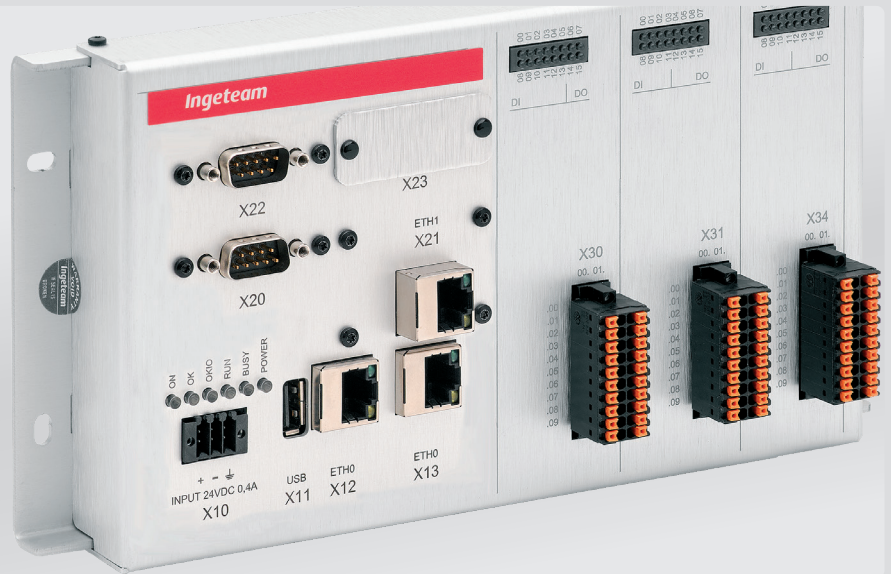
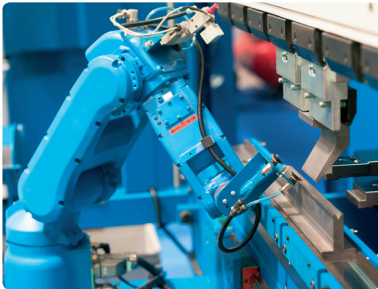


INGESYS

CMS4

Online Machinery Monitoring



INGESYS™ CMS4 is an online monitoring system customisable to the needs of each machine or application thanks to an open internal hardware and software structure. Its function is to determine the machine's status anticipating the appearance of functional anomalies by the analysis of machine internal variables (vibrations, temperature, position, etc.).

Customisable Monitoring Solution for Industry 4.0.

Main Functional Features

- Modular architecture that can be adapted to the needs of each machine
- Designed for the industrial environment (demanding environments in terms of EMC and vibrations)
- Open system, programmable by the user in SIMULINK or IEC61131
- Capture and processing of a wide range of signals (position, 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
- Web server for local monitoring and parameterising

Advantages

- ✓ Hardware and software user customizable
- ✓ Designed for industrial environments
- ✓ Integration in the most commonly-used industrial networks
- ✓ Maintenance cost optimization

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Ingeteam

	System
Main Power Supply	24Vdc (+25% / -30%) Class S1
Maximum Consumption	24V @ 300mA / 110V @ 80mA
Dissipated Power	8W (max.)
Memory	Program: 1Mb Data: 1Mb Non-volatile data: 62Kb Register: 32Mb expandable to 4Gb
Programming	Simulink, IEC61131-3 languages
Data Logger	Recordable variables: 1024 Consecutive logs: 32 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
Monitoring and Maintenance	Integrated user-configurable web server USB port for loading/unloading firmware, application, data log, etc.
Ethernet Interfaces	2 x 10/100Base TX RJ45 Ethernet ports with internal switch + 1 x 10/100Base TX RJ45 Ethernet port* 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
Analog Input Modules	8 x AI ($\pm 10V$ or $\pm 20mA$) 8 x AI (PT100, NTC or Thermocouple) 2/4/8 x AI (fast synchronous) up to 100Ks/s, for ($\pm 10V$ or $\pm 20mA$) 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.