PSS 31_-8

IP 65

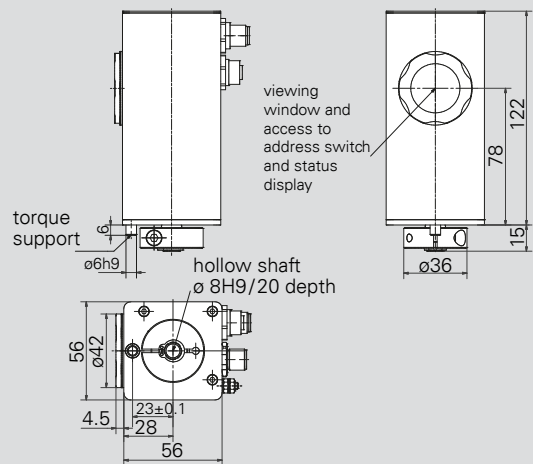| Product	Nominal torque	Self-holding torque	Nominal rated speed
PSS 311-8	1 Nm	0.5 Nm	210 rpm
PSS 312-8	2 Nm	1 Nm	115 rpm
PSS 315-8	5 Nm	2.5 Nm	40 rpm

Data interfaces

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

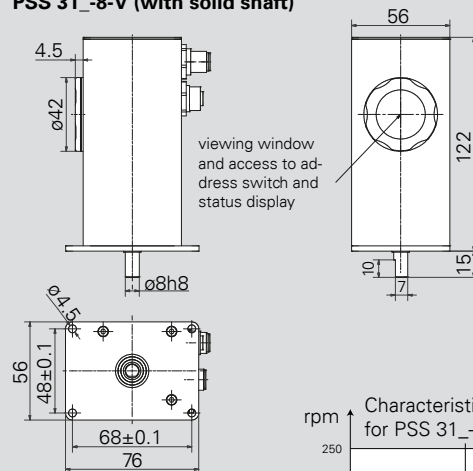|	
Start-up duration	20 % (basis time 600 s) at nominal torque
Mode of operation	S3
Supply voltage	24 V DC ± 10 % galvanically separated between control and motor and bus
Nominal current	2.2 A
Power consumption (control unit)	0.1 A
Positioning accuracy absolute measurement of position taken directly 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..1 000 Hz 10 g/ 10..2 000 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 [1]
Material	as for PSE, but with stainless steel housing
Weight	700 g
Certificates	CE, optional: NRTL (UL, CSA, ANSI)

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

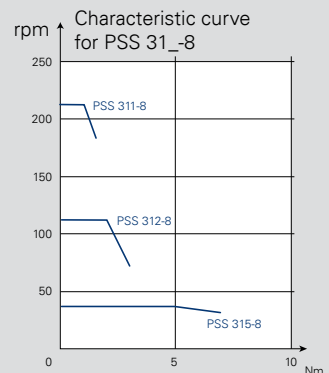**The order key and accessories can be found on p. 18 / 19.**

PSS 31_-8 (with hollow shaft)

viewing window and access to address switch and status display

torque support

hollow shaft ø 8H9/20 depth

PSS 31_-8-V (with solid shaft)

viewing window and access to address switch and status display

Characteristic curve for PSS 31_-8

PSS 311-8
PSS 312-8
PSS 315-8

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:

		A	B	C	D	E	F

	Protection class	**A** Design	**B** Type	**C** Bus communication (see p. 7)	**D** Connections	**E** Brake (see p. 11)	**F** NRTL certification
Positioning System **Efficient** (see p. 20-25)[1]	IP 54	PS**E**		CA: CANopen DP: PROFIBUS DP DN: DeviceNet	0: without jog keys		0: without, CE only
Positioning System **Stainless** (see p. 28-31)	IP 65	PS**S**	30**x**-8/-14 (V)[2] 31**x**-8/-14 (V)[2] 32**x**-14 (V)[2] 33**x**-14 (V)[2]	MB: Modbus RTU SE: Sercos EC: EtherCAT PN: PROFINET	0: without jog keys T: with jog keys[3] Y: 1 connector, Y-encoded	0: without M[4]: with	N: with NRTL certification (in accordance with UL, CSA, ANSI and CE)
Positioning System **Washable** (see p. 32-35)	IP 68	PS**W**		EI: EtherNet/IP PL: POWERLINK IO: IO-Link	Z: 1 connector, Y-encoded, with jog keys[3]		TÜV SÜD c us

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

[2] (V) not for PSE

[3] not for PSW or IO-Link, always via an extra connector

[4] only with 14 mm output shafts

Standard equipment (Connections)

- second databus connection always provided (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 vertical ⟶ 31 horizontal ⟶ 32 vertical ⟶ 33	**x** = 1 Nm **x** = 2 Nm **x** = 5 Nm **x** = 10 Nm[5] **x** = 18 Nm[5] **x** = 25 Nm[5]	8 = 8 mm hollow shaft 14 = 14 mm hollow shaft 8V = 8 mm solid shaft[6] 14V = 14 mm solid shaft[6]

[5] only for PSE 18 Nm: horiz. 25 Nm: long.

[6] only for PSS/PSW

Examples of orders provided below.

Nominal torque - nominal speed combinations
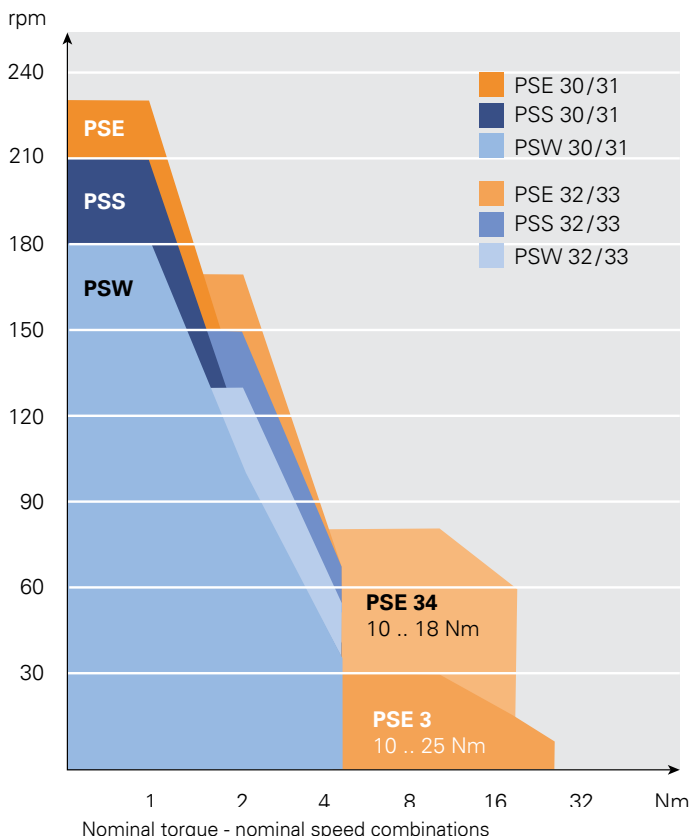
TORQUES AND SPEEDS

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!

Bus communi-cation	Power supply + databus connector (2x) (for option 0) [1]	Power supply + databus (2x) + jog key connector [2] (for option T) [1]	Cable and connectors for 1-connector solution [3] (for option Y or IO) [1]
CANopen PROFIBUS DP Modbus RTU	Connector set: Order no. 9601.0060	Connector set: Order no. 9601.0062	5 m: Order no. 9601.0245 10 m: Order no. 9601.0233 20 m: Order no. 9601.0234
DeviceNet	Connector set: Order no. 9601.0088	Connector set: Order no. 9601.0090	5 m: Order no. 9601.0240 10 m: Order no. 9601.0244 Hub on request
Sercos EtherCAT PROFINET EtherNet/IP POWERLINK	Connector set: Order no. 9601.0112	Jog key box: Order no. 9601.0241	
IO-Link [3]	-	-	Connector: Order no. 9601.0107 [3]

[1] see under "D" in the order key   [2] not for PSW   [3] power supply and bus via one cable, without second databus connector

## PSS / PSW: OPTIMUM HYGIENIC DESIGN

Our stainless steel positioning systems follows the **hygienic design** recommendations (construction design, selection and treatment of materials) of the Chair of Apparatus and Plant Design at the Technical University of Munich, Weihenstephan Science Centre.

Screw cap to cover the second bus connection (for PSS/PSW)
Order no. 9601.0176

MODULES AND DESCRIPTION FILES
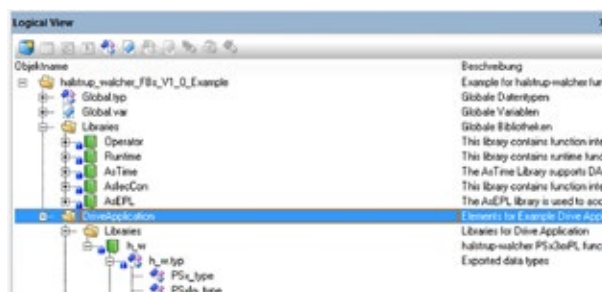
Take advantage of our functional modules or description files for the various buses. You can download the files on our Website:

www.halstrup-walcher.de/en/software