IXP- 3C4515/4C4515

Clean room specification | Arm length 450mm | Vertical axis 150mm

■Model Specification Items

IXP — [ ] — C — 45 — 15 — WA — [ ] — P3 — [ ]

Series	Number of axes	Type	Arm length	Vertical axis stroke	Encoder type	Cable length	Applicable controller	Options
	3: 3 axes 4: 4 axes	C: Cleanroom specification	45: 450mm	15: 150mm	WA: Battery-less absolute specification	N: None P: 1m S: 3m M: 5m X□□: Specified length R□□: Robot cable Cable length described below.	P3: MSEL	Refer to Options table below.

*Controller is not included.

* Please select VLL or VLR for suction of the L-shaped joint.

*The photograph shows a 4-axis specification.

POINT Note on selection

- Refer to P. 5 for (Note1) through (Note 5).
- The vertical axis has no brake. The unique structure holds the load in place even when the servo is turned off.
- The vertical axis does not support push-motion control.
- The allowable push force is 60N under condition of having a buffer such as a spring on a tool or the pressing side.
- Refer to P. 5/6 for the work envelope, and P. 18/26 for the notes on acceleration/deceleration setting.

Robot Specifications

Axis configuration		Arm length (mm)	Work envelope	Positioning repeatability (Note 1)	Maximum operating speed in PTP mode (Note 2)	Payload (kg) (Note 3)	
						Rated	Maximum
Axis 1	Arm 1	260	±127°	±0.03mm	2194mm/s (Composite speed)	1	3
Axis 2	Arm 2	190	±127°				
Axis 3	Vertical axis	—	150mm	±0.02mm	270mm/s		
Axis 4	Rotational axis	—	±360°	±0.02°	1000°/s		

Robot Specifications

	3-axis specification	4-axis specification
Encoder type	Battery-less absolute encoder	
User piping joint	One touch piping joint 1 Applicable tube O.D. ø6	
Standard cycle time (sec) (Note 4)	0.74	
Allowable torque (Axis 4) (N·m)	—	1.4
Allowable moment (N·m)	2.9	
Allowable inertial moment from the tip of the vertical axis (kg·m²) (Note 5)	Rated 0.003 Maximum 0.01	Rated 0.003 Maximum 0.003
Ambient operating temperature/humidity	Temperature 0 ~ 40°C Humidity 20 ~ 85%RH (Non-condensing)	
Unit weight (kg)	14	15
Piping joint for suction	One touch piping joint 3 Applicable tubes O.D. ø6	
Suction pressure	−3 ~ −5kPa	
Suction power (*)	12Nℓ/min	
Cleanliness class	ISO class 3.5 or equivalent (ISO14644-1:2015 standard)	
	US FED STD class 10 (209D standard)	

(*) In order to use the SCARA Cleanroom specification in cleanliness class 3.5 (ISO) or 10 (US FED), the air in the unit must be sucked from the air suction port of the unit base. Please make piping that can flow the flow rate for each specification. Since the amount of dust are depending on the operating pattern, it is necessary to increase the amount of suction at high speed and high acceleration.

Options

Name	Option code	Reference note
L-shaped joint left side exit	VLL	Select either L-shaped joint for suction on the left side (VLL) or right side (VLR)
L-shaped joint right side exit	VLR	

Model Combinations

Specification	Model number
3-axis specification	IXP-3C4515
4-axis specification (with rotating axis)	IXP-4C4515

Cable Length <Per Axis*>

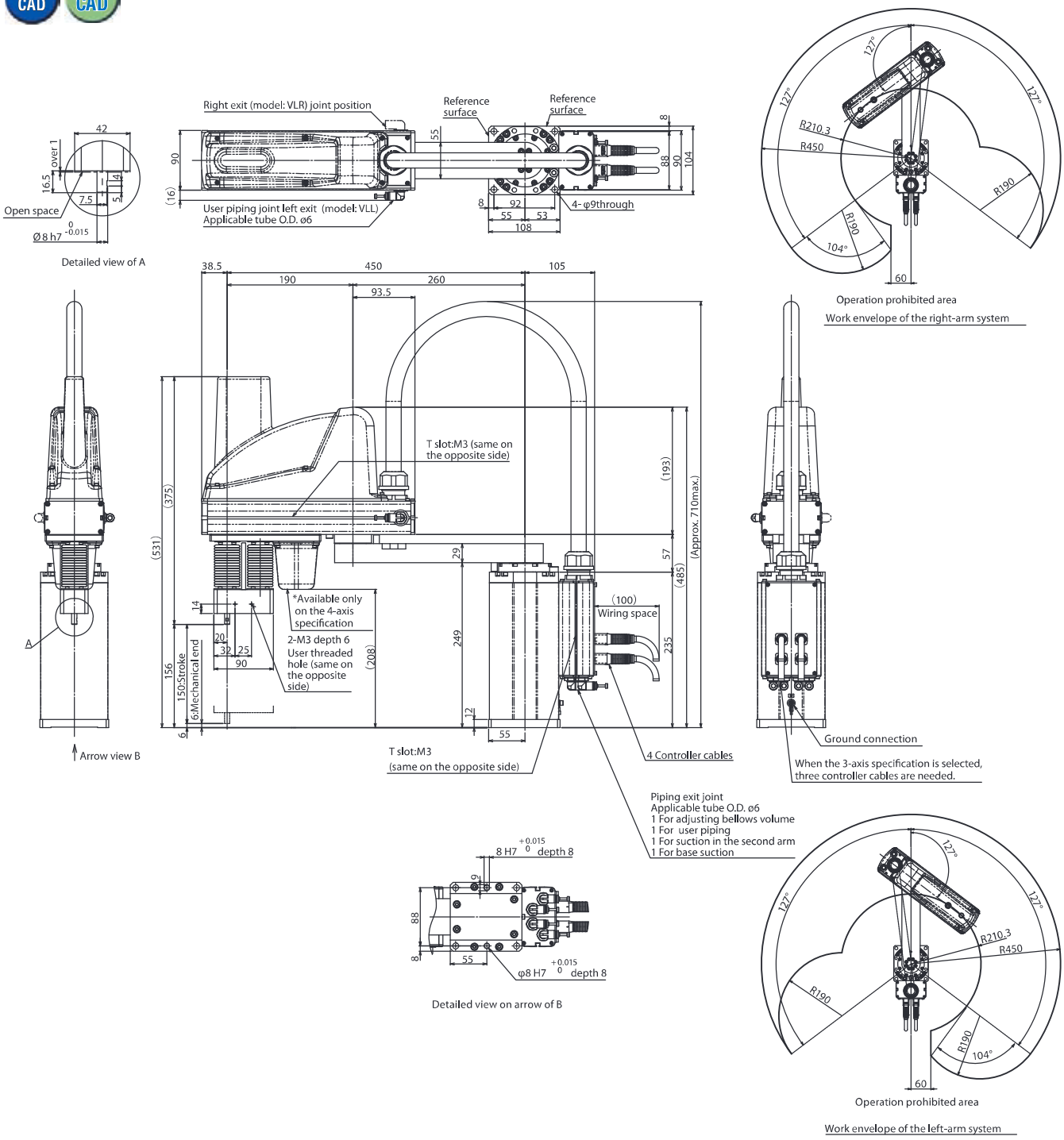
Type	Cable code
Standard type	P (1m)
	S (3m)
	M (5m)
Specified length	X06 (6m) ~ X10 (10m)
	X11 (11m) ~ X15 (15m)
	X16 (16m) ~ X20 (20m)
Robot cable	R01 (1m) ~ R03 (3m)
	R04 (4m) ~ R05 (5m)
	R06 (6m) ~ R10 (10m)
	R11 (11m) ~ R15 (15m)
	R16 (16m) ~ R20 (20m)

* The 3-axis specification requires three cables, while the gripper specification and 4-axis specification require four cables.

Dimensions

2D CAD 3D CAD

CAD drawings can be downloaded from the website. www.intelligentactuator.de



Applicable Controller Specifications

Name	External view	Model number (*1)	Max. number of controlled axes	Max. positioning points	Standard I/O points (input/output)	Input voltage	Reference page
Program control multi-axis type Safety category compliant specification		MSEL-PGXⒾ-ⒾⅠWAI-ⅢⅣ-2-4	4	30000 points	16 points/16 points	Single-phase AC 100V ~ 230V	→ P. 11/19
Program control multi-axis type Safety category compliant specification with network board		MSEL-PGXⒾ-ⒾⅠWAI-ⅢⅣ-0-4					

*Ⓘ Controller type (3:3-axis specification/4:4-axis specification)
*ⒾⅠ SCARA type (Refer to table on the right)
*ⒾⅢ Standard I/O (NP/PN)
*ⒾⅣ Expansion I/O (Refer to table on the right)
*Refer to P. 12/20 if considering axis connection other than IXP series.

<SCARA type>

3C4515	4C4515

<Expansion I/O>

E	Not used	CC	CC-Link board
NP/PN	Expansion PIO board NPN/PNP spec. (*2)	CC2	CC-Link board (with 2-way connector)
DV	DeviceNet board	PR	PROFIBUS-DP board
DV2	DeviceNet board (with 2-way connector)	EP	EtherNet/IP board

(*1) The model code is just one example. Refer to P. 11/19 if using such as field network.
(*2) PNP specification is coming soon.