PSW 31_-8

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

Duty cycle
20 % (basis time 600 s) at nominal torque

Mode of operation
S3

Supply voltage
24 V DC ± 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
0.9°

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
700 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.

<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>PSW 311-8</td>
<td>1 Nm</td>
<td>0.5 Nm</td>
<td>180 rpm</td>
</tr>
<tr>
<td>PSW 312-8</td>
<td>2 Nm</td>
<td>1 Nm</td>
<td>100 rpm</td>
</tr>
<tr>
<td>PSW 315-8</td>
<td>5 Nm</td>
<td>2.5 Nm</td>
<td>35 rpm</td>
</tr>
</tbody>
</table>

Characteristic curve for PSW 31_-8

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>Protection class</th>
<th>Design</th>
<th>Type</th>
<th>Bus communication (see p. 7)</th>
<th>Connections</th>
<th>Brake (see p. 11)</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positioning System Efficient (see p. 20-25)</td>
<td>IP54</td>
<td>PSE</td>
<td>30x8/-14 (V)</td>
<td>0: standard</td>
<td>0: without M</td>
<td>NRTL certification in accordance with UL, CSA, ANSI and CE</td>
</tr>
<tr>
<td>Positioning System Stainless (see p. 27-30)</td>
<td>IP65</td>
<td>PSS</td>
<td>31x8/-14 (V)</td>
<td>T: with jog keys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning System Washable (see p. 32-35)</td>
<td>IP68</td>
<td>PSW</td>
<td>32x14 (V)</td>
<td>Y: 1 connector, Y-encoded</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>33x14 (V)</td>
<td>Z: 1 connector, Y-encoded, with jog keys</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can find the order key for the PSE 34_-14 on page 26. (V) not for PSE

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

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

Form / Type Torque Output shaft
| Horizontal | 30  | x = 1 Nm |
| Horizontal | 31  | x = 2 Nm |
| Horizontal | 32  | 8 = 8 mm hollow shaft |
| Vertical  | 33  | 14 = 14 mm hollow shaft |

8V = 8 mm solid shaft (only for PSE)

Examples of orders provided below.

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
# 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><img src="image" alt="CANopen Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td><img src="image" alt="Cable and connector" /></td>
</tr>
<tr>
<td>PROFINET 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><img src="image" alt="Modbus RTU Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td>10 m: Order no. 9601.0233</td>
</tr>
<tr>
<td>DeviceNet</td>
<td><img src="image" alt="DeviceNet Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td>20 m: Order no. 9601.0234</td>
</tr>
<tr>
<td>Canopen ³</td>
<td><img src="image" alt="Canopen Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td>5 m: Order no. 9601.0240</td>
</tr>
<tr>
<td>SERCOS</td>
<td><img src="image" alt="SERCOS Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td>10 m: Order no. 9601.0244</td>
</tr>
<tr>
<td>EtherCAT</td>
<td><img src="image" alt="EtherCAT Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td>Hub on request</td>
</tr>
<tr>
<td>PROFINET</td>
<td><img src="image" alt="PROFINET Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td></td>
</tr>
<tr>
<td>EtherNet/IP</td>
<td><img src="image" alt="EtherNet/IP Connector" /></td>
<td><img src="image" alt="Power supply + databus Connector" /></td>
<td></td>
</tr>
<tr>
<td>POWERLINK</td>
<td>Connector set: Order no. 9601.0112</td>
<td>Connector set: Order no. 9601.0317</td>
<td></td>
</tr>
<tr>
<td>IO-Link ¹³</td>
<td>-</td>
<td>-</td>
<td>Connector: Order no. 9601.0107 ²²</td>
</tr>
</tbody>
</table>

¹ see under “D” in the order key  ᵃ p power supply and bus via one cable, without second databus connector  ᵃATHERNET/IP  A- or B- coding of the connectors is possible

## Further Accessories

- **Jog key box (for option T, not for PSW)**
  - Order no. 9601.0221
- **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