



Inovance Robot Selection Guide

Suitable for Various Applications

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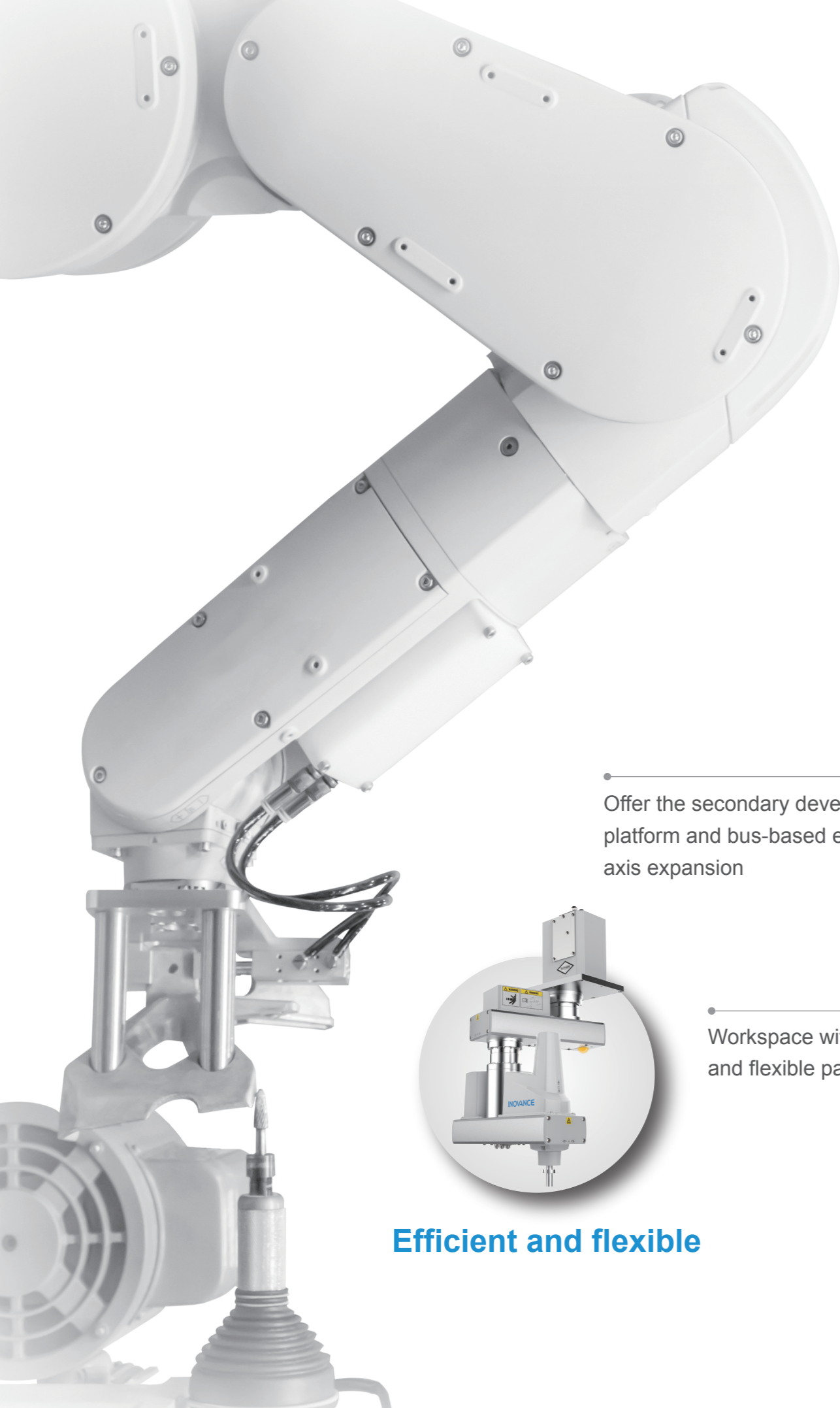
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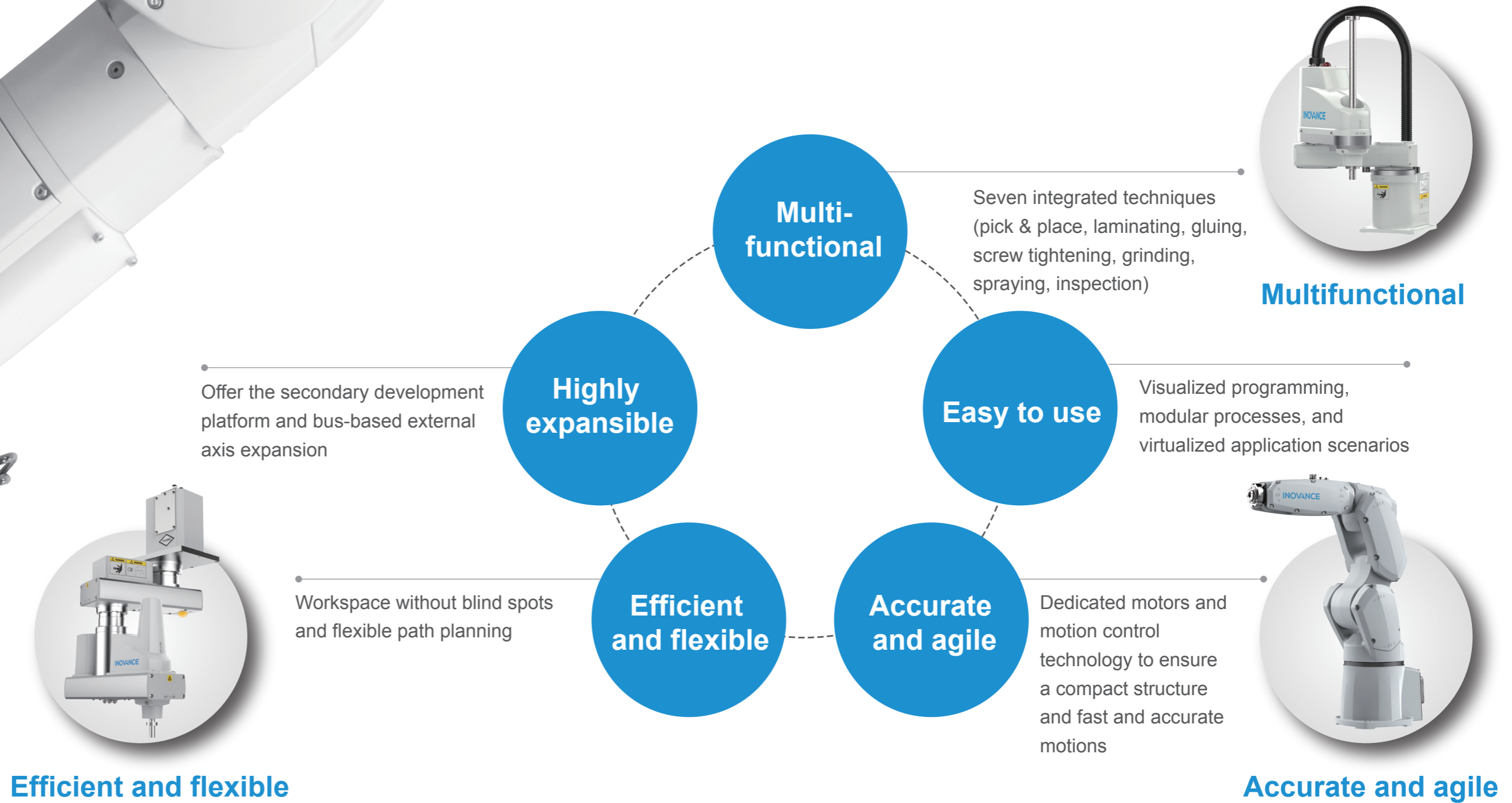
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Understanding Applications, Easy to Use

Inovance Robot, Suitable for Various Applications




*The entire series can be customized.

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Robot Product Family – SCARA | P1-10


IRS100 Series Robot – Normal Mounted Robot P1-8	
3 kg (load: rated 1 kg; maximum 3 kg)	Arm length: 300 mm, 400 mm
6 kg (load: rated 2 kg; maximum 6 kg)	Arm length: 500 mm, 600 mm, 650 mm, 700 mm
10 kg (load: rated 5 kg; maximum 10 kg)	Arm length: 500 mm, 600 mm, 700 mm
20 kg (load: rated 10 kg; maximum 20 kg)	Arm length: 600 mm, 700 mm, 800 mm, 1000 mm



3 kg & 6 kg & 10 kg

20 kg



IRS100 Series Robot – Invert Mounted Robot P1-8	
3 kg (rated 1 kg; maximum 3 kg)	Arm length: 350 mm
4 kg (rated 1 kg; maximum 4 kg)	Arm length: 550 mm



Robot Product Family – SCARA | P11-12


Integrated with self-developed electric screw-drivers and motion control functions, Inovance SCARA robot applies to scenarios that require efficient screw assembling, such as 3C electronic devices, electronic toys, communication equipment, household appliances and instruments.

IRS10 Series Robot – 3-Axis Robot	IRS10 Series Robot – Integrated Controller (4-Axis)
Screw tightening range: M1-M5 Arm length: 560 mm	Working range: M1-M5 Arm length: 620 mm





Robot Product Family – 6-Axis Robots | P13-16

IRS300 Series Robot - 6-Axis Robot	
Maximum load: 3 kg Arm length: 638 mm	Maximum load: 7 kg Arm length: 717 mm, 912 mm




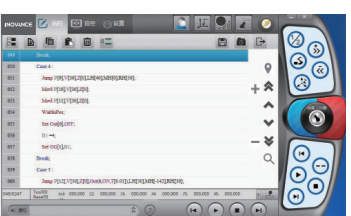


IRS300-3-60TS5



IRS300-7-70TS5

Core Robot Components | P17-24

Electric control cabinet	Vision hardware	Vision software	Robot software
			

Robot Selection | P25

- IRS100 series SCARA robot - Normal mounted robot
- IRS100 series SCARA robot - Invert mounted robot
- IRS300 series 6-axis robot
- Teach pendant selection
- Expansion card
- Expansion module

IRS100 Series SCARA Robot – Normal Mounted Robot

Fast, precise, easy-to-use articulated industrial robot

- High speed, bearing capacity, and precision
- One-key calibration with industrial vision and fast connection
- Vibration suppression for precise positioning and resetting
- Wizard-based programming for easy commissioning and fast application scenario presentation

Application Scope

It is widely used in scenarios including material loading and discharging, precision assembly, pick & place, glue dispensing, glue coating, screw tightening, label laminating, component mounting, and sorting.



Naming Rule - Model

IRS 100 -3 -40 Z15 T S 3 -00

Inovance Technology Robot System

Serial No.	
100	SCARA robot series

Load	
3	3 kg
6	6 kg
10	10 kg
20	20 kg

Arm length	
40	400 mm
60	600 mm
70	700 mm
80	800 mm
100	1000 mm

Z-axis stroke	
15	150 mm
18	180 mm
20	200 mm
42	420 mm

Customization model code	
00	Standard model
Other	Customized model

Cable length (m)	
3	3 m

Mounting environment	
S	Standard
C	Clean room

Mounting mode	
T	Floor mounting
R	Ceiling mounting
W	Wall mounting

Body model: IRB100-3-40Z15TS3-00
Electric control cabinet model: IRCB300-B-F

IRS100 Series SCARA Robot – Normal Mounted Robot

Specifications

Model	IRS100-3-30Z15TS3	IRS100-3-40Z15TS3	IRS100-6-50Z20TS3	IRS100-6-60Z20TS3	IRS100-6-65Z20TS3	IRS100-6-70Z20TS3	IRS100-10-60Z20TS3	IRS100-10-70Z20TS3	IRS100-20-60Z18TS3	IRS100-20-70Z18TS3	IRS100-20-80Z42TS3	IRS100-20-100Z42TS3	
Mounting Mode	Floor mounting												
Arm Length	J1+J2	300 mm	400 mm	500 mm	600 mm	650 mm	700 mm	600 mm	700 mm	600 mm	700 mm	800 mm	1000 mm
	J1	125 mm	225 mm	225 mm	325 mm	375 mm	425 mm	325 mm	425 mm	300 mm	400 mm	350 mm	550 mm
	J2	175 mm	175 mm	275 mm	275 mm	275 mm	275 mm	275 mm	275 mm	300 mm	300 mm	450 mm	450 mm
Maximum Velocity	J1+J2	5000 mm/s	6000 mm/s	6150 mm/s	6800 mm/s	7130 mm/s	7450 mm/s	6800 mm/s	7450 mm/s	6800 mm/s	7450 mm/s	9940 mm/s	11250 mm/s
	J3	1100 mm/s	1100 mm/s	1100 mm/s	1100 mm/s	1100 mm/s	1100 mm/s	1100 mm/s	1100 mm/s	1010 mm/s	1010 mm/s	2020 mm/s (1010 mm/s)	2020 mm/s (1010 mm/s)
	J4	2600°/s	2600°/s	2000°/s	2000°/s	2000°/s	2000°/s	1050°/s	1050°/s	1400°/s	1400°/s	1400°/s	1400°/s
	J1	±132°	±132°	±127°	±132°	±127°	±127°	±132°	±127°	±132°	±132°	±132°	±132°
Maximum Motion Range	J2	±141°	±141°	±145°	±150°	±145°	±145°	±150°	±145°	±152°	±152°	±152°	±152°
	J3	150 mm	150 mm	200 mm (clean room 170 mm)	200 mm (clean room 170 mm)	200 mm	200 mm	200 mm	200 mm	180 mm	180 mm	420 mm	420 mm
	J4	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°
	J1+J2	±0.01 mm	±0.01 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.025 mm	±0.025 mm
Repeatability	J3	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm
	J4	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°	±0.01°
	J1+J2	1 kg	1 kg	2 kg	2 kg	2 kg	2 kg	5 kg	5 kg	10 kg	10 kg	10 kg	10 kg
Machine Load	Rated Load	1 kg	1 kg	2 kg	2 kg	2 kg	2 kg	5 kg	5 kg	10 kg	10 kg	10 kg	10 kg
	Maximum Load	3 kg	3 kg	6 kg	6 kg	6 kg	6 kg	10 kg	10 kg	20 kg	20 kg	20 kg	20 kg
J4 Inertia Load Allowed	Rated Load	0.005 kg.m ²	0.005 kg.m ²	0.01 kg.m ²	0.01 kg.m ²	0.01 kg.m ²	0.01 kg.m ²	0.02 kg.m ²	0.02 kg.m ²	0.05 kg.m ²	0.05 kg.m ²	0.05 kg.m ²	0.05 kg.m ²
	Maximum Load	0.05 kg.m ²	0.05 kg.m ²	0.12 kg.m ²	0.12 kg.m ²	0.12 kg.m ²	0.12 kg.m ²	0.25 kg.m ²	0.25 kg.m ²	0.45 kg.m ²	0.45 kg.m ²	0.45 kg.m ²	0.45 kg.m ²
Standard Cycle Time	0.48s	0.42s	0.45s	0.42s	0.43s	0.44s	0.48s	0.48s	0.42s	0.42s	0.42s	0.45s	
Ball Screw	Axis Diameter	Φ16 mm	Φ16 mm	Φ20 mm	Φ20 mm	Φ20 mm	Φ20 mm	Φ20 mm	Φ20 mm	Φ25 mm	Φ25 mm	Φ25 mm	
	Through Hole Inner Diameter	Φ9 mm	Φ9 mm	Φ12 mm	Φ12 mm	Φ12 mm	Φ12 mm	Φ12 mm	Φ12 mm	Φ18 mm	Φ18 mm	Φ18 mm	
Robot Base Mounting Area	120 x 120 mm (Φ9)	120 x 120 mm (Φ9)	150 x 150 mm (Φ9)	150 x 150 mm (Φ9)	150 x 150 mm (Φ9)	150 x 150 mm (Φ9)	150 x 150 mm (Φ9)	150 x 150 mm (Φ9)	200 x 200 mm (Φ16)	200 x 200 mm (Φ16)	200 x 200 mm (Φ16)	200 x 200 mm (Φ16)	
	Body Weight (Excluding Cables)	12 kg	13 kg	18 kg	19 kg	20 kg	21 kg	20 kg	22 kg	42 kg	43 kg	50 kg	53 kg

IRS100 Series SCARA Robot

IRS10 Series Robot for Intelligent Screw Tightening

6-axis Robot

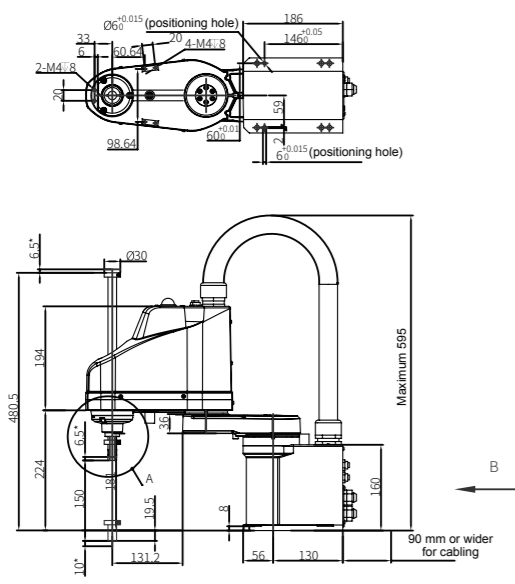
Electric Control Cabinet

Industrial Vision

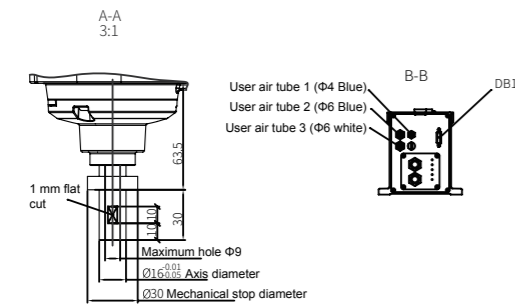
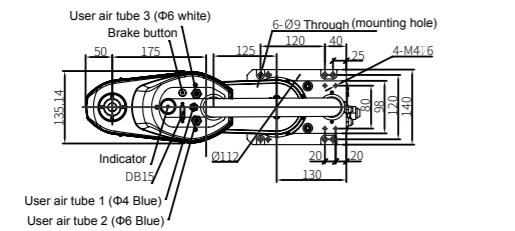
Robot Selection

Overall Dimensions of Floor Mounted Models (in mm)

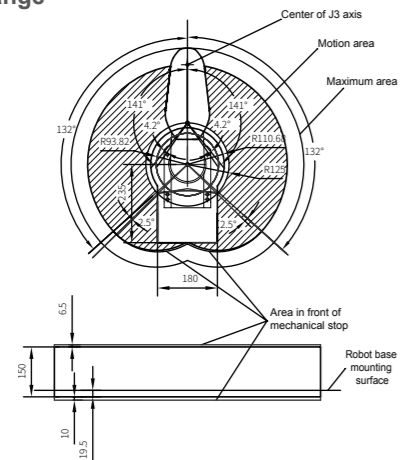
IRS100-3-30Z15TS3



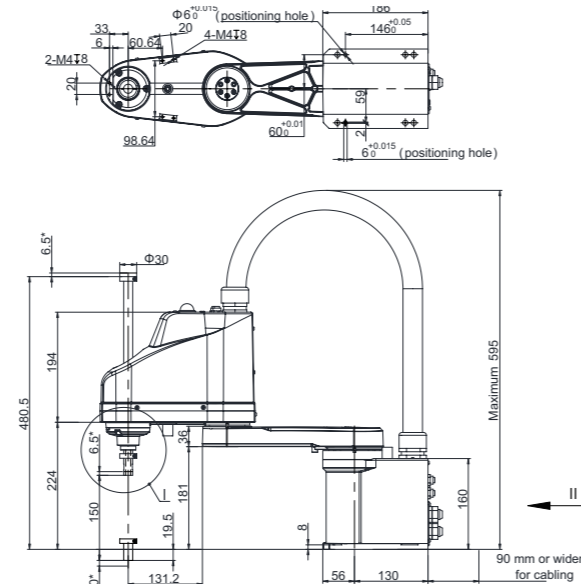
(*) Indicates the stroke margin of the mechanical stop.



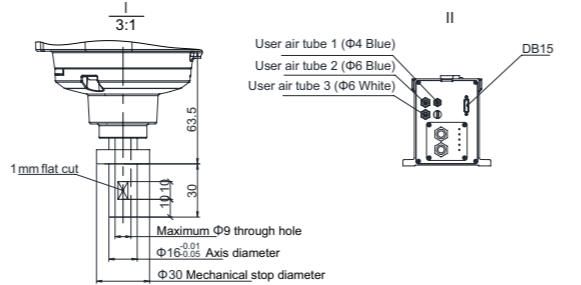
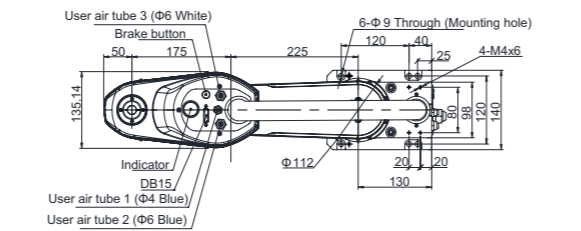
Motion Range



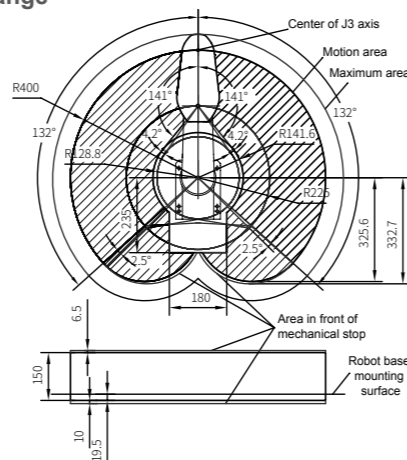
IRS100-3-40Z15TS3



(*) Indicates the stroke margin of the mechanical stop.

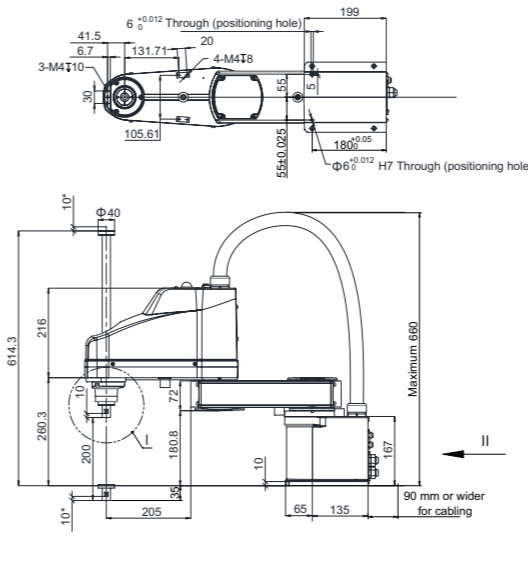


Motion Range

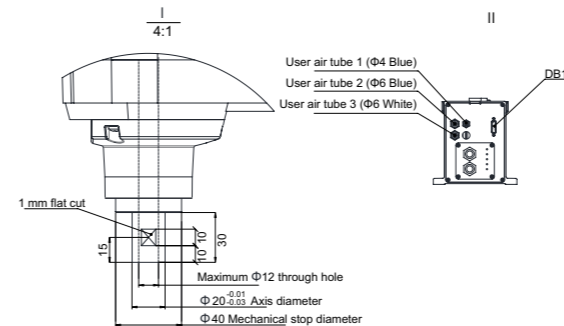
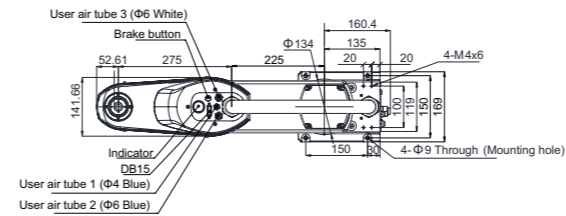


Overall Dimensions of Floor Mounted Models (in mm)

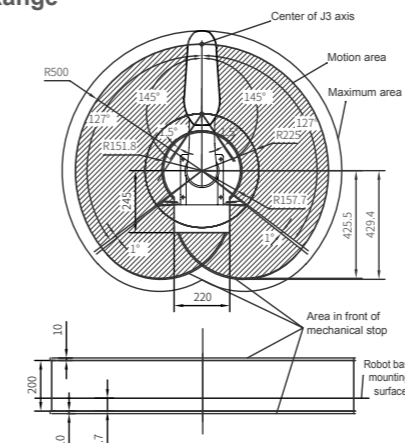
IRS100-6-50Z20TS3



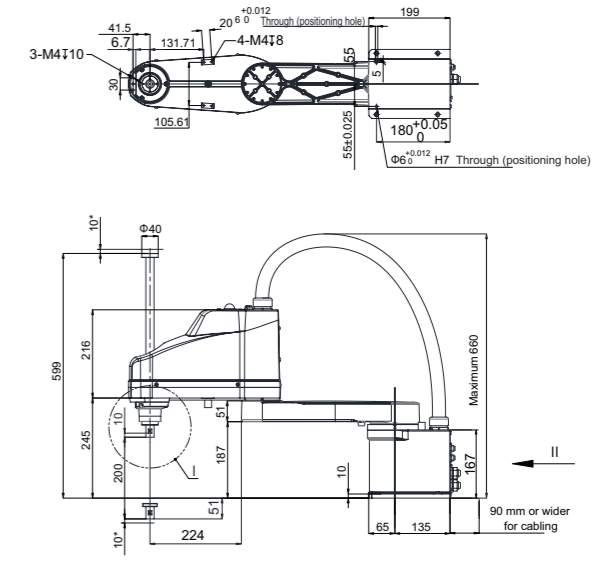
(*) Indicates the stroke margin of the mechanical stop.



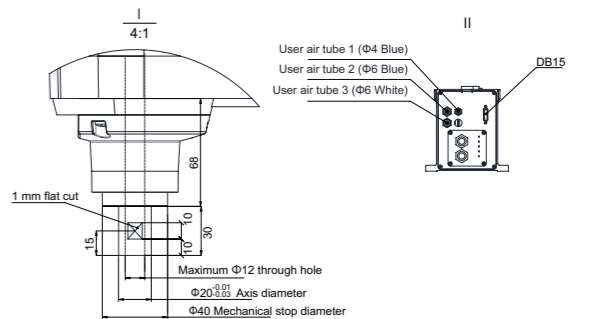
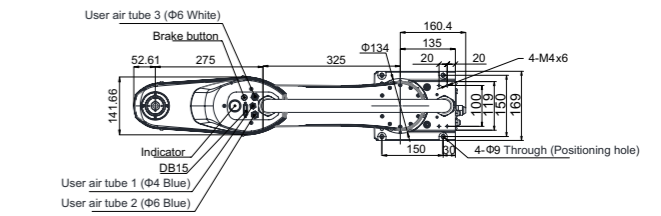
Motion Range



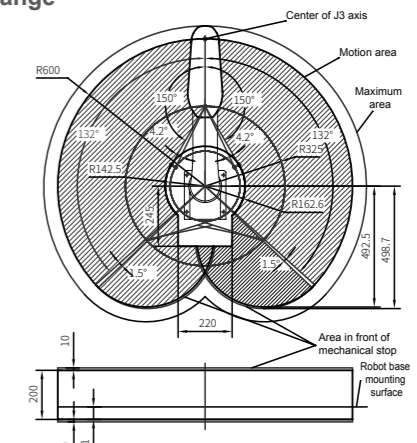
IRS100-6-60Z20TS3



(*) Indicates the stroke margin of the mechanical stop.

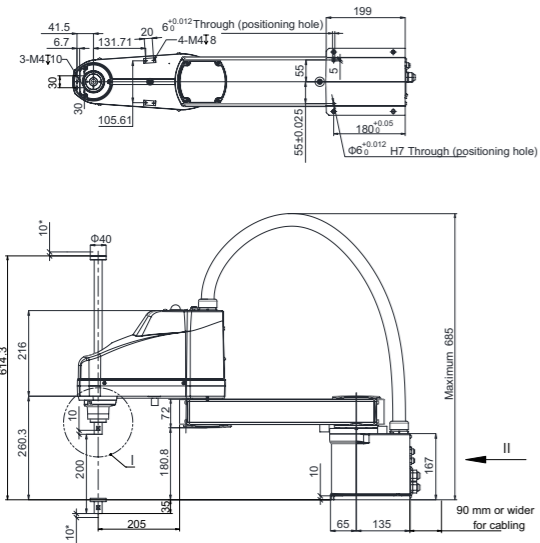


Motion Range



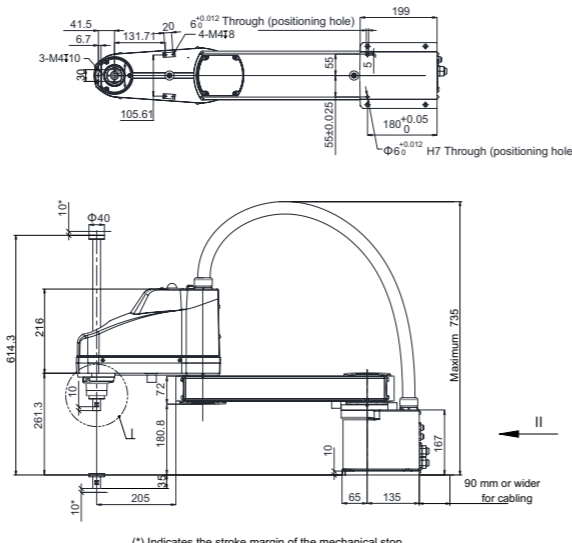
Overall Dimensions of Floor Mounted Models (in mm)

IRS100-6-65Z20TS3

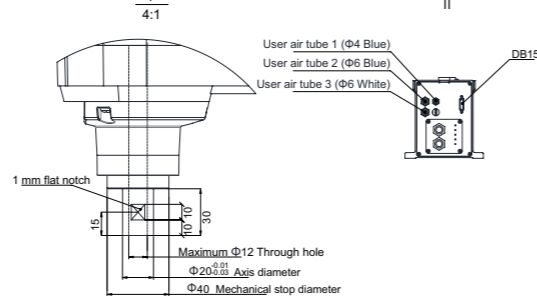
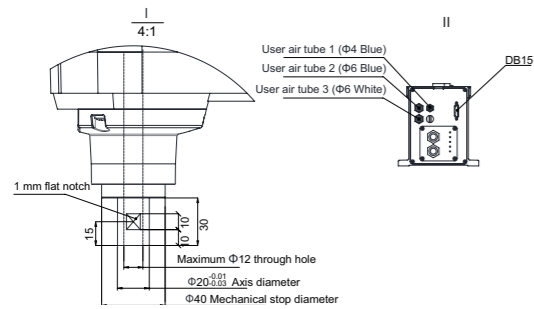
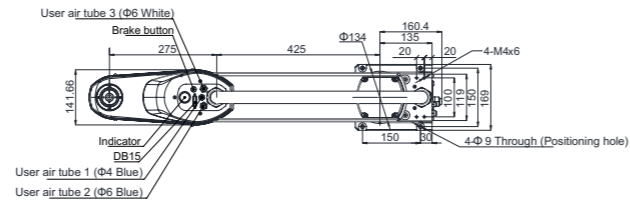
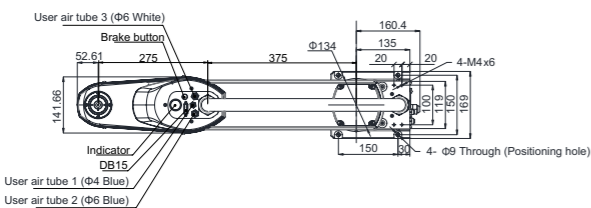


(*) Indicates the stroke margin of the mechanical stop.

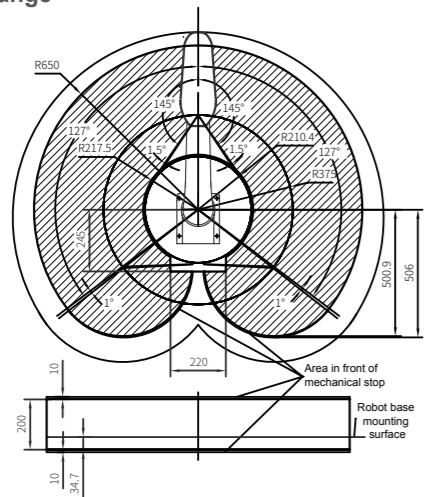
IRS100-6-70Z20TS3



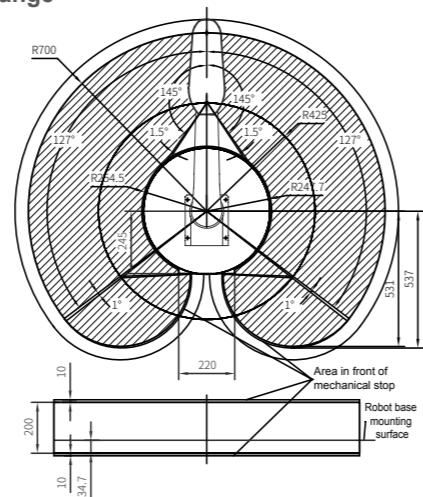
(*) Indicates the stroke margin of the mechanical stop.



Motion Range

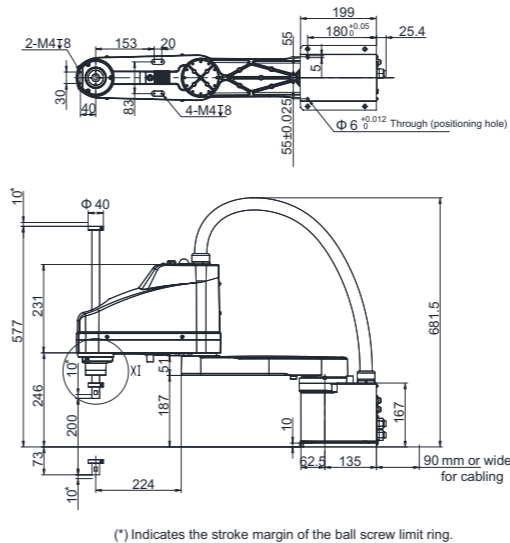


Motion Range

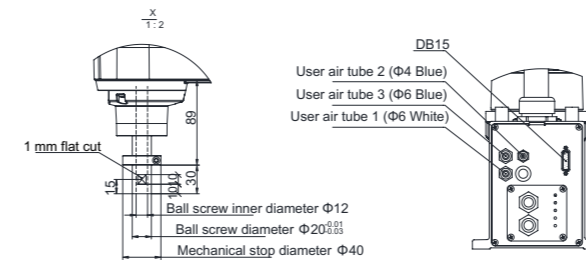
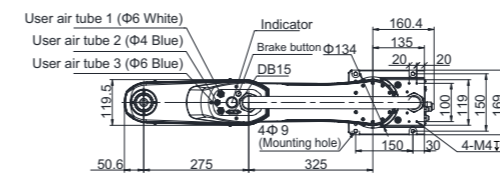


Overall Dimensions of Floor Mounted Models (in mm)

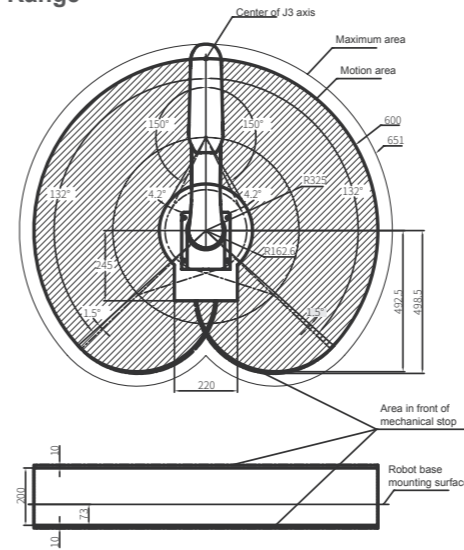
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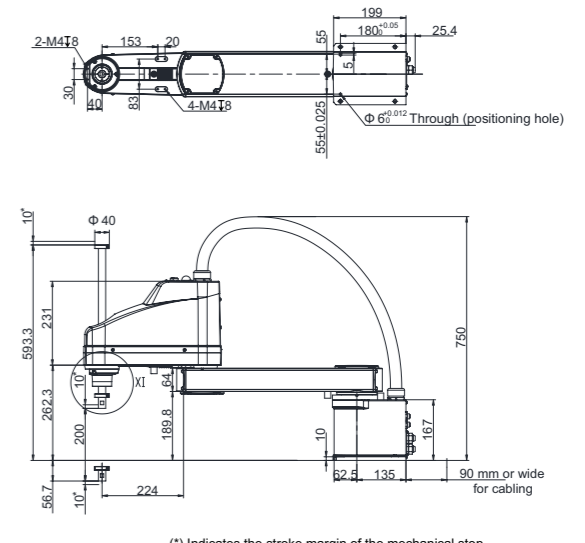
(*) Indicates the stroke margin of the ball screw limit ring.



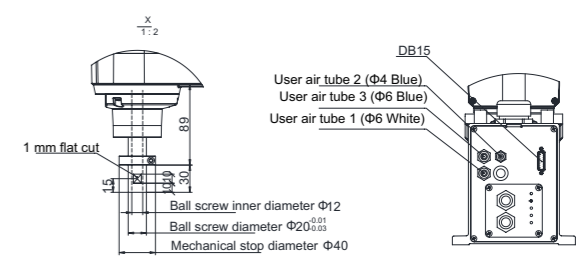
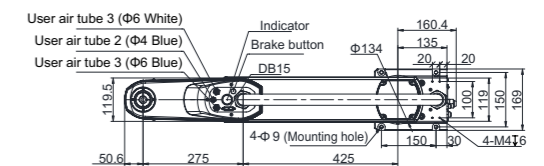
Motion Range



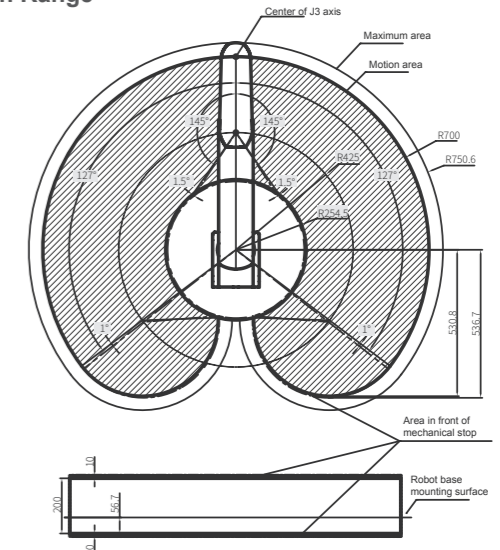
IRS100-10-70Z20TS3



(*) Indicates the stroke margin of the mechanical stop.

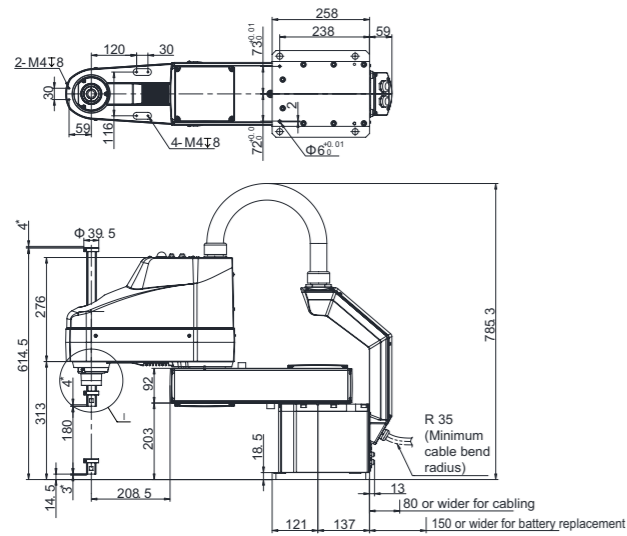


Motion Range



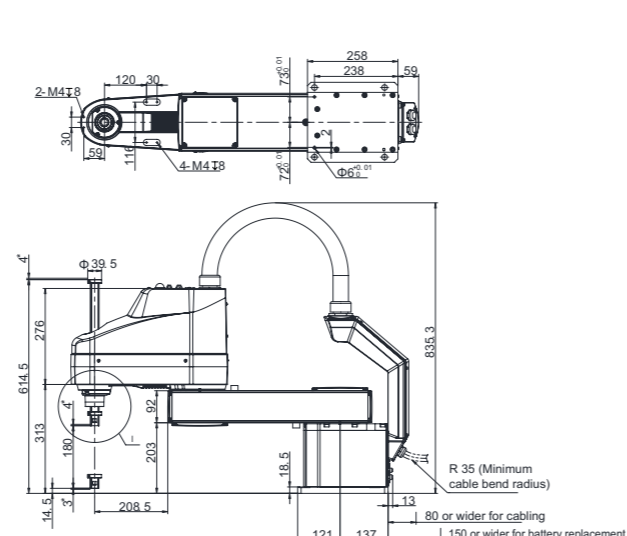
Overall Dimensions of Floor Mounted Models (in mm)

IRS100-20-60Z18TS3



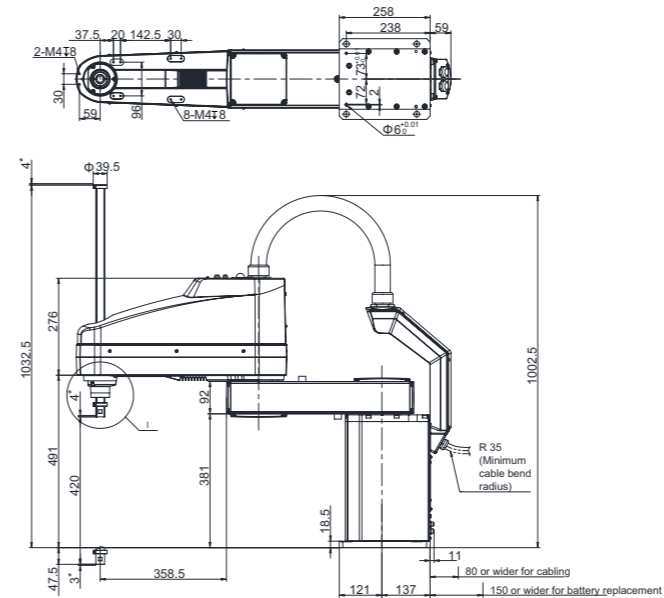
(*) Indicates the stroke margin of the ball screw limit ring.

IRS100-20-70Z18TS3



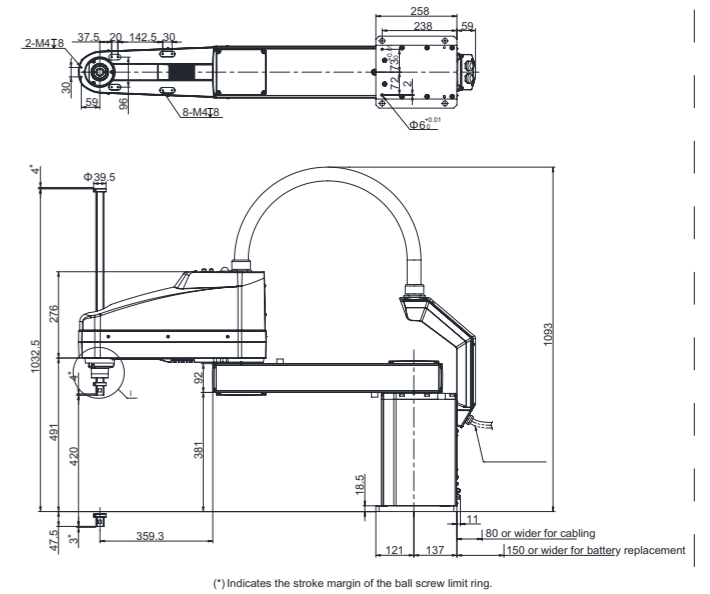
(*) Indicates the stroke margin of the ball screw limit ring.

IRS100-20-80Z42TS3

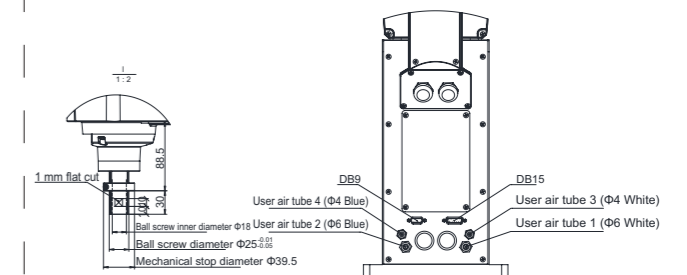
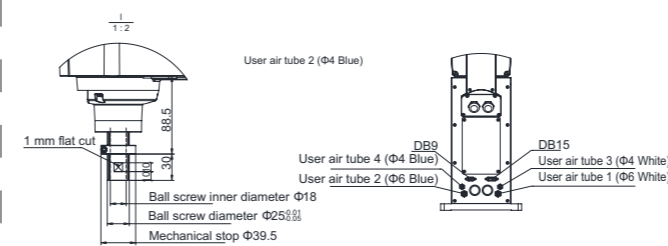
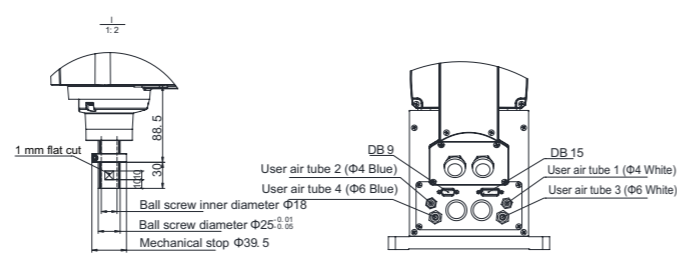
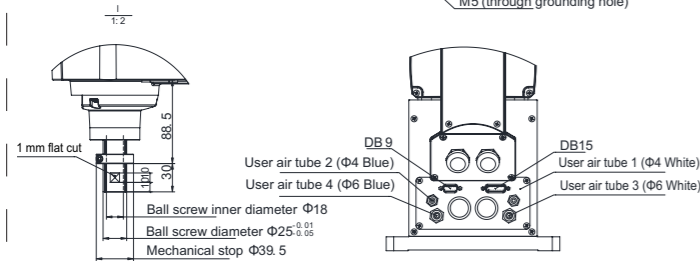
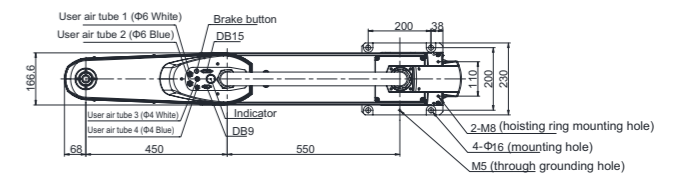
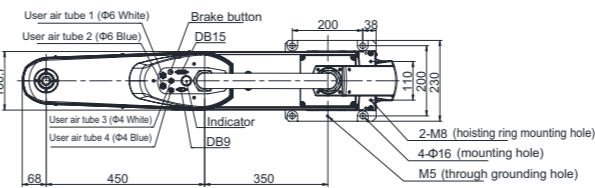
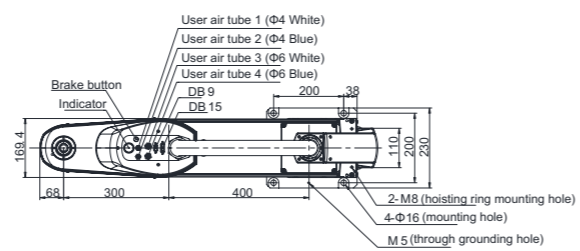
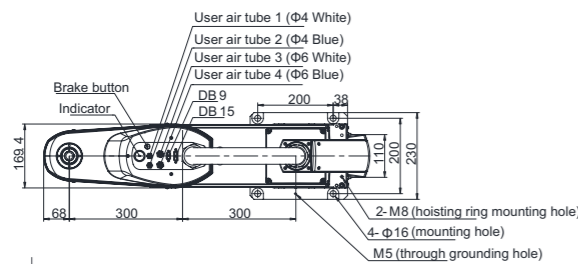


(*) Indicates the stroke margin of the ball screw limit ring.

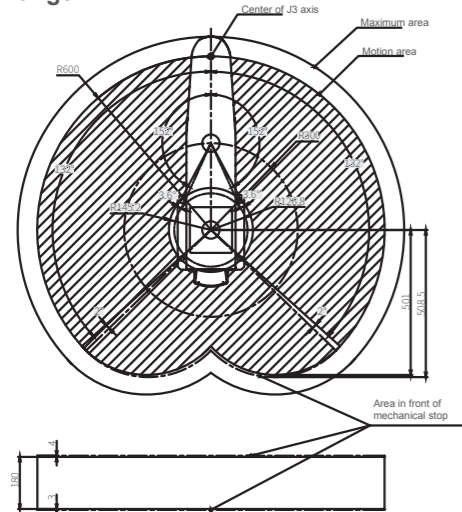
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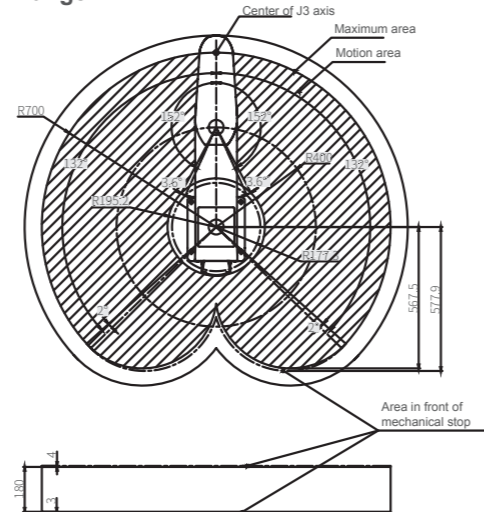
(*) Indicates the stroke margin of the ball screw limit ring.



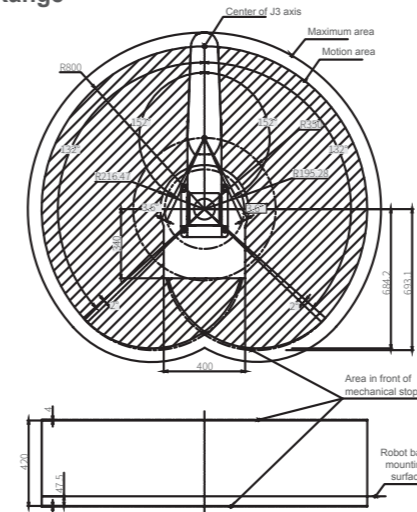
Motion Range



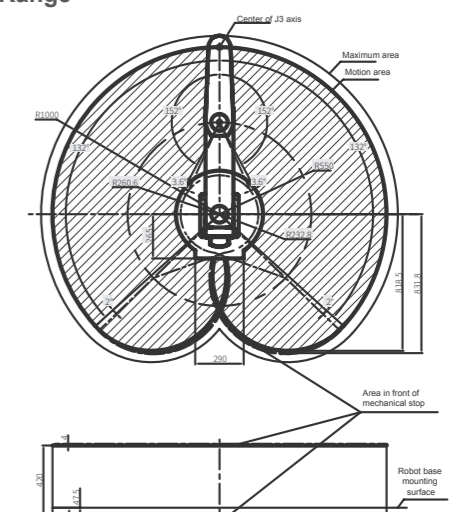
Motion Range



Motion Range



Motion Range



IRS100 Series SCARA Robot – Invert Mounted Robot

Fast, precise, easy-to-use articulated industrial robot

- Working space without blind spot
- Flexible path planning
- Less working space required
- Flexible production line layout

Application Scope

It is widely used in scenarios including material loading and discharging, precision assembly, pick & place, glue dispensing, glue coating, screw tightening, label laminating, component mounting, and sorting.

Naming Rule -- Model

IRS 100 -3 -35 Z13 R S 3 -00

Inovance Technology Robot System

Serial No.
100 SCARA robot series

Load
3 3 kg
4 4 kg

Arm length
35 350 mm
55 550 mm

Customization model code
00 Standard model
Other Customized model

Cable length (m)
3 3 m

Mounting environment
S Standard
C Clean room

Mounting mode
R Ceiling mounting

Z-axis stroke
13 130 mm



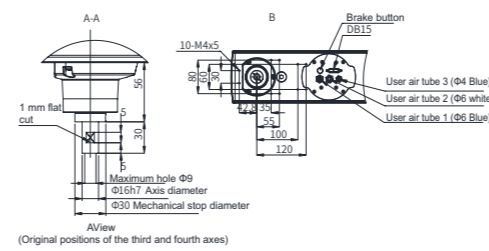
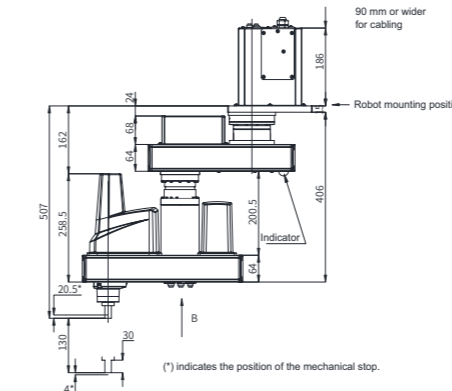
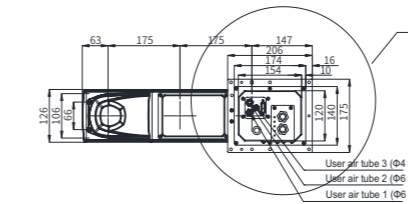
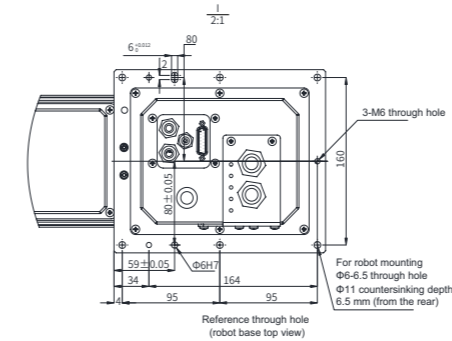
Body model: IRB100-3-35Z13RS3-00 ; Electric control cabinet model: IRCB300-B-F

Specifications

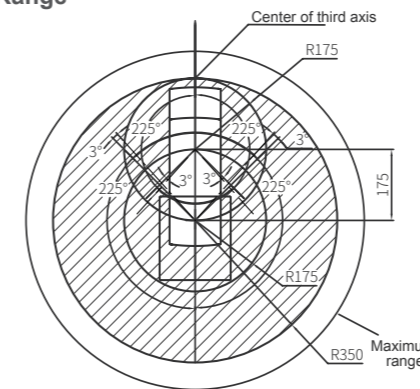
Model	IRS100-3-35Z13RS3	IRS100-4-55Z13RS3	
Mounting Mode	Ceiling mounting	Ceiling mounting	
Arm Length	J1+J2	350 mm	550 mm
	J1	175 mm	275 mm
	J2	175 mm	275 mm
Maximum Velocity	J1+J2	6237 mm/s	7400 mm/s
	J3	1100 mm/s	1100 mm/s
	J4	2600°/s	2600°/s
	J1	±225°	±225°
Maximum Motion Range	J2	±225°	±225°
	J3	130 mm	130 mm
	J4	±720°	±720°
	J1+J2	±0.01 mm	±0.015 mm
Repeatability	J3	±0.01 mm	±0.01 mm
	J4	±0.01°	±0.01°
	J1+J2	±0.01°	±0.01°
Machine Load	Rated Load	1 kg	1 kg
	Maximum Load	3 kg	4 kg
J4 Inertia Load Allowed	Rated Load	0.005 kg.m ²	0.005 kg.m ²
	Maximum Load	0.05 kg.m ²	0.05 kg.m ²
Standard Cycle Time	0.34s	0.39s	
Ball Screw	Axis Diameter	Φ16 mm	Φ16 mm
	Through Hole Inner Diameter	Φ9 mm	Φ9 mm
Robot Base Mounting Area	95 x 95 x 160 mm (6 - Φ6.5)	95 x 95 x 160 mm (6 - Φ6.5)	
Body Weight (Excluding Cables)	22.5 kg	24 kg	

Dimensions of Ceiling Mounted Models (in mm)

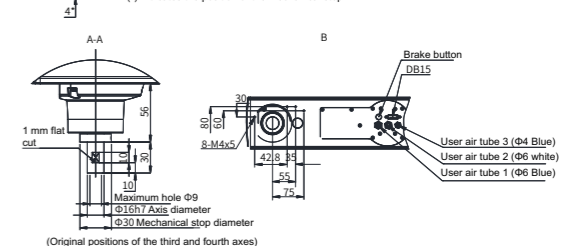
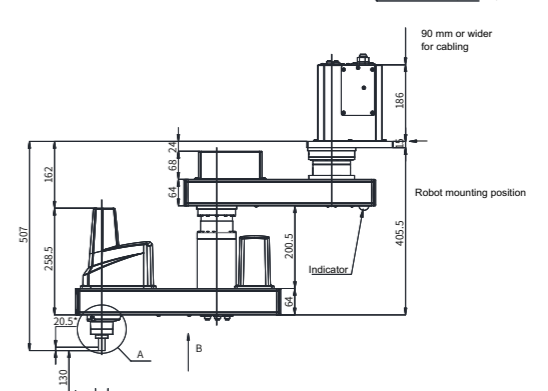
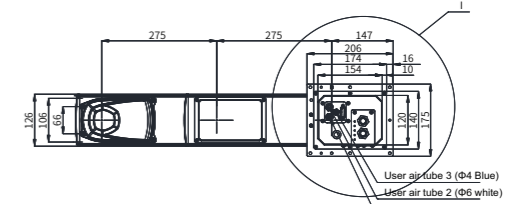
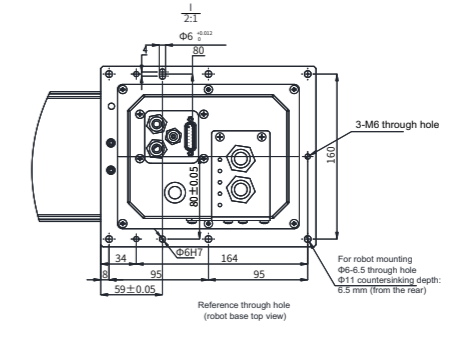
IRS100-3-35Z13RS3



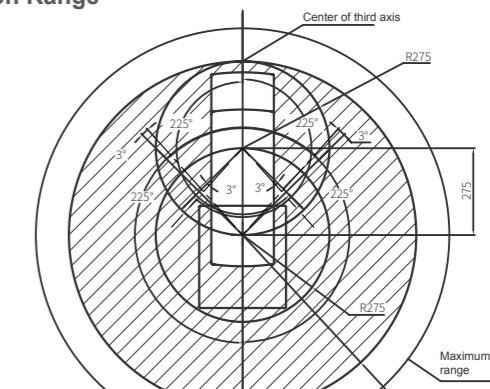
Motion Range



IRS100-4-55Z13RS3



Motion Range



IRS10 Series Robot for Intelligent Screw Tightening

Cost-effective, Efficient, and Easy-to-Use Screw Tightening Robot

- Dedicated and effective screw tightening, with a success rate of up to 99.97%
- Automatic precise positioning with industrial vision
- Integrated with self-developed electric screw-drivers and motion control functions for easy commissioning

Application Scope

It applies to scenarios that require efficient screw assembling, such as 3C electronic devices, electronic toys, communication equipment, household appliances and instruments.

Naming Rule - Model

IRS 10 -6 -56 Z10 T S 3 -00



Body model: IRB10-6-56Z10TS3-00

Electric control cabinet model: IRCB300-B-F

Specifications

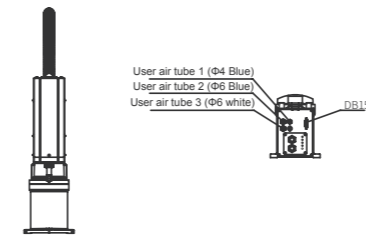
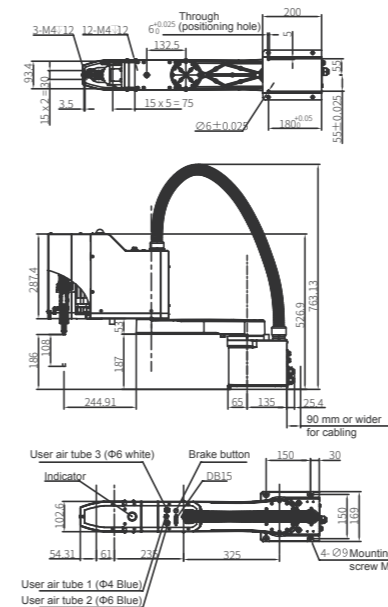
Robot Specifications	Model	IRS10-6-62Z10TS3	IRS10-6-56Z10TS3
	Mounting Mode	Floor mounting	
Arm Length	J1+J2	620 mm	560 mm
	J1	325 mm	325 mm
	J2	295 mm	235 mm
Load	Rated	3 kg	
	Maximum	6 kg	
Maximum Velocity	J1+J2	6000 mm/s	6000 mm/s
	J3	250 mm/s	250 mm/s
Maximum Motion Range	J1	±132°	±132°
	J2	±150°	±150°
	J3	100 mm	100 mm
Repeatability	J1+J2	±0.02 mm	±0.02 mm
	J3	±0.01 mm	±0.01 mm
Peak Driving Force	J3	341 N	341 N
Body Configuration	Mounting Hole Dimensions	150 x 150 (4 - φ9)	
	Body Weight	20 kg (stroke: 100 mm)/21 kg (stroke: 150 mm)	
	Cleanliness	No requirement	
	Cable	3 m (standard)/5 m (optional)/10 m (optional)	
Applicable Environment	Humidity	10% - 80% (non-condensing)	
	Ambient temperature	5°C - 40°C	
Standard Cycle Time	0.42s		
Electric Screw-driver Specifications [1]	Feedback Mode	Current/Sensor	
	Torque Accuracy	±5%/±1%	
	Applicable Thread Length	≤ 25 mm	
Screw Feeding Mode	Suction/Blow		
Product Dimensions (L x W x H)	835 mm x 170 mm x 530 mm		750 mm x 170 mm x 530 mm
Body Weight	22 kg		21 kg

[1] For detailed electric screw-driver specifications, see the following table.

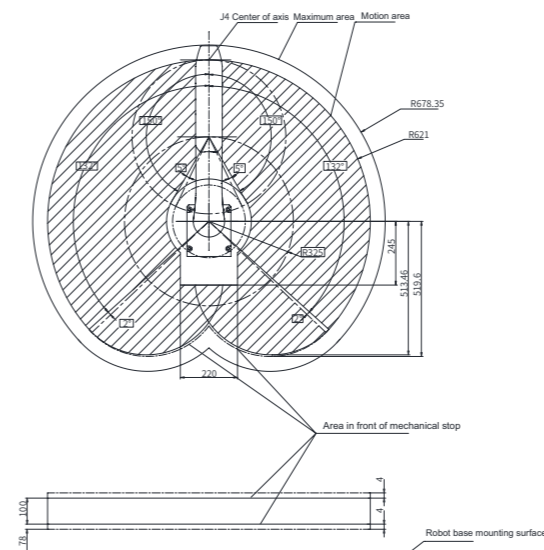
Electric Screw-Driver Type	Simple				Integrated			
Electric Screw-Driver Model	IRS-SD-SC08S	IRS-SD-SC24S	IRS-SD-SC40S	IRS-SD-SC80S	IRS-SD-AC08S	IRS-SD-AC24S	IRS-SD-AC40S	IRS-SD-AC80S
Torque Range (N·m)	0.15-0.8	0.3-2.4	0.7-4	1.2-8	0.15-0.8	0.3-2.4	0.7-4	1.2-8
Maximum Speed (rpm)	4500	1500	900	450	4500	1500	900	450

Dimensions of Floor Mounted Models (in mm)

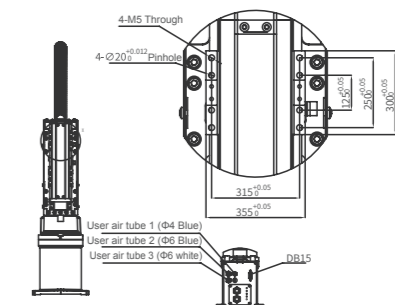
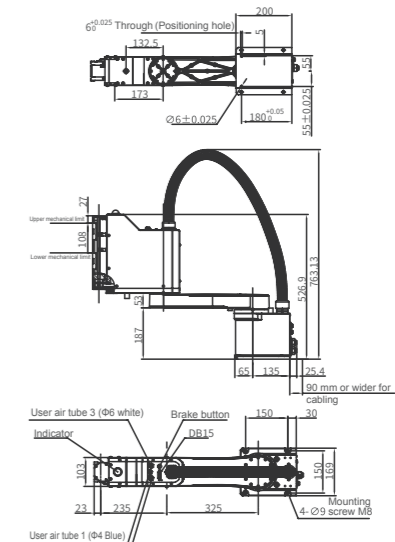
IRS10-6-62Z10TS3



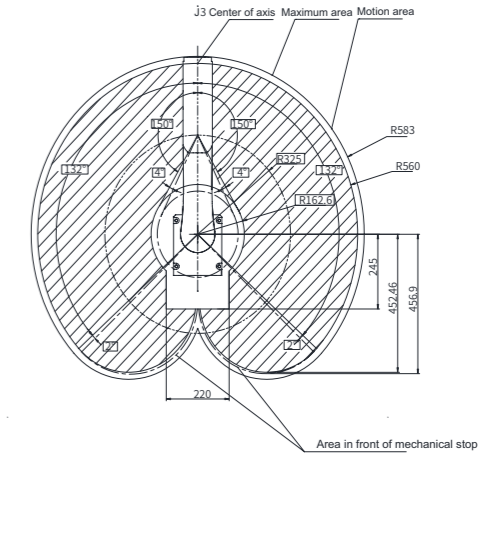
Motion Range



IRS10-6-56Z10TS3



Motion Range



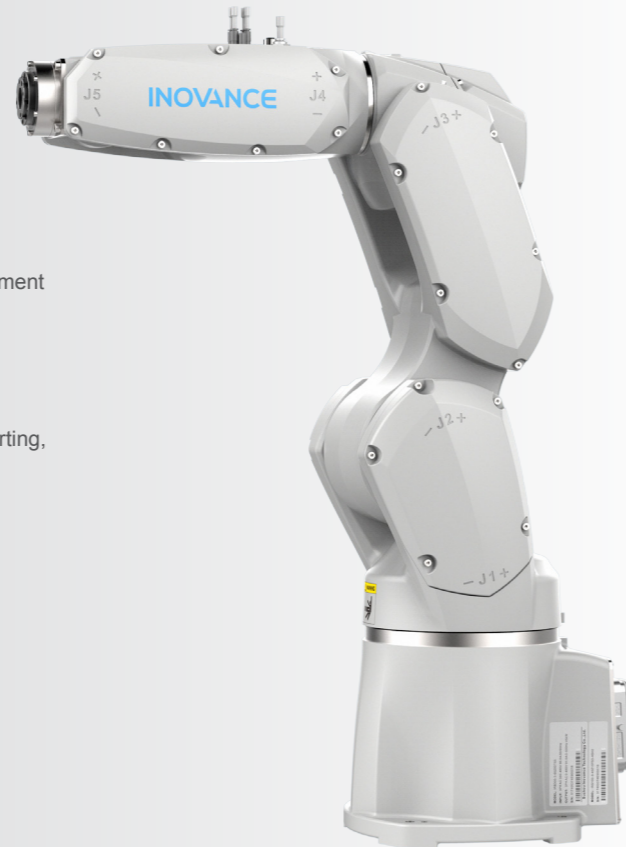
IRS300 Series 6-Axis Robot

Flexible Production with High Precision and Speed

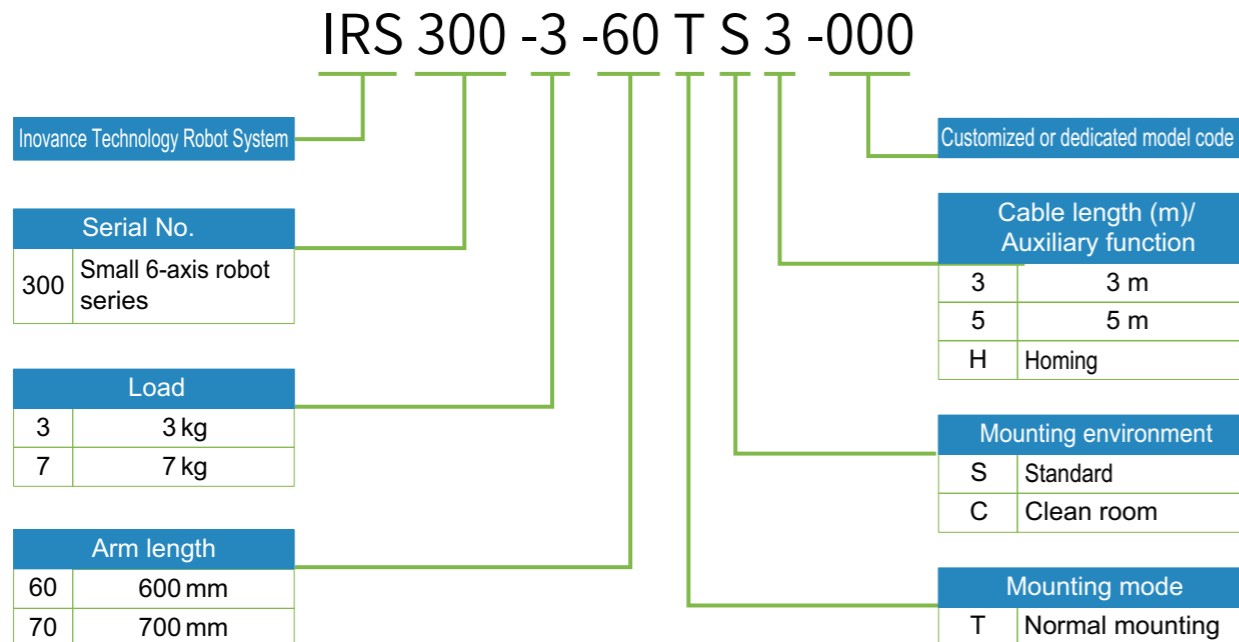
- Compact, light, and flexible for meticulous crafting
- High repeatability, speed, and power
- Menu-aided instructions for programming and secondary development platform for excellent extensibility

Application Scope

It is widely used in areas that require high precision, such as assembly, sorting, pick & play, and grinding.



Naming Rule - Model



Body model: IRB300-3-60TS3-000

Electric control cabinet model: IRCB300-B-FF

IRS300 Series 6-Axis Robot

Specifications

Model		IRS300-3-60TS5	IRS300-7-70TS5
Structural style		Vertical axis cascading structure	Vertical axis cascading structure
Number of Axes		6 axes	6 axes
Maximum Motion Radius		638 mm	717 mm
Repeatability		±0.02 mm	±0.02 mm
Standard Cycle Time		0.45 s (1 kg load)	0.4 s (1 kg load)
Wrist Load	Rated	1 kg	
	Maximum	3 kg	7 kg
Axis Motion Velocity	J1 Axis	440°/s	450°/s
	J2 Axis	420°/s	380°/s
	J3 Axis	500°/s	520°/s
	J4 Axis	600°/s	550°/s
	J5 Axis	600°/s	550°/s
	J6 Axis	900°/s	1000°/s
Axis Motion Range	J1 Axis	±170°	±170°
	J2 Axis	-145° to +78°	-135° to +80°
	J3 Axis	-71° to +173°	-70° to +190°
	J4 Axis	±200°	±190°
	J5 Axis	±120°	±120°
	J6 Axis	±360°	±360°
Allowed Wrist Torque	J4 Axis	7.36 N.m	16.6 N.m
	J5 Axis	7.36 N.m	16.6 N.m
	J6 Axis	4.41 N.m	9.4 N.m
Allowed Maximum Wrist Inertia	J4 Axis	0.42 kg.m ²	0.47 kg.m ²
	J5 Axis	0.42 kg.m ²	0.47 kg.m ²
	J6 Axis	0.18 kg.m ²	0.15 kg.m ²
Axis Motor Power	J1 Axis	400 W (with brake)	500 W (with brake)
	J2 Axis	400 W (with brake)	500 W (with brake)
	J3 Axis	200 W (with brake)	400 W (with brake)
	J4 Axis	200 W (with brake)	100 W (with brake)
	J5 Axis	100 W (with brake)	100 W (with brake)
	J6 Axis	100 W (without brake)	100 W (with brake)
Applicable Environment	Operating Ambient Temperature	0 to 45°C	0 to 45°C
	Ambient Humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)
	Maximum Temperature Gradient	1.5°C/min	1.5°C/min
Noise Level		≤ 75 dB	≤ 75 dB
IP Rating		IP54	IP65
Body Weight		≤ 40 kg	≤ 40 kg

IRS100 Series SCARA Robot

IRS10 Series Robot for Intelligent Screw Tightening

6-axis Robot

Electric Control Cabinet

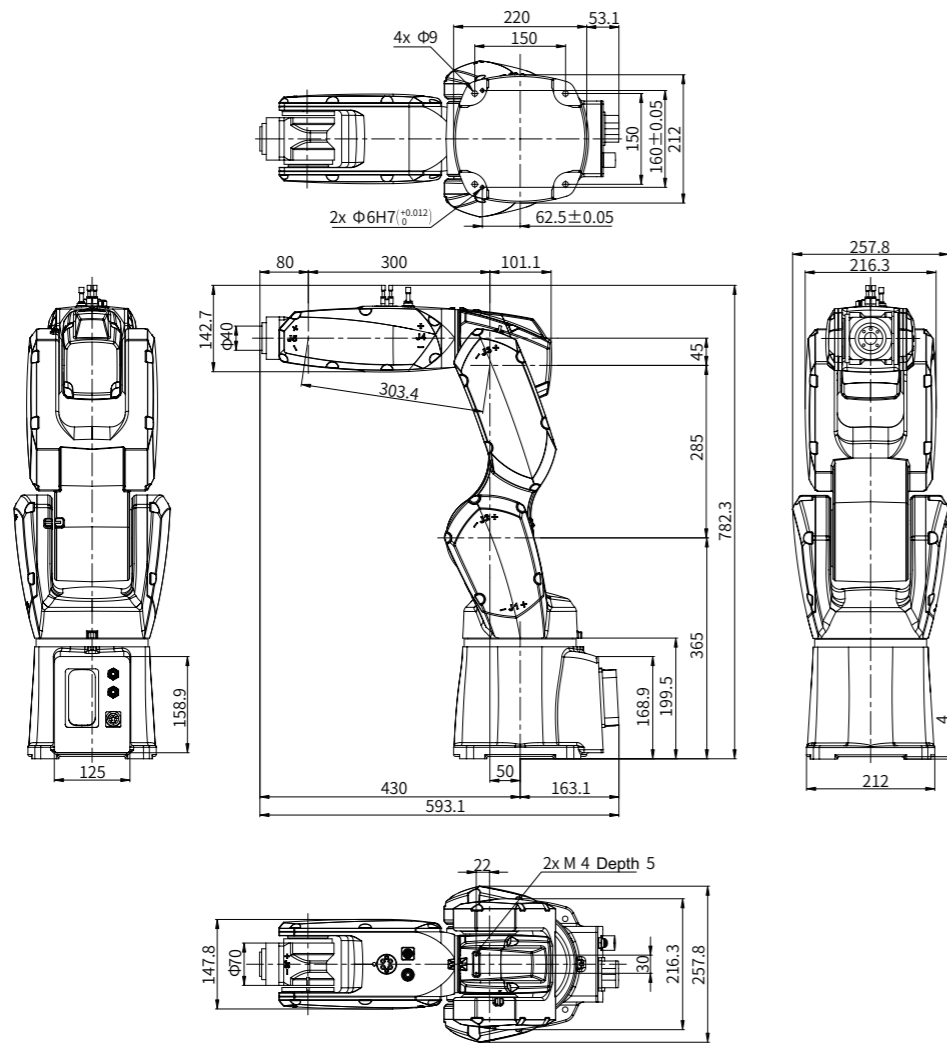
Industrial Vision

Robot Selection

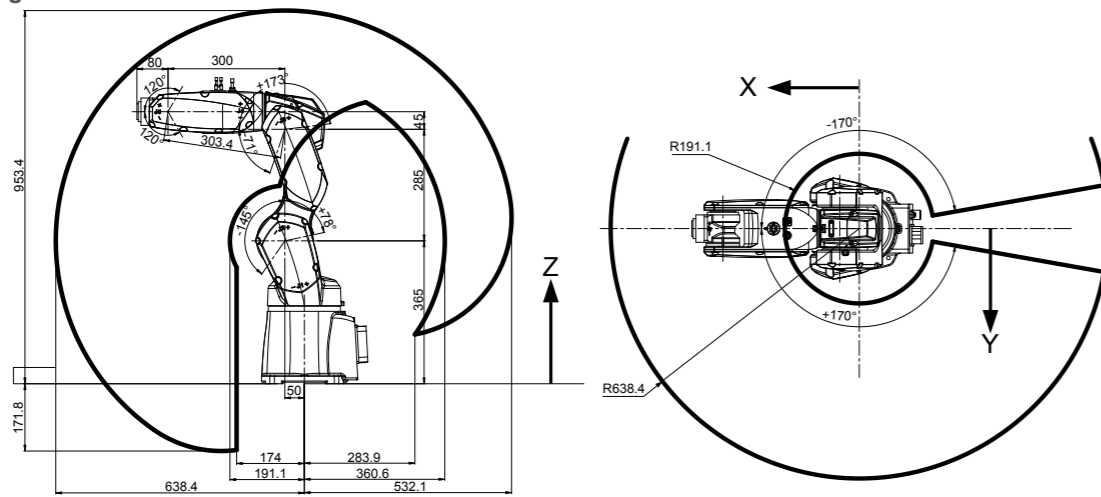
IRS300 Series 6-Axis Robot

■ Mounting Dimensions (in mm)

IRS300-3-60TS5



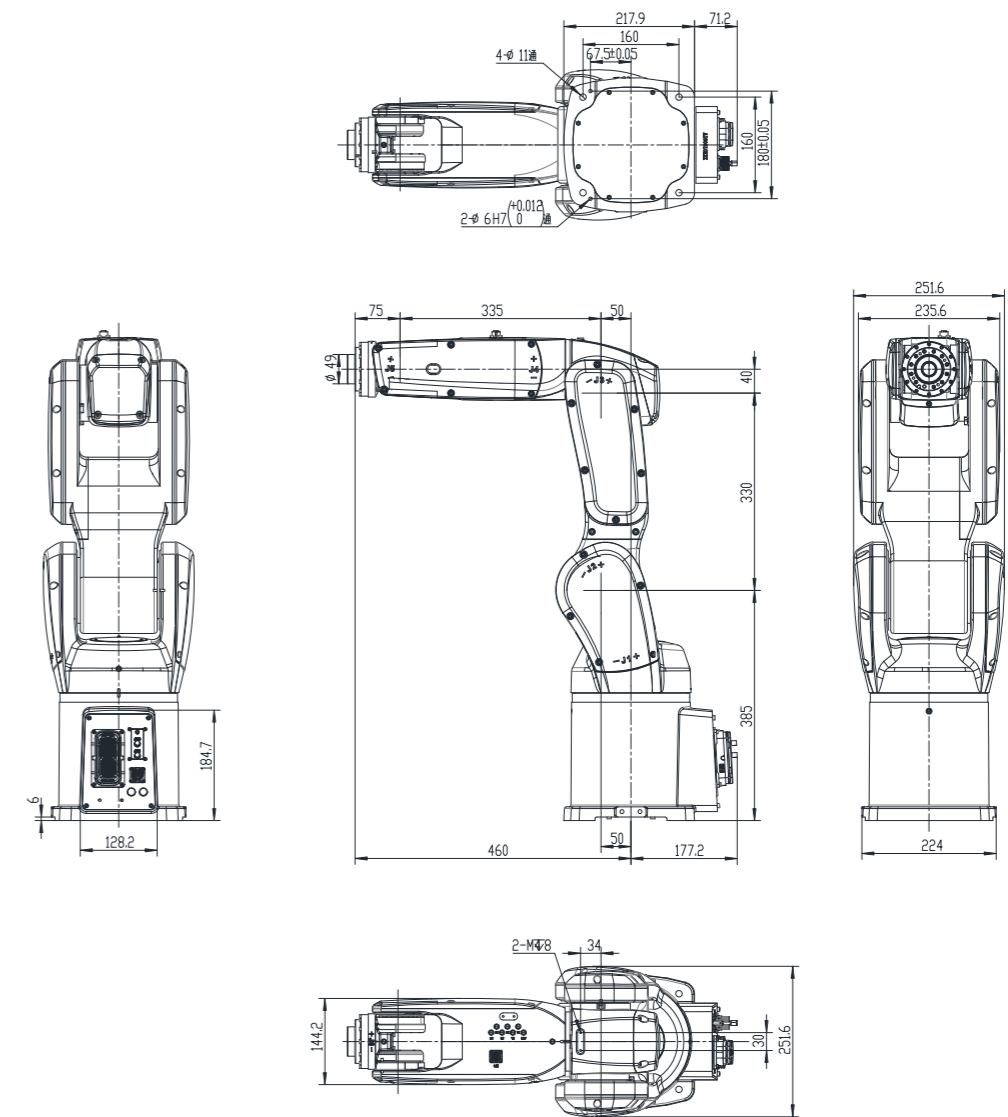
Motion Range



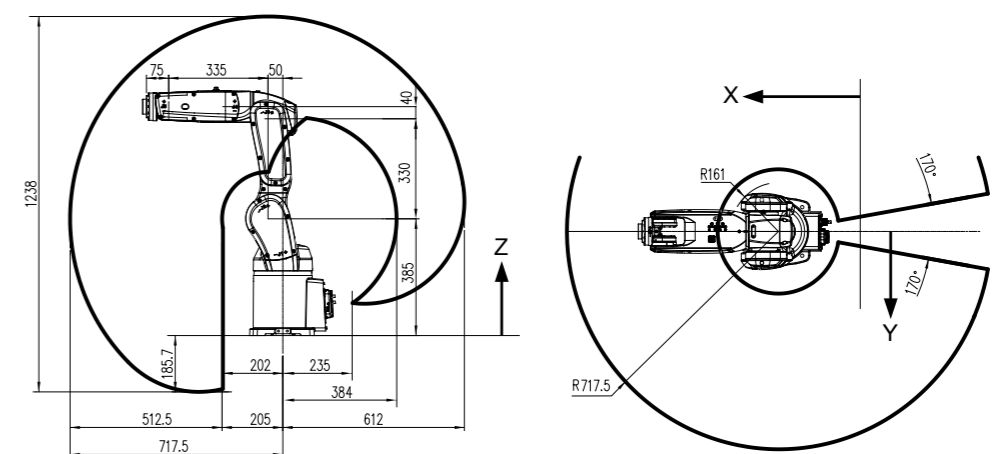
IRS300 Series 6-Axis Robot

■ Mounting Dimensions (in mm)

IRS300-7-70TS5



Motion Range



IRS100 Series
SCARA Robot

IRS10 Series Robot
for Intelligent Screw
Tightening

6-axis Robot

Electric Control
Cabinet

Industrial Vision

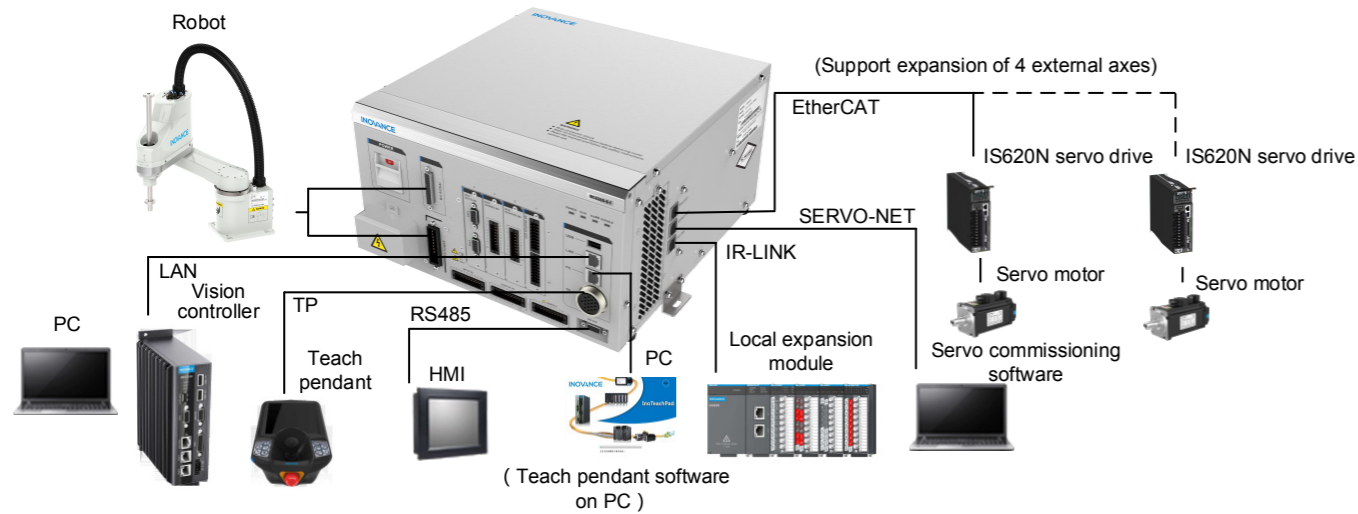
Robot Selection

Core Robot Components

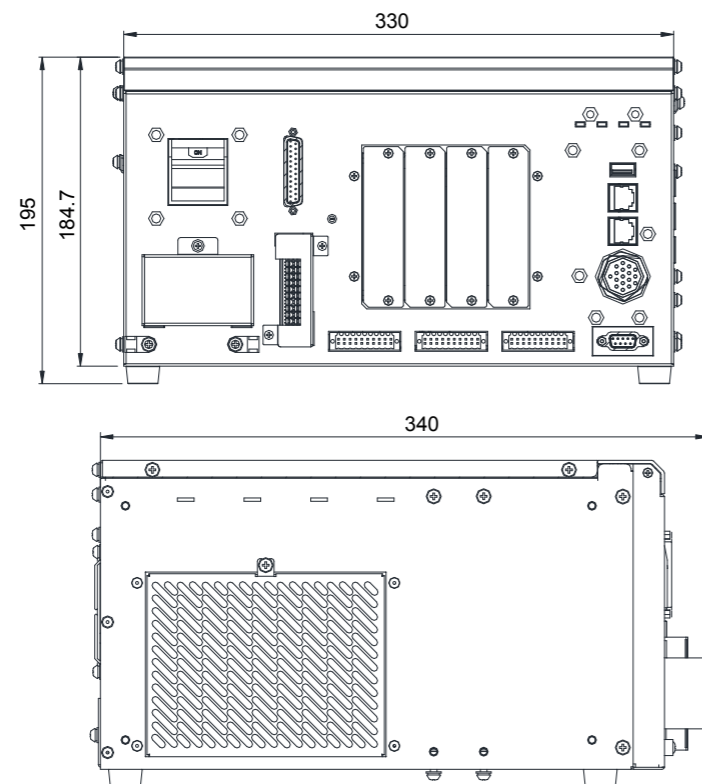
Electric control cabinet

IRCB300-B-F (< 10 kg)

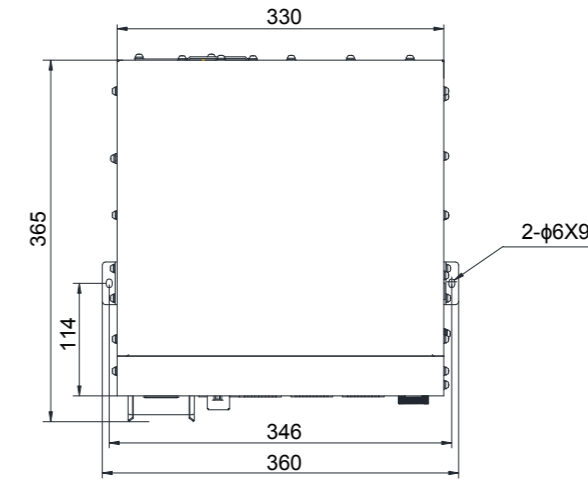
IRCB300-B-G (≥ 10 kg)



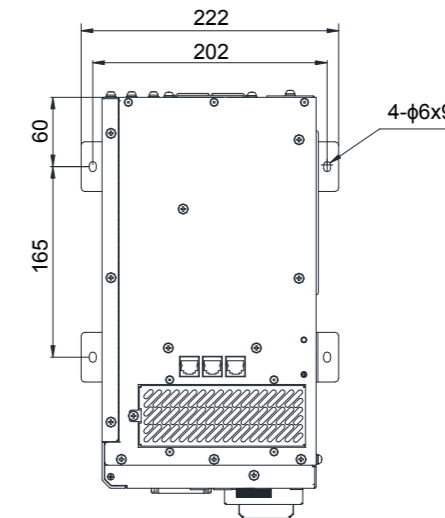
Product Dimensions (in mm)



Dimensions of Vertical Mounted Models (in mm)



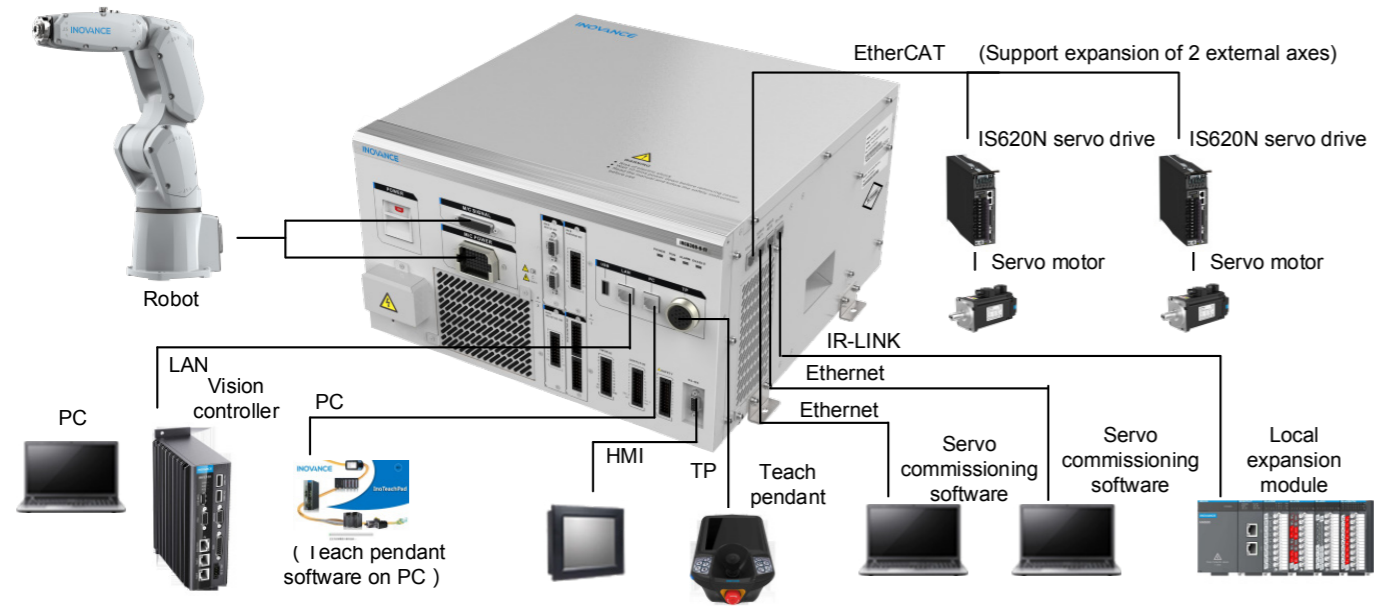
Dimensions of Horizontal Mounted Models (in mm)



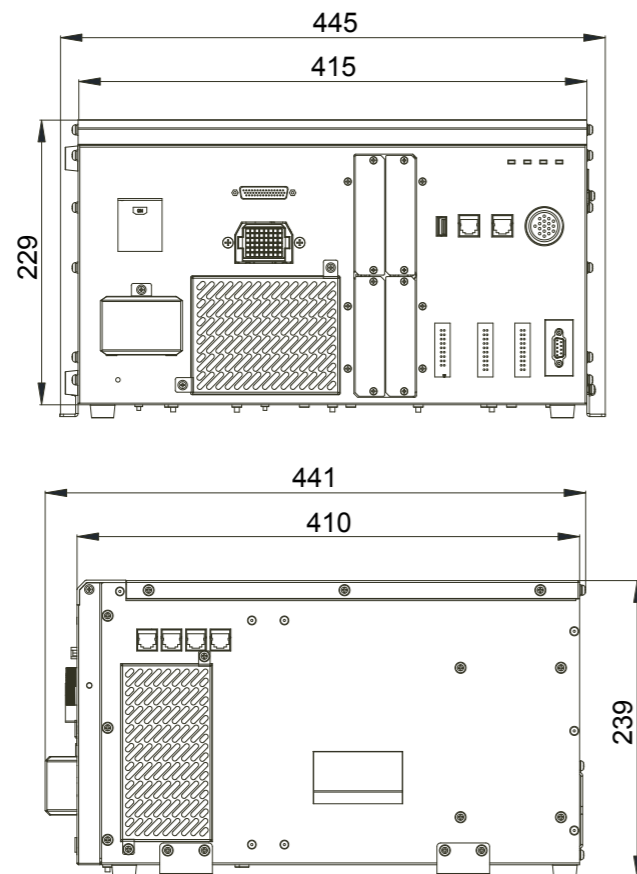
Specifications

Item	Specifications	
Motion mode	PTP and CP (continuous path control) Support spatial linear interpolation and spatial circular interpolation	
Control function	User-defined programming language	Simple and integrated GUI-based development environment with embedded modules
	Axis control	Control at least 6 axes at a time with AC servo control
	Velocity control	In PTP mode, velocity can be controlled at 1% to 100% through programming. In CP mode, the actual velocity can be specified.
	Acceleration control	In PTP mode, acceleration can be controlled at 1% to 100% through programming. In CP mode, the actual acceleration can be specified.
PLC function	Support the IEC61131-3 standard and PLC programming function to implement flexible programming for all I/O resources, inspect input interfaces, controls output interfaces, and exchange data with the system kernel.	
Safety function	Exception stop switch, excessive velocity deviation inspection, excessive position deviation inspection, storage exception inspection, CPU exception inspection, one-key mode switch, and lock	
Dynamic brake function	Dynamic brake function	
Memory capacity	Program: > 16 Mb; point data: up to 10,000 points	
Storage mode	Built-in 8 GB SD card for running programs and backing up data	
Number of tasks run	Four robot programs (including one motion program and three non-motion programs) can be run at the same time.	

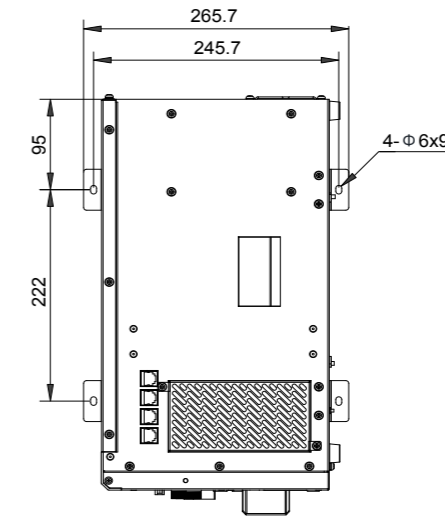
IRCB300-B-FF



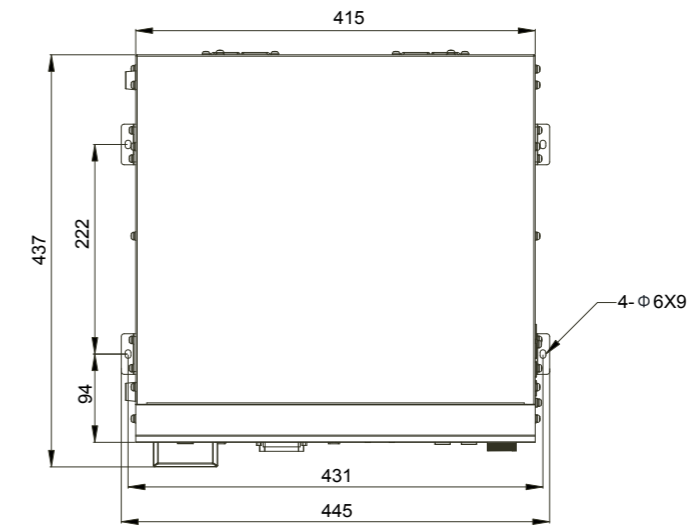
Product Dimensions (in mm)



Vertical Mounting Dimensions (in mm)



Horizontal Mounting Dimensions (in mm)



Item	Specifications	
Motion mode	PTP and CP (continuous path control) Support spatial linear interpolation and spatial circular interpolation	
Control function	User-defined programming language	Simple and integrated GUI-based development environment with embedded process
	Axis control	Control at least 8 axes at a time with AC servo control
	Velocity control	In PTP mode, velocity can be controlled at 1% to 100% through programming. In CP mode, the actual velocity can be specified.
	Acceleration control	In PTP mode, acceleration can be controlled at 1% to 100% through programming. In CP mode, the actual acceleration can be specified.
PLC function	Support the IEC61131-3 standard and PLC programming function to implement flexible programming for all I/O resources, inspect input interfaces, controls output interfaces, and exchange data with the system kernel.	
Safety Function	Exception stop switch, excessive velocity deviation inspection, excessive position deviation inspection, storage exception inspection, CPU exception inspection, mode switch, and mechanical lock	
Dynamic brake function	Dynamic brake function	
Memory capacity	Program: > 16 Mb; point data: up to 10,000 points	
Storage mode	Built-in 8 GB SD card for running programs and backing up data	
Number of tasks run	Four robot programs (including one motion program and three non-motion programs) can be run at the same time.	

InoTeachPad

Robot software

Easy-to-use

- Support menu-aided instruction insertion to ease the pain of typing

Efficient and flexible

- Support offline programming without controller connections for efficient programming anytime anywhere

High integration

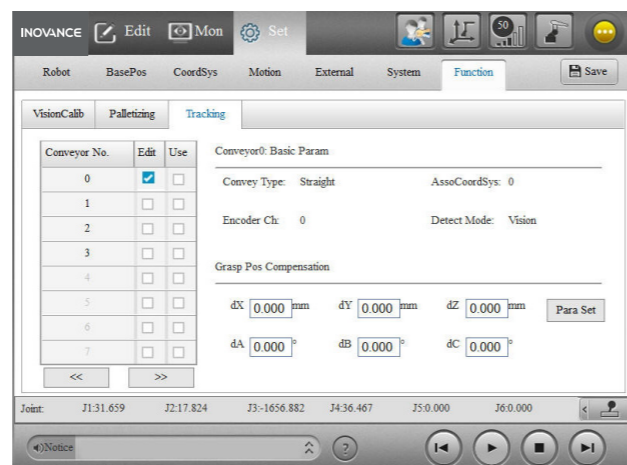
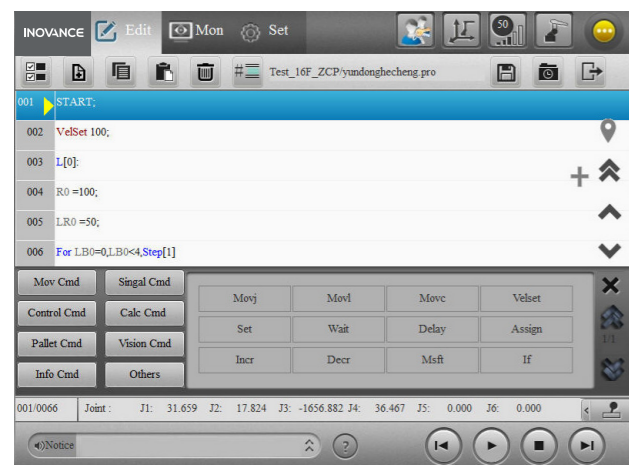
- Integrate a process package that includes highly operable wizard-based process modules and multiple functions



Teach pendant



Teach pendant software for PC



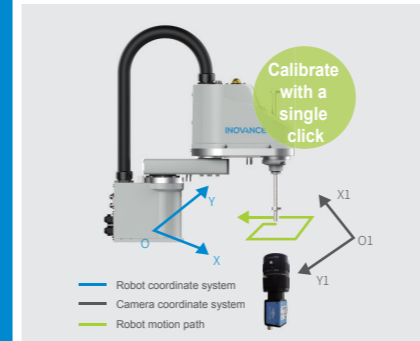
Ino RobotVision

Vision software

Efficient

Automatic calibration for higher commissioning efficiency

Reduce the calibration time by 70% and manual workload by 90%. Support eye-to-hand (uptilt/downtilt), eye-in-hand on J2/J4 axis, and automatic mounting calibration. Eliminate errors resulting from manual operations for higher precision.



Tool-aided programming for higher efficiency

Tools are used to facilitate programming without complex text. Vision reference can be implemented by dragging several tools. Vision programming can be completed in 10 minutes.



Quick editing of user-defined UI

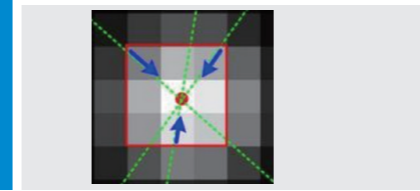
Users can easily define information presentation. UIs can be created simply by dragging components. No additional programming is required.



Reliable

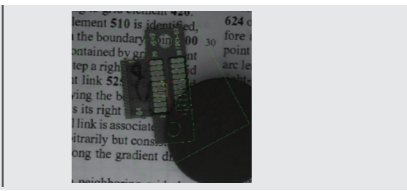
High precision

Sub-pixel inspection
Repeatability < 1/3 pixel
Angle accuracy < 0.1°



High compatibility

Complex background
Partial overlapping
Brightness change

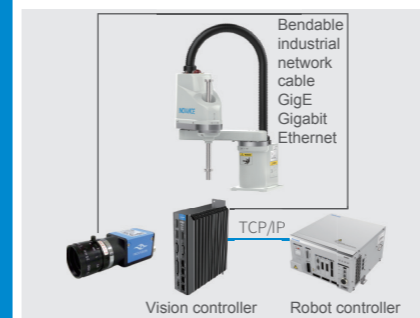


High stability

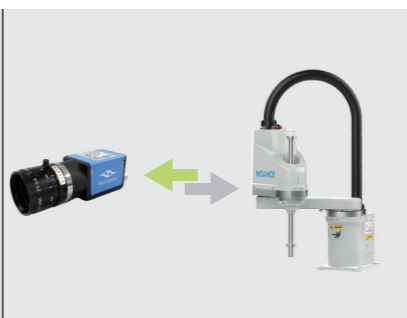
Inspection stability >99.9%

Convergence

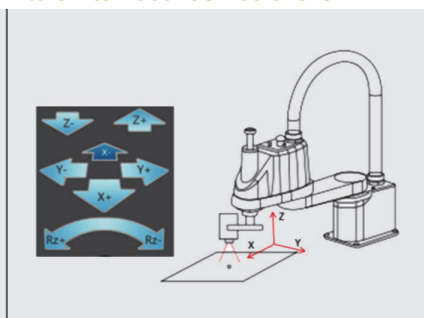
Easy arrangement and connection between a camera and a robot



Mature and easy-to-use communication module and coordinates conversion tool to eliminate repeated programming



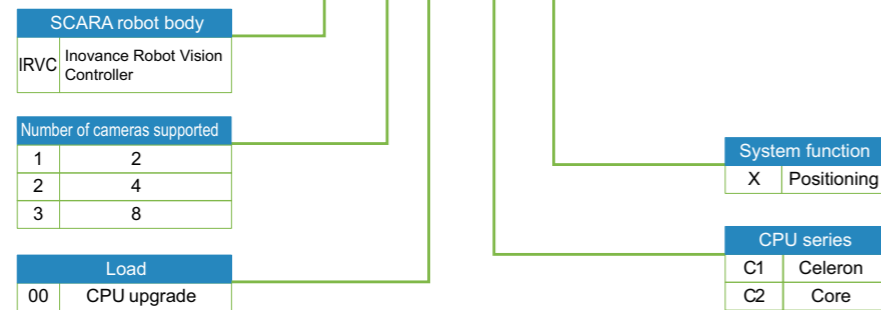
Robot operation and movement with vision software for easy position fine-tuning during photographing without the need to switch between software



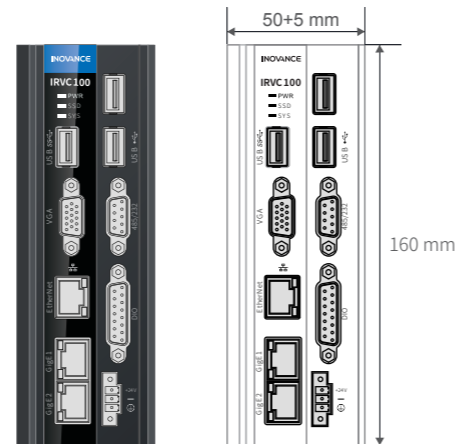
Industrial Vision

Robot Vision Controller

IRVC 1 00 -C1 -X



Port	Specifications
Number of cameras	≤ 2
Number of cameras	GigE x 2
	EtherNet x 1
	VGA x 1
	USB x 3
Digital I/O	6-input/6-output
Power	DC: 24V 3A



Product Line	Category	Material Code	Model Name	Description
Inovance Robot Vision System - Vision Controller	Robot Vision Controller	01640012	IRVC100-C1-X	Hardware: J1900 X86 platform Software: including basic camera tools, data transmission and processing tools, algorithm function modules (calibration module, template matching, circle inspection, straight line inspection, angle point inspection, spot analysis, midpoint calculation, and so on) Application: general object positioning, dynamic capture, plug-in alignment, and so on.
	Software dongle	72100168	Sentinel	The controller software is equipped with a dongle. The software toolkit does not work without the dongle.

Product Line	Category	Material Code	Model Name	Description
Inovance Robot Vision System - Camera	8 mm ordinary lens	72100108	HC-LEN-01-0814	Camera - Ordinary - 8 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.4
	12mm ordinary lens	72100092	HC-LEN-01-1214	Camera - Ordinary - 12 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.4
	16mm ordinary lens	72100109	HC-LEN-01-1614	Camera - Ordinary - 16 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.4
	25mm ordinary lens	72100110	HC-LEN-01-2514	Camera - Ordinary - 25 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.4
	35mm ordinary lens	72100111	HC-LEN-01-3514	Camera - Ordinary - 35 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.4
	50mm ordinary lens	72100113	HC-LEN-01-5018	Camera - Ordinary - 50 mm - Computar, Type-C interface - Compatible with 2/3" CCD - F1.8

Industrial Vision

Industrial Vision Selection



Product Line	Category	Material Code	Model Name	Description
Inovance Robot Vision System - Industrial Camera and Cable	130 MP black & white	72100094	INV1280-75gm	Camera - Black & White - 130 MP - Resolution 1280*1024 - Global shutter - 1/2 CMOS
	130 MP (global shutter)	72100213	acA1300-75gm	Camera - Black & White - 130 MP - Resolution 1280*1024 - Global shutter - 1/2 CMOS
	200 MP black & white	72100096	INV1920-50gm	Camera - Black & White - 200 MP - Resolution 1920*1200 - Global shutter - 1/3 CMOS
	500 MP black & white (rolling shutter)	72100098	INV3072-18gm	Camera - Black & White - 500 MP - Resolution 3072*2048 - Rolling shutter - 1/1.8 CMOS
	500 MP black & white (global shutter)	72100099	INV2590-20gm	Camera - Black & White - 500 MP - Resolution 2590*2048 - Global shutter - 1/2 CMOS
	500 MP (rolling shutter)	72100212	acA2500-14gm	Camera - Black & White - 500 MP - Resolution 2592*1944 - Rolling shutter - 1/2.5 CMOS
	500 MP (global shutter)	72100214	acA2440-20gm	Camera - Black & White - 500 MP - Resolution 2448*2048 - Global shutter - 2/3 CMOS
	5 m ordinary network cable for cameras	15300375	NHC-5LK2	5 m ordinary network cable (for GIGE only)
	5 m power cable for cameras	15300380	MVLZ-6001-5L	5 m power cable with an adapter

Product Line	Category	Material Code	Model Name	Description
Loop lighting	Loop lighting	72100243	HC-LT-02-RI-73/90-R	Light source - Loop lighting - Outer diameter 73 mm - Angle 90° - Red
		72100245	HC-LT-02-RI-73/90-B	Light source - Loop lighting - Outer diameter 73 mm - Angle 90° - Blue
		72100246	HC-LT-02-RI-73/90-W	Light source - Loop lighting - Outer diameter 73 mm - Angle 90° - White
		72100103	HC-LT-02-RI-120/70-W	Light source - Loop lighting - Outer diameter 120 mm - Angle 70° - White
		72100247	HC-LT-02-RI-120/70-R	Light source - Loop lighting - Outer diameter 120 mm - Angle 70° - Red
	Bar lighting	72100249	HC-LT-02-RI-120/70-B	Light source - Loop lighting - Outer diameter 120 mm - Angle 70° - Blue
		72100273	HC-LT-02-LI-21020-R	Light source - Bar lighting - Length 210 mm - Width 20 mm - Red
		72100271	HC-LT-02-LI-21020-B	Light source - Bar lighting - Length 210 mm - Width 20 mm - Blue
		72100270	HC-LT-02-LI-21020-W	Light source - Bar lighting - Length 210 mm - Width 20 mm - White
		72100106	HC-LT-02-LI-27042-R	Light source - Bar lighting - Length 270 mm - Width 42 mm - Red
Co-axial lighting	Co-axial lighting	72100268	HC-LT-02-LI-27042-B	Light source - Bar lighting - Length 270 mm - Width 42 mm - Blue
		72100267	HC-LT-02-LI-27042-W	Light source - Bar lighting - Length 270 mm - Width 42 mm - White
		72100204	HC-LT-02-CO40-R	Light source - Co-axial lighting - Luminous surface 40 x 40 mm - Red
		72100206	HC-LT-02-CO40-B	Light source - Co-axial lighting - Luminous surface 40*40 mm - Blue
		72100107	HC-LT-02-CO40-W	Light source - Co-axial lighting - Luminous surface 40*40 mm - White
	Light source controller	72100196	HC-LT-02-CO60-R	Light source - Co-axial lighting - Luminous surface 60*60 mm - Red
		72100190	HC-LT-02-CO60-B	Light source - Co-axial lighting - Luminous surface 60*60 mm - Blue
		72100200	HC-LT-02-CO60-W	Light source - Co-axial lighting - Luminous surface 60*60 mm - White
		72100127	APS2-24W24-2T	Light source controller - Analog - 2-channel (from CST)
		72100147	APS2-24W60-4T	Light source controller - Analog - 4-channel (from CST)
Light source extension cable	15300376	GYX-5L	Light source extension cable: 5 m	

IRS100 Series
SCARA Robot

IRS10 Series Robot
Intelligent Screw
Tightening

6-axis Robot

Electric Control
Cabinet

Industrial Vision

Industrial Vision
Selection

Robot Selection

IRS100 Series Robot - Normal Mounted Robot

Category	Model (Model for Orders)	Description
3 kg	SCARA robot with 300 mm arm length	IRS100-3-30Z15TS3 SCARA robot body with 300 mm arm length: IRB100-3-30Z15TS3; control cabinet: IRCB300-B-F
	SCARA robot with 400 mm arm length	IRS100-3-40Z15TS3 SCARA robot body with 400 mm arm length: IRB100-3-40Z15TS3; control cabinet: IRCB300-B-F
6 kg	SCARA robot with 500 mm arm length	IRS100-6-50Z20TS3 SCARA robot body with 500 mm arm length: IRB100-6-50Z20TS3; control cabinet: IRCB300-B-F
	SCARA robot with 600 mm arm length	IRS100-6-60Z20TS3 SCARA robot body with 600 mm arm length: IRB100-6-60Z20TS3; control cabinet: IRCB300-B-F
	SCARA robot with 650 mm arm length	IRS100-6-65Z20TS3 SCARA robot body with 650 mm arm length: IRB100-6-65Z20TS3; control cabinet: IRCB300-B-F
	SCARA robot with 700 mm arm length	IRS100-6-70Z20TS3 SCARA robot body with 700 mm arm length: IRB100-6-70Z20TS3; control cabinet: IRCB300-B-F
10 kg	SCARA robot with 600 mm arm length	IRS100-10-60Z20TS3 SCARA robot body with 600 mm arm length: IRB100-10-60Z20TS3; control cabinet: IRCB300-B-G
	SCARA robot with 700 mm arm length	IRS100-10-70Z20TS3 SCARA robot body with 700 mm arm length: IRB100-10-70Z20TS3; control cabinet: IRCB300-B-G
20 kg	SCARA robot with 600 mm arm length	IRS100-20-60Z18TS3 SCARA robot body with 600 mm arm length: IRB100-20-60Z18TS3; control cabinet: IRCB300-B-G
	SCARA robot with 600 mm arm length	IRS100-20-60Z42TS3 SCARA robot body with 600 mm arm length: IRB100-20-60Z42TS3; control cabinet: IRCB300-B-G
	SCARA robot with 700 mm arm length	IRS100-20-70Z18TS3 SCARA robot body with 700 mm arm length: IRB100-20-70Z18TS3; control cabinet: IRCB300-B-G
	SCARA robot with 700 mm arm length	IRS100-20-70Z42TS3 SCARA robot body with 700 mm arm length: IRB100-20-70Z42TS3; control cabinet: IRCB300-B-G
	SCARA robot with 800 mm arm length	IRS100-20-80Z42TS3 SCARA robot body with 800 mm arm length: IRB100-20-80Z42TS3; control cabinet: IRCB300-B-G
	SCARA robot with 1000 mm arm length	IRS100-20-100Z42TS3 SCARA robot body with 1000 mm arm length: IRB100-20-100Z42TS3; control cabinet: IRCB300-B-G
6 kg clean room type	SCARA robot with 500 mm arm length	IRS100-6-50Z17TC3 SCARA robot body with 500 mm arm length: IRB100-6-50Z17TC3; control cabinet: IRCB300-B-F
	SCARA robot with 600 mm arm length	IRS100-6-60Z17TC3 SCARA robot body with 600 mm arm length: IRB100-6-60Z17TC3; control cabinet: IRCB300-B-F
	SCARA robot with 650 mm arm length	IRS100-6-65Z17TC3 SCARA robot body with 650 mm arm length: IRB100-6-65Z17TC3; control cabinet: IRCB300-B-F
	SCARA robot with 700 mm arm length	IRS100-6-70Z17TC3 SCARA robot body with 700 mm arm length: IRB100-6-70Z17TC3; control cabinet: IRCB300-B-F

IRS100 Series Robot - Invert Mounted Robot

Category	Model (Model for Orders)	Description
3 kg	SCARA robot with 350 mm arm length	IRS100-3-35Z13RS3 Invert mounted SCARA robot body with 350 mm arm length: IRB100-3-35Z13RS3; control cabinet: IRCB300-B-G
4 kg	SCARA robot with 550 mm arm length	IRS100-4-55Z13RS3 Invert mounted SCARA robot body with 550 mm arm length: IRB100-4-55Z13RS3; control cabinet: IRCB300-B-G

IRS300 Series 6-Axis Robot

Category	Model (Model for Orders)	Description
3 kg	6-axis robot with 600 mm arm length	IRS300-3-60TS5 6-axis robot body with 600 mm arm length: IRB300-3-60TS5; control cabinet: IRCB300-B-FF
7 kg	6-axis robot with 700 mm arm length	IRS300-7-70TS5 6-axis robot body with 700 mm arm length: IRB300-7-70TS5; control cabinet: IRCB300-B-FF

Teach Pendant Selection

Category	Model (Model for Orders)	Description
Robot teach pendant	ITP100-A	Robot teach pendant with rocker
Simple robot teach pendant	IRTP80-L5	Robot teach pendant without rocker

Expansion Card

Model	Introduction
IRCB-2EN1D-BD	2-channel differential input incremental encoder expansion card
IRCB-1616ETND-BD	16-channel input and universal 16-output NPN I/O expansion card
IRCB-4DA-BD	4-channel voltage/current analog conversion output expansion card
IRCB-4ADBD	2-channel voltage, 2-channel current analog conversion input expansion card
IRCB-1600END-BD	Universal 16-input I/O expansion card
IRCB-0016ETND-BD	Universal 16-output NPN I/O expansion card
IRCB-0016ETPD-BD	Universal 16-output PNP I/O expansion card

Expansion Module

Model	Introduction
AM600-PS2	Power module
IMC100-RTU-ICT	IMC100 series communication expansion module
IMC100-8AD	4-channel voltage, 4-channel current analog conversion input expansion module
IMC100-4DA	4-channel voltage/current analog conversion output expansion module
IMC100-0808-ETND	Universal 8-input 8-output I/O expansion module
IMC100-2ENID	2-channel differential input incremental encoder expansion module
IMC100-1600-END	Universal 16-input I/O expansion module
IMC100-0016-ETPD	Universal 16-output PNP I/O expansion module
IMC100-0016-ETND	Universal 16-output NPN I/O expansion module