The smart MDC alternative:
SmartMONITOR
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SmartMONITOR is the smart MDC alternative for industrial companies looking for a way to quickly and easily gather reliable data to optimise their manufacturing processes. SmartMONITOR provides all of the relevant data for machines, systems and manual workstations easily at the touch of a button. Unlike conventional, complex MDC systems, SmartMONITOR is a simple, wireless-based retrofit solution for signalling and analysing your entire production facility - at a glance.

Christian Höhler, Research & Development Director
EVERYTHING UNDER CONTROL WITH SmartMONITOR

With signal devices, the control station module or a message on your smartphone you can shorten your response times and optimise your manufacturing process, with the guarantee that you will never miss a critical situation. Everything is documented and the reports also show you how to permanently improve your processes and productivity.

PRODUCTION MONITORING

- Transparency of the complete production facility, even if spread over several buildings
- Identify free capacity
- Reduce downtime
- Increase machine productivity
- Easily integrate manual workstations

MACHINE MONITORING

- Reduction of reaction and downtimes
- Increase productivity
- Overview of the complete production facility
- Independent of the manufacturer of the machines and systems

MATERIAL FLOW

- Optimise material flow process
- Reduce flow time
- Eliminate wastage
- Increase productivity
- Reduce costs and process times

INITIATING PROCESSES

- Start or stop machines
- Logical networking of machines
- Head-of-Line function
With SmartMONITOR we help to make processes faster, leaner, better and more efficient - simply at the push of a button. The simple, wireless-based retrofit solution for signalling and analysing your entire production area ensures further growth and that you are always a step ahead of your competitors.
THE SYSTEM

SmartMONITOR from WERMA consists of a wireless transmitter, a wireless receiver and the software. The robust and proven wireless network for the production environment intelligently searches for the best connection and thereby ensures the simplest integration into your production process. The included software already has integrated analysis and reporting tools.

TRANSMITTER
WIRELESS DATA MONITORING
• Can be integrated into the signal tower as an additional element
• Monitors the status and counts the output of up to 50 machines or workstations
• Data transferred wirelessly to the receiver
• Initiates processes, starts and stops machines

SOFTWARE
CENTRAL CONTROL STATION
• Control station offers an overview of all machines, equipment and workstations
• Retrospective analysis of data
• Process optimisation
• React quickly to production disruptions
• Produce reports

RECEIVER
SECURE DATA COLLECTION
• Receives all the data sent by the transmitters in the network
• Transfers and saves the data to a Microsoft SQL database
INTUITIVE AND CLEAR – THE WIN SOFTWARE

The software supplied with the system is easy to install and leads the user through a series of steps to establish an individual network. It displays the status condition of signal lights installed in the system, enables the user to analyse runtimes, identify causes of disruption in operations and therefore improve efficiency.

KEEP UP TO DATE WITH CHANGES
MESSAGING SERVICE
React quickly regardless of your current location. If the status of a machine or workstation changes an Email can be automatically sent to a PC or Smartphone of the person responsible. You can select to whom and after which time interval of the status change the Email is to be sent.

EASY TO CREATE
REPORTS AND EXPORT FUNCTION
The user-friendly report function in the Control Station, Productivity, Run time and Job modules offers the possibility of converting all existing data into individual reports (in tabular and/or graphical form). The report can then be individually amended, printed out, and be saved in various data formats (pdf, HTML, Excel, CSV, jpg).

REACT QUICKLY
CONTROL STATION
The Control Station shows you the operating condition of all machines or workstations being monitored so you can quickly see if a machine is in an error condition or running normally, or monitor which order is being worked on and the status of that order. This module helps you to quickly take action to reduce downtime.

INCREASE EFFICIENCY
PRODUCTIVITY MODULE
Using the Productivity Module you can check the productivity of your machines and workstations over any time period. You can look for example at the last working day, or define specific time periods such as shift patterns. Using this module it is possible to retrospectively analyse downtime and fault conditions and thus help improve efficiency in the future.

UPTIME / DOWNTIME
TOTAL PRODUCTIVITY OVERVIEW
Define the productive and non-productive statuses of the machine. The Productivity Module then enables you to analyse the real productivity of a machine, groups of machines or the complete workshop.

OBTAIN TRANSPARENCY
RUNTIME MODULE
The Runtime Module enables you to check the operation and downtimes of your machines or workstations. This allows you to compare several machines with one another in order to detect and eliminate errors that affect the production process. This leads to sustainable process improvements.

DOCUMENT PROBLEMS
ERROR ANALYSIS
Identify, comment and analyse the fault conditions. First of all define the most common reasons for fault status occurring, for example material shortage. It is then possible to retrospectively analyse the frequency and length of the fault conditions and ensure that the cause can be eliminated.
A large number of customers already rely on WERMA technology - and thereby make their production safer, better and more efficient.

You can find references and customer applications at: www.werma.com/smartmonitor

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**EXPERIENCE YOUR POSSIBILITIES FOR YOURSELF**
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Visit one of our numerous roadshows throughout Germany.
Register at: www.lean-factory.com

**SIMPLY CLEVER REFERENCES**

**EXPERIMENT WITH THE PRODUCT IN YOUR FACILITY**
TEST BOX*
Find out more by ordering our test box - without any obligation - at: smartmonitor@werma.com

*This offer may not be available in all markets
The smart MDC alternative:
SmartMONITOR
Part Numbers

SmartMONITOR
1. WIRELESS NETWORKING

STATUS MONITORING
This hardware monitors up to eight different statuses and transmits them to the receiver.

COUNTING MODULE
This hardware monitors up to six different statuses and counts a quantity pulse. This information is transmitted to the receiver.

CONTROLLING A SIGNAL TOWER
In combination with the software, this hardware allows the actuation of a signal tower or an external application (start machine, stop machine etc.).

WIN slave
Order no. 860 640 02
WIN transmitter
Order no. 860 640 05
WIN slave performance
Order no. 860 640 12
WIN transmitter performance
Order no. 860 640 15
WIN slave control
Order no. 860 640 22
WIN transmitter control
Order no. 860 640 25
WIN ethernet master
Order no. 860 000 06
WIN ethernet receiver
Order no. 860 000 07

2. SIGNAL TOWER

SIGNAL ELEMENTS (UP TO A MAXIMUM OF 4)

- Buzzer
  Order no. 645 800 75
- 2 tone siren
  Order no. 645 870 75
- LED Permanent light red
  Order no. 644 100 75
- LED Permanent light yellow
  Order no. 644 200 75
- LED Permanent light green
  Order no. 644 300 75
- LED Permanent light red yellow
  Order no. 644 400 75
- TwinLIGHT red
  Order no. 647 110 75
- TwinLIGHT yellow
  Order no. 647 310 75
- TwinLIGHT green
  Order no. 647 210 75
- TwinLIGHT clear
  Order no. 647 430 75
- TwinLIGHT blue
  Order no. 647 510 75

PRE-ASSEMBLED SIGNAL TOWER

Base mounting
- LED Permanent light
  Order no. 649 240 02
- LED Permanent light
  Order no. 649 240 05

Tube mounting
- LED Permanent light
  Order no. 649 240 04
- LED Permanent light
  Order no. 649 240 06

Bracket mounting
- TwinLIGHT
  Order no. 649 000 01
- TwinLIGHT
  Order no. 649 000 02

Terminal element
Order no. 640 800 00
Terminal element + Base with integrated tube
Order no. 640 810 00 + 975 840 10
Terminal element + Bracket for base mounting
Order no. 640 800 00 + 960 000 02