Data sheet PSS 31_/33_-14 – Date: 08 / 2019 – Subject to technical changes without notice

The order key and accessories can be found on p. 18 / 19.

### Product Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Nominal torque</th>
<th>Self-holding torque</th>
<th>Nominal rated speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS 311-14</td>
<td>1 Nm</td>
<td>0.5 Nm</td>
<td>210 rpm</td>
</tr>
<tr>
<td>PSS 312-14</td>
<td>2 Nm</td>
<td>1 Nm</td>
<td>115 rpm</td>
</tr>
<tr>
<td>PSS 332-14</td>
<td>2 Nm</td>
<td>1 Nm</td>
<td>150 rpm</td>
</tr>
<tr>
<td>PSS 335-14</td>
<td>5 Nm</td>
<td>2.5 Nm</td>
<td>68 rpm</td>
</tr>
</tbody>
</table>

### Data Interfaces

- CANopen, PROFIBUS DP, DeviceNet, Modbus RTU, Sercos, EtherCAT, PROFINET, EtherNet/IP, POWERLINK, IO-Link

### Technical Details

- **Duty cycle**: 20 % (basis time 600 s) at nominal torque
- **Mode of operation**: S3
- **Supply voltage**: 24 VDC ± 10 % galvanically separated between control and motor and bus
- **Nominal current**: PSS 31_: 2.4 A, PSS 33_: 3.1 A
- **Power consumption (control unit)**: 0.1 A
- **Positioning accuracy**: absolute measurement of position taken directly at the output shaft
- **Positioning range**: 250 rotations not subject to mechanical limits
- **Shock resistance**: in accordance with IEC/DIN EN 60068-2-27 (50 g, 11 ms)
- **Vibration resistance**: in accordance with IEC/DIN EN 60068-2-6 (0...55 Hz 1.5 mm/1000 Hz 10 g/10...2000 Hz 5 g)
- **Output shaft**: 14 mm solid shaft or 14 mm hollow shaft with adjustable collar
- **Snap-on brake**: optional (holding torque = nominal torque)
- **Maximum axial force**: 20 N
- **Maximum radial force**: 40 N
- **Ambient temperature**: 0...45 °C
- **Storage temperature**: -10...70 °C
- **Protection class**: IP65 under installed and wired conditions
- **Material**: as for PSE, but with stainless steel housing
- **Weight**: 700 g
- **Certificates**: CE, optional: NRTL (UL, CSA, ANSI)

### Additional Notes

- The welding process avoids V2A housing, ball bearings at the output shaft with sealing disc.
- All dimensions in mm.
- For details of the connections, please see also p. 47 and the instruction manual.
ORDER KEY PSE/PSS/PSW 3 SERIES

All the positioning systems in the PSE/PSS/PSW 3 series share the same order key. To provide the best possible overview and to simplify customer documentation, the diverse range of options available for the PSE/PSS/PSW 3 series has been organised in a shared order key.

Order key
PSE/PSS/PSW:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection class</td>
<td>Design</td>
<td>Type</td>
<td>Bus communication (see p. 7)</td>
<td>Connections</td>
<td>Brake (see p. 11)</td>
</tr>
<tr>
<td>PSE</td>
<td>PSS</td>
<td>PSW</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Positioning System Efficient
Positioning System Stainless
Positioning System Washable

Standard equipment (connections)
- always provided with 3 plugs/sockets (not for IO-Link or Y-encoded connector)
- address switches always provided (also I-buses, not for IO-Link)

For further information on connections and address settings see also "Overview: bus communication" on p. 47.

Table: Form / Type Torque Output shaft
- horizontal
- vertical

Torques and Speeds

Example 1
You require the protection class IP54 and a maximum torque of 2 Nm. The speed should be greater than 100 rpm. An 8 mm hollow shaft and longitudinal construction meet the requirements of your application.
Your wish to use EtherNet/IP as the bus and connect the PSE to the control unit using a hybrid connector and hub. You do not require an additional holding brake in your application.

→ PSE 312-8-EI-Y-0-0

Example 2
IP68, max. 3 Nm, > 100 rpm, horizontal construction, 14 mm solid circular shaft, IO-Link via a connector, with brake.

→ PSW 325-14V-IO-0-M-0

Nominal torque – nominal speed combinations
ACCESSORIES PSE/PSS/PSW 3 SERIES

The connectors shown here can be used for all three types of device (PSE/PSS/PSW). This ensures that the PSE (IP 54) and PSS (IP 65) comply with the IP protection classes. We will also be pleased to help you find a suitable mating connector for the PSW (IP 68) if necessary – just ask us!

<table>
<thead>
<tr>
<th>Bus communication</th>
<th>Power supply + databus connector (2x) (for option 0)</th>
<th>Power supply + databus (2x) + jog key connector (for option T, not for PSW)</th>
<th>Cable and connectors for 1-connector solution (for option Y or IO-Link)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANopen ²</td>
<td>![Image]</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>PROFIBUS DP</td>
<td>Connector set: Order no. 9601.0060</td>
<td>Connector set: Order no. 9601.0062</td>
<td>5 m: Order no. 9601.0245</td>
</tr>
<tr>
<td>Modbus RTU</td>
<td>![Image]</td>
<td>![Image]</td>
<td>10 m: Order no. 9601.0233</td>
</tr>
<tr>
<td></td>
<td>Connector set: Order no. 9601.0088</td>
<td>Connector set: Order no. 9601.0090</td>
<td>20 m: Order no. 9601.0234</td>
</tr>
<tr>
<td>DeviceNet</td>
<td>![Image]</td>
<td>![Image]</td>
<td>5 m: Order no. 9601.0240</td>
</tr>
<tr>
<td></td>
<td>Connector set: Order no. 9601.00112</td>
<td>Connector set: Order no. 9601.0317</td>
<td>10 m: Order no. 9601.0244</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>Hub on request</td>
</tr>
<tr>
<td>Sercos</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
</tr>
<tr>
<td>EtherCAT</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
</tr>
<tr>
<td>PROFINET</td>
<td>![Image]</td>
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<tr>
<td>EtherNet/IP</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
</tr>
<tr>
<td>POWERLINK</td>
<td>![Image]</td>
<td>![Image]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connector set: Order no. 9601.0090</td>
<td>Connector set: Order no. 9601.0090</td>
<td></td>
</tr>
<tr>
<td>IO-Link ³</td>
<td>-</td>
<td>-</td>
<td>Connector: Order no. 9601.0107 ²</td>
</tr>
</tbody>
</table>

¹ see under "D" in the order key  ² power supply and bus via one cable, without second databus connector
³ A- or B- coding of the connectors is possible

Further Accessories

- Jog key box (for option T, not for PSW) Order no. 9601.0241
- Screw cap to cover the second bus connection (for PSS/PSW) Order no. 9601.0176

MODULES AND DESCRIPTION FILES

Take advantage of our functional modules or description files for the various buses. You can download the files on our website:

www.halstrup-walcher.de/en/software