

# FD-B6

Arc welding / handling robot with integrated cable routing is designed for all welding tasks and payloads up to 6 kg. Thanks to higher process speeds and shorter cycle times, the FD-B6 fulfills all requirements for the most demanding handling tasks.

The new arc welding / handling robot FD-B6 with integrated cable routing and further developed design is designed for all welding tasks and payloads up to 6 kg. Even the connections and cables required for the SynchroFeed welding process are pre-installed. Thanks to higher process speeds and shorter cycle times, the FD-B6 fulfills all requirements for the most demanding handling tasks.

- Higher clock speeds for highest industrial speeds
- Slim design: Integrated wrist motors prevent malfunctions from devices and workpieces.
- User-friendly: Integrated supply lines prevent faults behind the robot arm.
- More stable construction: 1.5 times the load capacity for welding tasks with different ranges.



## Product information

Order No. 116000009  
Model No. 0

### Specification

Type	FD-B6
Number of axes	6
Working range	R 1445 mm
Max. payload capacity	6 Kg
Additional payload capacity Axis 3	10 Kg
Protection class upper arm	IP 65 (J5, J6)
Installation type	F,W,C
Weight	145 Kg

### Performance

Position repeatability (ISO 9283) +/- 0,08 mm (Note 1)

	Working Range	Max Speed	Wrist load
<b>Axis 1</b>	+/- 170° (+/-50°)(Note 2)	4,19 rad/s {240°/s} (3,32 rad/s {190°/s}) (Note 2)	
<b>Axis 2</b>	-155° ~ + 90° (Note 3)	4,19 rad/s {240°/s}	
<b>Axis 3</b>	-170° ~ + 245° (Note 4)	4,01 rad/s {230°/s}	
<b>Axis 4</b>	+/- 155° (+/- 170°) (Note 5)	7,50 rad/s {430°/s}	0,28 kg m <sup>2</sup>
<b>Axis 5</b>	-45° ~ + 225° (Note 6)	7,50 rad/s {430°/s}	0,28 kg m <sup>2</sup>
<b>Axis 6</b>	+/- 205° (+/-360°) (Note 5,6)	11,0 rad/s {630°/s}	0,06 kg m <sup>2</sup>

Note 1: The value of the positional repeatability is at the tool center point (TCP) compliant to ISO 9283.

Note 2: The value in the parentheses indicates the wall-hung condition. J2 axis may occur the limitation of the working range.

Note 3: There are occasions where restrictions can be made to the operation range of the J2 axis when the wall-hung condition.

Note 4: The operation range of the J3 axis is restricted to -170 degrees to + 180 degrees when floor based welding is applied (In overhead mounting it's a combination of J2 + J3 axis).

Note 5: This is the specification for the case that the coaxial power cable are let into the centrum of J4 and J6 axis. The value given in parentheses presents for other specifications.

Note 6: There are occasions where restrictions can be made to the operation range of the J6 axis, depending on the J5 axis's posture.

Note 7: Max. Load to the upper shoulder, when loading the max. payload capacity at the end effector.

F= Floor W=Wall C=Ceiling