Datasheet

Torque Sensor

**DRW-K**

Non rotating active or passive-model
Torque ranges 0 - 0.5 Nm to 0 - 20,000 Nm

- fixed cable
- integrated 100%-control
- wide range of applications
- no maintenance or wear
- keyway optional

This torque sensor is designed for non-rotating (static) applications. Both static and dynamic measurements can be taken. The strain-gauge-based sensor outputs a standardized output signal in mV/V that is proportional to the torque.

As these transducers are non-rotating and hence have no moving parts, they require no maintenance and do not wear.

Also available as an active device when combined with the DMSVE amplifier unit.

### Ordering code system

| DRW-K -  -  -  - | K Option keyway | a active | Torque range (Nm) | Sensor-Type |

### Available Accessories

Supply and display unit: GMV2

- ValueMasterbase*
- ValueView*

**Couplings**

* Only in combination with amplifier „DMSVE“
### Electrical Specifications DRW-K

<table>
<thead>
<tr>
<th>Torque Ranges: (0-... Nm)</th>
<th>l1</th>
<th>l2</th>
<th>l3 (optional)</th>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>b1 (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>1</td>
<td>Nm</td>
<td>47</td>
<td>10</td>
<td>–</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>10</td>
<td>Nm</td>
<td>58</td>
<td>12</td>
<td>8</td>
<td>38</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>Nm</td>
<td>74</td>
<td>20</td>
<td>16</td>
<td>38</td>
<td>12</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>Nm</td>
<td>104</td>
<td>35</td>
<td>28</td>
<td>50</td>
<td>18</td>
</tr>
<tr>
<td>100</td>
<td>200</td>
<td>Nm</td>
<td>131</td>
<td>45</td>
<td>40</td>
<td>58</td>
<td>26</td>
</tr>
<tr>
<td>500</td>
<td>1000</td>
<td>Nm</td>
<td>168</td>
<td>60</td>
<td>–</td>
<td>77</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>kNm</td>
<td>264</td>
<td>110</td>
<td>–</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>20</td>
<td>kNm</td>
<td>285</td>
<td>115</td>
<td>–</td>
<td>138</td>
</tr>
</tbody>
</table>

General tolerances DIN 2768-m

### Mechanical Dimensions DRW-K

- **Keyway (K):** Optional
- **Torque Ranges:**
  - |0.5, 1| Nm | 47, 10 | – | 24, 8, 12 | – |
  - |2, 5, 10| Nm | 58, 12 | 8 | 38, 12, 18 | 4 |
  - |15, 20| Nm | 74, 20 | 16 | 38, 12, 18 | 4 |
  - |50| Nm | 104, 35 | 28 | 50, 18, 26 | 6 |
  - |100, 200| Nm | 131, 45 | 40 | 58, 26, 34 | 8 |
  - |500, 1000| Nm | 168, 60 | – | 77, 45, 58 | – |
  - |2, 3, 4, 5| kNm | 264, 110 | – | 98, 70 | – |
  - |10, 15, 20| kNm | 285, 115 | – | 138, 110 | – |

- **Electrical specifications:**
  - **Supply voltage:** 12 V DC max.
  - **Current consumption:** 35 mA max.
  - **Measurement signal:** 1 mV / V (± 0.25 %)
  - **Nonlinearity:** < 0.1 %
  - **Hysteresis:** < 0.1 %
  - **Deviation at zero point:** ≤ ± 0.01 mV/V
  - **Internal resistance:** 350 Ω nominal
  - **Compensated temperature range:** 5 - 45 °C
  - **Operating temperature:** 0 - 60 °C
  - **Temperature error**
    - Zero point: 0.02 % / K
    - Sensitivity: 0.01 % / K
  - **Mechanical overload:** 100 %
  - **Internal protection:** IP40
  - **Connection:** 6pin-connector, coupling plug is included
  - **Cable length:** 2.5 m

- **Factory calibration right-/left load in 25% steps. Special calibration on request.**