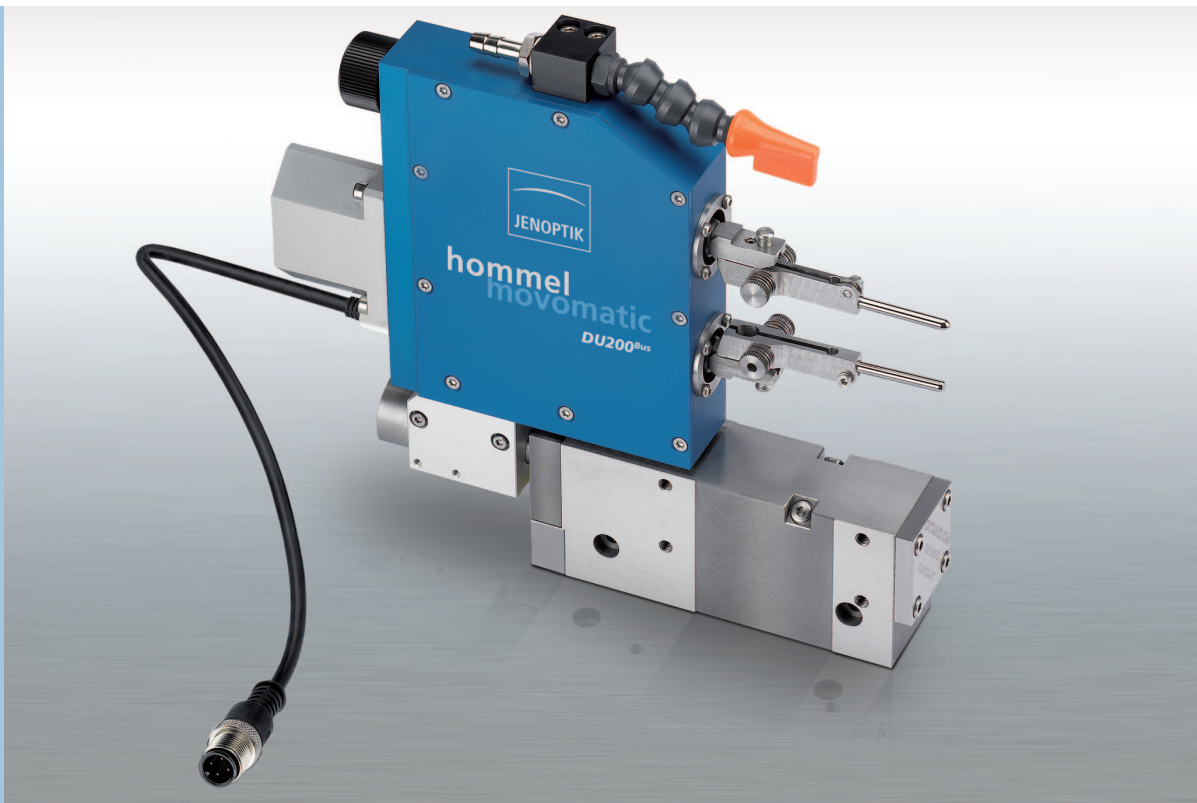




## HOMMEL-MOVOMATIC DU200<sup>Bus</sup>

Digital gauge head for interrupted or uninterrupted outer diameters



Precision is our business.

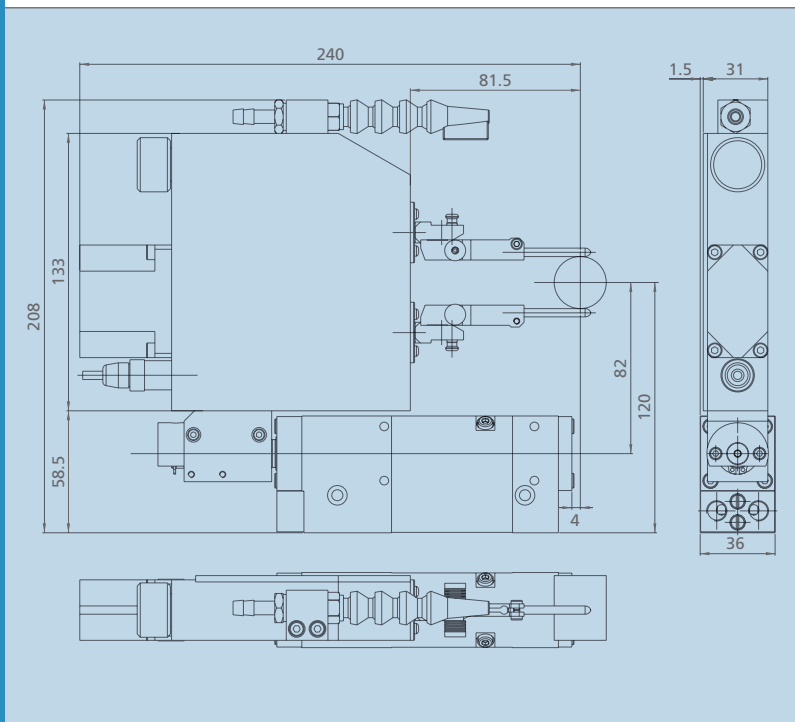
## HOMMEL-MOVOMATIC DU200<sup>Bus</sup>

For higher productivity and quality

- Standard adjustment range from  $\varnothing$  4 to 80 mm
- Universal gauge head for interrupted or uninterrupted diameters
- Quick adjustment, no tools required
- Break away gauge arms for crash prevention
- Integrated electronics and data transmission using Digital Bus

The DU200<sup>Bus</sup> gauge head has been designed by Hommel-Movomatic to measure a wide range of outer diameters with interrupted or uninterrupted surfaces as an integrated part of a production line (in-process) or for downstream quality control (post-process). It has been developed for users who demand the best in terms of efficient metrology, ruggedness and ease of use, enabling manufacturers to improve the quality of their products by eliminating dimensional variations and to increase profitability by shortening production cycle times.

### Main characteristics



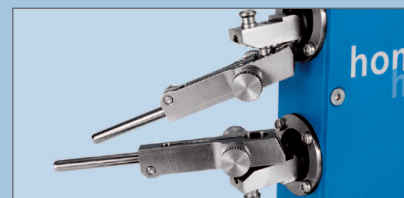
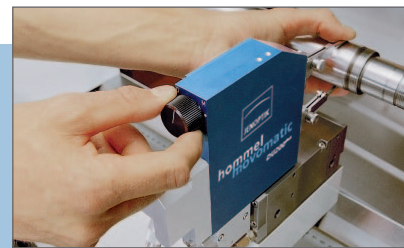
Dimensions in mm

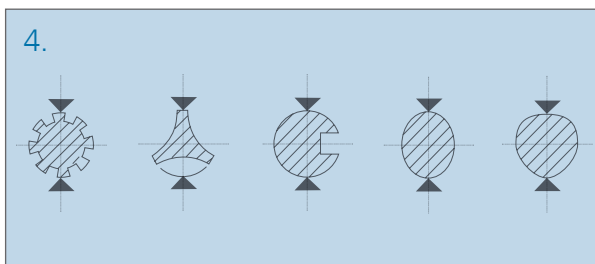
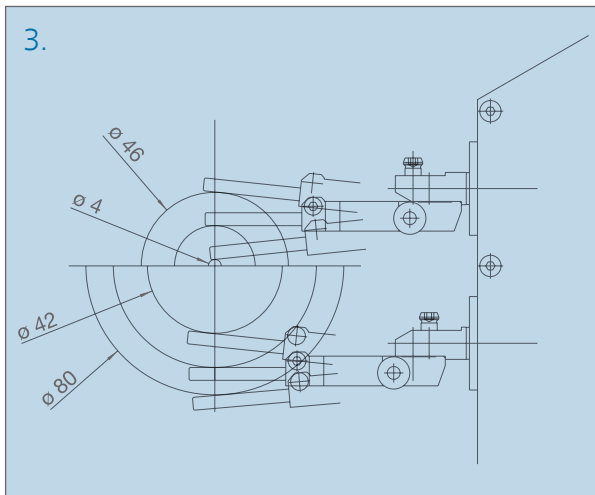
#### 1. Quick adjustment, no tools required

User-friendly adjustment simply by turning a knob.

#### 2. Break away gauge arms for crash prevention

- Effective on impact from any direction.
- No damage to workpiece, gauge head or its arms.





Dimensions in mm

### 3. Wide range of standard adjustments: Ø 4 to 80 mm

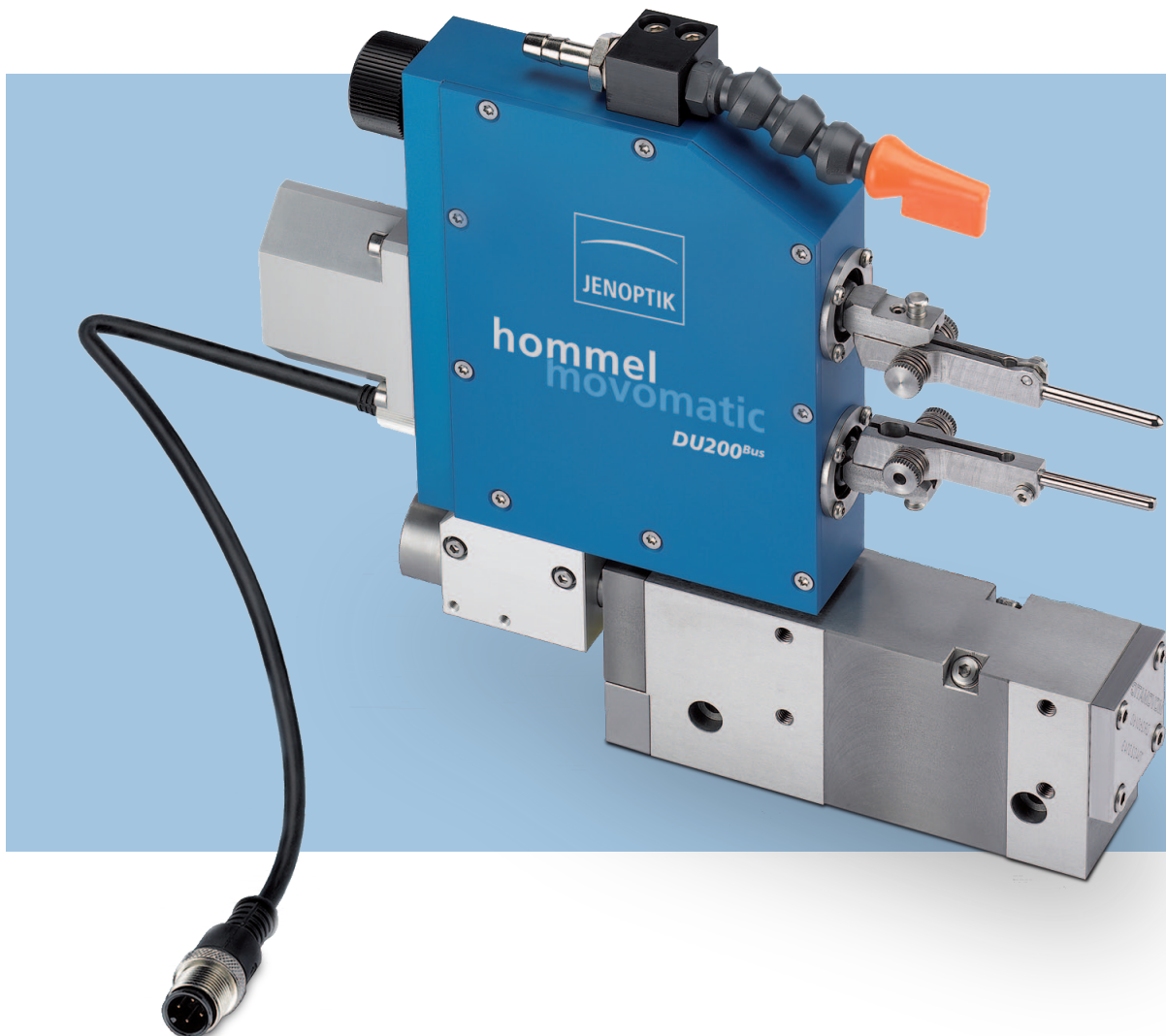
Standard adjustment range consists of two overlapping half-ranges obtained by turning the gauge arms 180°.

### 4. Universal gauge head for interrupted or uninterrupted outer diameters

The DU200<sup>Bus</sup> gauge head is adapted to all types of workpiece diameters, uninterrupted or interrupted.

### 5. Integrated electronics and data transmission using Digital Bus

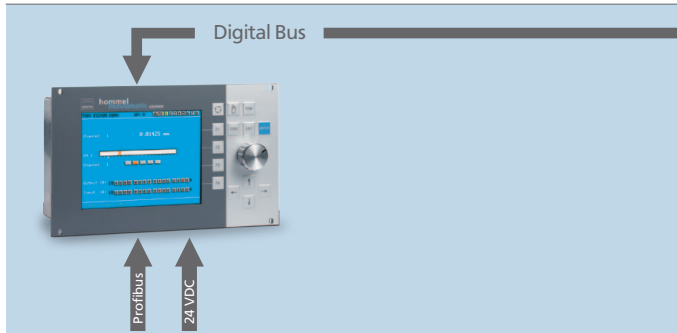
- One single transmission cable utilizing a standard connector for all measurement functions, including: electronic data acquisition and activation of gauge arms engagement/disengagement feature.
- Programmable parameters for optimizing measurements (can be saved in the gauge head).
- Connection of two or more gauge heads in parallel, using only one input connector on the control electronics.



## 6. Compatibility with a range of electronic gauging and control systems

The DU200<sup>Bus</sup> gauge head is compatible with each of the following gauging and control electronics.

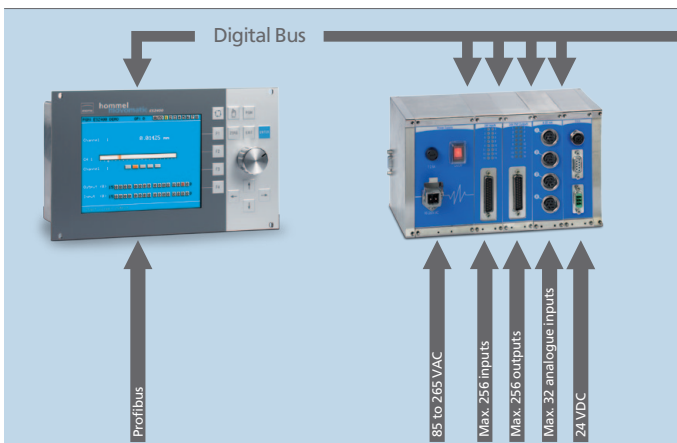
ESZ400



Basic system

Main module with Profibus and a maximum of 2 digital gauge heads.

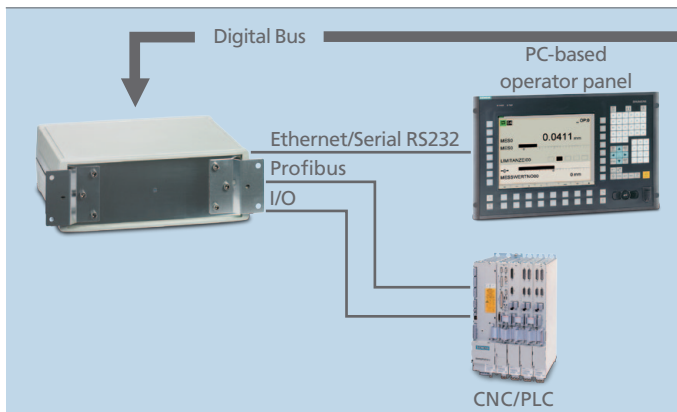
ESZ400



Extended system

Main module with Profibus, a maximum of 16 digital gauge heads, input/output modules and input modules for analogue sensor channels.

ESi400



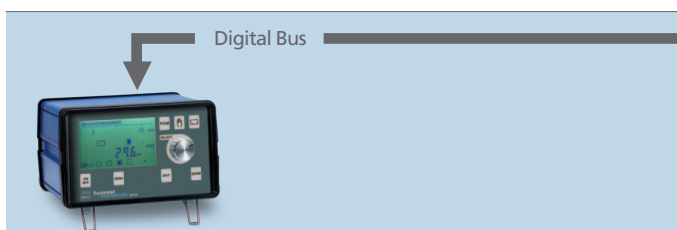
Maximum 8 digital gauge heads with HMI interface.

ES400



Maximum of 8 digital gauge heads.

ES124



Maximum of 2 digital gauge heads.

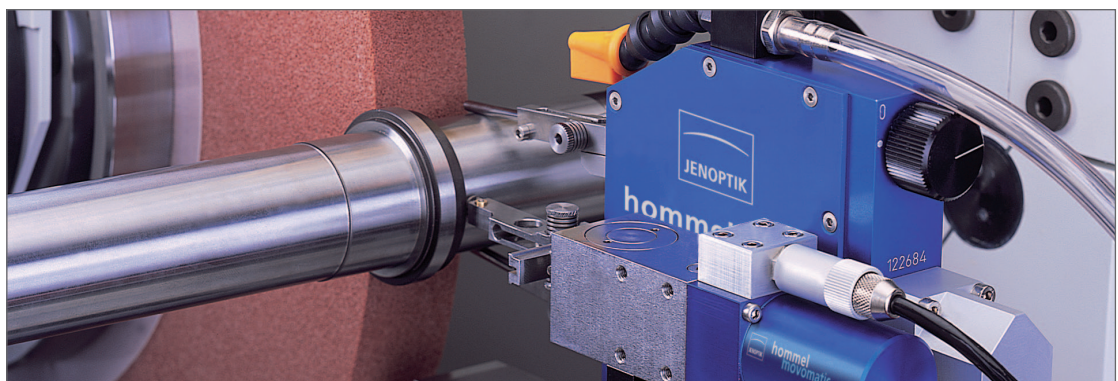
## Mechanical and metrological characteristics

Standard gauging range*	Ø 4 to 80 mm
Gauging range without adjustment	± 500 µm
6σ repeatability error under standard conditions	< 0.5 µm
Thermal drift for steel (coefficient of linear expansion $11 \times 10^{-6} / ^\circ\text{K}$ )	< 0.1 µm/°K
Gauging force over the entire range of ± 500 µm	2 N ±10%
Vibration absorption	Viscous type
Mechanical stop	Fixed (in standard position -500 µm from diameter)
Gauge arms mechanical adjustment system	Quick-acting, no tools required
Crash-safety feature	Break away gauge arms on impact with no mechanical damage
Gauge arms electrical engagement / disengagement feature	Motorized
Ingress protection	IP65

\*Extensible by special accessories.

## Electrical/electronic features

Number of sensors	2
Type of sensors	Inductive LVDT
Functions of onboard circuitry	<ul style="list-style-type: none"> <li>- Sensors power supply</li> <li>- Analogue/Digital "A/D" conversion</li> <li>- Transmission of gauging value</li> <li>- Activation of gauge arms engagement / disengagement and status feedback</li> <li>- Command transfer</li> <li>- Programmable parameters</li> <li>- SECTO memories</li> </ul>
Transmission mode of the gauging signal	Digital serial Bus
Number of connecting cables	One single cable for : <ul style="list-style-type: none"> <li>- Gauge head power supply</li> <li>- Transmission of measurement data</li> <li>- Command transfer/configuration</li> </ul>
Type of cable connection	By standard watertight connector
Cable type	Heavy duty PUR





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