

BETTER INTEGRATED!
Two axes – 340° each



High degree of integration – very easy plug connection assembly

Save at least 50 % space

Minimum space – Maximum torque!

From the component to the complex robot structure. With the unique wrist module SPB, SCHUNK the competence leader in automation and pioneer of modular robotics sets new standards in robotic configuration.

The ball-shaped design with two orthogonally arranged swivel axes sets the benchmark for direct interaction between man and robot.

► **Compact performance and lighter weight**

Strong performance in small space requirements – the complete motion-control electronics is integrated into the unit.

► **More degrees of freedom – less modules**

From three joint modules an individual lightweight arm with six degrees of freedom can be configured. Compared to two PRL modules with a similar functionality, you are saving more than 50 % of the installation space.

► **Mechatronic Modular System – second to none**

Easiest configuration of module robots using a modular conception of multi-purpose SCHUNK mechatronic components, which has been designed from the ground up across all disciplines.

► **New version of connection- and joint system – easily mounted**

With the integrated quick-change system for mechanics and electronics, and the possibility of integrating customer-specific signals, time-consuming wiring is no longer necessary.



EXCEPTIONAL PRECISION FROM THE COMPETENCE LEADER.



- 1 Electronic control unit
- 2 Encoder
- 3 Drive
- 4 Harmonic Drive® gears
- 5 Holding brake
- 6 Quill for internal wiring

Multi-purpose due to several degrees of freedom

Due to its miniaturization and consequent lightweight strategy, the Wrist Module SPB fulfills important customer requirements. Inside the ball-shaped housing two orthogonally arranged servo axes are integrated. Therefore a simultaneous paning-tilting function at an angle of rotation of 340° (-170° ... +170°) per axis is achieved.

As for all SCHUNK mechatronic components, the complete motion-control intelligence is integrated in the unit.

Due to its low supply voltage of 24 V DC, the SPB is perfectly suitable for the use in battery-operated mobile solutions.

Easiest configuration

The combination of several modules is remarkably simple. Since the flanges are equipped with the SCHUNK FWS tool change system, an extreme simplification of the mechanic and electric assembly is achieved. As the plug connectors are pre-assembled and completely wired, electric wiring of the robot during assembly is no longer necessary.

Fields of application

Robot structures and lightweight arms made from SPB modules are ideal for interactions with humans in many areas:

- ▶ Human-robot interaction
- ▶ Measuring and test stands
- ▶ Laboratory automation
- ▶ Service robotics

Knowledge in robotics of the operator is not required.

Technical data

Indication per servo axis		SPB 100	SPB 140
Maximum speed	[rpm]	15	9.2
Nominal torque	[Nm]	7	35
Maximum torque per axis	[Nm]	19	64
Angle of rotation	[°]	340	340
Maximum environmental temperature	[°C]	40	40
Maximum surface temperature	[°C]	70	70
Communication	CAN-BUS		