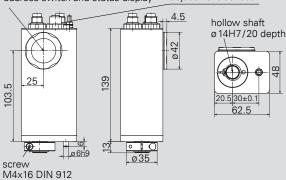


PSW 31_/33_-14 (with hollow shaft)

viewing window and access to address switch and status display

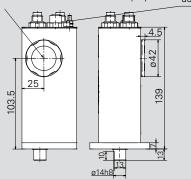
cover, manual adjustment beneath



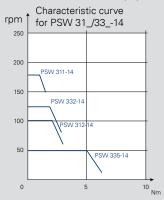
PSW 31_/33_-14-V (with solid shaft)

viewing window and access to address switch and status display

cover, manual adjustment beneath







For details of the connections please see also p. 47 and the instruction manual.

| Product | Nominal torque | Self-holding torque | Nominal rated speed |
|------------|-------------------|---------------------|---------------------|
| PSW 311-14 | 1 Nm | 0.5 Nm | 180 rpm |
| PSW 312-14 | 2 Nm | 1 Nm | 100 rpm |
| PSW 332-14 | 2 Nm | 1 Nm | 125 rpm |
| PSW 335-14 | 5 Nm | 2.5 Nm | 50 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 | $24\text{VDC} \pm 10\%$ galvanically separated between control and motor and bus | |
| Nominal current | PSW 31_: 2.4 A, PSW 33_: 3.1 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 | 50g 11 ms | |
| Vibration resistance in accordance with IEC/DIN EN 60068-2-6 | 1055 Hz 1.5 mm/ 551 000 Hz 10 g/ 102 000 Hz 5 g | |
| Output shaft | 14 mm solid shaft or 14 mm hollow shaft with adjustable collar | |
| Maximum axial force | 20 N | |
| Maximum radial force | 40 N | |
| Ambient temperature | 045°C | |
| Storage temperature | -1070°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

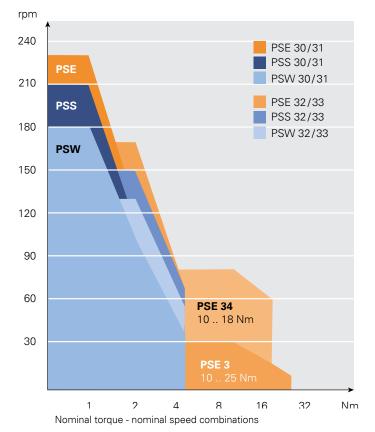
The order key and accessories can be found on p. 18/19.

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: Pro-С D tection Design Туре Bus communication Connections Brake NRTL certification (see p. 11) class (see p. 7) Positioning System CANopen **Efficient** IP 54 PS**E** 0: without, **C**€only PROFIBUS DP DP: 0: without jog (see p. 20-25)1) N: with NRTL DN: DeviceNet keys certification Positioning System 30x-8/-14 (V)2) MB: Modbus RTU T: with jog keys³⁾ (in accordance with UL, **Stainless IP65** PS**S** 31x-8/-14 (V)2) Sercos Y: 1 connector, 0: without CSA, ANSI and CE) (see p. 28-31) 32x-14 (V)2) EC: **EtherCAT** Y-encoded M4): with 33x-14 (V)2) PN: **PROFINET** 7. 1 connector Positioning System EI: EtherNet/IP Y-encoded, Washable IP 68 PS**W** PL **POWERLINK** with jog keys 3) (see p. 32-35) IO-Link ¹⁾ You can find the order key for the PSE 34_-14 on page 26. 3) not for PSW or IO-Link, always via an extra connector 2) (V) not for PSE 4) only with 14 mm out-put shafts Standard equipment (Connections) Form/Type Output shaft Torque second databus connection $\mathbf{x} = 1 \text{ Nm}$ always provided (not for IO-Link 30 horizontal **x** = 2 Nm 8 = 8 mm hollow shaft or Y-encoded connector) 31 vertical x = 5 Nm14 = 14 mm hollow shaft address switches always 32 $x = 10 \text{ Nm}^{5}$ 8V = 8 mm solid shaft 6) horizontal provided (also IE-buses, not for $x = 18 \text{ Nm}^{5}$ 14V = 14 mm solid shaft 6) vertical 33 Examples of orders IO-Link) $x = 25 \text{ Nm}^{5}$ provided below. For further information on connections only for PSE 18 Nm: horiz. 25 Nm: long. 6) only for PSS/PSW and address settings see also "Overview: bus communication" on p.47.



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 (IP54) and PSS (IP65) comply with the IP protection classes. We will also be pleased to help you find a suitable mating connector for the PSW (IP68) if necessary – just ask us!



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



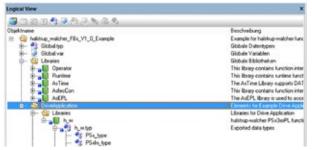
Our stainless steel positioning systems follows the **hygienic design** recommendations (construction design, selection and treatment of materials) of the Chair of Apparatus and Plant Design at the Technical University of Munich, Weihenstephan Science Centre.



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