

# FD-V8L

**Arc welding / handling robot with partially integrated cable routing and longer arm is perfectly designed for all welding and handling tasks**

The new arc welding robot FD-V8L with partly integrated cable routing and a refined design can handle all welding tasks and payloads of up to 8 kg. Even the connections and cables required for the SynchroFeed welding process are preinstalled. Due to its outstanding arm length, it is particularly suitable for large working areas.

- Faster cycle time: Designed for highest industrial speeds.
- Slim Design: Thanks to the slimmer lower arm design, less rotary motion is needed to reach the working position, thus preventing collisions with jigs and workpieces.
- User-friendly operation: Even the cables required for SynchroFeed are integrated into the lower arm, which prevents interference behind the robot arm.
- Stronger structure: Maximum payload now up to 8 kg. The use of different torches and sensors is possible.



## Product information

**Order No.** 116000025  
**Model No.** 0

### Specification

Type	FD-V8L
Number of axes	6
Working range	R 2006 mm
Max. payload capacity	8 Kg
Additional payload capacity Axis 3	20 Kg (Note 7)
Protection class base and lower arm	IP54 equivalent (J1 -4 Axis)
Installation type	F,W,C
Weight	237 Kg
Ambient temperature and humidity	0 ~ 45°C, 20 ~ 80 % RH (No condensation)

### Performance

**Position repeatability (ISO 9283)** +/- 0,05 mm (Note 1)

	Working Range	Max Speed	Wrist load
<b>Axis 1</b>	+/- 170° (+/-50°) (Note 2)	3,93 rad/s {225°/s} (3,05 rad/s {175°/s})	
<b>Axis 2</b>	-155° ~ + 100° (Note 3)	3,58 rad/s {205°/s}	
<b>Axis 3</b>	-170° ~ + 260° (Note 5)	4,45 rad/s {255°/s}	
<b>Axis 4</b>	+/- 180°	7,85 rad/s {450°/s}	0,43 kg m <sup>2</sup>
<b>Axis 5</b>	-50° ~ + 230°	7,50 rad/s {430°/s}	0,43 kg m <sup>2</sup>
<b>Axis 6</b>	-50° ~ + 230°	11,0 rad/s {630°/s}	0,09 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