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# INOVANCE

# Inovance Robot Selection Guide



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FORWARD, ALWAYS PROGRESSING





# Robot Product Family

## 6-Axis Robot





IR-R4 Series	P3	IR-R4H (Hollow Wrist)	P5	IR-R7H (Hollow Wrist)	P7	IR-R11 Series	P9
							
Load	4 kg	Load	4 kg	Load	7kg	Load	10 kg / 11.3 kg
Arm length	560.6 mm	Arm length	545.7 mm	Arm length	722.3mm/911.9mm	Arm length	1101.6 mm / 901.9 mm
Model	IR-R4-56S-INT	Model	IR-R4H-54S-INT	Model	IR-R7H-70S-INT IR-R7H-90S-INT	Model	IR-R10-110S-INT IR-R11-90S-INT

IR-R10H (Hollow Wrist)	P11	IR-R15H&R20H (Hollow Wrist)	P13	IR-R10 Series	P15	IR-R25 Series	P17
							
Load	10kg	Load	15 kg/20 kg	Load	10 kg	Load	16kg/25kg
Arm length	1201.2mm	Arm length	1455 mm/1218 mm	Arm length	1422 mm	Arm length	2107mm/1783mm
Model	IR-R10H-120S-INT	Model	IR-R15H-145S-K-INT IR-R20H-120S-K-INT	Model	IR-R10-140S-INT	Model	IR-R16-210S-INT IR-R25-178S-INT

## SCARA Robot

IR-S4 Series	P 19	IR-S7 Series	P 21	IR-S10 Series	P 23	IR-S25 Series	P 25
							
Load	4 kg	Load	7 kg	Load	10 kg	Load	25 kg
Arm length	400 mm	Arm length	500 mm / 600 mm / 700 mm	Arm length	600 mm / 700 mm / 800 mm	Arm length	800 mm / 1000 mm / 1200 mm
Model	IR-S4-40Z15S-INT	Model	IR-S7-50Z20S-INT IR-S7-60Z20S-INT IR-S7-70Z20S-INT	Model	IR-S10-60Z20S-INT IR-S10-70Z20S-INT IR-S10-80Z20S-INT	Model	IR-S25-80Z42S-INT IR-S25-100Z42S-INT IR-S25-120Z42S-INT

IR-T55 Series	P 35
	
Load	5 kg
Arm length	550 mm
Model	IR-T55-55Z15S-INT

IR-S35 Series	P 27	IR-S60 Series	P 29	IR-GS60 Series	P 31	IR-TS4 Series	P 33
							
Load	35kg	Load	60kg	Load	60kg	Load	4 kg
Arm length	800mm/1000mm	Arm length	1200mm	Arm length	1200mm	Arm length	350 mm
Model	IR-S35-80Z42S-INT IR-S35-100Z42S-INT IR-S35-120Z42S-INT	Model	IR-S60-120Z40S-INT	Model	IR-GS60-120Z40S-INT	Model	IR-TS4-35Z15S-INT

## Robot Controller

IRCB501 Series	P 37	IRCB501 High protection Series	P 39
			

## Teach pendant

IR-TP200 Series	P 41
	

## 6-Axis Robot

# IR-R4 Series

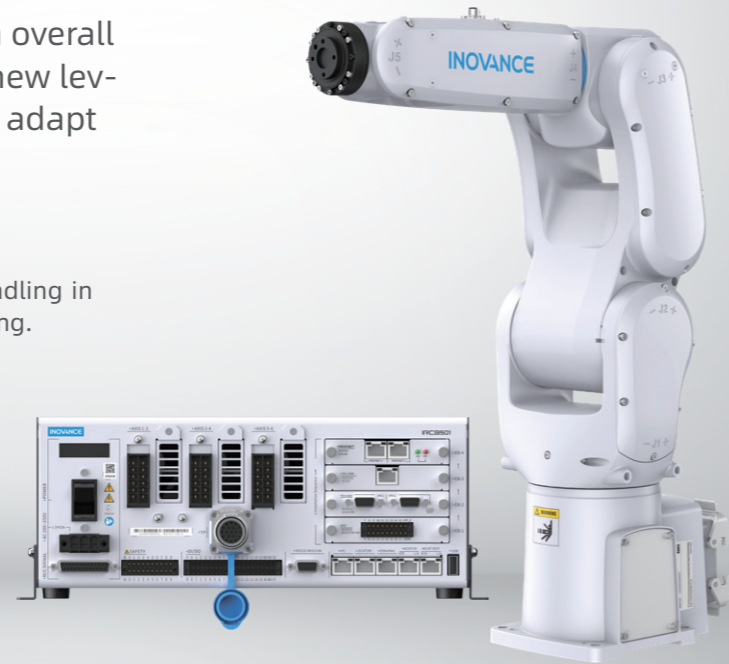
Robots featuring compact structure, with overall height and structural height reaching a new level in the industry, and short cycle time to adapt to a range of application scenarios.

### Scope of Application

Handling and loading/unloading in 3C industry; handling in the photovoltaic industry; and assembly and dispensing.

### Features

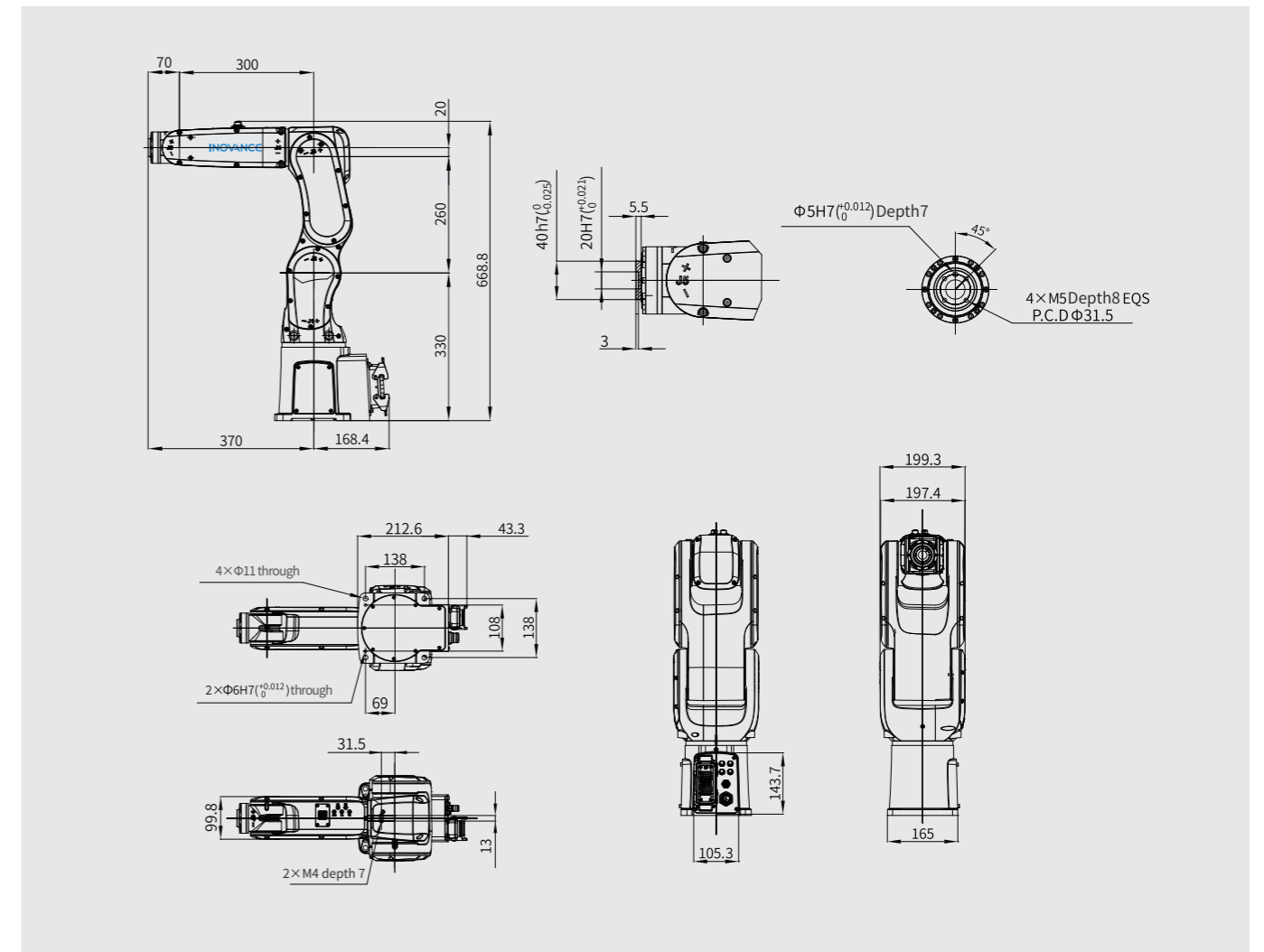
Load	4 kg
Arm length	560.6 mm
Repeatability	±0.01 mm
IP rating	IP40 (IP67 optional)



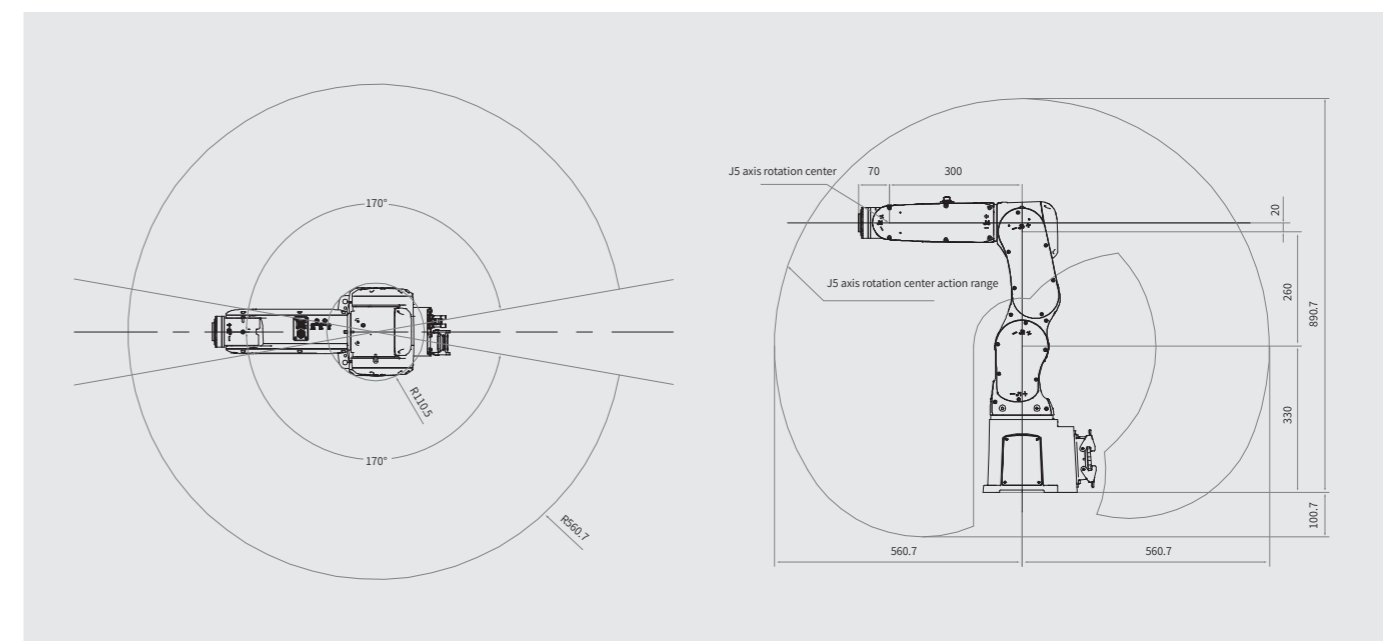
### Technical Data

Model	IR-R4-56S-INT	
Structural style	Vertical axis cascading structure	
Number of Axes	6 axes	
Maximum reach (mm)	560.6	
Repeatability (mm)	±0.01	
Maximum Load(kg)	4	
IP rating	IP40 (IP67 optional)	
Max.Speed	J1 (°/s)	450
	J2 (°/s)	460
	J3 (°/s)	520
	J4 (°/s)	560
	J5 (°/s)	560
	J6 (°/s)	900
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-120~+110
	J3 (°)	-69~+205
	J4 (°)	±190
	J5 (°)	±120
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	8.86
	J5 (N·m)	8.86
	J6 (N·m)	4.9
Allowed wrist inertia	J4 (N·m)	0.2
	J5 (N·m)	0.2
	J6 (N·m)	0.067
Customer connections	Wiring	12 signal lines 30V 0.5A
	Air	Φ4 mm x 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	24kg	
Controller	IRCB501-6LD-INT	
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE, cSGSus, FCC, Safety Function, Optional: Cleanliness Class 3	

### Mounting Dimensions(mm)



### Motion Range(mm)



## 6-Axis Robot

# IR-R4H (Hollow wrist)

Robots featuring compact structure, with overall height and structural height reaching a new level in the industry, and short cycle time to adapt to a range of application scenarios.

### Scope of Application

Handling and loading/unloading in 3C industry; handling in the photovoltaic industry; and assembly and dispensing.

### Features

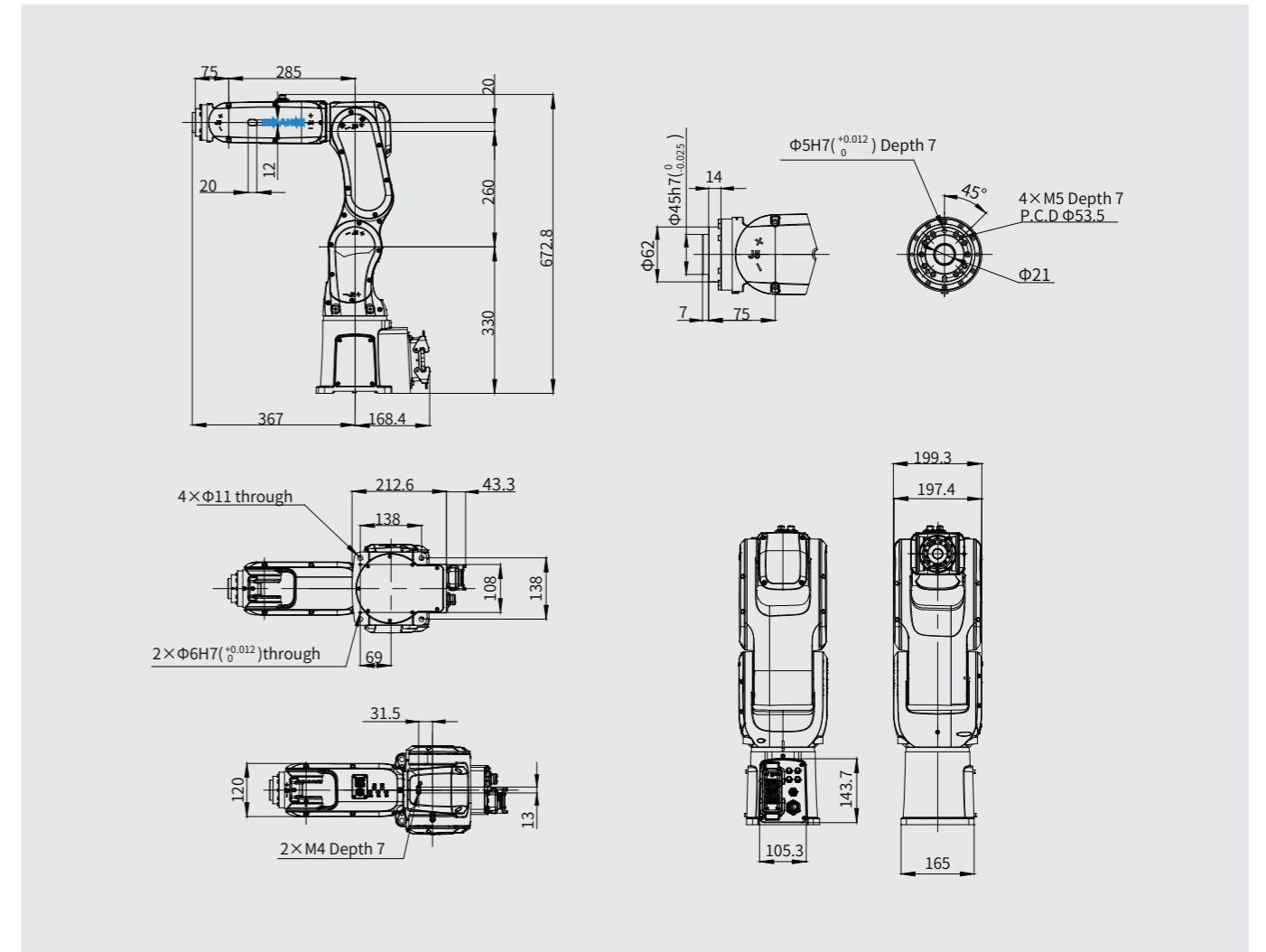
Load	4 kg
Arm length	545.7 mm
Repeatability	±0.02 mm
IP rating	IP40 (IP67 optional)



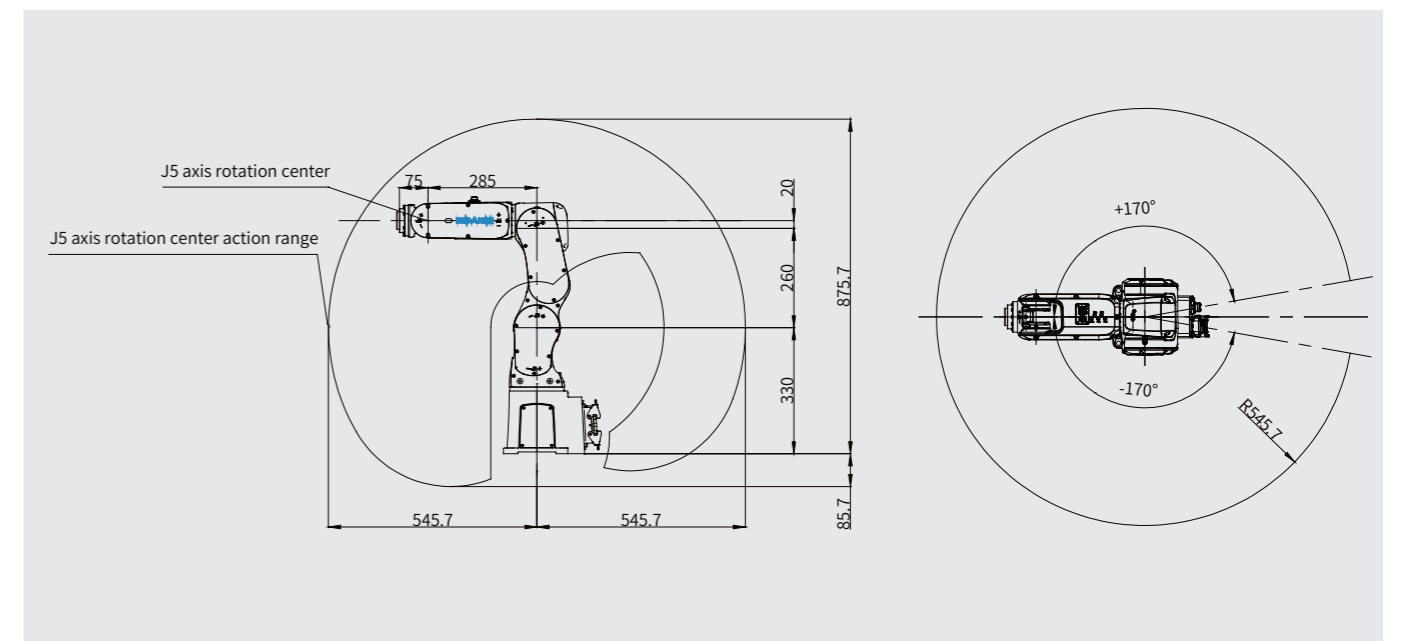
### Technical Data

Model		IR-R4H-54S-INT
Structural style		Vertical axis cascading structure
Number of Axes		6 axes
Maximum reach (mm)		545.7
Repeatability (mm)		±0.02
Maximum Load (kg)		4
IP rating		IP40 (IP67 optional)
Max.Speed	J1 (°/s)	450
	J2 (°/s)	460
	J3 (°/s)	520
	J4 (°/s)	560
	J5 (°/s)	560
	J6 (°/s)	900
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-120~+110
	J3 (°)	-65~+195
	J4 (°)	±190
	J5 (°)	±120
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	8.86
	J5 (N·m)	8.86
	J6 (N·m)	4.9
Allowed wrist inertia	J4 (N·m)	0.2
	J5 (N·m)	0.2
	J6 (N·m)	0.067
Customer connections	Wiring	12 signal lines 30V 0.5A
	Air	Φ4 mm x 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	24.5kg	
Controller	IRCB501-6LD-INT	
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE, cSGSus, FCC,Safety Function, Optional: Cleanliness Class 3	

### Mounting Dimensions(mm)



### Motion Range(mm)



# 6-Axis Robot

## IR-R7H (Hollow wrist)

Designed with hollow wrist structure, compact, lightweight and flexible, high tempo, efficient and easy to use; Meet the needs of various scenarios such as handling, assembly, and gluing

### Scope of Application

It is widely used in dispensing, assembly, sorting, labeling and other scenarios in 3C, automotive electronics, medical, pharmaceutical and other industries.

### Features

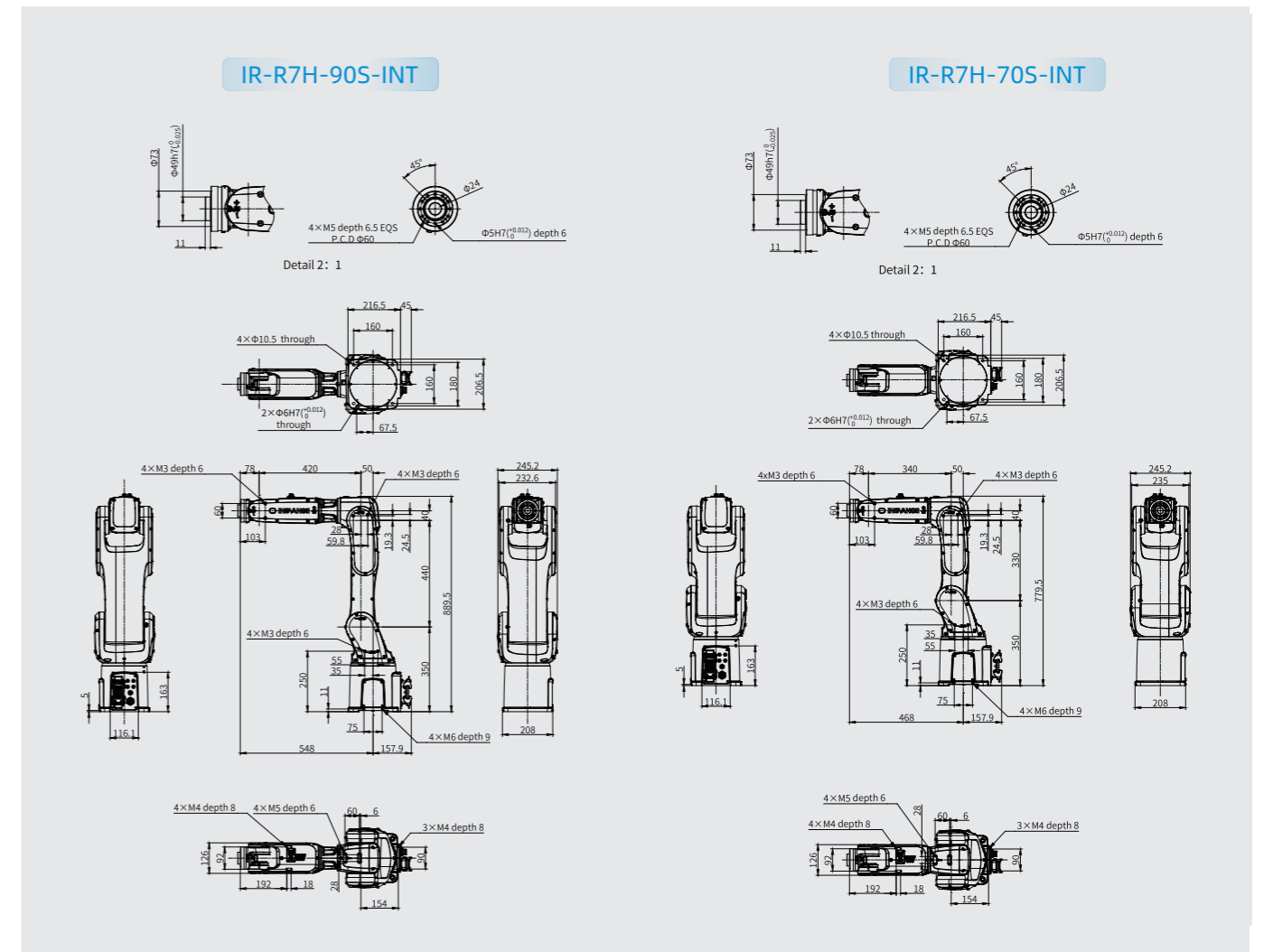
Load	7kg
Arm length	722.3mm/911.9mm
Repeatability	±0.015mm/±0.02mm
IP rating	IP40 (IP67 optional)



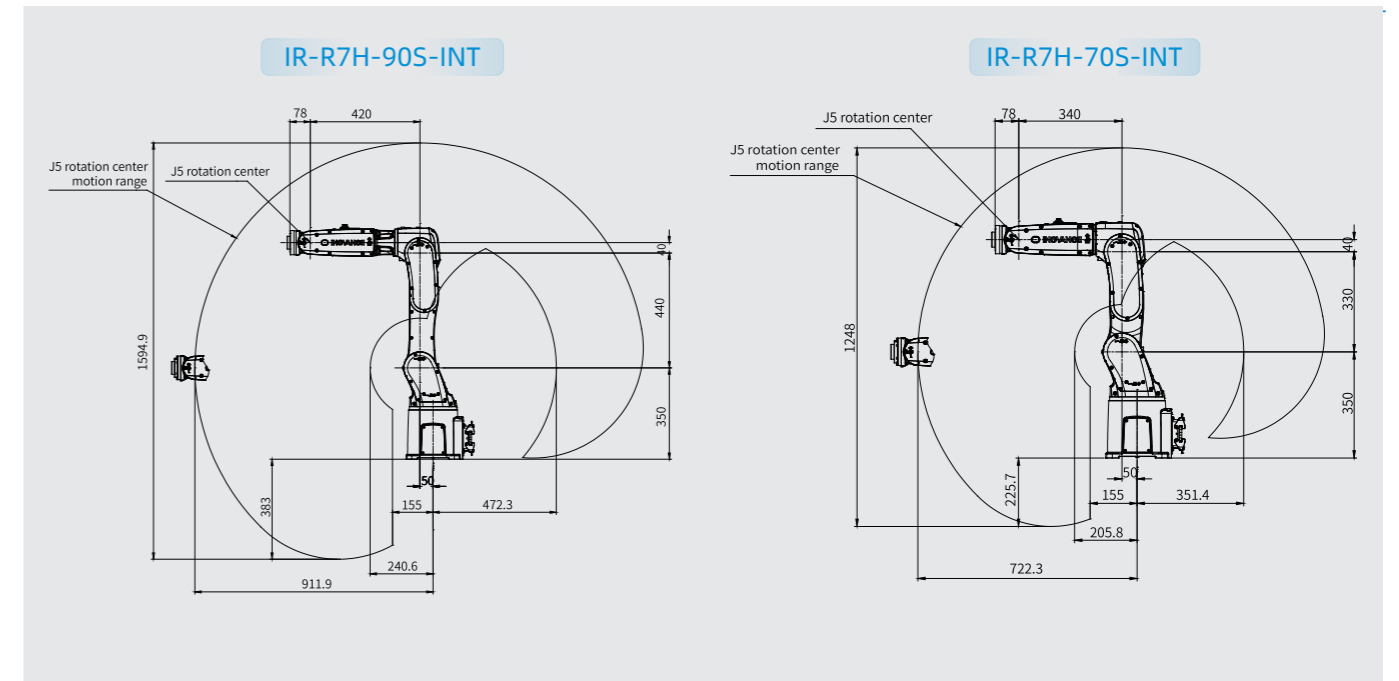
### Technical Data

Model	IR-R7H-70S-INT	IR-R7H-90S-INT
Structural style	Vertical axis cascading structure	Vertical axis cascading structure
Number of Axes	6 axes	6 axes
Maximum reach (mm)	722.3	911.9
Repeatability (mm)	±0.015	±0.02
Maximum Load (kg)	7	7
IP rating	IP40 (IP67 optional)	IP40 (IP67 optional)
Max.Speed	J1 (°/s)	420
	J2 (°/s)	336
	J3 (°/s)	487.5
	J4 (°/s)	550
	J5 (°/s)	438
	J6 (°/s)	764.7
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-135~+80
	J3 (°)	-70~+190
	J4 (°)	±190
	J5 (°)	±120
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	16.9
	J5 (N·m)	16.9
	J6 (N·m)	9.4
Allowed wrist inertia	J4 (N·m)	0.49
	J5 (N·m)	0.49
	J6 (N·m)	0.15
Customer connections	Wiring	17 signal lines 30V 0.5A
	Air	Φ4 mm × 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	31kg	33kg
Controller	IRCB501-6LD-INT	IRCB501-6LD-INT
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE, cSGSus, FCC,Safety Function, Optional: Cleanliness Class 3	

### Mounting Dimensions(mm)



### Motion Range(mm)



# 6-Axis Robot

## IR-R11 Series

Robots featuring compact structure, with overall height and structural height reaching a new level in the industry, and short cycle time to adapt to a range of application scenarios.

### Scope of Application

Handling and loading/unloading in 3C industry; handling in the photovoltaic industry; and assembly and dispensing.

### Features

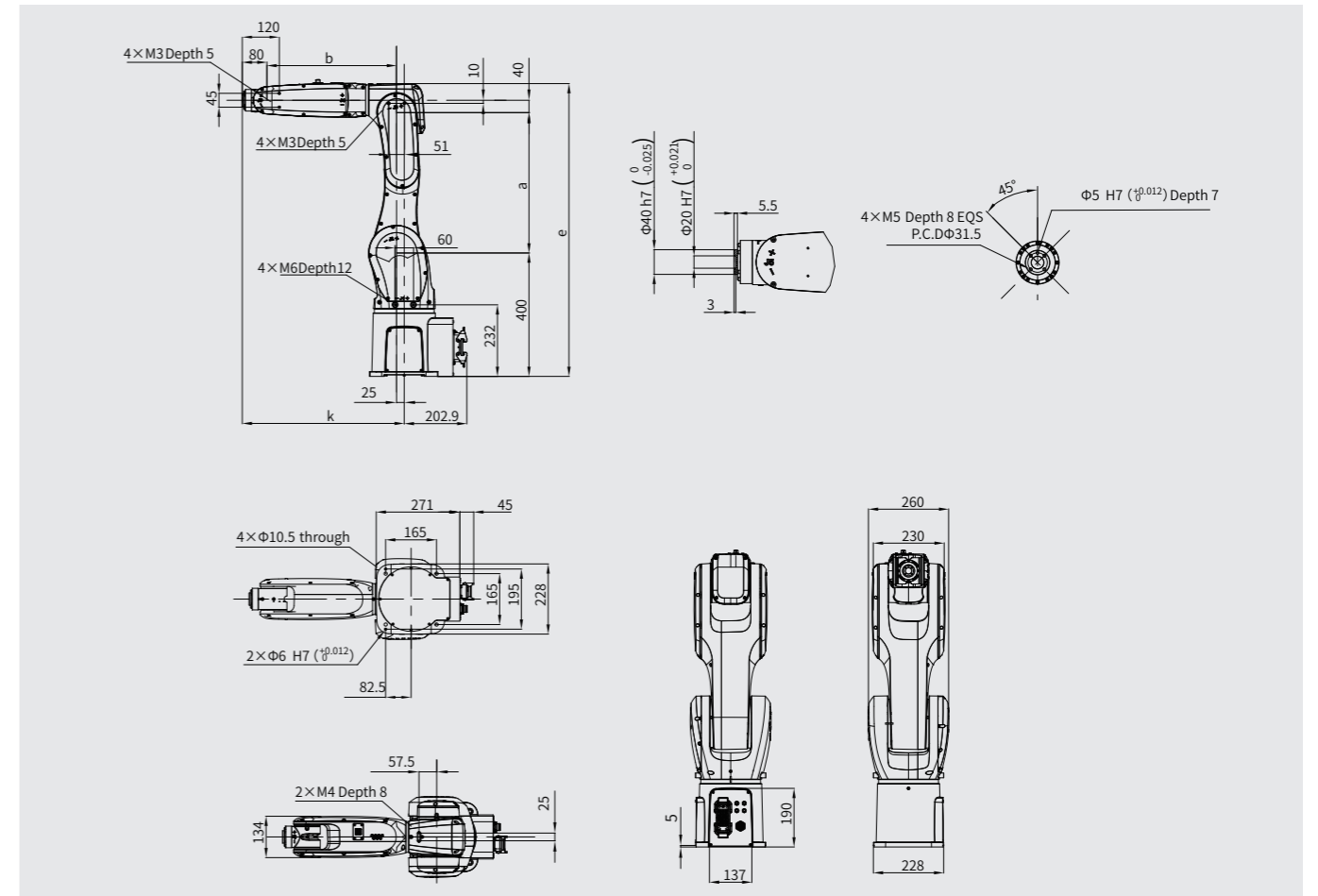
Load	10 kg / 11.3 kg
Arm length	1101.6 mm / 901.9 mm
Repeatability	±0.02 mm
IP rating	IP40 (IP67 optional)



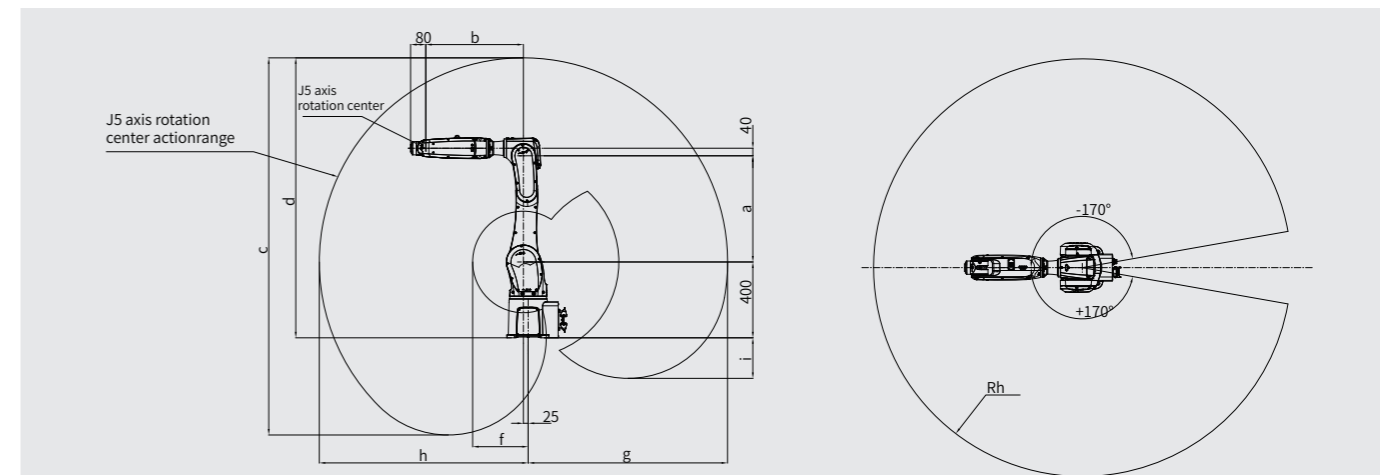
### Technical Data

Model	IR-R11-90S-INT	IR-R10-110S-INT
Structural style	Vertical axis cascading structure	Vertical axis cascading structure
Number of Axes	6 axes	6 axes
Maximum reach (mm)	901.9	1101.6
Repeatability (mm)	±0.02	±0.02
Maximum Load (kg)	11.3	10
IP rating	IP40 (IP67 optional)	IP40 (IP67 optional)
Max.Speed	J1 (°/s)	240
	J2 (°/s)	180
	J3 (°/s)	330
	J4 (°/s)	450
	J5 (°/s)	420
	J6 (°/s)	720
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-135~+100
	J3 (°)	-66~+210
	J4 (°)	±190
	J5 (°)	±125
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	20.45
	J5 (N·m)	20.45
	J6 (N·m)	10.8
Allowed wrist inertia	J4 (N·m)	0.6
	J5 (N·m)	0.6
	J6 (N·m)	0.2
Customer connections	Wiring	12 signal lines 30V 0.5A
	Air	Φ4 mm × 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	45kg	48kg
Controller	IRCB501-6FD-INT	IRCB501-6FD-INT
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE, cSGSus, FCC, Safety Function, Optional: Cleanliness Class 3	

### Mounting Dimensions(mm)



### Motion Range(mm)



Model: IR-R11 Series	IR-R10-110S-INT	IR-R11-90S-INT
a: Length from J2 to J3	560mm	455mm
b: Horizontal distance from J3 to J5	515mm	420mm
c: Maximum range of motion in the vertical direction	1989.1mm	1620.5mm
d: Height from the lowest point to the base installationplane in the vertical direction	1476.6mm	1276.9mm
e: Maximum height in zero position	1054mm	949mm
f: Minimum unreachable working radius limited by J3 rotationangle	292.8mm	250.1mm
g: Maximum working radius limited by J1 rotation angle	1051.6mm	851.9mm
h: Maximum reach	1101.6mm	901.9mm
i: Working radius limited by J2 rotation angle arm length	213.8mm	100.9mm

# 6-Axis Robot

## IR-R10H Series (Hollow wrist)

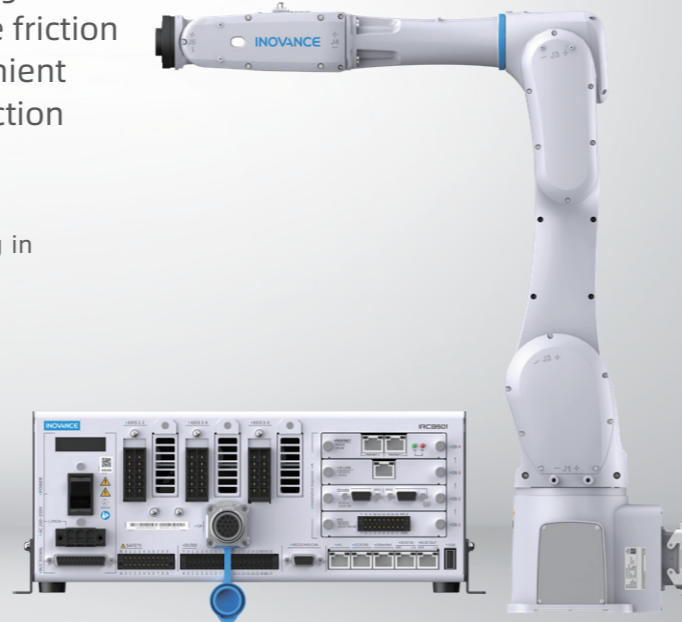
Compact structure, high rigidity, flexibility, high beat; Hollow wrist structure design to reduce friction and interference; Large aperture and convenient wiring help efficient and high-quality production

### Scope of Application

Handling and loading/unloading in 3C industry; handling in the photovoltaic industry; and assembly and dispensing.

### Features

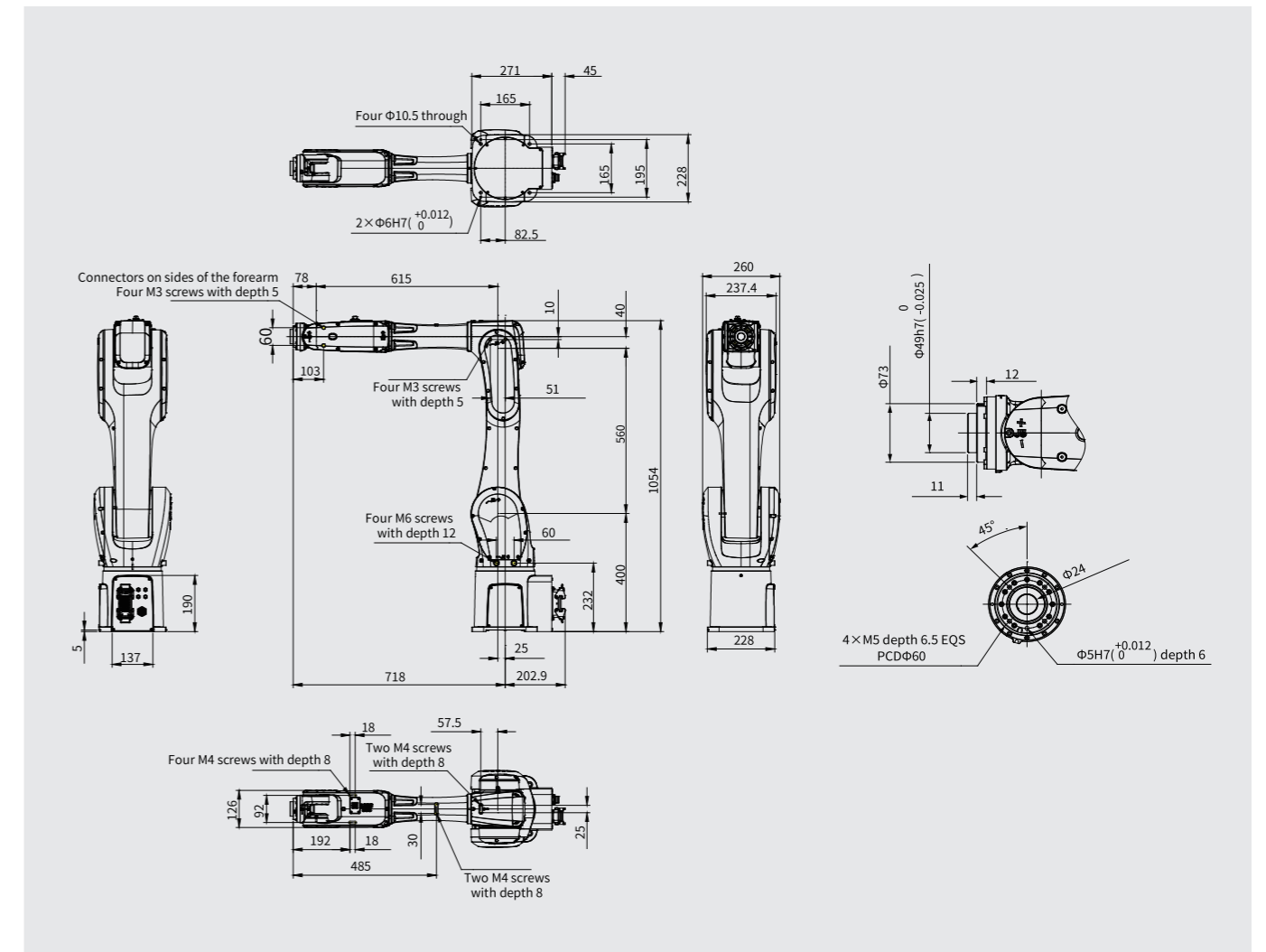
Load	10 kg
Arm length	1201.2mm
Repeatability	±0.025mm
IP rating	IP40 (IP67 optional)



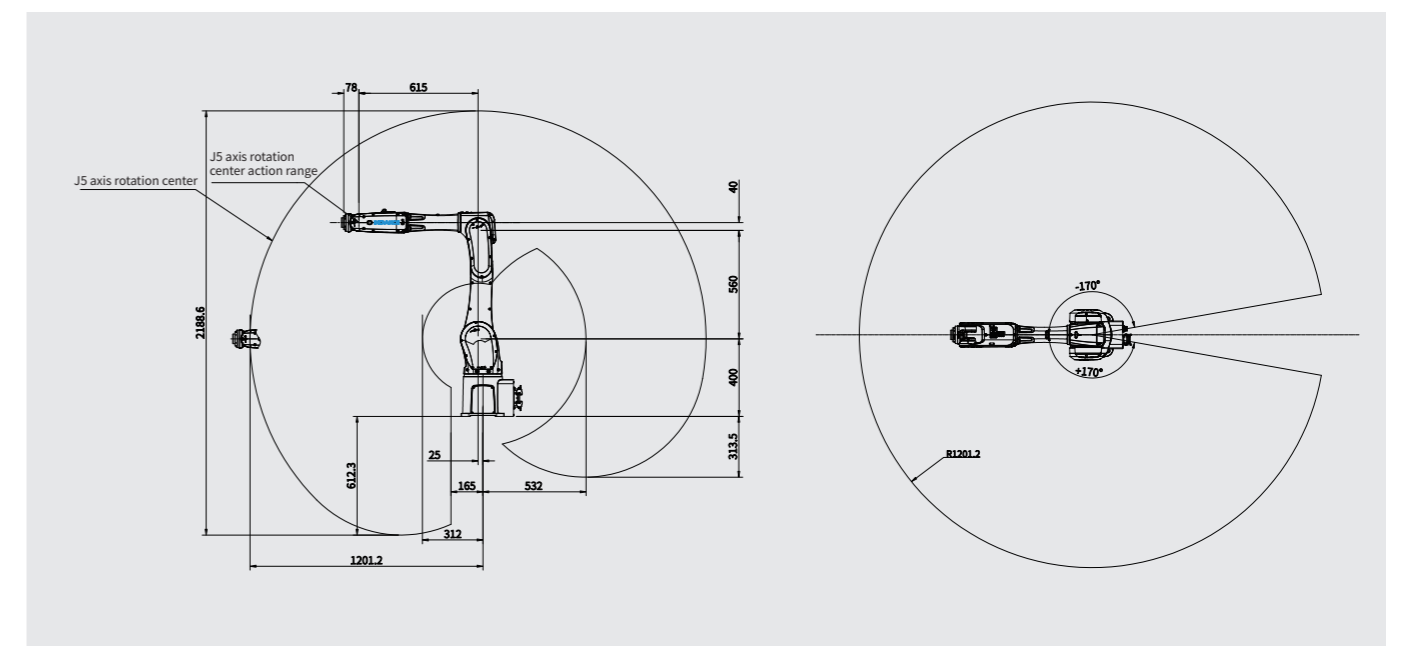
### Technical Data

Model		IR-R10H-120S-INT
Structural style		Vertical axis cascading structure
Number of Axes		6 axes
Maximum reach (mm)		1201.2
Repeatability (mm)		±0.025
Maximum Load (kg)		10
IP rating		IP40 (IP67 optional)
Max.Speed	J1 (°/s)	240
	J2 (°/s)	180
	J3 (°/s)	330
	J4 (°/s)	450
	J5 (°/s)	420
	J6 (°/s)	720
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-135~+100
	J3 (°)	-66~+210
	J4 (°)	±190
	J5 (°)	±125
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	18.59
	J5 (N·m)	18.59
	J6 (N·m)	9.8
Allowed wrist inertia	J4 (N·m)	0.6
	J5 (N·m)	0.6
	J6 (N·m)	0.2
Customer connections	Wiring	17 signal lines 30V 0.5A
	Air	Φ4 mm x 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	50kg	
Controller	IRCB501-6FD-INT	
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE, cSGSus, FCC, Safety Function, Optional: Cleanliness Class 3	

### Mounting Dimensions(mm)



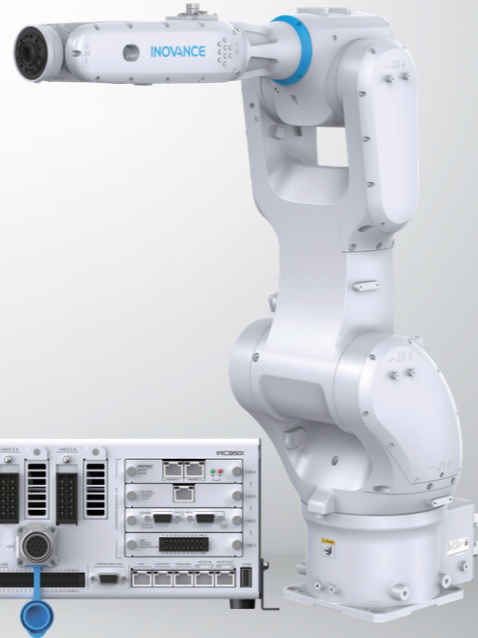
### Motion Range(mm)



# 6-Axis Robot

## IR-R15H & R20H (Hollow wrist)

The IR-R15H&R20H series six-axis robots feature compact design for optimal space utilization; they offer world-class precision and speed, ensuring precise and stable operations that are fast and accurate. With high-strength protection, convenient wiring expansion, and quick zero-point recovery on site in 15 minutes, they are easy to use and maintain.



### Scope of Application

Suitable for display, photovoltaic, PCB, and other industries, applicable for material handling, assembly, transportation, sorting, cutting, dispensing, and sealing applications.

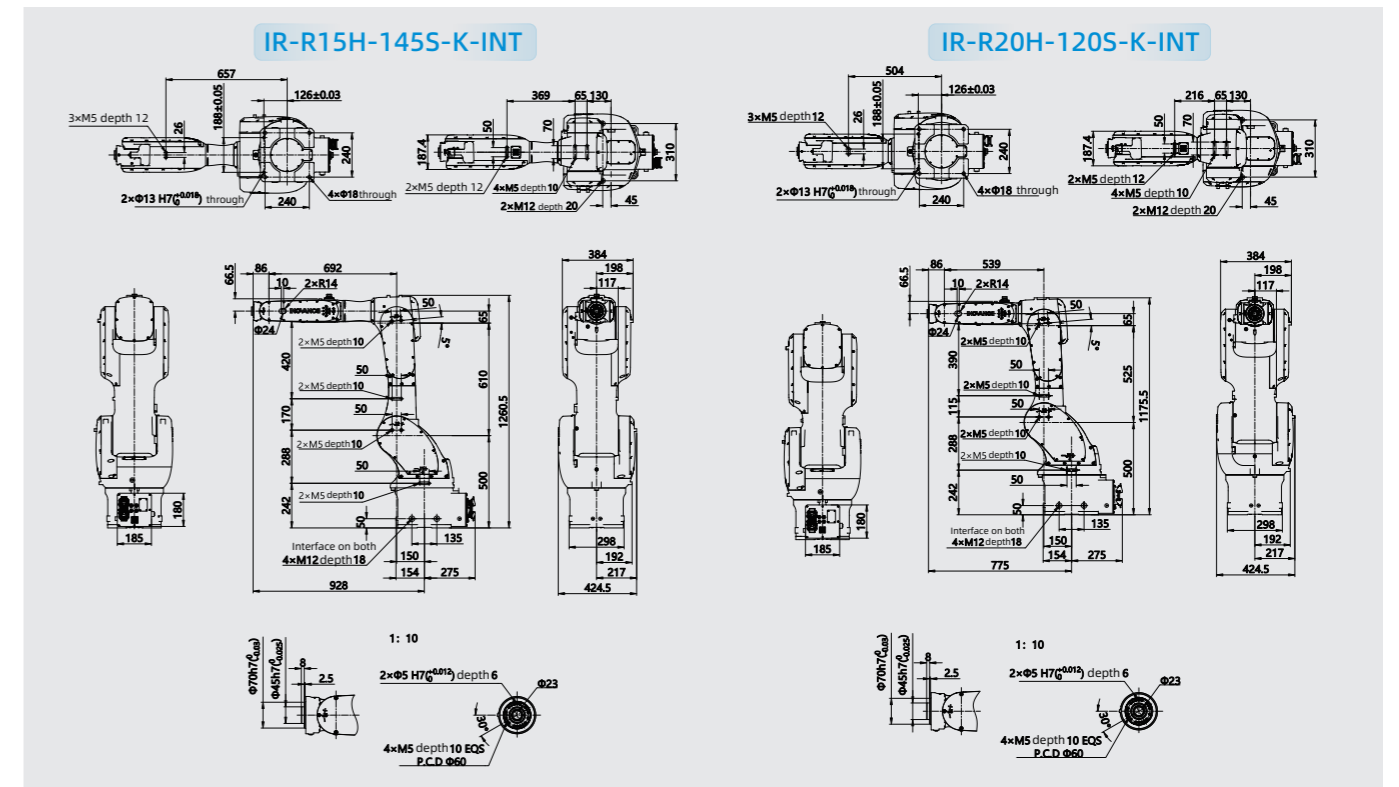
### Product features

load	15 kg/20 kg
Arm length	1455 mm/1218 mm
Repeatability	±0.04 mm
IP rating	IP54 (IP67 optional)

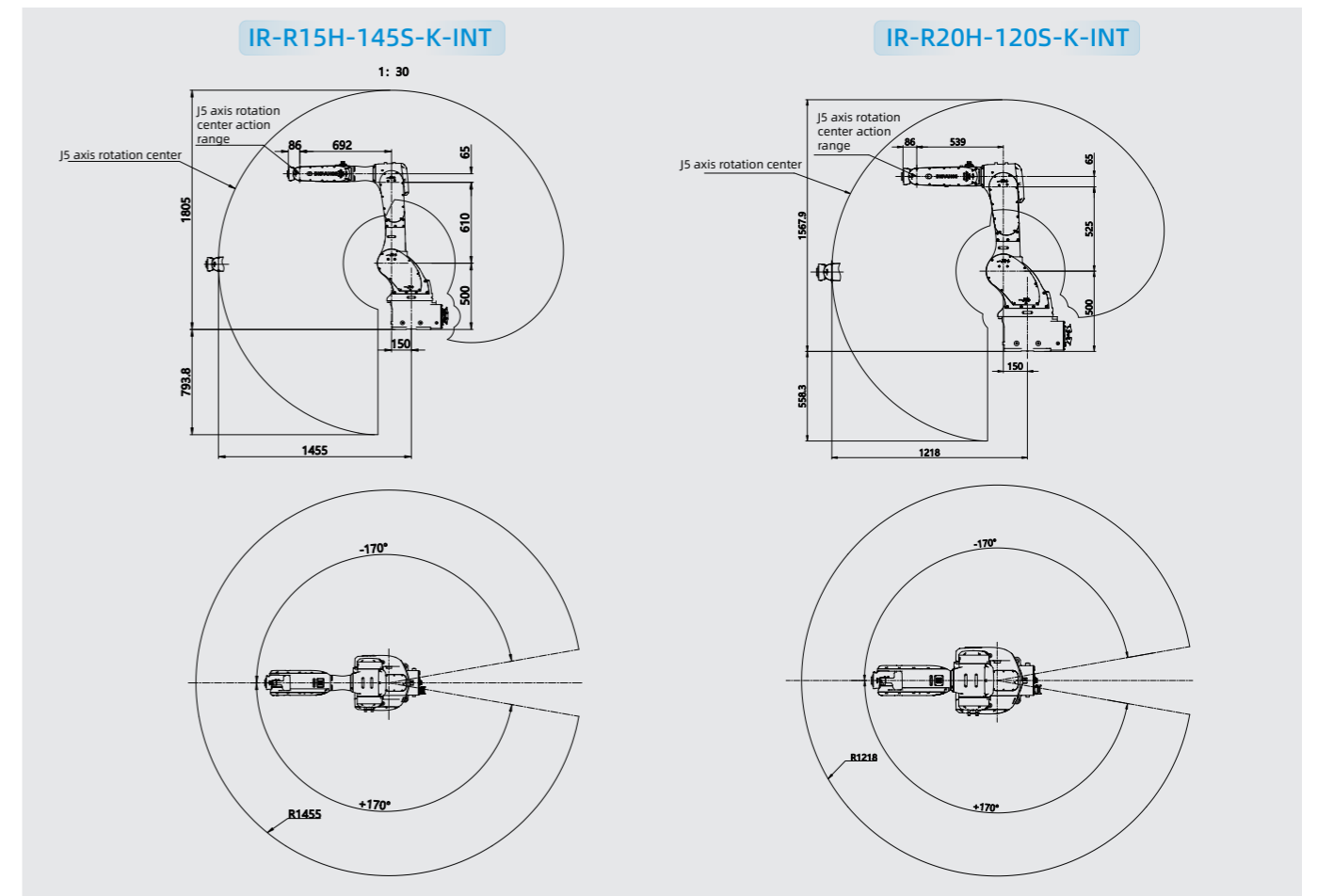
### Technical Data

Model	IR-R15H-145S-K-INT	IR-R20H-120S-K-INT
Structural style	Vertical axis cascading structure	Vertical axis cascading structure
Number of Axes	6 axes	6 axes
Maximum reach (mm)	1455	1218
Repeatability (mm)	±0.04	±0.04
Maximum Load (kg)	15	20
IP rating	IP40(IP67 optional)	IP40(IP67 optional)
Max.Speed	J1 (°/s)	260
	J2 (°/s)	240
	J3 (°/s)	260
	J4 (°/s)	470
	J5 (°/s)	450
	J6 (°/s)	705
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-160~+90
	J3 (°)	-76~+210
	J4 (°)	±190
	J5 (°)	±140
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	26.5
	J5 (N·m)	26.5
	J6 (N·m)	12
Allowed wrist inertia	J4 (N·m)	0.9
	J5 (N·m)	0.9
	J6 (N·m)	0.3
Customer connections	Wiring	24 signal lines 30V 0.5A
	Air	Φ6 mm × 4, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 95% RH,non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 95% RH,non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)	
Weight	155kg	150kg
Controller	IRCB501-6KD-INT	IRCB501-6KD-INT
Mounting mode	Floor mounted/Ceiling mounted/Wall mounted	
Certification	Kcs, KC, CE,cSGSus,FCC,Safety Function , Optional: Cleanliness Class 4	

### Mounting Dimensions(mm)



### Motion Range (mm)



## 6-Axis Robot

# IR-R10 Series

Aesthetically designed robots with high motion speed and rigidity, together with dedicated motor and controller, providing customers with cost-effective solutions.

### Scope of Application

Handling, machine loading/unloading, dispensing, deburring, grinding, polishing, welding, and more.

### Features

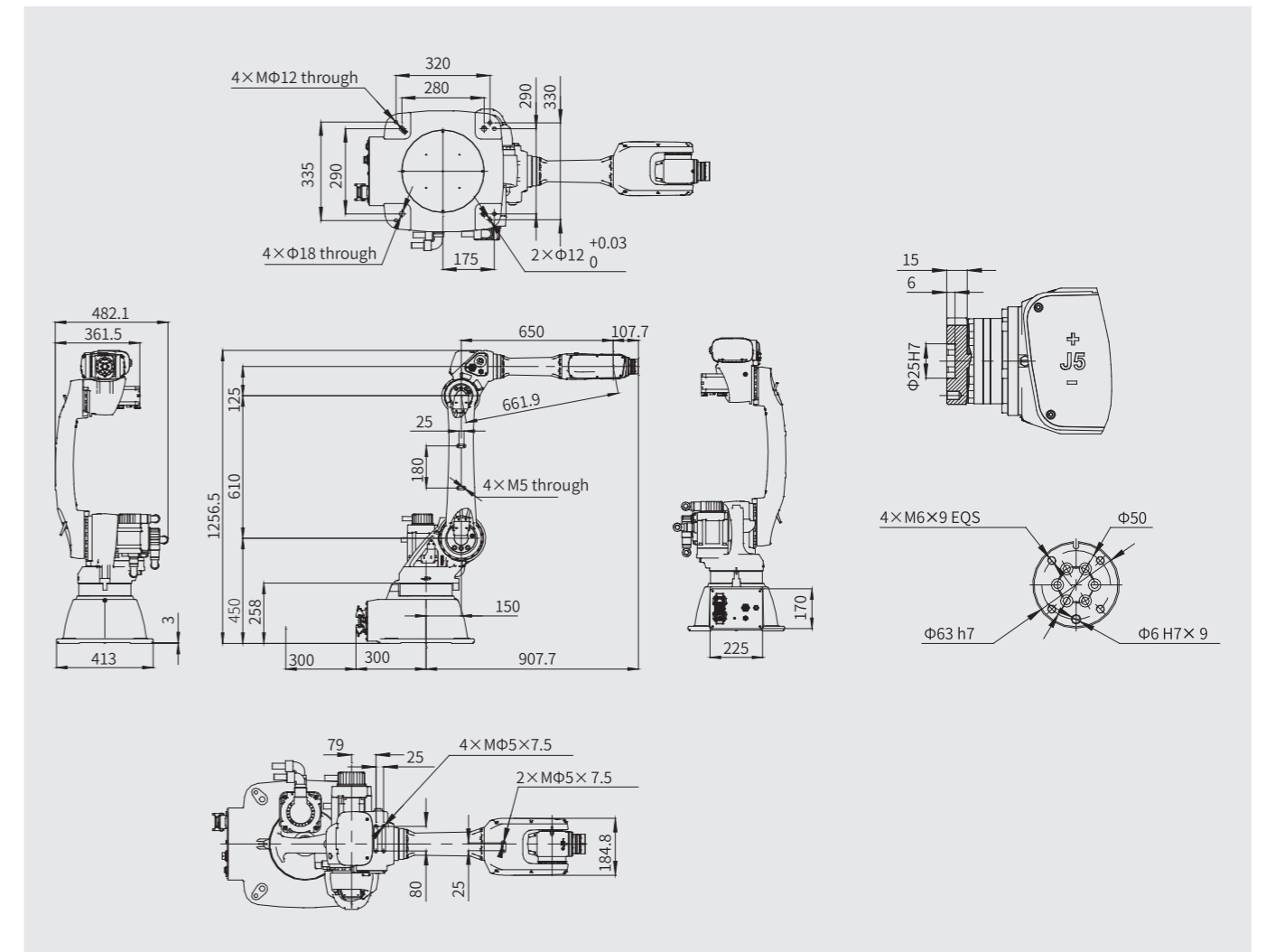
Load	10 kg
Arm length	1422 mm
Repeatability	±0.05 mm
IP rating	IP65 (IP67 for wrist)



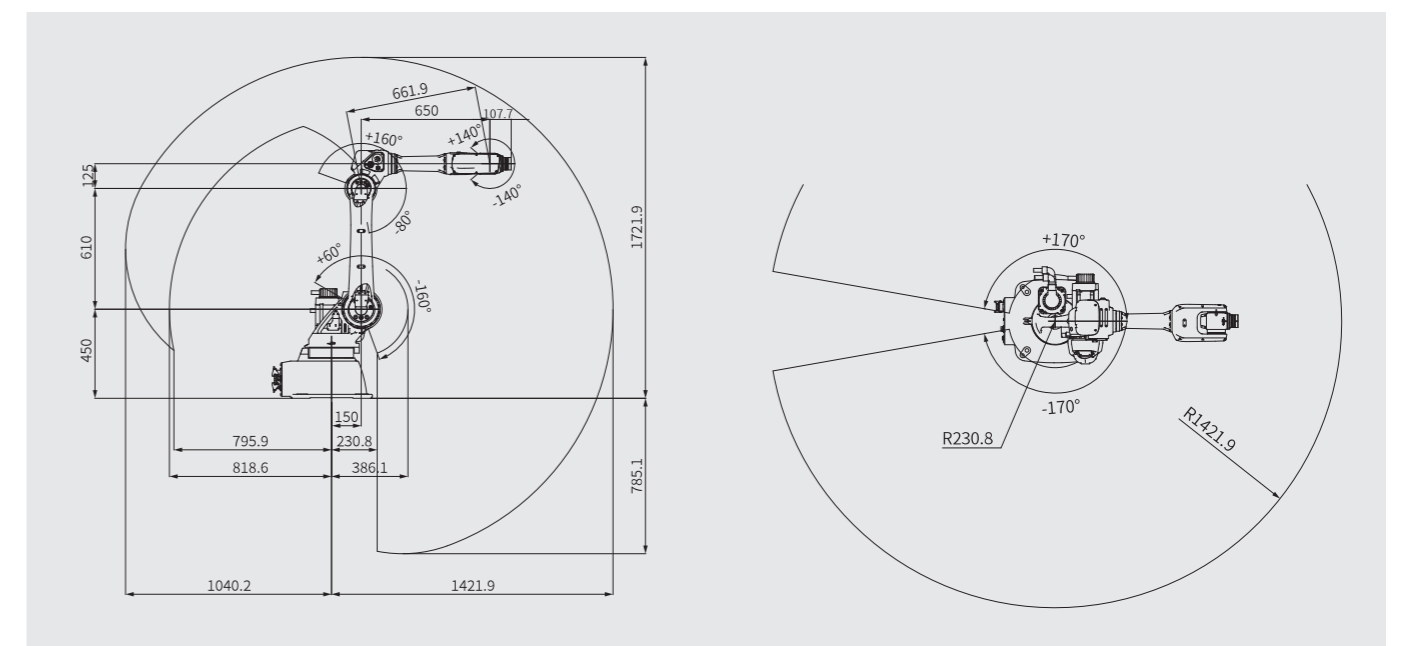
### Technical Data

Model		IR-R10-140S-INT
Structural style		Vertical axis cascading structure
Number of Axes		6 axes
Maximum reach (mm)		1422
Repeatability (mm)		±0.05
Maximum Load (kg)		10
IP rating		Body: IP65Wrist: IP67
Max.Speed	J1 (°/s)	200
	J2 (°/s)	200
	J3 (°/s)	200
	J4 (°/s)	375
	J5 (°/s)	375
	J6 (°/s)	600
Maxi-mummotion range	J1 (°)	±170
	J2 (°)	-160~+60
	J3 (°)	-80~+160
	J4 (°)	±180
	J5 (°)	±140
	J6 (°)	±360
Allowed wrist torque	J4 (N·m)	22
	J5 (N·m)	22
	J6 (N·m)	9.8
Allowed wrist inertia	J4 (N·m)	0.63
	J5 (N·m)	0.63
	J6 (N·m)	0.2
Customer connections	Wiring	18 signal lines 30V 0.5A
	Air	Φ8 mm × 1, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45
	Relative humidity	10% to 80% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5
Shipment Conditions	Ambient temperature(°C)	0~45
	Relative humidity	≤ 80% RH,non-condensing
	Ambient temperature(°C)	-10~55
Storage Conditions	Ambient temperature(°C)	-10~55
	Relative humidity	≤ 80% RH,non-condensing
Cable		Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)
Weight		130kg
Controller		IRCB501-6ND-INT
Mounting mode		Floor mounted
Certification		Kcs, KC, CE, cSGSus, FCC, Safety Function

### Mounting Dimensions(mm)



### Motion Range(mm)



# 6-Axis Robot

## IR-R25 Series

The maximum load is increased to 25 kg, the structure is compact, the bearing capacity is strong, High repetition accuracy, easy to use and high reliability.

### Scope of Application

It can be applied to handling, assembly, loading and unloading, grinding and polishing, and stamping automation in general industry, and other applications.

### Features

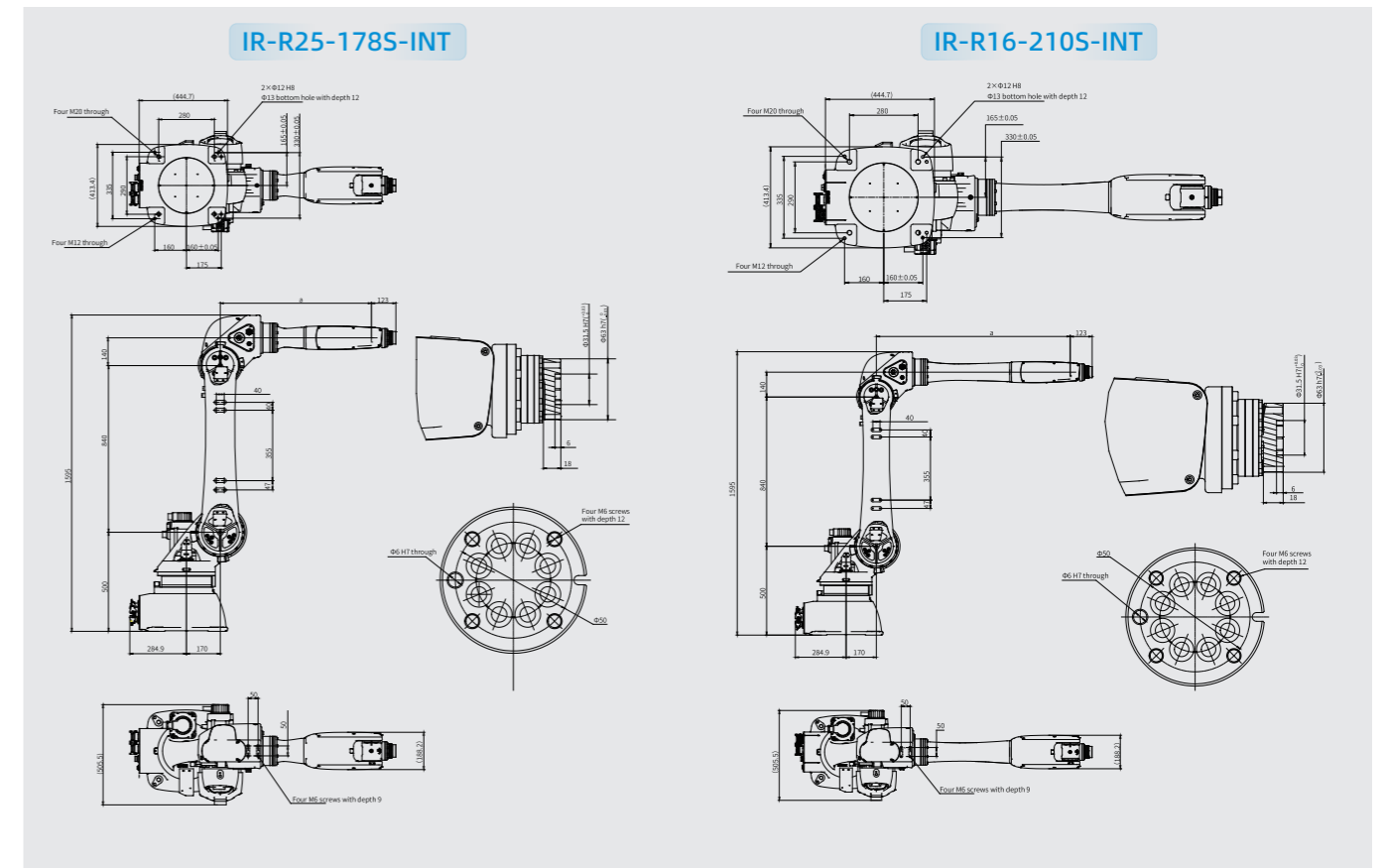
Load	16kg/25kg
Arm length	2107mm/1783mm
Repeatability	±0.03mm
IP rating	IP65 (IP67 for wrist)



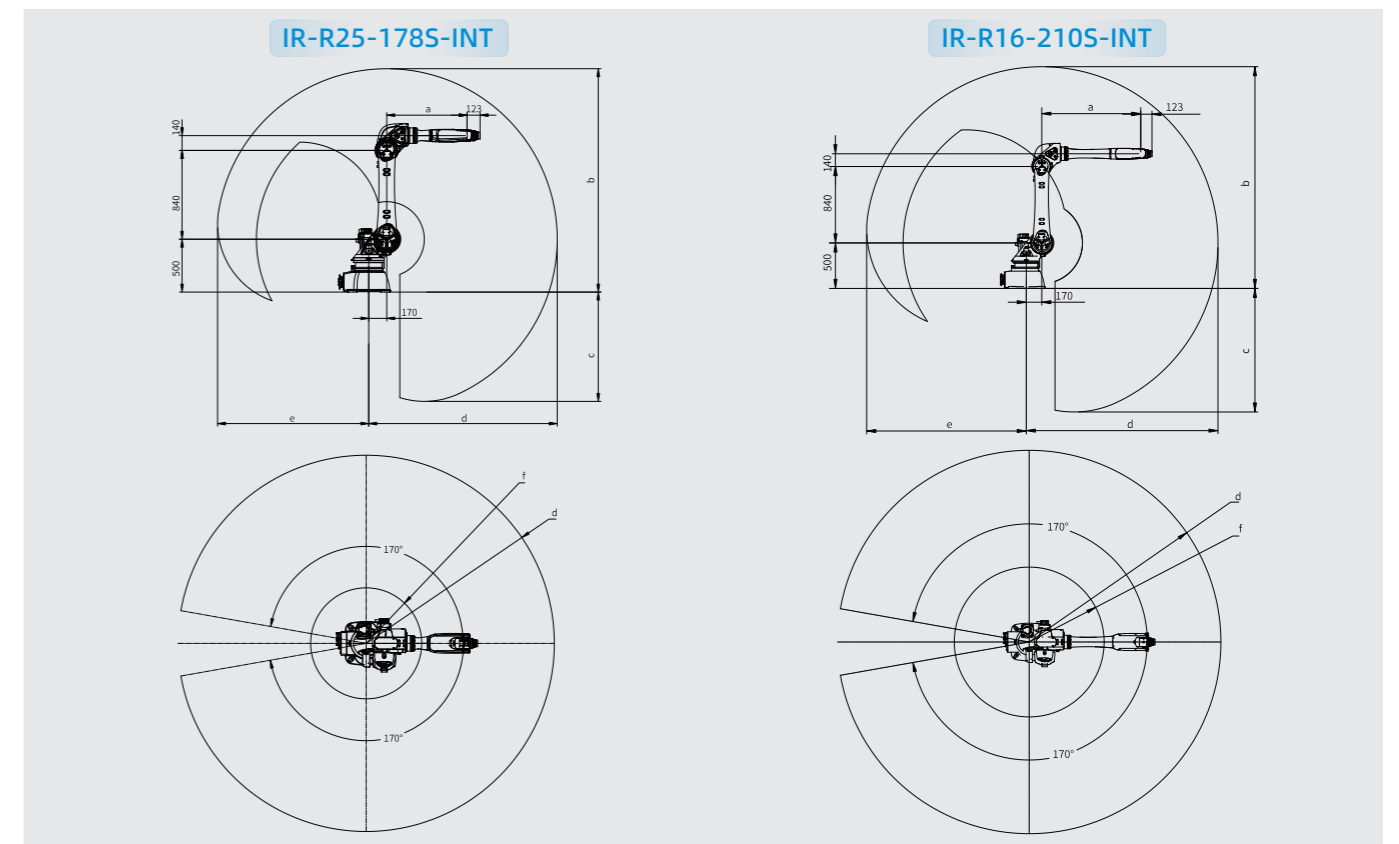
### Technical Data

Model	IR-R16-210S-INT	IR-R25-178S-INT	
Structural style	Vertical axis cascading structure	Vertical axis cascading structure	
Number of Axes	6 axes	6 axes	
Maximum reach (mm)	2107	1783	
Repeatability (mm)	±0.03	±0.03	
Maximum Load (kg)	16	25	
IP rating	Body: IP65	Body: IP65	
Max.Speed	J1 (°/s)	190	190
	J2 (°/s)	175	175
	J3 (°/s)	200	200
	J4 (°/s)	400	400
	J5 (°/s)	360	360
	J6 (°/s)	610	610
Maxi-mummotion range	J1 (°)	±170	±170
	J2 (°)	-155~+80	-155~+80
	J3 (°)	-75~+160	-75~+160
	J4 (°)	±180	±180
	J5 (°)	±140	±140
	J6 (°)	±360	±360
Allowed wrist torque	J4 (N·m)	25	50
	J5 (N·m)	25	50
	J6 (N·m)	12	30
Allowed wrist inertia	J4 (N·m)	0.78	2.2
	J5 (N·m)	0.78	2.2
	J6 (N·m)	0.3	1.5
Customer connections	Wiring	18 signal lines 30V 0.5A	18 signal lines 30V 0.5A
	Air	Φ8 mm × 1, 0.59 Mpa	Φ8 mm × 1, 0.59 Mpa
Operating conditions	Ambient temperature(°C)	0~45	0~45
	Relative humidity	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)
	Maximum Temperature Gradient(°C/min)	1.5	1.5
Shipment Conditions	Ambient temperature(°C)	0~45	0~45
	Relative humidity	≤ 95% RH, non-condensing	≤ 95% RH, non-condensing
Storage Conditions	Ambient temperature(°C)	-10~55	-10~55
	Relative humidity	≤ 95% RH, non-condensing	≤ 95% RH, non-condensing
Cable	Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)		
Weight	260kg	255kg	
Controller	IRCB501-6ND-INT	IRCB501-6ND-INT	
Mounting mode	Floor mounted	Floor mounted	
Certification	Kcs, KC, CE, cSGSus, FCC, Safety Function		

### Mounting Dimensions(mm)



### Motion Range(mm)



# SCARA Robot

## IR-S4 Series

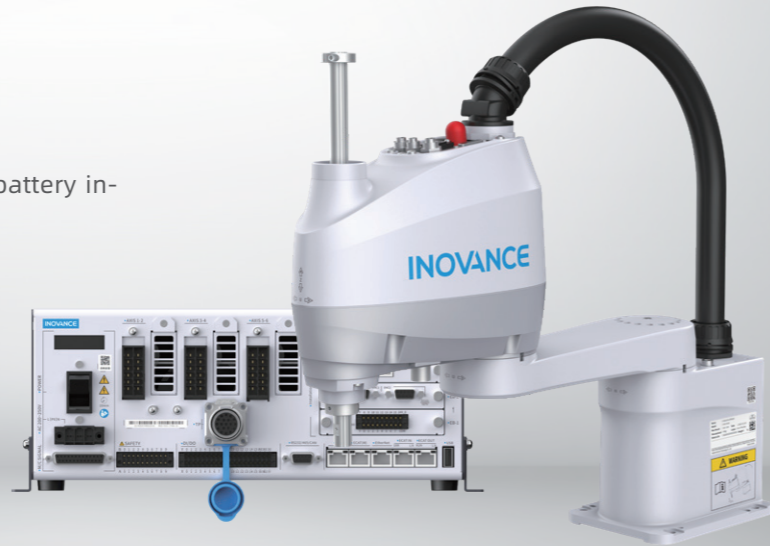
Robots with enhanced load capacity and multiple arm length options, suitable for large load applications in various industries.

### Scope of Application

Assembly and dispensing in 3C industry, lithium battery industry, photovoltaic industry, and display industry.

### Features

Load	4 kg
Arm length	400 mm
Efficiency	0.342s
Repeatability	±0.01 mm



### Technical Data

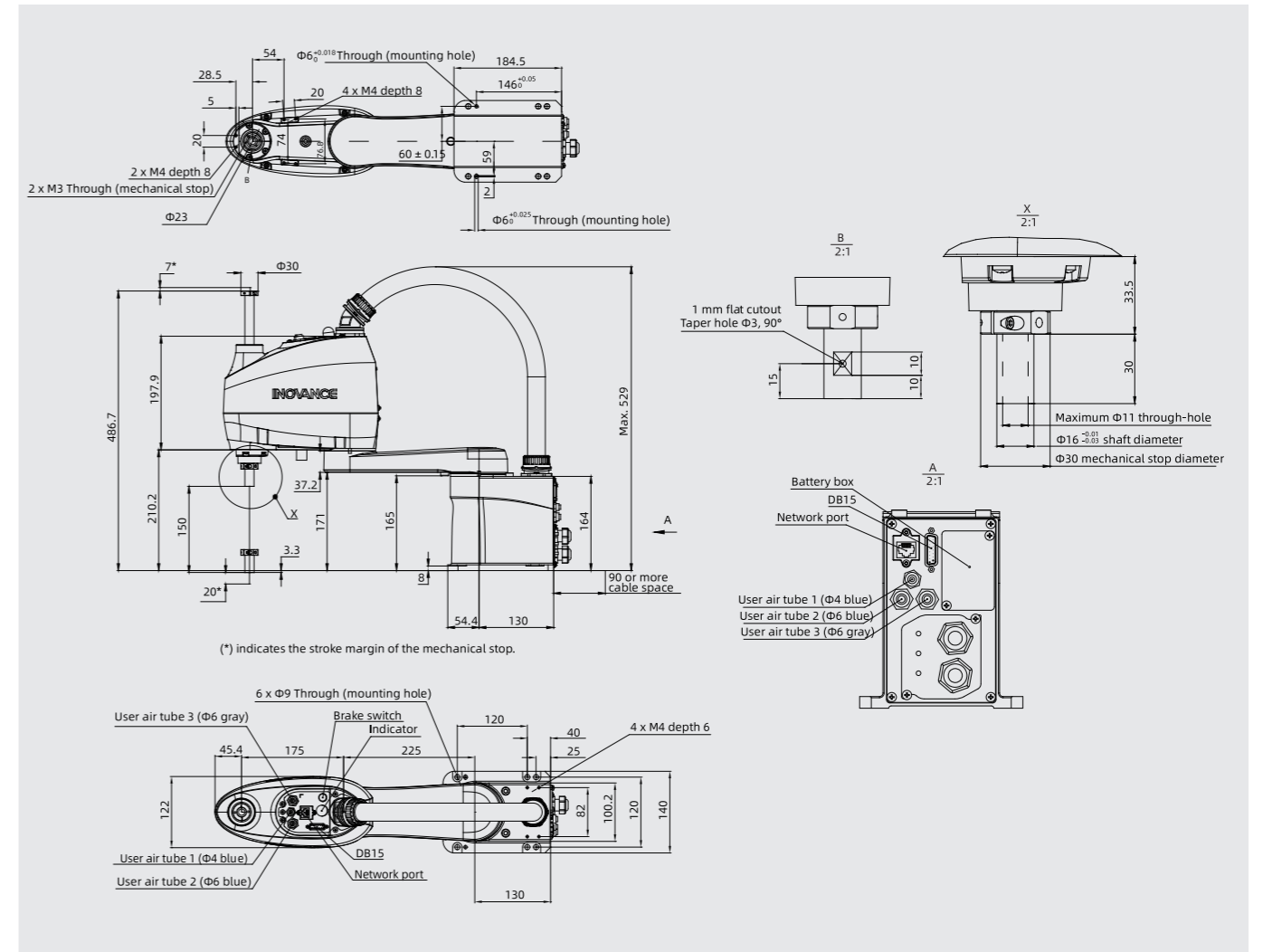
Model		IR-S4-40Z15S-INT
Arm length	J1+J2(mm)	400
	J1(mm)	225
	J2(mm)	175
Maximum speed	J1+J2(mm/s)	7200
	J3(mm/s)	1300
	J4(°/s)	2600
	J1+J2(mm)	±0.01
Repeatability	J3(mm)	±0.01
	J4(°)	±0.01
	Rated(kg)	2
Load	Maximum(kg)	4
	Rated(kg·m <sup>2</sup> )	0.005
Permissible moment inertia of J4	Rated(kg·m <sup>2</sup> )	0.005
	Maximum(kg·m <sup>2</sup> )	0.05
Mounting base dimensions(mm)		120x120(4-Φ9)
Cable		Stand: 3m Optional: 5m/10m/15m/High Flexible (3m/5m/10m/15m)
Weight(excluding cables)		12kg
Press-in force of J3		100N
Customer signal line		15 signal lines 30V 0.5A CAT5E
Customer air piping		Φ6 mm × 2, 0.59 Mpa Φ4 mm × 1, 0.59 Mpa
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)
	Relative humidity	10~80%
Shipment Conditions	Ambient temperature	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing
Storage Conditions	Ambient temperature	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing
Noise level <sup>[2]</sup>		Laeq=70dB(A)
Maximum motion range	J1(°)	±132
	J2(°)	±141
	J3(mm)	150
	J4(°)	±360
Standard cycle time(s) <sup>[3]</sup>		0.342
Controller		IRCB501-4AD-INT
Certification		KCs, KC, CE, cSGSus, FCC, Safety Function, Optional: Cleanliness Class 4

[1] If this product is used in a low temperature environment close to the lowest temperature of the product specification, or if it is suspended for a long time due to holidays and nights, it is recommended to warm up for 10 minutes before running

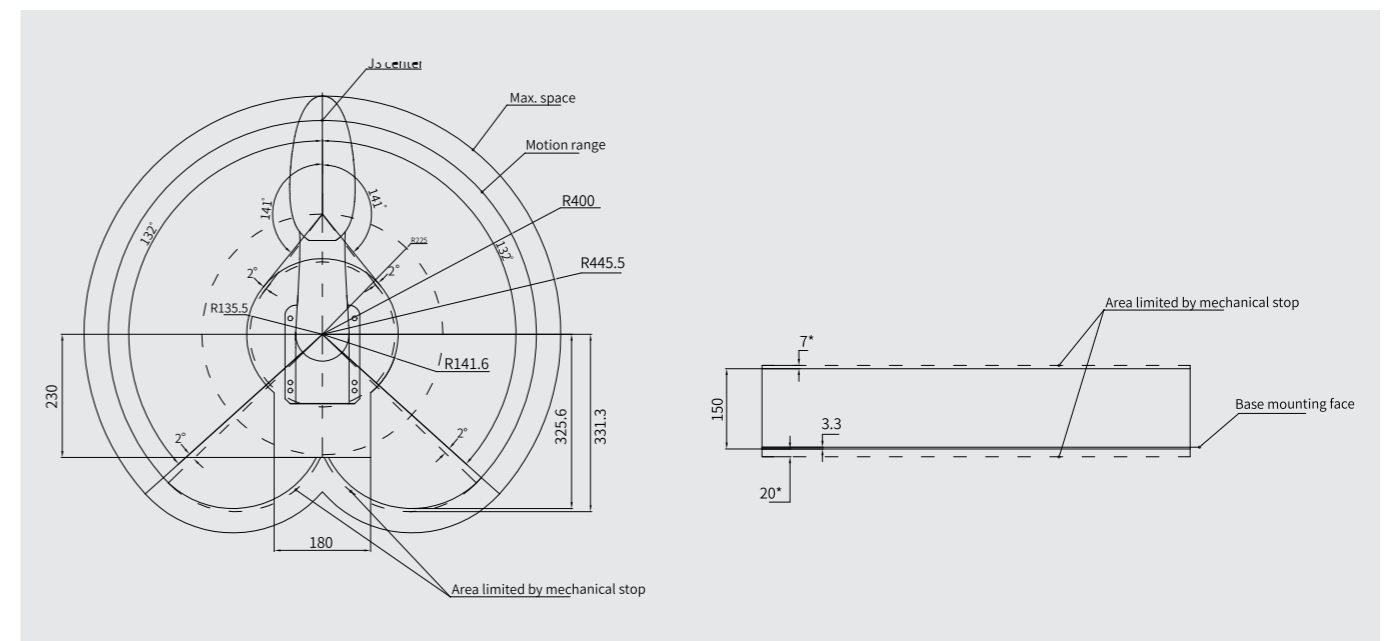
[2] Noise test conditions: 4 joint linkage, 100% speed and acceleration, duty cycle 50%, measurement position: the front of the robot, 1000mm away from the action area, and more than 50mm from the base mounting surface.

[3] Standard cycle time for 3kg/4kg SCARA: 1kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)

## Mounting Dimensions(mm)



## Motion Range(mm)





# SCARA Robot

## IR-S10 Series

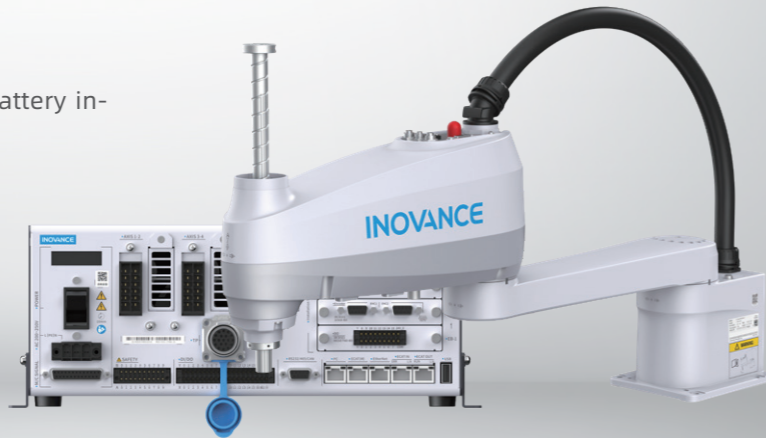
Robots with enhanced load capacity and multiple arm length options, suitable for large load applications in various industries.

### Scope of Application

Assembly and dispensing in 3C industry, lithium battery industry, photovoltaic industry, and display industry.

### Features

Load	10 kg
Arm length	600 mm / 700 mm / 800 mm
Cycle time	0.361s/0.386s/0.416s
Repeatability	J1 and J2: ±0.02 mm to 0.025 mm J3: 0.01 mm; J4: ±0.01°



### Technical Data

Model	IR-S10-60Z20S-INT	IR-S10-70Z20S-INT	IR-S10-80Z20S-INT	
Arm length	J1+J2(mm)	600	700	800
	J1(mm)	225	325	425
	J2(mm)	375	375	375
Maximum speed	J1+J2(mm/s)	9100	9800	10500
	J3(mm/s)	1600	1600	1600
	J4(°/s)	2700	2700	2700
Repeatability	J1+J2(mm)	±0.02	±0.02	±0.025
	J3(mm)	±0.01	±0.01	±0.01
	J4(°)	±0.01	±0.01	±0.01
Load	Rated(kg)	5	5	5
	Maximum(kg)	10	10	10
Permissible moment inertia of J4	Rated(kg·m <sup>2</sup> )	0.02	0.02	0.02
	Maximum(kg·m <sup>2</sup> )	0.3	0.3	0.3
Mounting base dimensions(mm)	150×150(4-Φ9)	150×150(4-Φ9)	150×150(4-Φ9)	
Cable	Stand: 3m Optional: 5m/10m/15m/High Flexible (3m/5m/10m/15m)			
Weight(excluding cables)	18.5kg	19kg	20.5kg	
Press-in force of J3	200N	200N	200N	
Customer signal line	15 signal lines 30V 0.5A			
	CAT5E			
Customer air piping	Φ6 mm × 2, 0.59 Mpa			
	Φ4 mm × 1, 0.59 Mpa			
Operating conditions	Ambient temperature <sup>[1]</sup> 5~40° C (no excessive temperature changes)			
	Relative humidity 10~80%			
Shipment Conditions	Ambient temperature -10°C ~55°C			
	Relative humidity ≤ 80% RH, non-condensing			
Storage Conditions	Ambient temperature -10°C ~55°C			
	Relative humidity ≤ 80% RH, non-condensing			
Noise level <sup>[2]</sup>	L <sub>aeq</sub> =70dB(A)			
Maximum motion range	J1(°)	±132	±132	±132
	J2(°)	±150	±150	±150
	J3(mm)	200	200	200
	J4(°)	±360	±360	±360
Standard cycle time(s) <sup>[3]</sup>	0.361	0.386	0.416	
Controller	IRCB501-4CD-INT			
Certification	KCs, KC, CE, CSGSus, FCC, Safety Function, Optional: Cleanliness Class 4			

[1] When used in a low-temperature environment approximating the lowest allowable temperature, or when idle for a long period of time due to holi days and nighttime, it is recommended to warm up the product for 10 minutes before operating it.

[2] Measured in front of the robot at a distance of 1000 mm from its operating area and at least 50 mm above the base mounting surface with four joints operating at 100% speed and acceleration, with a duty cycle of 50%.

[3] Time required for a 7 kg/10 kg SCARA robot to move a 2 kg payload between two points 300 mm apart at a height of 25 mm.

## Mounting Dimensions(mm)

**Motion range of IR-S10 series robots with different arm lengths**

Model	IR-S10-60Z20S-INT	IR-S10-70Z20S-INT	IR-S10-80Z20S-INT
a: Length of arm 1 + arm 2 (mm)	600	700	800
b: Length of arm 1 (mm)	225	325	425
c: Maximum motion range (mm)	653	753	853
d: Motion range of J1 (°)	132		
e: Motion range of J2 (°)	150		
f: Motion range (mm)	212.4	187.5	212.6
g: Rear motion range (mm)	525.6	592.5	659.4
h: Angle of mechanical stop position of J1 (°)	1		
i: Angle of mechanical stop position of J2 (°)	1	3	4
j: Range of mechanical stop position (mm)	208.9	170.5	186
k: Range of rear mechanical stop position (mm)	528.5	596.7	664.9
m: Motion range (mm)	420	330	320
n: Motion range (mm)	300		

**Parameters of IR-S10 series robots with different arm lengths**

Model	IR-S10-60Z20S-INT	IR-S10-70Z20S-INT	IR-S10-80Z20S-INT
α	225	325	425
β	545	569	599

## Motion Range(mm)

# SCARA Robot

## IR-S25 Series

With a payload capacity of 25kg and arm lengths of 800, 1000, and 1200mm available, it offers high efficiency, strong rigidity, and good reliability, meeting the demands of high-load application scenarios across various industries.

### Scope of Application

Picking and placing, handling, assembly and etc.

### Features

Load	25kg
Arm length	800 mm/1000 mm/1200 mm
Efficiency	0.33s/0.35s/0.40s
Repeatability	J1 and J2: ±0.05 mm to ±0.08 mm J3: ±0.01 mm; J4: ±0.01°



### Technical Data

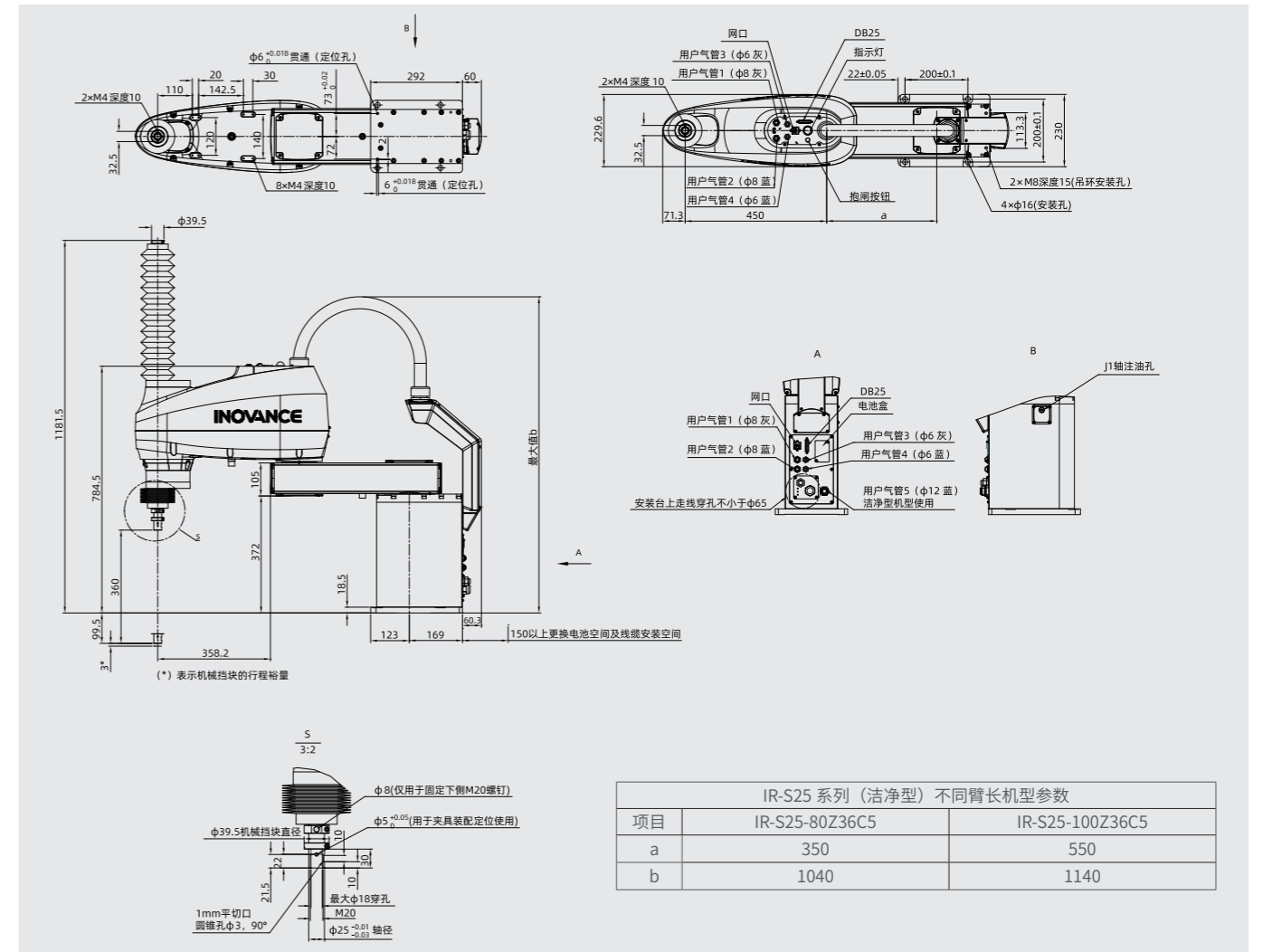
Model	IR-S25-80Z42S-INT	IR-S25-100Z42S-INT	IR-S25-120Z42S-INT	
Arm length	J1+J2(mm)	800	1000	1200
	J1(mm)	350	550	750
	J2(mm)	450	450	450
Maximum speed	J1+J2(mm/s)	8100	9400	9400
	J3(mm/s)	2100	2100	1200
	J4(°/s)	705	705	705
	J1+J2(mm)	±0.05	±0.05	±0.08
Repeatability	J3(mm)	±0.01	±0.01	±0.01
	J4(°)	±0.01	±0.01	±0.01
	Rated(kg)	10	10	10
Load	Maximum(kg)	25	25	25
	Rated(kg·m <sup>2</sup> )	0.5	0.5	0.5
Permissible moment inertia of J4	Maximum(kg·m <sup>2</sup> )	1.2	1.2	1.2
	Mounting base dimensions(mm)	200×200(4-Φ16)	200×200(4-Φ16)	200×200(4-Φ16)
Cable	Stand: 5m Optional: 3m/10m/15m/High Flexible (3m/5m/10m/15m)			
Weight(excluding cables)	68.5kg	72.5kg	78kg	
Press-in force of J3	250N	250N	250N	
Customer signal line	25 signal lines 30V 0.5A	25 signal lines 30V 0.5A	25 signal lines 30V 0.5A	
	CAT5E	CAT5E	CAT5E	
Customer air piping	Φ6 mm × 2, 0.59 Mpa	Φ6 mm × 2, 0.59 Mpa	Φ6 mm × 2, 0.59 Mpa	
	Φ8 mm × 2, 0.59 Mpa	Φ8 mm × 2, 0.59 Mpa	Φ8 mm × 2, 0.59 Mpa	
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)		
	Relative humidity	10~80%	10~80%	10~80%
Shipment Conditions	Ambient temperature	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing	≤ 80% RH, non-condensing	≤ 80% RH, non-condensing
Storage Conditions	Ambient temperature	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing	≤ 80% RH, non-condensing	≤ 80% RH, non-condensing
Noise level <sup>[2]</sup>	LAeq ≤ 80dB(A)			
Maximum motion range	J1(°)	±139	±139	±139
	J2(°)	±151	±151	±151
	J3(mm)	420	420	420
	J4(°)	±360	±360	±360
Standard cycle time(s) <sup>[3]</sup>	0.33	0.35	0.4	
Controller	IRCB501-4ED-INT			
Certification	KCs, KC, CE, CSGSUS, FCC, Safety Function, Optional: Cleanliness Class 4			

[1] When used in a low-temperature environment approximating the lowest allowable temperature, or when idle for a long period of time due to holi days and nighttime, it is recommended to warm up the product for 10 minutes before operating it.

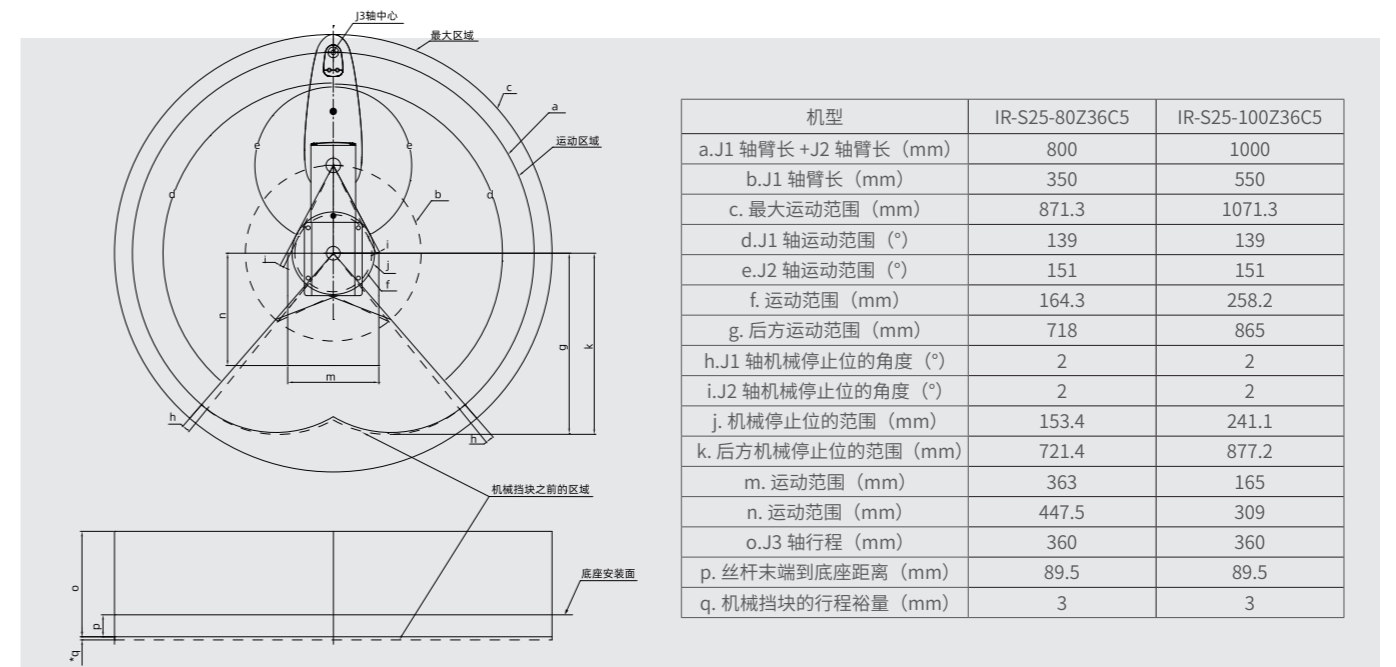
[2] Measured in front of the robot at a distance of 1000 mm from its operating area and at least 50 mm above the base mounting surface with four joints operating at 100% speed and acceleration, with a duty cycle of 50%.

[3] Time required for a 7 kg/10 kg SCARA robot to move a 2 kg payload between two points 300 mm apart at a height of 25 mm.

### Mounting Dimensions(mm)



### Motion Range(mm)



# SCARA Robot

## IR-S35 Series

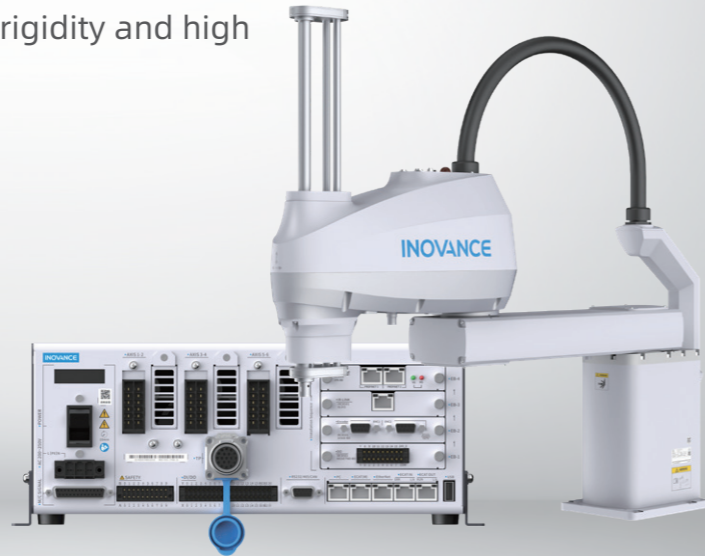
The special machine for the lithium battery industry has the characteristics of high inertia, strong rigidity and high precision

### Scope of Application

Lithium battery

### Features

Load	35kg
Arm length	800mm/1000mm/1200mm
Cycle time	0.31s/0.33s/0.42s
Repeatability	J1, J2: ±0.05mm to ±0.08mm, J3: ±0.01mm, J4: ±0.01°

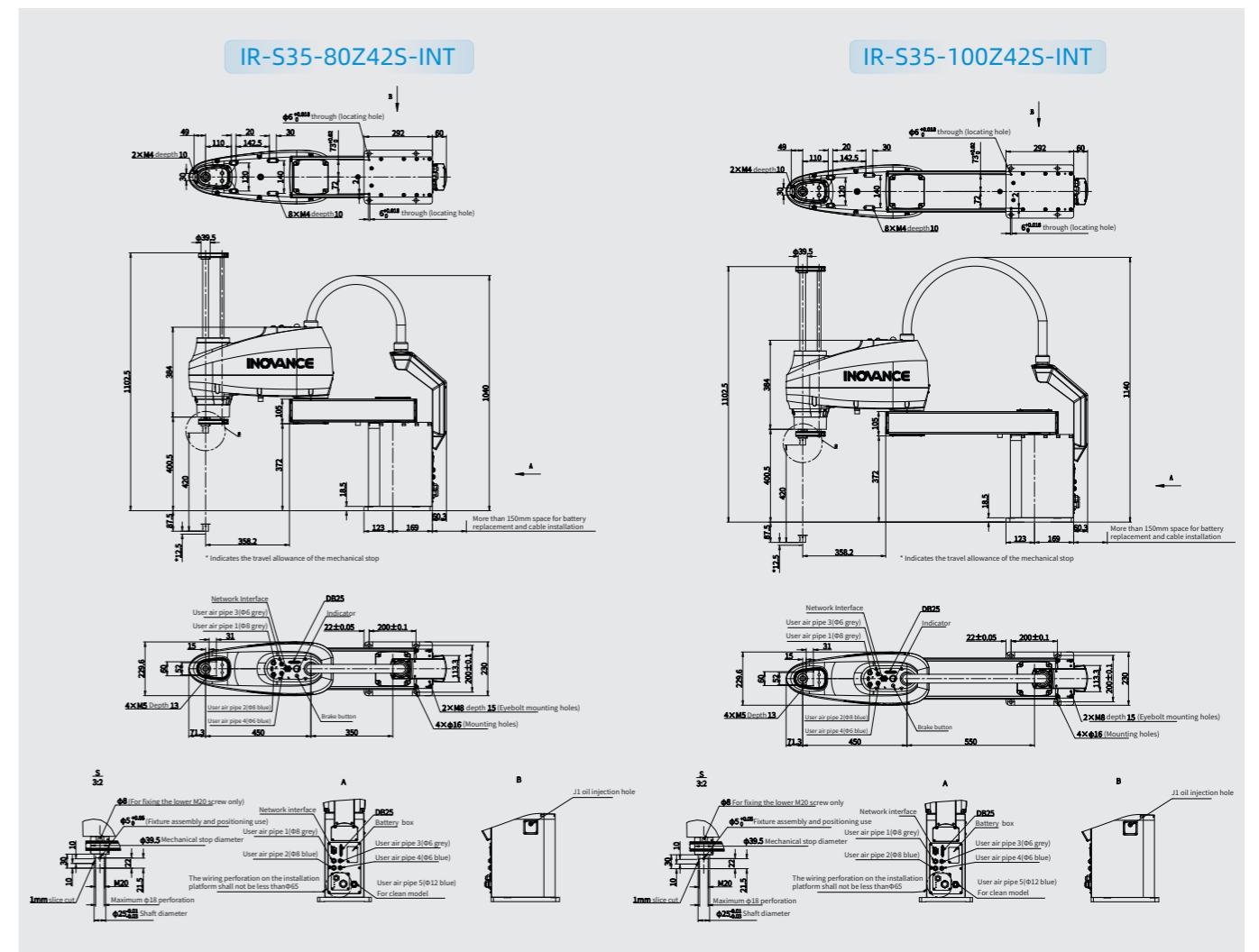


### Technical Data

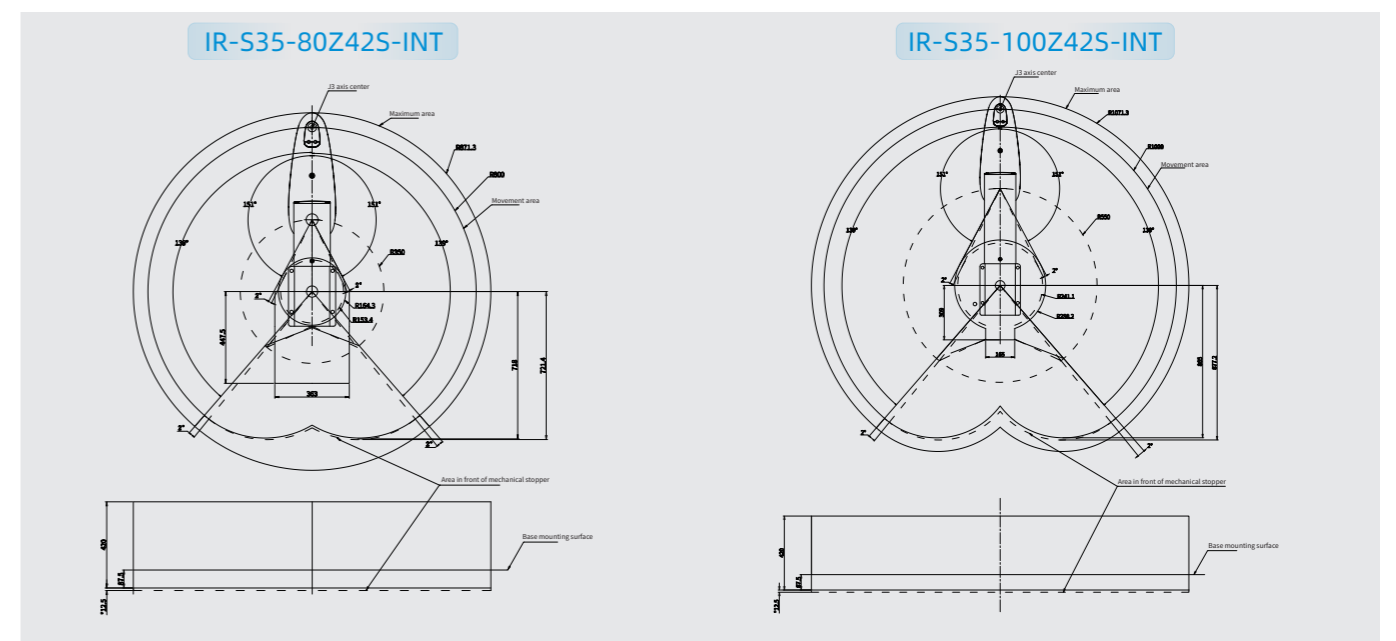
Model		IR-S35-80Z42S-INT	IR-S35-100Z42S-INT	IR-S35-120Z42S-INT
Arm length	J1+J2(mm)	800	1000	1200
	J1(mm)	350	550	750
	J2(mm)	450	450	450
Maximum speed	J1+J2(mm/s)	8100	9400	9400
	J3(mm/s)	2100	2100	1200
	J4(°/s)	705	705	705
	J1+J2(mm)	±0.05	±0.05	±0.08
Repeatability	J3(mm)	±0.01	±0.01	±0.01
	J4(°)	±0.01	±0.01	±0.01
	Rated(kg)	20	20	20
Load	Maximum(kg)	35	35	35
	Rated(kg·m <sup>2</sup> )	0.6	0.6	0.6
Permissible moment inertia of J4	Maximum(kg·m <sup>2</sup> )	1.2	1.2	1.2
	Mounting base dimensions(mm)	200×200(4-Φ16)	200×200(4-Φ16)	200×200(4-Φ16)
Cable		Stand: 5m Optional: 3m/10m/15m/High Flexible (3m/5m/10m/15m)		
Weight(excluding cables)		70.5kg	74.5kg	80.5kg
Press-in force of J3		250N	250N	250N
Customer signal line		25 signal lines 30V 0.5A		
		CAT5E		
Customer air piping		Φ6 mm × 2, 0.59 Mpa		
		Φ8 mm × 2, 0.59 Mpa		
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)		
	Relative humidity	10~80%		
Shipment Conditions	Ambient temperature	-10°C ~55°C		
	Relative humidity	≤ 80% RH, non-condensing		
Storage Conditions	Ambient temperature	-10°C ~55°C		
	Relative humidity	≤ 80% RH, non-condensing		
Noise level <sup>[2]</sup>		LAeq ≤ 80dB(A)		
Maximum motion range	J1(°)	±139	±139	±139
	J2(°)	±151	±151	±151
	J3(mm)	420	420	420
	J4(°)	±360	±360	±360
Standard cycle time(s) <sup>[3]</sup>		0.31	0.33	0.42
Controller		IRCB501-4ED-INT		
Certification		KCs, KC, CE, CSGSUS, FCC, Safety Function, Optional: Cleanliness Class 4		

[1] If this product is used in a low temperature environment close to the lowest temperature of the product specification, or if it is suspended for a long time due to holidays and nights, it is recommended to warm up for 10 minutes before running.  
 [2] Noise test conditions: 4 joint linkage, 100% speed and acceleration, duty cycle 50%, measurement position: the front of the robot, 1000mm away from the action area, and more than 50mm from the base mounting surface.  
 [3] Standard cycle time for 20kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)

## Mounting Dimensions(mm)



## Motion Range(mm)



# SCARA Robot

## IR-S60 Series

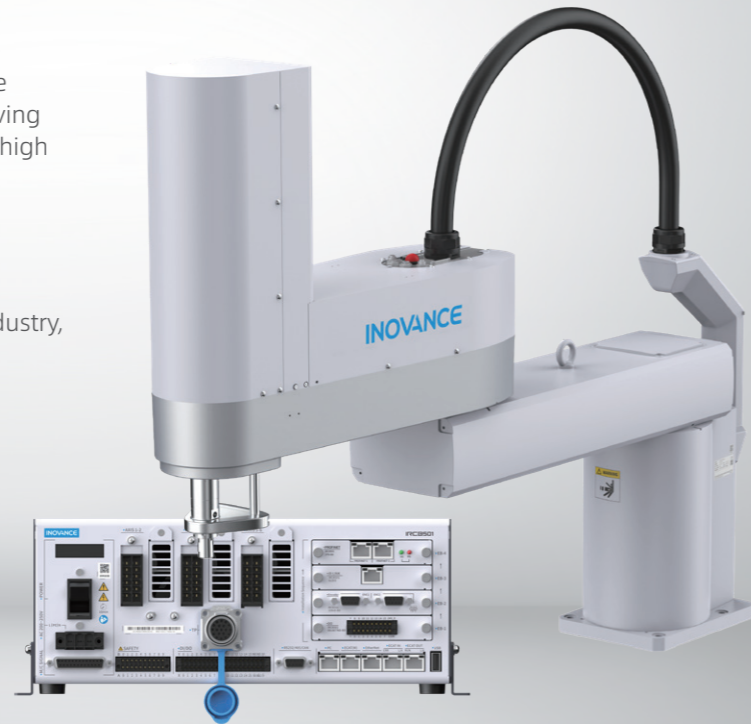
The payload capacity can reach 60kg, larger than the same specifications in the industry. The cycle time is 0.84s, achieving top-tier speed in the industry, with features of high speed, high precision, and high rigidity.

### Scope of Application

Widely used in lithium battery manufacturing, general industry, and other handling and assembly scenarios.

### Product features

Load	60 kg
Arm length	1200 mm
Efficiency	0.84s
Repeatability	J1 and J2: ±0.05 mm J3: ±0.02 mm; J4: ±0.005°

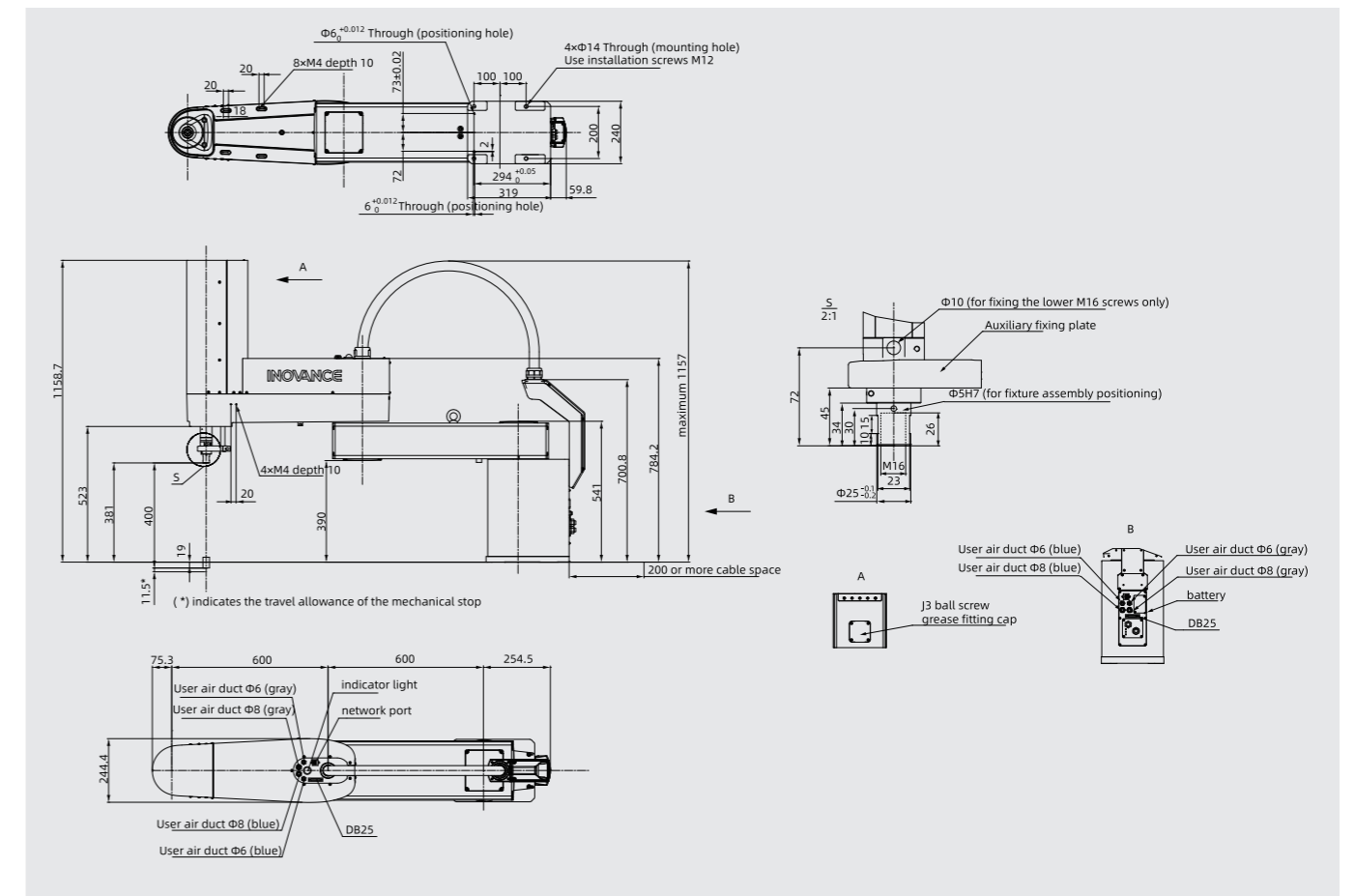


### Technical Data

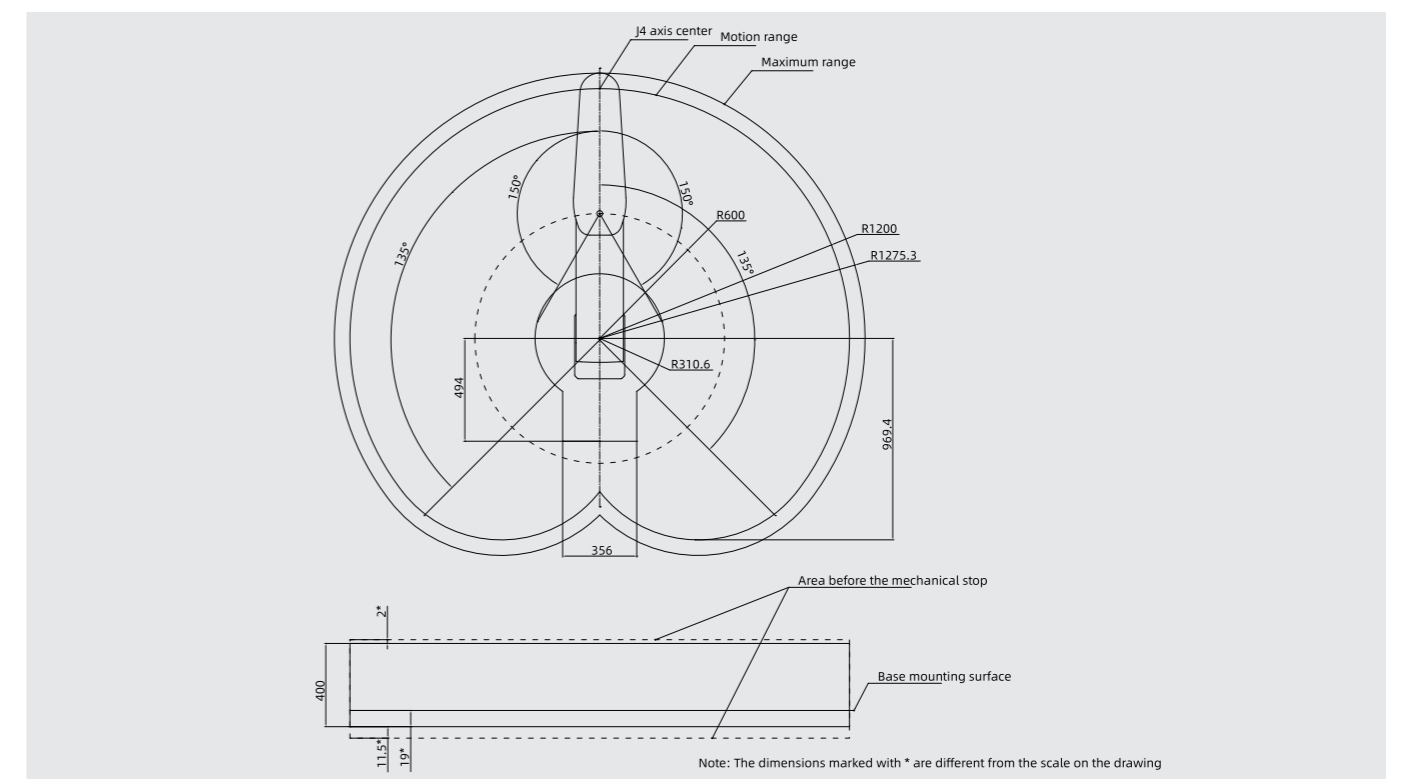
Model		IR-S60-120Z40S-INT
Arm length	J1+J2(mm)	1200
	J1(mm)	600
	J2(mm)	600
Maximum speed	J1+J2(mm/s)	7400
	J3(mm/s)	1500
	J4(°/s)	600
	J1+J2(mm)	±0.05
Repeatability	J3(mm)	±0.02
	J4(°)	±0.005
	Rated(kg)	30
Load	Maximum(kg)	60
	Rated(kg·m <sup>2</sup> )	1.2
Permissible moment inertia of J4	Rated(kg·m <sup>2</sup> )	1.2
	Maximum(kg·m <sup>2</sup> )	2.45
Mounting base dimensions(mm)		200×200(4-Φ14)
Cable		Stand: 5m Optional: 3m/10m/15m/High Flexible (3m/5m/10m/15m)
Weight(excluding cables)		136kg
Press-in force of J3		450N
Customer signal line		25 signal lines 30V 0.5A CAT5E
Customer air piping		Φ6 mm × 2, 0.59 Mpa Φ8 mm × 2, 0.59 Mpa
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)
	Relative humidity	10~80%
Shipment Conditions	Ambient temperature	-10° C ~55° C
	Relative humidity	≤ 80% RH, non-condensing
Storage Conditions	Ambient temperature	-10° C ~55° C
	Relative humidity	≤ 80% RH, non-condensing
Noise level <sup>[2]</sup>		LAeq ≤ 80dB(A)
Maximum motion range	J1(°)	±135
	J2(°)	±150
	J3(mm)	400
	J4(°)	±360
Standard cycle time(s) <sup>[3]</sup>		0.84
Controller		IRCB501-4ED-INT
Certification		CE, cSGSUS, FCC, Safety Function

[1] If this product is used in a low temperature environment close to the lowest temperature of the product specification, or if it is suspended for a long time due to holidays and nights, it is recommended to warm up for 10 minutes before running  
 [2] Noise test conditions: 4 joint linkage, 100% speed and acceleration, duty cycle 50%, measurement position: the front of the robot, 1000mm away from the action area, and more than 50mm from the base mounting surface.  
 [3] Standard cycle time for 60kg SCARA : 5kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)

### Mounting Dimensions(mm)



### Motion Range(mm)









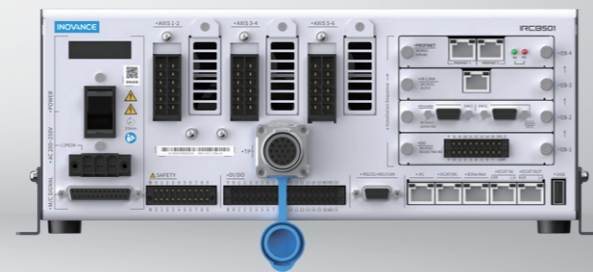
# Robot Controller

## IRCB501 Series

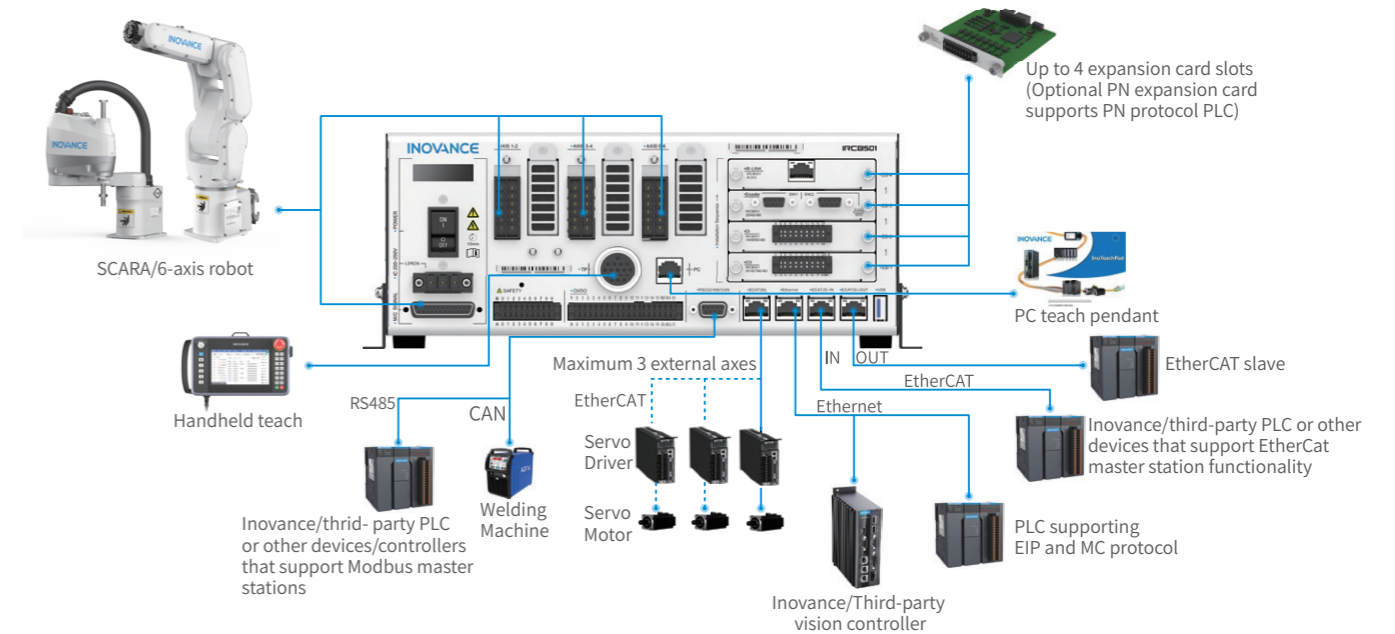
Robot controllers featuring delicate structure, abundant functions, easy installation, and easy extension to meet the market demands for compact structure, flexible production and productivity boost in 3C industry.

### Applicable Robots

SCARA Robot	IR-S4/7/10 Series	●
	IR-S25 Series	●
	IR-S35 Series	●
	IR-S60 Series	●
6-Axis Robot	IR-TS4/5 Series	●
	IR-R7H Series	●
	IR-R4/R4H Series	●
	IR-R11 Series	●
	IR-R15H Series	●

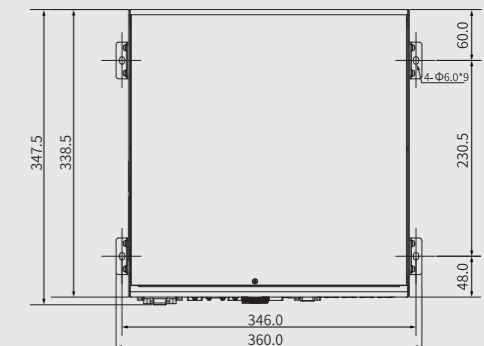
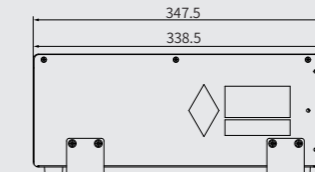
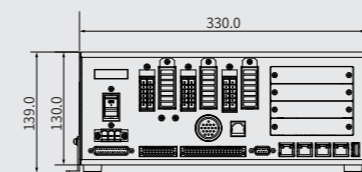


## System Topology

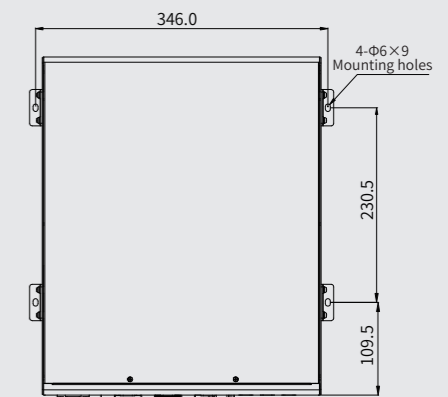
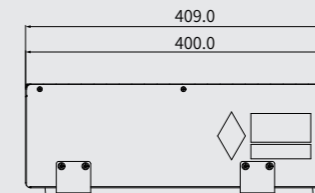
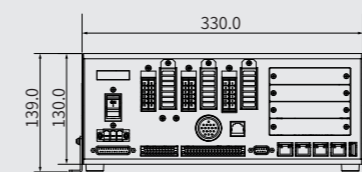


## Mounting Dimensions(mm)

### Standard



### High-Power



### Technical Data

Mounting mode	Vertical mounting, horizontal mounting, 19" rack mounting	
Standard I/Os	16 inputs and 16 NPN outputs (extendable)	
Communication interfaces	Ethernet interface: Used for TCP/IP, Modbus TCP, Ethernet/IP, MC communication	
	EtherCAT-IN interface: EtherCAT slave -IN interface	
	EtherCAT-OUT interface: EtherCAT master -OUT interface	
	EtherCAT interface: Used for extension of external axes	
	RS232/RS485 interface: Used for serial and Modbus RTU communication (RS485 only)	
	USB2.0 interface: Used for backup/upload programs and export robot status information	
Control mode	Optional interface: Profinet slave , CC-LINK slave	
	PC programming platform control, teach pendant control, remote I/O control, remote Modbus control, and API control	
Power supply	Input voltage: Single-phase 200 VAC to 240 VAC, 10A/20A, 50 Hz to 60 Hz	
	Max. power consumption: 3.1 kW (depending on the robot model)	
IP rating	IP20	
Operating conditions	Temperature: 5° C to 40° C ; Relative humidity: 20% to 95% RH@30° C (non-condensing)	
Dimensions	Standard	High- Power
	330mm×338.5mm×130mm	330mm×400mm×130mm
Weight	8kg	10kg
Applicable Robots	SCARA: IR-S4/7/10 Series IR-TS4/5 Series	SCARA: IR-S25 Series IR-S35 Series IR-S60 Series
	6-Axis: IR-R7H Series IR-R4/R4H Series	6-Axis: IR-R11 Series IR-R15H Series

## Robot Controller

# IRCB501 High-Protection Series

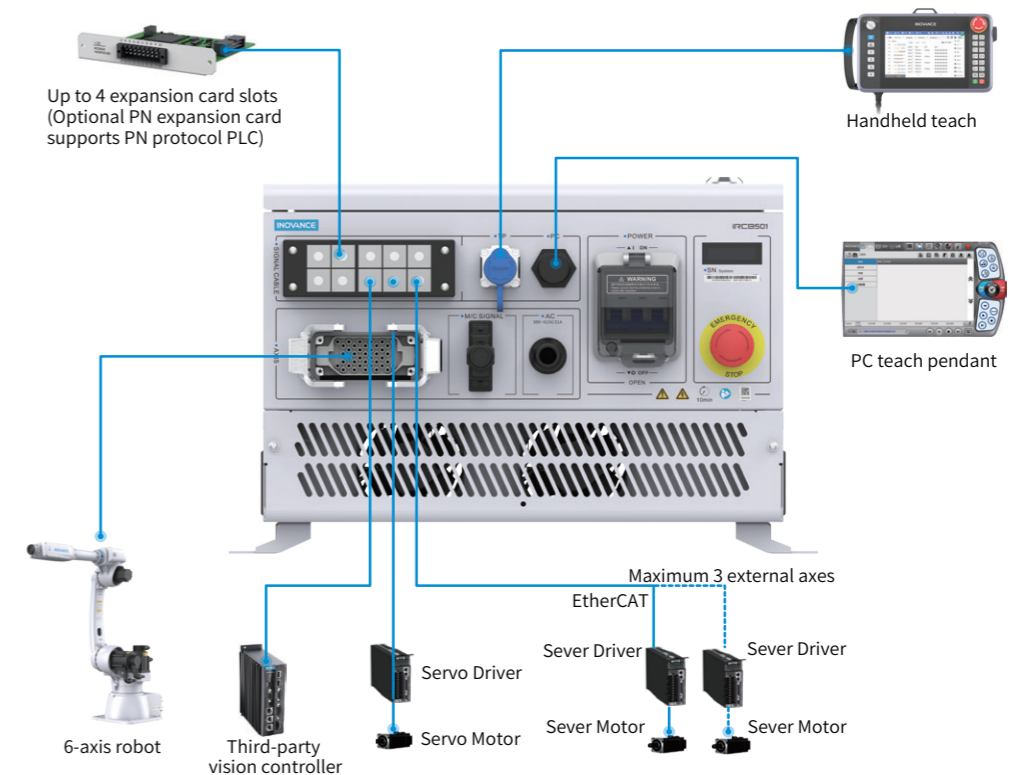
Integrating drive and control functions, the IRCB501 high-protection series features delicate structure, abundant functions, easy installation, and easy extension. It is widely used in automotive, die casting, machine tools, packaging and other industrial automation industries, as well as medical, laboratory automation and consumer product automation production industries.

### Applicable Robots

6-Axis Robot	IR-R10 Series	●
	IR-R25 Series	●



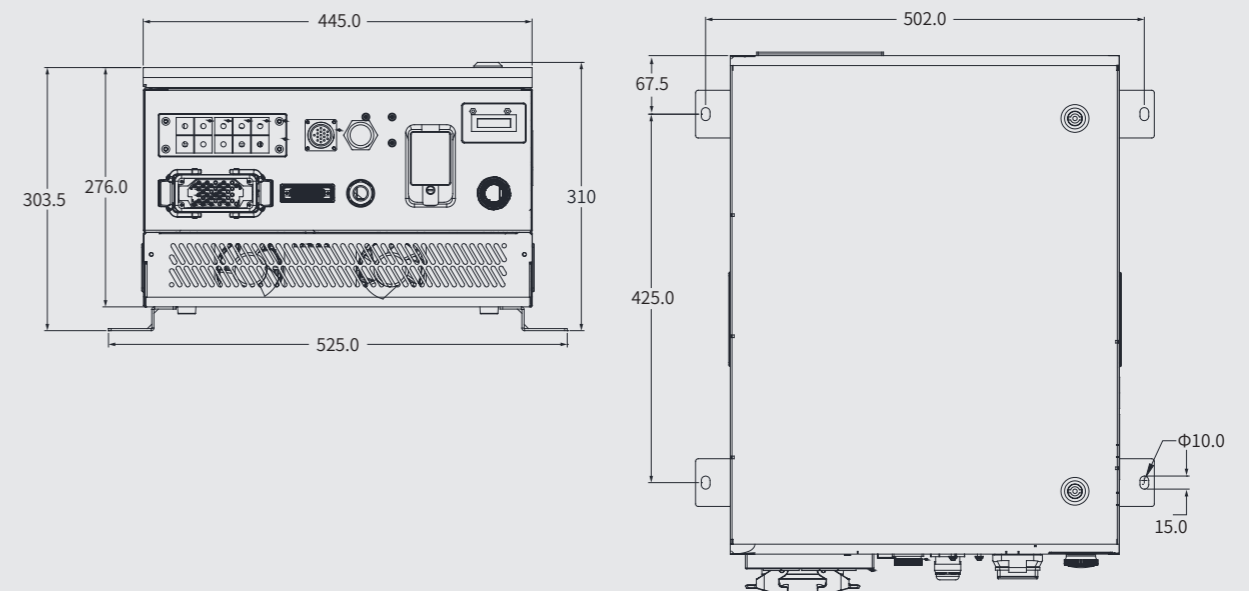
## System Topology



### Technical Data

Mounting mode	Vertical mounting, horizontal mounting, rack mounting
Standard I/Os	16 inputs and 16 NPN outputs (extendable)
Communication interfaces	Ethernet interface: Used for TCP/IP, Modbus TCP, Ethernet/IP, MC communication
	EtherCAT-IN interface: EtherCAT slave -IN interface
	EtherCAT-OUT interface: EtherCAT master -OUT interface
	EtherCAT interface: Used for extension of external axes
	RS232/RS485 interface: Used for serial and Modbus RTU communication (RS485 only)
	USB2.0 interface: Used for backup/upload programs and export robot status information
Control mode	Optional interface: Profinet slave, CC-LINK slave
	PC programming platform control, teach pendant control, remote I/O control, remote Modbus control, and API control
Power supply	Input voltage: Single-phase 200 VAC to 250 VAC, 23A, 50 Hz to 60 Hz
	Max. power consumption: 4.5 kW (depending on the robot model)
Operating conditions	IP54 + anti metal dust
Dimensions	Temperature: 0° C to 45° C; Relative humidity: 20% to 95% RH@30° C (non-condensing)
	445mm×575mm×276mm
Weight	30kg
Applicable Robots	6-Axis: IR-R10 Series, IR-R25 Series

## Mounting Dimensions(mm)



# IR-TP200 Series

Teaching Pendant 2.0 New Upgrade

## Software advantages

### Easy to edit

- Wizard-style instruction modification to achieve quick editing and replacement of instructions

### Easy to manage

- Quick navigation, one-click direct access to common functions; Tab-type program, one-click direct sub-program, 6axis scenario, no matter how many sub-programs there are, it will not be messy

### Wizard process module

- Visual calibration, palletizing process, following process and other integrated process package modules are provided, so that programmers can quickly complete the setting of relevant process parameters according to the process production guide, with rich functions, friendly operation interface and high usability.

### Easy to commission

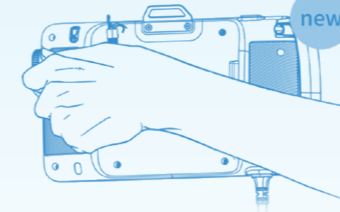
- Floating window system design, extreme jump reduction

### Excellent Experience

- Global Prompt System Optimized for a More Comfortable User Experience
- Log system optimization, more flexible and precise, adaptable to various needs
- User-friendly guided operation



## Hardware advantage



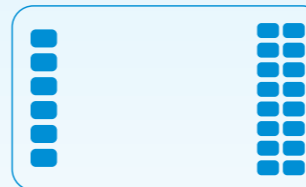
### Excellent Experience

- Optimize the long-term one-handed holding experience



### Safer

- Three-position switch, CE certified
- Self-locking slot and spring pen cord, anti-lost design



### Ultimate Tactile Sensation

- Extreme tactile sensation, soft and labor-saving
- Feedback is clear, facilitating the optimization of operation layout, More convenient access to all buttons



### More user-friendly

- Large screen, integrated panel design



### Efficient and reliable

- One-step accurate insertion
- Threadless snap fastener ensures no slipping

# List of Robot Models

## 6-Axis Robot

Model		IR-R4-56S-INT	IR-R4H-54S-INT	IR-R7H-70S-INT	IR-R7H-90S-INT	IR-R11-90S-INT	IR-R10-110S-INT	IR-R10H-120S-INT
Structural style		Vertical axis cascading structure						
Number of Axes		6 axes						
Maximum reach (mm)		560.6	545.7	722.3	911.9	901.9	1101.6	1201.2
Repeatability (mm)		±0.01	±0.02	±0.015	±0.02	±0.02	±0.02	±0.025
Maximum Load(kg)		4	4	7	7	11.3	10	10
IP rating		IP40(IP67 optional)						
Max.Speed	J1 (°/s)	450	450	420	336	240	240	240
	J2 (°/s)	460	460	336	280	180	180	180
	J3 (°/s)	520	520	487.5	390	330	330	330
	J4 (°/s)	560	560	550	550	450	450	450
	J5 (°/s)	560	560	438	438	420	420	420
	J6 (°/s)	900	900	764.7	764.7	720	720	720
Maxi-mummotion range	J1 (°)	±170	±170	±170	±170	±170	±170	±170
	J2 (°)	-120~+110	-120~+110	-135~+80	-125~+80	-135~+100	-135~+100	-135~+100
	J3 (°)	-69~+205	-65~+195	-70~+190	-70~+190	-66~+210	-66~+210	-66~+210
	J4 (°)	±190	±190	±190	±190	±190	±190	±190
	J5 (°)	±120	±120	±120	±120	±125	±125	±125
	J6 (°)	±360	±360	±360	±360	±360	±360	±360
Allowed wrist torque	J4 (N·m)	8.86	8.86	16.9	16.9	20.45	18.59	18.59
	J5 (N·m)	8.86	8.86	16.9	16.9	20.45	18.59	18.59
	J6 (N·m)	4.9	4.9	9.4	9.4	10.8	9.8	9.8
Allowed wrist inertia	J4 (N·m)	0.2	0.2	0.49	0.49	0.6	0.6	0.6
	J5 (N·m)	0.2	0.2	0.49	0.49	0.6	0.6	0.6
	J6 (N·m)	0.067	0.067	0.15	0.15	0.2	0.2	0.2
Customer connections	Wiring	12 signal lines 30V 0.5A		17 signal lines 30V 0.5A		12 signal lines 30V 0.5A		17 signal lines 30V 0.5A
	Air	Φ4 mm × 4, 0.59 Mpa						
Operating conditions	Ambient temperature(°C)	0~45						
	Relative humidity	5% to 95% RH (non-condensing)						
	Maximum Temperature Gradient(°C/min)	1.5						
Shipment Conditions	Ambient temperature(°C)	0~45						
	Relative humidity	≤ 95% RH, non-condensing						
Storage Conditions	Ambient temperature(°C)	-10~55						
	Relative humidity	≤ 95% RH, non-condensing						
Cable		Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)						
Weight		24kg	24.5kg	31kg	33kg	45kg	48kg	50kg
Controller		IRCB501-6LD-INT				IRCB501-6FD-INT		
Mounting mode		Floor mounted/Ceiling mounted/Wall mounted						
Certification		Kcs, KC, CE, cSGSUS, FCC, Safety Function, Optional: Cleanliness Class 3						

# List of Robot Models

## 6-Axis Robot

Model		IR-R15H-145S-K-INT	IR-R20H-120S-K-INT	IR-R10-140S-INT	IR-R16-210S-INT	IR-R25-178S-INT
Structural style		Vertical axis cascading structure				
Number of Axes		6 axes				
Maximum reach (mm)		1455	1218	1422	2107	1783
Repeatability (mm)		±0.04	±0.04	±0.05	±0.03	±0.03
Maximum Load(kg)		15	20	10	16	25
IP rating		IP40(IP67 optional)			Body: IP65 Wrist: IP67	
Max.Speed	J1 (°/s)	260	260	200	190	190
	J2 (°/s)	240	240	200	175	175
	J3 (°/s)	260	260	200	200	200
	J4 (°/s)	470	470	375	400	400
	J5 (°/s)	450	450	375	360	360
	J6 (°/s)	705	705	600	610	610
Maxi-mummotion range	J1 (°)	±170	±170	±170	±170	±170
	J2 (°)	-160~+90	-160~+90	-160~+60	-155~+80	-155~+80
	J3 (°)	-76~+210	-76~+210	-80~+160	-75~+160	-75~+160
	J4 (°)	±190	±190	±180	±180	±180
	J5 (°)	±140	±140	±140	±140	±140
	J6 (°)	±360	±360	±360	±360	±360
Allowed wrist torque	J4 (N·m)	26.5	35	22	25	50
	J5 (N·m)	26.5	35	22	25	50
	J6 (N·m)	12	20	9.8	12	30
Allowed wrist inertia	J4 (N·m)	0.9	1	0.63	0.78	2.2
	J5 (N·m)	0.9	1	0.63	0.78	2.2
	J6 (N·m)	0.3	0.4	0.2	0.3	1.5
Customer connections	Wiring	24 signal lines 30V 0.5A			18 signal lines 30V 0.5A	
	Air	Φ6 mm × 4, 0.59 Mpa			Φ8 mm × 1, 0.59 Mpa	
Operating conditions	Ambient temperature(°C)	0~45				
	Relative humidity	5% to 95% RH(non-condensing)		10% to 80% RH (non-condensing)	5% to 95% RH(non-condensing)	
	Maximum Temperature Gradient(°C/min)	1.5				
Shipment Conditions	Ambient temperature(°C)	0~45				
	Relative humidity	≤ 95% RH, non-condensing		≤ 80% RH, non-condensing	≤ 95% RH, non-condensing	
Storage Conditions	Ambient temperature(°C)	-10~55				
	Relative humidity	≤ 95% RH, non-condensing		≤ 80% RH, non-condensing	≤ 95% RH, non-condensing	
Cable		Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)				
Weight		155kg	150kg	130kg	260kg	255kg
Controller		IRCB501-6KD-INT			IRCB501-6ND-INT	
Mounting mode		Stand:5m optional: 3m/10m/15m/High Flexible(3m/5m/10m/15m)			Floor mounted	
Certification		Kcs, KC, CE, cSGSUS, FCC, Safety Function, Optional: Cleanliness Class 4			Kcs, KC, CE, cSGSUS, FCC, Safety Function	

# List of Robot Models

## SCARA Robot

Model		IR-S4-40Z15S-INT	IR-S7-50Z20S-INT	IR-S7-60Z20S-INT	IR-S7-70Z20S-INT	IR-S10-60Z20S-INT	IR-S10-70Z20S-INT	IR-S10-80Z20S-INT
Arm length	J1+J2(mm)	400	500	600	700	600	700	800
	J1(mm)	225	225	325	425	225	325	425
	J2(mm)	175	275	275	275	375	375	375
Maximum speed	J1+J2(mm/s)	7200	7120	7850	8590	9100	9800	10500
	J3(mm/s)	1300	1600	1600	1600	1600	1600	1600
	J4(° /s)	2600	2000	2000	2000	2700	2700	2700
Repeatability	J1+J2(mm)	±0.01	±0.02	±0.02	±0.02	±0.02	±0.02	±0.025
	J3(mm)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
	J4(°)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Load	Rated(kg)	2	3	3	3	5	5	5
	Maximum(kg)	4	7	7	7	10	10	10
Permissible moment inertia of J4	Rated(kg·m <sup>2</sup> )	0.005	0.01	0.01	0.01	0.02	0.02	0.02
	Maximum(kg·m <sup>2</sup> )	0.05	0.12	0.12	0.12	0.3	0.3	0.3
Mounting base dimensions(mm)		120×120 (4-Φ9)	150×150 (4-Φ9)	150×150 (4-Φ9)	150×150 (4-Φ9)	150×150 (4-Φ9)	150×150 (4-Φ9)	150×150 (4-Φ9)
Cable		Stand: 3m Optional: 5m/10m/15m/High Flexible (3m/5m/10m/15m)						
Weight(excluding cables)		12kg	17kg	17.5kg	19kg	18.5kg	19kg	20.5kg
Press-in force of J3		100N	150N	150N	150N	200N	200N	200N
Customer signal line		15 signal lines 30V 0.5A CAT5E						
Customer air piping		Φ6 mm × 2, 0.59 Mpa Φ4 mm × 1, 0.59 Mpa						
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)						
	Relative humidity	10~80%	10~80%	10~80%	10~80%	10~80%	10~80%	10~80%
Shipment Conditions	Ambient temperature	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing						
Storage Conditions	Ambient temperature	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C	-10°C ~55°C
	Relative humidity	≤ 80% RH, non-condensing						
Noise level <sup>[2]</sup>		LAeq =70dB(A)						
Maximum motion range	J1(°)	±132	±132	±132	±132	±132	±132	±132
	J2(°)	±141	±150	±150	±150	±150	±150	±150
	J3(mm)	150	200	200	200	200	200	200
	J4(°)	±360	±360	±360	±360	±360	±360	±360
Standard cycle time(s) <sup>[3]</sup>		0.342	0.351	0.36	0.375	0.361	0.386	0.416
Controller		IRCB501-4AD-INT	IRCB501-4CD-INT					
Certification		KCs, KC, CE, cSGSUS, FCC, Safety Function, Optional: Cleanliness Class 4						

[1] If this product is used in a low temperature environment close to the lowest temperature of the product specification, or if it is suspended for a long time due to holidays and nights, it is recommended to warm up for 10 minutes before running

[2] Noise test conditions: 4 joint linkage, 100% speed and acceleration, duty cycle 50%, measurement position: the front of the robot, 1000mm away from the action area, and more than 50mm from the base mounting surface.

[3] Standard cycle time for 4kg SCARA: 1kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 7kg/10kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 25kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 35kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 60kg SCARA : 5kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 4kg/5kg Inverted SCARA : 1kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)

# List of Robot Models

## SCARA Robot

Model		S25-80Z42S-INT	S25-100Z42S-INT	S25-120Z42S-INT	S35-80Z42S-INT	S35-100Z42S-INT	S35-120Z42S-INT	S60-120Z40S-INT	G560-120Z40S-INT	TS4-35Z15S-INT	TS5-55Z15S-INT
Arm length	J1+J2(mm)	800	1000	1200	800	1000	1200	1200	1200	350	550
	J1(mm)	350	550	750	350	550	750	600	600	175	275
	J2(mm)	450	450	450	450	450	450	600	600	175	275
Maximum speed	J1+J2(mm/s)	8100	9400	9400	8100	9400	9400	7400	7400	6180	9712
	J3(mm/s)	2100	2100	1200	2100	2100	1200	1500	1500	1300	1300
	J4(° /s)	705	705	705	705	705	705	600	600	2600	2000
Repeatability	J1+J2(mm)	±0.05	±0.05	±0.08	±0.05	±0.05	±0.08	±0.05	±0.05	±0.01	±0.015
	J3(mm)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.02	±0.02	±0.01	±0.01
	J4(°)	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.005	±0.005	±0.01	±0.01
Load	Rated(kg)	10	10	10	20	20	20	30	30	2	2
	Maximum(kg)	25	25	25	35	35	35	60	60	4	5
Permissible moment inertia of J4	Rated(kg·m <sup>2</sup> )	0.5	0.5	0.5	0.6	0.6	0.6	1.2	1.2	0.005	0.01
	Maximum(kg·m <sup>2</sup> )	1.2	1.2	1.2	1.2	1.2	1.2	2.45	2.45	0.05	0.12
Mounting base dimensions(mm)		200×200(4-Φ16)								95×95×160(6-Φ6.6)	
Cable		Stand: 5m Optional: 3m/10m/15m/High Flexible (3m/5m/10m/15m)									
Weight(excluding cables)		68.5kg	72.5kg	78kg	70.5kg	74.5kg	80.5kg	136kg	136kg	18.5kg	20kg
Press-in force of J3		250N	250N	250N	250N	250N	250N	450N	450N	100N	150N
Customer signal line		25 signal lines 30V 0.5A CAT5E								15 (15pin:D-sub)	
Customer air piping		Φ6 mm × 2, 0.59 Mpa								Φ4 mm × 1, 0.59 Mpa	
Operating conditions	Ambient temperature <sup>[1]</sup>	5~40° C (no excessive temperature changes)									
	Relative humidity	10~80%									
Shipment Conditions	Ambient temperature	-10°C ~55°C									
	Relative humidity	≤ 80% RH, non-condensing									
Storage Conditions	Ambient temperature	-10°C ~55°C									
	Relative humidity	≤ 80% RH, non-condensing									
Noise level <sup>[2]</sup>		LAeq ≤ 80dB(A)								LAeq=70dB(A)	
Maximum motion range	J1(°)	±139	±139	±139	±139	±139	±139	±135	±135	±225	±225
	J2(°)	±151	±151	±151	±151	±151	±151	±150	±150	±225	±225
	J3(mm)	420	420	420	420	420	420	400	400	150	150
	J4(°)	±360	±360	±360	±360	±360	±360	±360	±360	±720	±720
Standard cycle time(s) <sup>[3]</sup>		0.33	0.35	0.4	0.31	0.33	0.42	0.84	0.67	0.306	0.351
Controller		IRCB501-4ED-INT							IRCB501-4MD-INT	IRCB501-4CD-INT	
Certification		KCs, KC, CE, cSGSUS, FCC, Safety Function, Optional: Cleanliness Class 4						CE, cSGSUS, FCC, Safety Function	KCs, KC, CE, cSGSUS, FCC, Safety		

[1] If this product is used in a low temperature environment close to the lowest temperature of the product specification, or if it is suspended for a long time due to holidays and nights, it is recommended to warm up for 10 minutes before running

[2] Noise test conditions: 4 joint linkage, 100% speed and acceleration, duty cycle 50%, measurement position: the front of the robot, 1000mm away from the action area, and more than 50mm from the base mounting surface.

[3] Standard cycle time for 4kg SCARA: 1kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 7kg/10kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 25kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 35kg SCARA : 2kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 60kg SCARA : 5kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)  
 Standard cycle time for 4kg/5kg Inverted SCARA : 1kg load, the time required for the robot to go back and forth with a gate command (300 mm horizontally, 25 mm vertically)



