Zumbach

SWISS PRIME MEASURING SINCE 1957

USYS® 200

Economic Processor for Measurement, Data Acquisition, Control and Display of:

- Diameter / Ovality
- Eccentricity / Diameter
- Capacitance

THE COST EFFECTIVE BUT POWERFUL PROCESSOR

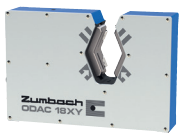
The USYS® 200 has been developed for use with a single sensor such as ODAC® for diameter, ODEX® for concentricity/ diameter or CAPAC® for capacitance measurement. It uses the same technological platform that has been proven with the multi-sensor USYS® processors, however, supporting one measuring point only makes the price of the USYS® 200 substantially lower. Fault detectors such as KW lump / neckdown units and Spark Testers, as well as a proximity switch for length information can also be connected. The processor communicates with a Host and can be integrated into networks in the same way as the well-known USYS® models.

Multiple Features and Functions

- Complete system for one measuring point
- Industrial, rugged design
- User friendly
- Operator interface with choice of languages
- Direct function keys
- Bright high resolution colour LCD TFT screen
- Unlimited number of product recipes
- Continuous measurement and display
- Monitoring of the limit values
- Control and material savings
- Recipe management
- Statistics and data logging
- Communication with a computer
- SPC control charts
- Strip chart
- Reel and session reports

SENSORS WHICH CAN BE CONNECTED TO THE PROCESSOR

ODAC® for diameter; 1, 2 or 3 axis models



ODEX® 10 for concentricity / eccentricity and diameter

CAPAC® for capacitance

KW for lumps/neckdowns

Spark Tester for cable insulations

COMMUNICATION AND NETWORKING

Today, the ability of sensors or processors to communicate with other computers or networks is essential. ZUMBACH offers a variety of ODAC® versions, interface units and USYS® software to satisfy almost any need and concept.

USYS® Data Log

The USYS® Data Log is a WINDOWS™ based software for easy data collection from one or several ZUMBACH processors and for saving the data in text or Excel™ files. USYS® Data Log communicates to the ZUMBACH processors via a serial RS-232 port or an Ethernet TCP/IP connection.

Windows™ and Excel™ are trademarks of Microsoft Corporation.

USYS® Report Manager

The USYS® processor can store in a local or external memory the detailed statistical data calculated for the Piece, Lot and SPC periods. In this way it is possible to recover and visualize the data of previous productions and reproduce the quality control printed reports.

USYS® OPC UA Server

Values from a USYS® processor of type USYS® 200, USYS® Touch or USYS® IPCe are available to higher-level customer systems via OPC UA thanks to the OPC UA server integrated in the USYS® software. This also includes the management of data from devices that are connected to the USYS® processor, which thus acts as a gateway between the devices and higher-level customer systems.

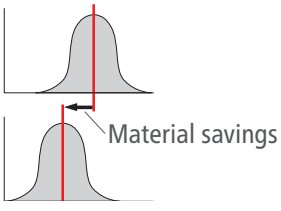
USYS® Web Server

With this software integrated by default, a USYS® processor can be addressed via an Ethernet TCP/IP network (LAN, Intranet, Internet), using a standard browser.

SIGMA EXPERT Controller and CpK Pilot

Intelligent and self-adjusting systems for dynamic control even during start-up. By means of the CpK Pilot, the nominal value is automatically adjusted to the lower limit given by statistical computations.

This means important material savings! (Only available for JACKETMASTER systems).



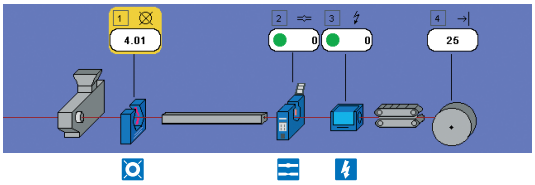
Control

Every USYS® Touch offers 1 optional SIGMA EXPERT controller with Static Regulating Device (SRD) or relay output. The SIGMA EXPERT controller is self-optimizing. It does not require further parameter optimization and even provides dynamic regulation of the process during start-up.

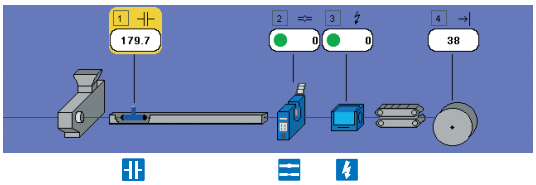
FOR THE WIRE, CABLE, PLASTICS AND RUBBER INDUSTRIES AND SIMILAR

Typical Application Configurations:

Diameter Measurement and Additional Input from Spark Tester and Lump / Neckdown Detector.
Automatic diameter control through capstan speed or extruder screw rpm and full measuring value and fault report.



Capacitance Measurement and Additional Input from Spark Tester and Lump / Neckdown Detector.
Select capacitance as the most important parameter to control, e.g. for data cables.



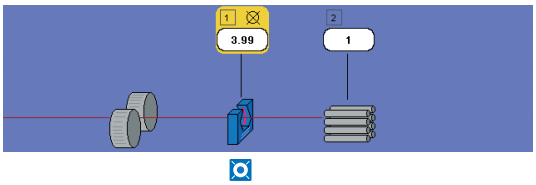
FOR THE STEEL INDUSTRY

The USYS® 200 is available with special "Bar" Software. This feature makes it suitable for non-continuous processes such as Test Lines (NDT) for steel and metal rod and bar, for tube and pipe, and for peeling and centerless grinding of steel rod and bar. The family of ODAC® laser diameter measuring heads allows an optimal measurement of diameter or ovality according to choice. Depending on the kind of process a controller can be used e.g. for automatic compensation of wear etc. The start and end of a bar can be suppressed and the setting is adjustable. The measuring statistics can be applied to individual bars.

Typical Processes:

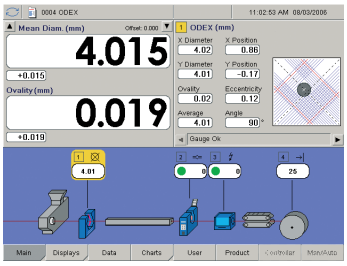
QC Stations (NDT)
For mandrel bar or general final testing of bar and tube. Used with a 1, 2 or 3 axis ODAC® measuring head.

Peeling and Centerless Grinding
For use with an ODAC® head measuring for precise measurement of the diameter and ovality at the peeling machine or at the transport band after the machine.

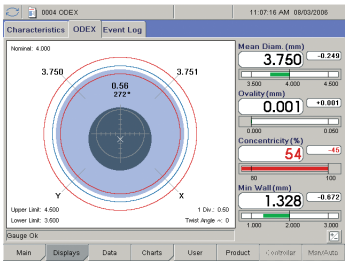


Drawing, Rolling and Straightening Processes
For general use together with an ODAC® measuring head in processes, which require continuous measurement and monitoring of diameter (or also width and height).

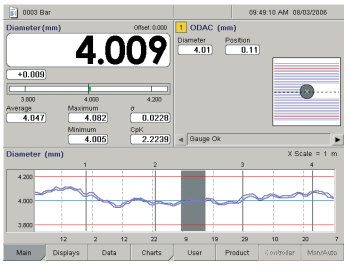
TYPICAL SCREENS



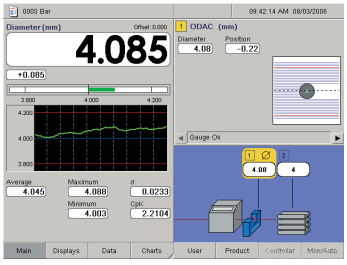
Diameter and concentricity/eccentricity information with ODEX® 10



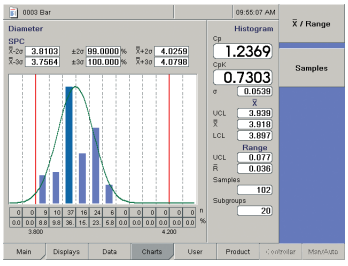
Concentricity display ODEX® 10



Rolling processes and similar:
mean diameter, statistics summary, characteristic strip-chart information

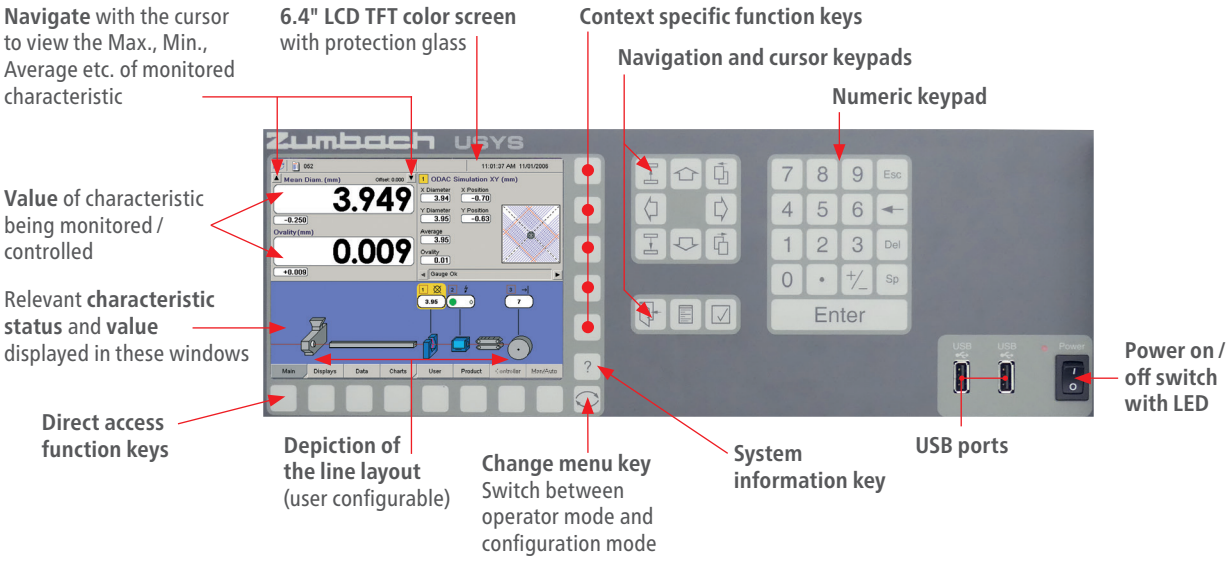


Rolling processes and similar:
diameter and position information

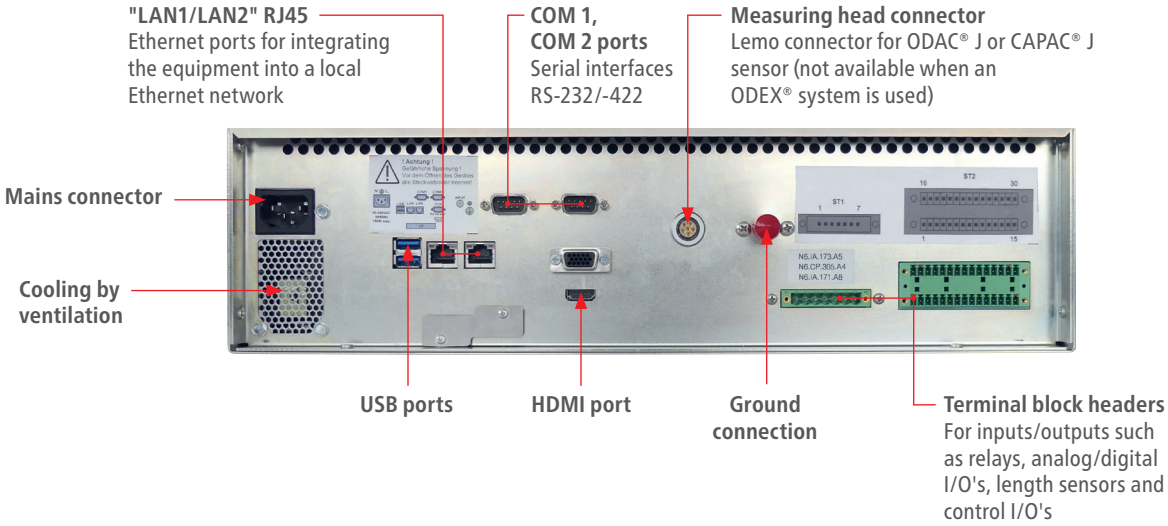


Statistics, full SPC pages:
Histogram or X-Bar/Range

FRONT PANEL FEATURES (WITH DISPLAY OF AN EXTRUSION LINE WITH 1 ODAC® AND 1 SPARK TESTER)



REAR PANEL FEATURES



SPECIFICATIONS

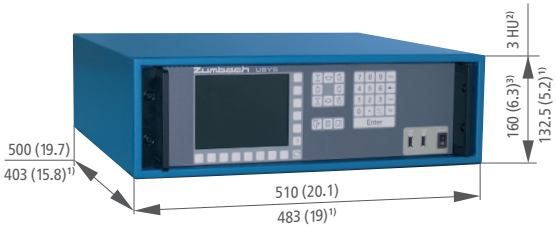
Mains
100...240 VAC (auto-select), 47...63 Hz

Operating temperature
0...50° C (32...120° F)

Weight
9.4 kg (20.7 lbs.) (without case)

Scope of delivery (basic configuration)
Industrial PC with 2 x Ethernet, 4 x USB, 2 x RS-232/-422, HDMI, 6.4" LCD TFT, CompactFlash Card.
Multi-function board for processing the data of 1 ODAC®, CAPAC® or ODEX® gauge, as well as 3 relay outputs, 5 digital outputs, 5 digital inputs and 1 analog output.
Option: switching module with 1 static SRD controller and 2 digital inputs.

DIMENSIONS



¹) 19" drawer only (without case)
²) 1 HU = Height Unit = 44.45 mm (1.75 in.)
³) Total height with case feet = 170.5 mm (6.71 in.)

Dimensions in mm (inch)

• Specifications are subject to change without notice

WORLDWIDE CUSTOMER SERVICE AND SALES OFFICES

Headquarter:
Zumbach Electronic AG
P.O. Box
CH-2552 Orpund
SWITZERLAND
Tel.: +41 (0)32 356 04 00
sales@zumbach.ch

BENELUX, sales@zumbach.be
CHINA P.R., sales@zumbach.com.cn
CZECH REPUBLIC, jvorlicek@zumbach.cz
FRANCE, ventes@zumbach.com.fr
GERMANY, verkauf@zumbach.de

INDIA, sales@zumbachindia.com
ITALY, zumit@zumbach.it
SPAIN, gestion@zumbach.es
TAIWAN, info@zumbach.tw
UK, sales@zumbach.co.uk

North American Headquarter:
Zumbach Electronics Corp.
140 Kisco Avenue
Mount Kisco, NY 10549-1407
Phone +1 914 241 7080
USA
sales@zumbach.com

Close to you, wherever you are

www.zumbach.com

USYS.004.5009.EN SEP.2025