PSW 30_-8

**Product** | **Nominal torque** | **Self-holding torque** | **Nominal rated speed**
---|---|---|---
PSW 301-8 | 1 Nm | 0.5 Nm | 180 rpm
PSW 302-8 | 2 Nm | 1 Nm | 100 rpm
PSW 305-8 | 5 Nm | 2.5 Nm | 35 rpm

**Data interfaces**
CANopen, PROFINET, DeviceNet, Modbus RTU, Sercos, EtherCAT, PROFINET, EtherNet/IP, POWERLINK, IO-Link

**Duty cycle** | 20 % (basis time 600 s)
**Mode of operation** | S3
**Supply voltage** | 24 VDC ± 10 % galvanically separated between control and motor and bus
**Nominal current** | 2.2 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
10..55 Hz 1.5 mm/
55..1000 Hz 10 g/
10..2000 Hz 5 g
**Output shaft** | 8 mm solid shaft or 8 mm hollow shaft with adjustable collar
**Maximum axial force** | 20 N
**Maximum radial force** | 40 N
**Ambient temperature** | 0..45°C
**Storage temperature** | -10..70°C
**Protection class** | IP68 at standstill 1), IP66 during rotation (tested with water) 1)
**Material** | stainless steel
**Weight** | 650 g
**Certificates** | CE, optional: NRTL (UL, CSA, ANSI)

1) welded V2A housing, output shaft sealed with quad-ring

The order key and accessories can be found on p. 18/19.
### 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>Protection class</th>
<th>A Design</th>
<th>B Type</th>
<th>C Bus communication (see p. 7)</th>
<th>D Connections</th>
<th>E Brake (see p. 11)</th>
<th>F Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP 54</td>
<td>PSE</td>
<td></td>
<td>CA: CANopen</td>
<td>0: standard</td>
<td>NRTL certification</td>
<td></td>
</tr>
<tr>
<td>IP 65</td>
<td>PSS</td>
<td></td>
<td>DP: PROFIBUS DP</td>
<td>T: with jog keys</td>
<td>in accordance with</td>
<td></td>
</tr>
<tr>
<td>IP 68</td>
<td>PSW</td>
<td></td>
<td>DN: DeviceNet</td>
<td>Y: 1 connector,</td>
<td>UL, CSA, ANSI and CE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MB: Modbus RTU</td>
<td>Y-encoded,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SE: SercoS</td>
<td>Z: 1 connector,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EC: EtherCAT</td>
<td>Y-encoded,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PN: PROFinet</td>
<td>with jog keys</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EI: EtherNet/IP</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PL: POWERLINK</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IO: IO-Link</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example 1

You require the protection class IP 54 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

IP 68, 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

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### TORQUES AND SPEEDS

#### Example 1

You require the protection class IP 54 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

IP 68, 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
# 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</td>
<td><img src="image" alt="CANopen Connector" /></td>
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<td><img src="image" alt="CANopen Connector" /></td>
</tr>
<tr>
<td>PROFIBUS DP</td>
<td><img src="image" alt="PROFIBUS DP Connector" /></td>
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</tr>
<tr>
<td>Modbus RTU</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></td>
<td></td>
<td></td>
<td>10 m: Order no. 9601.0233</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 m: Order no. 9601.0234</td>
</tr>
<tr>
<td>DeviceNet</td>
<td>Connector set: Order no. 9601.0088</td>
<td>Connector set: Order no. 9601.0090</td>
<td>5 m: Order no. 9601.0240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 m: Order no. 9601.0244</td>
</tr>
<tr>
<td>SercoS</td>
<td><img src="image" alt="Sercos Connector" /></td>
<td><img src="image" alt="Sercos Connector" /></td>
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</tr>
<tr>
<td>EtherCAT</td>
<td><img src="image" alt="EtherCAT Connector" /></td>
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</tr>
<tr>
<td>PROFINET</td>
<td><img src="image" alt="PROFINET Connector" /></td>
<td><img src="image" alt="PROFINET Connector" /></td>
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</tr>
<tr>
<td>EtherNet/IP</td>
<td><img src="image" alt="EtherNet/IP Connector" /></td>
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</tr>
<tr>
<td>POWERLINK</td>
<td>Connector set: Order no. 9601.0112</td>
<td>Connector set: Order no. 9601.0317</td>
<td><img src="image" alt="POWERLINK Connector" /></td>
</tr>
<tr>
<td>IO-Link</td>
<td>-</td>
<td>-</td>
<td><img src="image" alt="IO-Link Connector" /></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](http://www.halstrup-walcher.de/en/software)