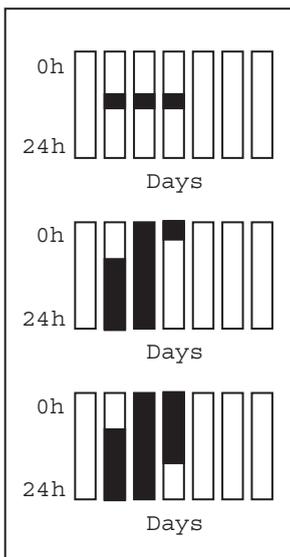


Boiler

INDUSTRY

- Alarming
- Totalisation
- Averaging
- Reporting
- Backup functionality



Environmental monitoring system

Application Note

Compliance to environmental regulation is now required for any industrial activity. There are very few activities that have zero environmental impact at all. Most work produces waste, burns fuel, uses electricity or carries some risk of pollution.

The Eurotherm Environmental Monitoring System aims at helping to achieve a rigorous approach to managing and improving the environmental aspect of operations required by the ISO 14001 international standard for environmental management systems.

In order to achieve this, the Eurotherm EMS application module provides you with the information and functionality needed to capture the system behaviour and make environmental investment effective.

EMS application module functions

- Normal, maintenance and calibration operation modes
- Analogue or digital input type
- Retention of last good value and calculation of a confidence factor if an input fails
- Variable sampling time
- Maximum and minimum PV history
- Totalisation
- Running average calculation
- External reset request of historical data
- Alarm functionality and re-alarming after a preset time

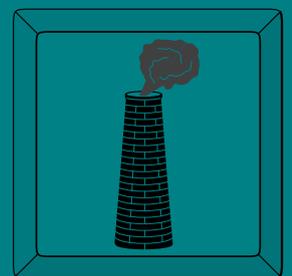
EMS front-end applications

- Selection of tags to average
- Selection of date/time limits focusing on specific time intervals in each day or including all the samples between the date boundaries (see picture)
- Up to three averages calculated at the same time on different time intervals (ranging from minutes to months) on the same group of tags (see Example 1)
- Up to three groups of tags averaged at the same time, each one associated with a different average time interval (see Example 2). This functionality is used to compare actual averages against the maximum authorised average associated to specific monitoring points
- Textual description of the current settings before the calculation begins in order for the operator to check if the report will meet his expectations
- Ability to pause the calculations, view partial reports and restart at a later time or stop the routine
- Ability to print sub-reports including averages from a narrower time interval
- Ability to merge backup files in order to calculate averages over the backup time
- Ease of customisation to meet specific requirements



EUROTHERM

CONTROLS
PROCESS AUTOMATION
RECORDERS



invensys
An Invensys company

Example 1

On all selected monitoring points calculate:
Avg 1: every 30 mins
Avg 2: every day
Avg 3: every week

Example 2

On monitoring point 1, calculate average every 2 hours
On monitoring point 2, calculate average every 3 days
On monitoring point 3, calculate average every 15 days

Eurotherm
Environmental Monitoring System

Average Reports

From to
between and

calculate averages every

calculate averages every

calculate averages every

Minutes
Hour (s)
Day (s)
Week (s)
Month (s)

Current request:

All the samples available for the selected Tags from 29/12/99 03:00:00 to 10/12/00 18:00:00 are averaged. Request 1: The Average is calculated every 30 Minutes. Request 2: The Average is calculated every 1 Day (s). Request 3: The Average is calculated every 1 Week (s).

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