



A Series

- Features & Specifications

Key Features



A+ Safety

Advanced technology with optimization of safety algorithm overcomes the limits of current-based collision detection



A+ Speed

The fastest joint speed and excellent acceleration in the cobot field



A+ Customizing

Actualization of dexterous work with high performance force torque sensor



A+ ROI

Work efficiency and high productivity guaranteed by reduction of cycle time and high cost-effectiveness

Advantages

- Improved repeatability: ± 0.03 mm
- Improved joint speed: 4~6 Axes
- Improved acceleration: Relative proportion of velocity and acceleration – 1:2 in worst case
- Slim design, compactification of joint module
- Various options: High performance Force Torque Sensor, Smart Pendant for user convenience
- Easy Programming through laptop with Windows OS



Specifications

Category	ITEM	A0509(s)
Robot Arm	Axis	6
	Weight	21 kg
	Max. Payload	5 kg
	Max. Reach	900 mm
	Tool Speed	1 m/s
	Joint Range	±[360 360 160 360 360 360] [°]
	Joint Speed	[180 180 180 360 360 360] [°/s]
	Repeatability	± 0.03 mm
	Sensor	Current/ FTS (s model only)
	Temperature	0~45 [°C]
	Install Position	Any (Floor, Wall, Ceiling)
	Protection Rating	IP54
	Noise Level	Less than 65 [dB]
	Humidity	80 [%RH, noncondensing]
Flange	I/O Ports	Digital 2 In/ 2 Out
	I/O Power Supply	24V cont. 2A (Max 3A)
	I/O Communication	RS485
Controller	Weight	12.5 kg
	Comm. Interface	Serial (RS232), USB 3.0, Ethernet
	Industrial Network	TCP/IP, Modbus TCP (m/s), Profinet (s), RTU, EtherNet/IP (s)
	I/O Ports	Digital : 16 In/ 16 Out, Analog : 2 In/ 2 Out
	I/O Power Supply	24V 2A
	Rated Power	220VAC, 10A
	Conveyor Tracking	Dual Conveyor Tracking
Safety	Safety Rating	STO, EMG : PL e Cat. 4, SIL 3, Other functions : PL d Cat. 3, SIL 2
	Certification	ISO 13849-1, ISO 10218-1, UL1740
	Safety Functions	18 (SBC removed, RS1 added)
Software	Software Update	Free, Quaterly
	Offline Programming Tool	DART-Studio
Option	Accessories	Teach Pendant, Smart Pendant, Dress Pack, Smart Vision Module, Mobile Base, Robot Jacket

Applications



Welding



Gluing &
Dispensing



Polishing &
Deburring



Assembling



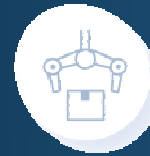
Packaging &
Palletizing



Inspection &
Quality Test



Air Blowing



Pick & Place



Switch on The Future Doosan Robotics

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