PSS 31_-8

Data sheet PSS 31_-8 – Date: 08 / 2019 – Subject to technical changes without notice

Data interfaces
CANopen, PROFIBUS DP, 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
0.9°

Positioning range
250 rotations

Shock resistance
50 g 11 ms

Vibration resistance
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
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)

Characteristic curve for PSS 31_-8

Product | Nominal torque | Self-holding torque | Nominal rated speed
--- | --- | --- | ---
PSS 311-8 | 1 Nm | 0.5 Nm | 210 rpm
PSS 312-8 | 2 Nm | 1 Nm | 115 rpm
PSS 315-8 | 5 Nm | 2.5 Nm | 40 rpm

All dimensions in mm.
For details of the connections please see also p. 47 and the instruction manual.

1) welded V2A housing, ball bearings at the output shaft with sealing disc

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>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>
</table>
| IP54 | PSE | 30 x 8/-14 (V) | CA: CANopen
DP: PROFIBUS DP
DN: DeviceNet
MB: Modbus RTU
SE: Sercos
EC: EtherCAT
PN: PROFINET
PL: POWERLINK
IO: IO-Link | 0: standard
T: with jog keys
Y: 1 connector, Y-encoded
Z: 1 connector, Y-encoded, with jog keys |
| IP65 | PSS | 31 x 8/-14 (V) | 0: without M |
| IP68 | PSW | 32 x 14 (V)
33 x 14 (V) | |

You can find the order key for the PSE 34_-14 on page 26.

* (V) not for PSE

** not for PSW or IO-Link, always via an extra connector

* only with 14 mm output shafts

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.

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) ¹</th>
<th>Power supply + databus (2x) + jog key connector (for option T, not for PSW) ¹¹</th>
<th>Cable and connectors for 1-connector solution ² (for option Y or IO-Link) ¹¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANopen ²</td>
<td><img src="image1.png" alt="CANopen Connector" /></td>
<td><img src="image2.png" alt="CANopen Connector" /></td>
<td><img src="image3.png" alt="CANopen Cable" /></td>
</tr>
<tr>
<td>PROFIBUS DP</td>
<td><img src="image4.png" alt="PROFIBUS DP Connector" /></td>
<td><img src="image5.png" alt="PROFIBUS DP Connector" /></td>
<td><img src="image6.png" alt="PROFIBUS DP Cable" /></td>
</tr>
<tr>
<td>Modbus RTU</td>
<td><img src="image7.png" alt="Modbus RTU Connector" /></td>
<td><img src="image8.png" alt="Modbus RTU Connector" /></td>
<td><img src="image9.png" alt="Modbus RTU Cable" /></td>
</tr>
<tr>
<td>DeviceNet</td>
<td><img src="image10.png" alt="DeviceNet Connector" /></td>
<td><img src="image11.png" alt="DeviceNet Connector" /></td>
<td><img src="image12.png" alt="DeviceNet Cable" /></td>
</tr>
<tr>
<td>Sercos</td>
<td><img src="image13.png" alt="Sercos Connector" /></td>
<td><img src="image14.png" alt="Sercos Connector" /></td>
<td><img src="image15.png" alt="Sercos Cable" /></td>
</tr>
<tr>
<td>EtherCAT</td>
<td><img src="image16.png" alt="EtherCAT Connector" /></td>
<td><img src="image17.png" alt="EtherCAT Connector" /></td>
<td><img src="image18.png" alt="EtherCAT Cable" /></td>
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<tr>
<td>PROFINET</td>
<td><img src="image19.png" alt="PROFINET Connector" /></td>
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<td><img src="image21.png" alt="PROFINET Cable" /></td>
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<tr>
<td>EtherNet/IP</td>
<td><img src="image22.png" alt="EtherNet/IP Connector" /></td>
<td><img src="image23.png" alt="EtherNet/IP Connector" /></td>
<td><img src="image24.png" alt="EtherNet/IP Cable" /></td>
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<tr>
<td>POWERLINK</td>
<td><img src="image25.png" alt="POWERLINK Connector" /></td>
<td><img src="image26.png" alt="POWERLINK Connector" /></td>
<td><img src="image27.png" alt="POWERLINK Cable" /></td>
</tr>
<tr>
<td>IO-Link ³</td>
<td><img src="image28.png" alt="IO-Link Connector" /></td>
<td><img src="image29.png" alt="IO-Link Connector" /></td>
<td><img src="image30.png" alt="IO-Link Cable" /></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