IX-NNC50□□[H]

Medium SCARA robot, Cleanroom type
Arm length 500mm, Vertical axis 200mm (300mm) [High-power specification]

■Model items **IX — NNC50□□[H] — □ — T2**

Series	Type	Cable length	Applicable controller
	NNC5020[H]: Arm length 500mm, Vertical axis 200mm NNC5030[H]: Arm length 500mm, Vertical axis 300mm	5L : 5 m (standard) 10L: 10 m	T2: XSEL-PX/QX

*For details on the model items, refer to page 8.

Model/Specifications

Model	Axis configuration		Arm length (mm)	Motor capacity (W)	Work envelope	Positioning Repeatability (mm) (Note 1)	PTP operation Maximum operating speed (Note 2)	Standard cycle time (sec) (Note 3)	Load capacity (kg) (Note 4)		Axis 3 (vertical axis) push force (N) (Note 5)		Axis 4 allowable load	
									Rated	Maximum	Maximum limit	Minimum limit	Allowable inertial moment (kg·m2) (Note 6)	Allowable torque (N · m)
IX-NNC5020[H]-□-T2 (IX-NNC5030[H]-□-T2)	Axis 1	Arm 1	250	400	±120°	±0.010 (XY)	6283mm/s [6381mm/s] (Composite speed)	0.47 [0.41]	2	10	152 [181]	78 [93]	0.06	3.3 [3.7]
	Axis 2	Arm 2	250	200	±145°									
	Axis 3	Vertical axis	-	200	200mm (300mm)	±0.010	1393mm/s [1473mm/s]							
	Axis 4	Rotating axis	-	100	±360°	±0.005	1200°/s [1857°/s]							

*In the model number above, specify the cable length in □.

*[ ] indicates the high-power specification type

*SCARA robots cannot operate continuously at 100% speed and acceleration. For details on the operating conditions, refer to Reference Acceleration/Deceleration Settings on page 44.

Common Specifications

Encoder type	Absolute
User wiring	25-conductor AWG26 D-sub/25-pin connector with shield (socket)
User tubing	Air tube (O.D. ø6, I.D. ø4) x 2 (Normal working pressure 0.8 MPa) Air tube (O.D. ø4, I.D. ø2.5) x 2 (Normal working pressure 0.8 MPa)
Alarm indicator (Note 7)	Small red LED indicator x 1 (24 V DC must be supplied.)
Brake-release switch (Note 8)	Allows remote release of Z-axis (24 VDC required)

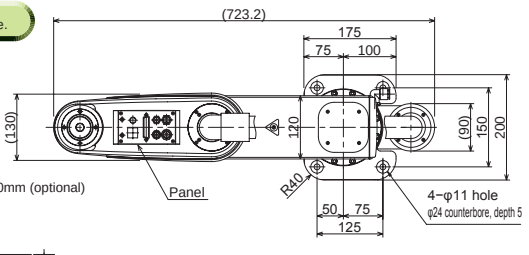
Vacuum joint	Quick joint, Applicable tube O.D. ø12
Suction rate (Note 10)	60 N·liter/min
Cleanliness class	Conforming to ISO cleanliness class 4 (0.1 µm)
Ambient temperature/humidity	Temperature: 0–40 °C, humidity: 20–85%RH or less (no condensation)
Unit weight	31.5Kg
Cable length (Note 9)	5L: 5 m (standard), 10L: 10 m (optional)

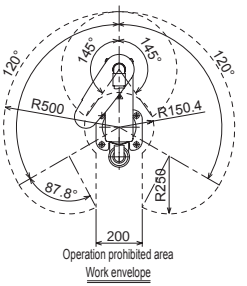
Dimensions

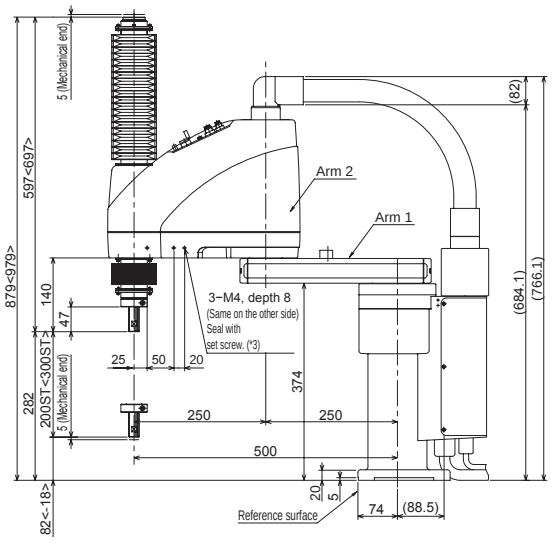
The CAD drawings can be downloaded from our Web site.

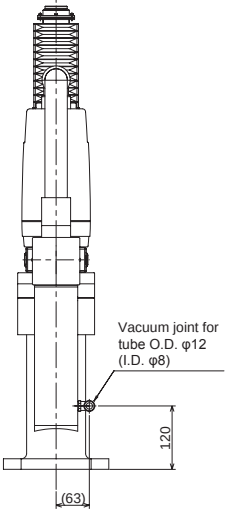
2D CAD

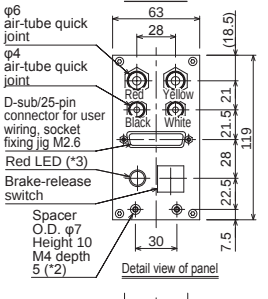
*< > indicates vertical axis 300mm (optional) specifications.

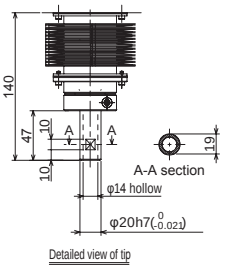












*1: The external force applied to a spacer must not exceed 30 N in the axial direction, or 2 N•m in the rotating direction. (for each spacer)
*2: In order to use the LED, the user must wire it so that it responds to the controller's I/O output signal by supplying 24 V DC to the applicable LED terminal in the user wiring.
*3: The prepared hole 3−M4, depth 8 passes through the side panel of the arm. If the mounting screw is long, make sure it does not contact internal components. In addition, be sure to seal screws with tape.

Cables/tubes
- Motor/encoder cable 5m/10m
- Brake power cable 5m/10m
- User Wiring Cable 5m/10m
- Air tube (4 pcs) 0.15m

Applicable Controller Specifications

Applicable Controller	Features	Maximum I/O points (inputs/outputs)	Power-supply voltage	Reference page
XSEL-PX-###-2[3]	Maximum 6 axes, 1600 [2400] W supported	192/192 points	Single-Phase [Three-phase] 230 VAC	p. 37
XSEL-QX-###-2[3]	Safety Category 4 supported			

*The SCARA model with high-power specification [H] needs a 2.4 kW three-phase type controller XSEL-PX/QX-###-3.

Caution

For explanations of (Note 1) through (Note 9), refer to page 7.
(Note 10) In order to use the cleanroom type in an environment with ISO cleanliness class 4, the air inside the robot must be vacuumed from the air suction outlet located at the side (or back) of the robot base.
The suction rate listed in the above table is a general estimate. Increase the suction rate according to the actual operating conditions.