb
	Data. 1Mb
Memory	Non-volatile data: 62Kb
	Register: 32Mb expandable to 4Gb
Programming	Simulink, IEC61131-3, C/C++
	Recordable variables: 1024
	Consecutive logs: 32
Data Logger	Maximum number of variables that can be recorded in a log configuration: 64
	Log buffer: 512kb
	Simultaneous logs: 2 Maximum number of log configurations: 32
	Integrated user-configurable web server
Monitoring and Maintenance	USB port for loading/unloading firmware, application, data log, etc.
	2 x 10/100Base TX RJ45 Ethernet ports with internal switch + 1 x 10/100Base TX RJ45 Ethernet port*
Ethernet Interfaces	Protocols: SFTP, MQTT, Modbus TCP/IP, Ethernet/IP, PROFINET, ETHERCAT
Fieldbus Interfaces	Up to 4 DB9 ports: CANOPEN(Master/Slave), Profibus DP Slave, RS232/RS485
Wireless Interfaces	WiFi, 3G
Digital Input Module	16 x DI (24Vdc @ 3mA)
Counter Input Module	1 incremental input encoder 24Vdc, 24-bit counter
	8 x AI (±10V or ± 20mA)
Analog Input Modules	8 x Al (PT100, NTC or Thermocouple)
	2/4/8 x AI (fast synchronous) up to 100Ks/s, for (±10V or ± 20mA) or IEPE accelerometers
Relay Output Module	3 outputs (150V @ 5A)
	Standards
Labelling	CE
Immunity and Emission	EN 50121-3-2:2007
Temperature Range	EN 50155:2007 [Class TX (-40°C at +70°C)]
Vibrations	EN 50155:2007 [Body Mounted, Class B] / IEC 61373:2007
Protection Against Fire	EN 45545-2
	Mechanical Features
Assembly	Panel, DIN Rail
Material	Aluminium
Dimensions (H x W x D)	(149mm to 524mm)** x 135mm x 34.6mm
Design	Internally modular. Maximum 10 I/O modules

^{*} Optional **Depending on the number of I/O modules selected, each with a width of 37.5 mm.

