**Product Information**

**Torsion drives for zwickiLine**

**Range of application**
Torsion drives can be installed in zwickiLine materials testing machines to carry out uniaxial and multiaxial loading investigations (tensile or compression combined with torsion) as part of materials and component testing.

In applications without a safety device, rotational speed must be limited to 20 revolutions per minute.

**Arrangement comprises**
- zwickiLine materials testing machine (Z0.5 TX to Z5.0 TX)
- torsion drive on moving crosshead
- testControl II measurement and control electronics

**Advantages and features**
- Modular design allows retrofitting of torsion drives as and when required
- Operation with standard PC or laptop (no additional interface card required) and testXpert III testing software
- High-resolution rotation angle and travel measurement
- Easy handling and user-friendly operation for maximum flexibility
- Synchronization of both test axes
- Optional CE-compliant safety device for use with hazardous specimens and / or higher rotational speeds
## Torsion drives for mounting on the moving crosshead

<table>
<thead>
<tr>
<th>Test torque, maximum [Nm]</th>
<th>Fmax [kN]</th>
<th>Rotational speeds [r.p.m]</th>
<th>Pitch circle of connection flange(^1) (\phi) [mm]</th>
<th>Power consumption [kVA]</th>
<th>Electrical connection values</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2.5</td>
<td>0.01 to 80(^2)</td>
<td>75/40</td>
<td>0.500</td>
<td>230 V AC 50/60 Hz 1Ph/PE/N</td>
<td>1020233</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>0.01 to 80(^2)</td>
<td>75/40</td>
<td>0.800</td>
<td>230 V AC 50/60 Hz 1Ph/PE/N</td>
<td>1023835</td>
</tr>
</tbody>
</table>

\(^1\) the torsion drive is supplied with an adapter with mounting stud
\(^2\) with safety device and increased torsion drive speed (063785)
\(^3\) without safety device

### Torque transducers

The torque transducers can be combined with a load cell. The torque levels occurring must be permissible for the load cell used (tensile and compression).

<table>
<thead>
<tr>
<th>Nominal torque (M_{\text{nom}}) [Nm]</th>
<th>Fmax [kN]</th>
<th>Mounting hole [mm]</th>
<th>Mounting stud [mm]</th>
<th>Accuracy class (1) [Nm]</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>± 5</td>
<td>Ø 20</td>
<td>Ø 20</td>
<td>≥ 0.04(^2)</td>
<td>011012</td>
</tr>
<tr>
<td>5</td>
<td>± 10</td>
<td>Ø 20</td>
<td>Ø 20</td>
<td>≥ 0.1</td>
<td>639753</td>
</tr>
<tr>
<td>10</td>
<td>± 10</td>
<td>Ø 20(^\text{H7})</td>
<td>Ø 20(_{g6})</td>
<td>≥ 0.2</td>
<td>011015</td>
</tr>
<tr>
<td>20</td>
<td>± 10</td>
<td>Ø 20</td>
<td>Ø 20</td>
<td>≥ 0.2</td>
<td>631313</td>
</tr>
</tbody>
</table>

\(^1\) based on ISO 7500-1
\(^2\) required: 1x ACSCC Module

All data at ambient temperature. We reserve the right to make technical changes in the course of ongoing development.