Innovative gage head for in-process measurements of uninterrupted and interrupted outer diameters
Movoline DM405

Universal range of use
– Workpiece diameter 5 to 160 mm
– For uninterrupted and interrupted surfaces
– Robust system with high basic precision
– For in-process and post-process measurements

Options
– Movoline DMprotect405 crash protection system
– Electric gage arm lifting

Connection technology
– CAN bus with digital transmission of measured values
– Only one connecting cable for all functions
Innovative gage head for in-process measurements of uninterrupted and interrupted outer diameters

Movoline DM405

Universal range of use

With their robust design, high measuring precision and easy handling, the DM405 gage heads are used for a wide range of in-process and post-process applications for workpieces with uninterrupted and interrupted surfaces.

Electronic features

One single CAN bus cable is used for operation and connection to the control electronics. Measurement data is transmitted digitally and therefore fail-safe and independent of the cable length. Thanks to the modern field bus technology, the number of connecting cables is considerably reduced when using multiple gage heads with one control electronics.

Mechanical features

The whole measuring system is integrated in one housing which assures high mechanical and thermal stability and facilitates assembly and maintenance tasks.

Movoline DMprotect405

The optional crash protection system (predetermined breaking point for gage arm) protects the gage head, gage arms and the workpiece from damaging in case of collision, hence preventing downtimes.

Technical data

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Workpiece diameter</td>
<td>Ø 5 – 160 mm*</td>
</tr>
<tr>
<td>Measuring range</td>
<td>± 500 μm</td>
</tr>
<tr>
<td>Sensitivity error</td>
<td>&lt; 1 %</td>
</tr>
<tr>
<td>Repeatability error 6σ under standard conditions</td>
<td>&lt; 0.2 μm</td>
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<tr>
<td>Thermal drift for steel 11 x 10⁻⁶ / °K</td>
<td>&lt; 0.1 μm / °K</td>
</tr>
<tr>
<td>Gaging force over the entire range of ± 500 μm</td>
<td>1.5 N / ± 20%</td>
</tr>
<tr>
<td>Mechanical stop</td>
<td>Fixed in position -500 μm</td>
</tr>
<tr>
<td>Ingress protection IEC 60529</td>
<td>IP65 and IP67</td>
</tr>
<tr>
<td>Transmission mode of measured values</td>
<td>Digital serial bus</td>
</tr>
</tbody>
</table>

Models

With gage arm lifting

Options

Movoline DMprotect405

Effective protection in case of collision; reduces downtimes of the machine; protects gage head, gage arms and workpiece from damaging

Fast adjustment

Fast adjustment to different diameters via mechanical guidance

* larger diameters on request

Movoline DM405 gage head with spacer block