FD-BT6L

Highly flexible 7-axis high-speed robot with integrated cable routing and extended arm for welding, manufacturing and handling

The 7-axis arc welding robot BT6L from the FD series is compact and, thanks to the integrated cable routing, offers optimal protection during the work process. The extended degree of freedom enables a constant torch orientation when immersing in tight work spaces. The payload for expanding applicability is increased by 50% compared to the model B4LS model. In addition, the FD-BT6L offers an extended arm compared to the FD-BT6 and thus a larger working radius.

Specification

Type	FD-BT6L
Number of axes	7
Working range	R 2008mm
Max. payload capacity	6 Kg
Additional payload capacity axis 3	10 Kg
Protection class upper arm	IP 65 (J5, J6)
Installation type	F
Weight	326 Kg
Ambient temperature and humidity	0 ▯ 45°C, 20 ▯ 80%RH (No condensation)

Performance

Position repeatability (ISO 9283)	±0.06 mm (Note 1)

Product information

Order No.	116000035
Model No.	0

	Working Range	Max Speed	Wrist load
Axis 1	+/- 170°	3.93 rad/▯s 220°/s▯	
Axis 2	145° ~ + 75°	3.49 rad/▯s 225°/s▯	
Axis 3	-170° ~ + 154°	3.84 rad/▯s 230°/s▯	
Axis 4	+/- 155°	7.50 rad/▯s 430°/s▯	0.28 kg▯m2
Axis 5	- 45° ~ + 225° (Note 2)	7.50 rad/▯s 430°/s▯	0.28 kg▯m2
Axis 6	±205° (Note 2)	11.00 rad/▯s 630°/s▯	0.06 kg▯m2
Axis 7	±90°	2.79 rad/▯s 160°/s▯	

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