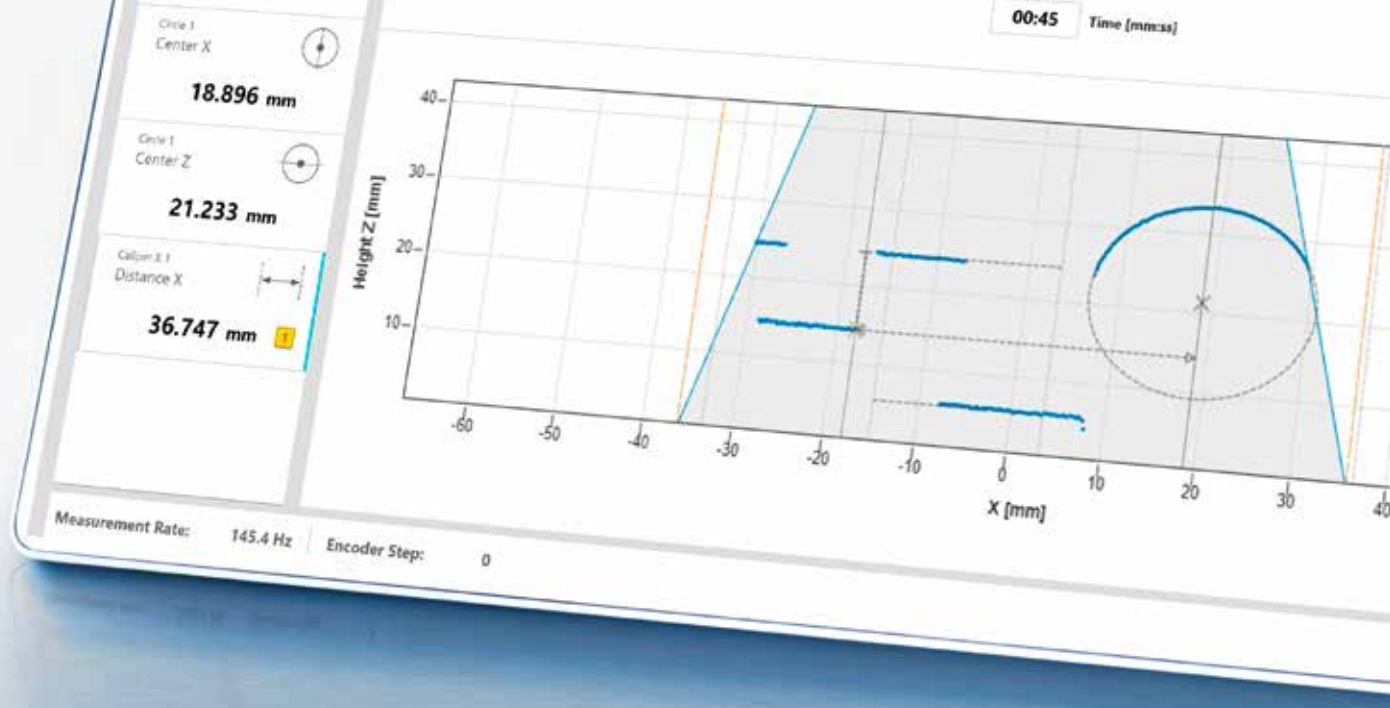


# Simply intelligent checking and controlling

OX200 – Smart profile sensors for efficient inline checks and multidimensional control tasks.





## OX200 – Unique multi-tool profile sensors

The smart profile sensors of the OX200 family allow efficient profile analysis with an almost unlimited operating range. The profile sensor OXP200 is optimized for integration into image processing systems. Thanks to the freely available SDK (software development kit), the sensor can be individually adjusted to every application.

With the multi-tool profile sensor OXM200, Baumer offers uniquely simple handling. Featuring an extensive set of integrated measurement functions, it supports efficient inline or offline tests without detailed image processing expertise.

### Applications

#### Checking and inspection

- Checks and verification of object geometries (e.g., height measurement of seals, inspection of surfaces, etc.)
- Inline quality controls of object geometries in the 1/10 mm range

#### Measuring operations

- Axial diameter measurements
- Edge, crack, and gap and flush measurements

#### Control and regulation tasks

- Position control of feed parts
- Vision Guided Robotics (control of the robot positioning)
- Pick & Place (control of robot grabber arms)
- Position control of parts



# Smart all-in-one multi-tool for the quick resolution of individual measurement tasks

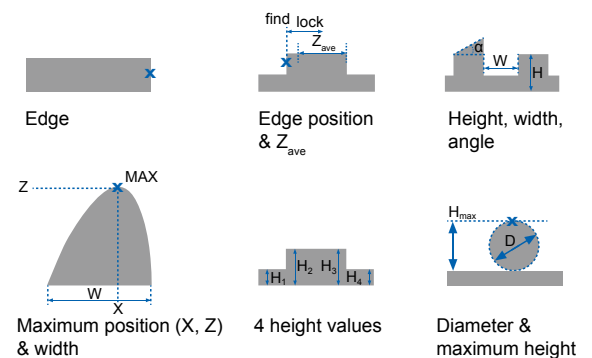
## Smart multi-tool

- Integrated measurement functions (multi-tools) for extensive profile analysis
- Linking of measurement tools for multifaceted analysis
- Free configuration of up to 7 measured values in the web browser
- Position tracking of evaluation windows for checking varying positions of a measured part

## Compact measuring instrument

- Compact, light design with IP 65 housing and simple wiring for mounting on robot arm
- No external illumination required
- Thanks to Power-over-Ethernet (POE) functionality, the sensor can be used with a single cable

Example of smart measurement functions



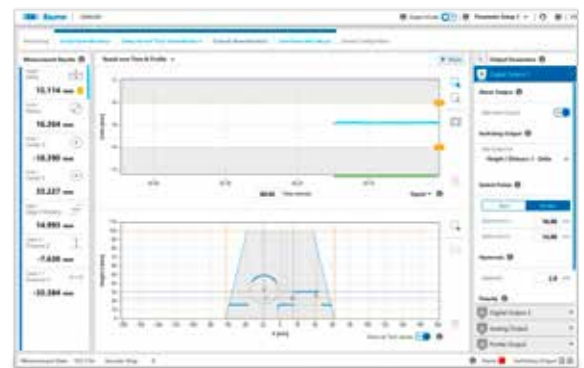
## Best-in-class usability and live analysis

### Easy setup and handling

- Configuration of the required measurement task with graphic support via the intuitive Baumer web interface
- Storage of up to 3 sets of parameters in the sensor; additional sets can be stored externally
- Quick commissioning of the calibrated sensors (plug & play functionality) without software installation or special expertise

### Live analysis and monitoring

- Seeing with the eyes of the sensor – in real time
- Quick analysis through intuitive visual feedback of the algorithms



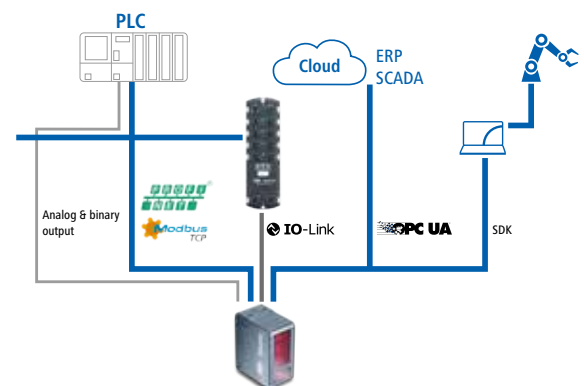
## Easy integration into automation systems and additional data for condition monitoring

### Connected Smart Sensor

- Easy integration into the automation environment thanks to large selection of interfaces and protocols (PROFINET, Modbus TCP, IO-Link, analog output)
- Direct connection to IT and cloud integration with OPC UA as well as to image processing systems with an SDK (profile data via UDP streaming)
- Encoder input for the correlation of the collected measurement data and profiles with external processes

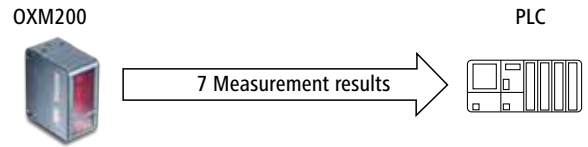
### Diagnostic data

- Simple access to various digital diagnosis data such as, e.g., temperature or operating hours for increased equipment effectiveness (OEE)



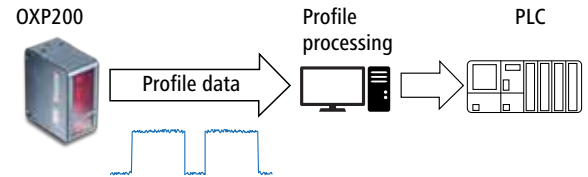
## OXM200 – Integrated smart functions

- The sensor is equipped with smart measurement functions and integrated image processing and delivers results in mm
- Various measuring functionalities: e.g. height, edge, width, gap, angle, distances
- Combination of different measurement values
- Region of interest (ROI) tracking



## OXP200 – Profile data for image processing systems

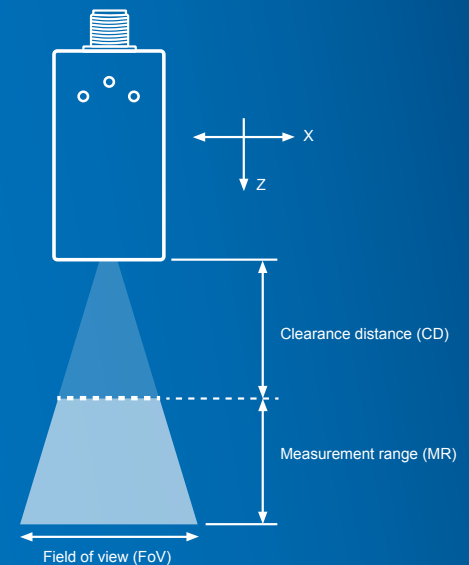
- Output of calibrated 2D point cloud for further external PC processing
- Sensor parameterization via intuitive web interface or freely available SDK with sample code
- Integrated encoder input to synchronize profile image of moving objects with belt speed



## Product overview OX200



	OXP200-R05C OXM200-R05A	OXP200-R10C OXM200-R10A
Measurement range (MR)	50 mm	100 mm
Clearance distance (CD)	100 mm	150 mm
Field of view (FoV)	48 ... 72 mm	75 ... 125 mm
Resolution X (points per profile)	600 px	
Resolution Z <sub>ave</sub> (µm)	8 ... 15 µm	12 ... 18 µm
Laser class	2	
Wavelength	Red (660 nm)	



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