

# **D-Bot Series**

# **SINNOMOTION**

# **Technical Parameters**













### **Specifications**

Payload	6 kg (13.3 lbs)	8 kg (17.7 lbs)	10 kg (22.1 lbs)	16 kg (35.3 lbs)	20 kg (44.1 lbs)	30 kg (66.2 lbs)
Reach	800 mm (31.5 in)	1300 mm (51.2 in)	1200 mm (47.3 in)	1600 mm (63 in)	1800 mm (70.1 in)	1300 mm (51.2 in)
Degrees of Freedom	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints

#### **Environment & Safety**

Ambient Temperature	Ambient temperature: 0° to 40°C (32° to 104°F)	Ambient temperature: 0° to 40°C (32° to 104°F)
IP Classification	IP 66 water and dust protection	IP 66 water and dust protection
Safety Rating	PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)	PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)
Safety Functions	25 configurable safety functions	25 configurable safety functions

#### Performance

Max. TCP Speed	2 m/s		3 m/s									
Pose Repeatability	±0.02 mm											
Axis Movement Axis 1	Working range ±180°	Maximum speed 180°/s	Working range ±180°	Maximum speed 130°/s	Working range ±180°	Maximum speed 130°/s	Working range ±180°	Maximum speed 120°/s	Working range ±180°	Maximum speed 120°/s	Working range ±180°	Maximum speed 120°/s
Axis 2	±180°	180°/s	±180°	130°/s	±180°	130°/s	±180°	120°/s	±180°	120°/s	±180°	120°/s
Axis 3 Axis 4	±120° ±150°	200°/s 200°/s	±120° ±150°	200°/s 200°/s	±120° ±150°	200°/s 200°/s	±120° ±150°	200°/s 200°/s	±120° ±150°	120°/s 120°/s	±120° ±150°	120°/s 120°/s
Axis 5	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	180°/s	±180°	180°/s
Axis 6	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	200°/s	±180°	180°/s	±180°	180°/s

# Interfaces & Programming

Interfaces at the Flange		I/Os Ports, Modbus RTU			I/Os Ports, Modbus RTU	I/Os Ports, Modbus RTU		
I/O Ports								
Digital In	3	3	3	3	3	3		
Digital Out	3	3	3	3	3	3		
Analog In	2	2	2	2	2	2		
I/O power supply voltage	24V	24V	24V	24V	24V	24V		
I/O power supply	1A	1A	1A	1A	1A	1A		
Programming Interface	g Interface Drag & Drop, Python, ROS 1, C++				Drag & Drop, Python, ROS 1, C++			

# **Physical**

Weight	24 kg (53 lbs)	40 kg (88 lbs)	39 kg (86 lbs)	70 kg (154 lbs)	101 kg ( 223 lbs)	98 kg (216 lbs)		
Mounting	Omnidirectional, including table mounting, wall mounting, and ceiling mounting			Omnidirection	Omnidirectional, including table mounting, wall mounting, and ceiling mounting			
Material	Aluminum, plastic, steel				Aluminum, plastic, steel			



#### **Control Box**

Dimensions	493 mm x 470 mm x 243 mm
Weight	20 kg (44.1 lbs)
Power Supply	100-240 VAC, 50/60 Hz, max. 1 kW (for DC30 max. 2 kW)
Interface	EtherNet/IP, USB 3.0, Safe I/0s



#### **Teach Pendant**

Dimensions	300 mm x 245 mm x 133 mm
Resolution	2560 x 1600 px
Cable Length	5 m (3.3 ft)