

QUALITY CONTROL



- 100% quality control improves your competitive ability
- The ideal solution is often a customised one
- Practical example: Quality test of balls for ball bearings
- Mechatrology

100% quality control improve your competitive ability

Globalisation, cost pressure, delivery times to keep and product quality require more and more a 100% quality control of production facilities.

In order to improve the efficiency of production facilities in a sustainable way, two important aspects must be considered: The monitoring of processes on the one hand and of machines on the other hand.

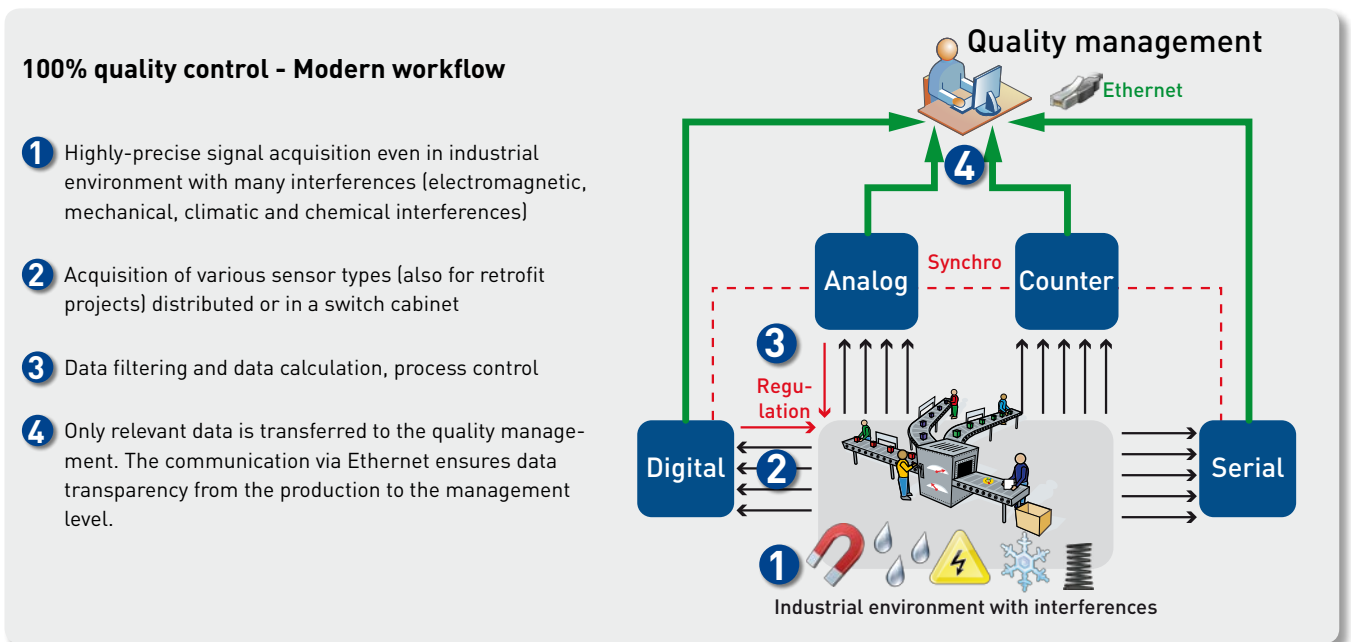
These tasks are a demanding challenge for in-process measurement systems:

Process monitoring

- Measurement technology for the field: robust mechanics
- Reliable tolerance measurement: high-precision systems
- Data filtering and calculation: systems with integrated intelligence
- Coordinated monitoring and control: systems for the acquisition and processing of different signal types
- Fast information flow for real-time data: standard Ethernet for company-wide access
- Safe investments: Long-term availability of the products
- Retrofit: Easy integration into existing processes through standard interfaces
- Maximum process efficiency: customised solutions

Machine monitoring

- For a high availability rate: continuous condition monitoring
- Saves time and costs: planned stand-still times
- Minimizes defective goods: monitoring of the machine precision



The ideal solution is often a customised one



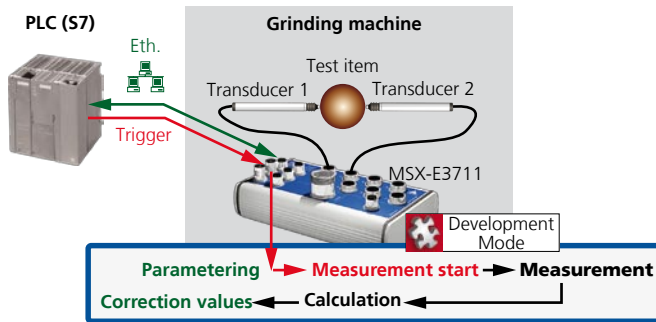
Improve your competitive ability with ADDI-DATA solutions which adapt to your requirements. We would be pleased to advise you for example on the definition of tolerance ranges, data compression, regulation tasks and data transfer, in order for you to quickly obtain the significant values required for the monitoring of your production processes.

ADDI-DATA is your partner for highly-efficient and reliable production measurement technology with a wide product range, from measurement electronics to complete systems.

Just call us, we will be pleased to advise you: +49 7229 1847-0.

Or write us an email: info@addi-data.com

PRACTICAL EXAMPLE



Application example: Quality control of balls for ball-bearings

Challenge:

On a grinding machine balls for ball-bearings are ground. After the grinding process the balls are to be measured directly on site and evaluated. Possible correction values for the production process are to be transferred directly to the PLC which controls the grinding machine. For this purpose a very robust measurement technology is required as the measurement is effected on the production site. The application controls whether the dimensions of the balls lie within predefined parameters or not. If not, the PLC is to initiate the necessary corrections.

Solution:

For this task the robust MSX-E3701 system is used with a development mode application, in which two sensors acquire and measure the balls. The measured values are calculated and compared to the predefined parameters of the PLC. With this predefined values it is possible to check if the balls have the correct size or if it is necessary to regrind them. The result of the calculation and the measured values are transferred to the PLC which controls the grinding machine. The PLC can then readjust the grinding process. The capacity to calculate values onboard relieves the PLC, accelerates production cycles and achieves significant improvements in quality.

ADDI-DATA measurement technology in quality control

Our solutions have already been used successfully in the following applications. And what can we do for you?

- Dimensional measurement
- Surface inspection
- Roundness measurement
- Concentricity tests
- Profile and outline measurement
- Flow measurement
- Temperature monitoring
- Force and distance measurement
- Measurement of precision parts
- Non-destructive tensile and pressure tests
- Tool monitoring
- In-process quality control
- Machine capacity testing
- Machine condition monitoring in order to reduce defective goods and re-work
- Statistic process control (SPC)

Mechatrology

In order to achieve 100% quality control a strict monitoring of the production processes is absolutely necessary. This clear evolution implies new and special challenges for the industrial measurement technology in general and for the measurement electronics in particular. The large scope and the specificity of this field as well as the lack of urgently needed know how on the practical level have given birth to a new industrial sector and interdisciplinary engineer science: the Mechatrology.

The Mechatrology deals with the interaction of the following fields:

- Mechanics
- Electronics
- Informatics
- SPC (Statistic Process Control)
- Metrology
- Multi-sensoric data fusion

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ADDI-DATA - Spirit of Excellence

For more than 25 years, ADDI-DATA has been a by-word for top-quality industrial measurement and automation systems. Our passion is to develop products that meet your expectations and to act as a reliable partner from the outset. Quality, adaptability, security of investment, reliability and a spirit of innovation are the ideas that drive us forward, so you can bring your projects to a successful conclusion.

You will find ADDI-DATA solutions worldwide in numerous industrial areas: automotive and metal industry, engine building industry, tailor-made machinery, aircraft and chemicals industry, etc. They are used for quality control, process control, signal switching, data acquisition, motion control or position acquisition.

Intelligent
Ethernet
systems



Real-time
Ethernet
systems

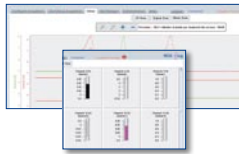


PC
boards



MSX-*i*log

Industrial
data loggers



Real-time
open source
PAC systems



- Expert advice
Do you have a project and need advice?
Then just call us at +49 (0)7229 1847-0. You can also send your enquiry to us by e-mail or fax, or fill in a request form on our website (www.addi-data.com).
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Test our products free of charge to make sure that you have chosen the correct one.
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We will be glad to help you with commissioning, on site if necessary.
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Our development team will help you with its first-hand expertise and its ability to act quickly.
- Bespoke solutions
Since it is not always possible to use standard products, we offer you bespoke solutions.
Our multi-faceted services range from adapting a standard product to developing a completely new one.
- Here for you all over the world
We deliver all over the world, and if it has to be done quickly, we even send goods by express to ensure on-time delivery.