



PRODUCT SELECTION GUIDE

Shenzhen Han's Robot Co., Ltd.



SERVE HUMANITY WITH ROBOT TECHNOLOGY

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Company Profile



Vision

To be the global leader
in the era of intelligent
robots



Mission

Serve humanity with
robot technology



Values

Lead, fast-speed, service,
sharing, passion,
enthusiasm, curiosity

Shenzhen Han's Robot Co., Ltd. is a national high-tech enterprise invested in and established by Han's Laser Technology Industry Group Co., Ltd. (stock name: Han's Laser, stock code: 002008), and incubated based on more than 100 people from the R&D team of Han's Motor Robotics Research Institute. The company was established in September 2017 and its production and R&D base are located in Shenzhen City and Foshan City, with subsidiaries in Tianjin, Wuxi and Chengdu City. Han's Robot is dedicated to the development, promotion and application of intelligent robots in industry, healthcare, logistics, services and so on, becoming the global leader in the era of intelligent robots.

Global Service Network

Partners from more than **100** countries & regions

China, South Korea, Japan, Thailand, Singapore, Malaysia, Australia, New Zealand, the United States, Canada, Mexico, Brazil, Colombia, Argentina, Russia, Britain, France, Germany, Spain, the Netherlands, Italy, etc.

500+

500+ Employees

200+

200+ Professional engineers



Milestones

1996	Han's Laser established	2004	Han's Laser listed	2014	Han's Robotics Research Institute established	2017	Shenzhen Han's Robot Co., Ltd. established	November 2020	Han's Robot Advanced Manufacturing Demonstration Park launched in Foshan	November 2021	Nearly 200 million Series B+ Financing completed	April 2022	Subsidiary in Wuxi City established	October 2022	Han's Robot Global Intelligent Manufacturing Center established	January 2024	S Heavy Payload Robot Released
								September 2020	165 million Series A round financing completed successfully	December 2020	Subsidiary in Tianjin City established	June 2021	395 million B1 round financing completed successfully	June 2022	Subsidiary in Chengdu City established	March 2023	Collaborative robot Elfin-Pro released

Self-developed of core components

- Completely self-developed core components from Han's Group
- Complete set of motors, servo drive
- Grating encoder, 6-dimensional force/torque sensor
- Electromagnetic brake, high-speed inverter

EtherCAT bus communication

- Strong anti-interference ability
- High communication frequency and fast speed
- High safety, accurate motion trajectory
- Accessible data for all joints

ISO class 5 cleanroom

- The surface cleanliness of the whole robot is excellent due to the excellent waterproof and dust-proof performance
- Optimized structure of internal parts, low mutual friction, avoiding damage
- Excellent sealing of the whole robot, without impurities intrusion
- Automotive and aerospace industry standards, ensuring high quality

The range of joint movement reaches $\pm 360^\circ$

- Realization of the range of joint movement reaches $\pm 360^\circ$
- More possible positions of high difficulty
- Most flexible collaborative robot
- Low power consumption

Multi-terminal Graphical Control

- Support for handheld teach pendant, tablets, computers and other terminals
- Graphical programming, intuitive and easy to understand
- User-friendly interactive design



Self-developed dual-joint modules

- Unique arm design, optimized singularity points
- Higher integration
- Higher flexibility

Explosion-proof Certification

- Certified by the national instrumentation explosion-proof safety inspection station
- Can be used for special operations in explosive and combustible dust environments

Innovative braking method

- The robot will automatically rebound and then stop when encountering any resistance.
- Output force and power controlled within the safety range to ensure personnel safety.
- Innovative braking design. The robot will be locked immediately in case of a sudden power failure or emergency stop during operation. It will not slide, fall or move at all

IP66 protection rating

- Higher waterproof and dust-proof protection
- Suitable for harsher environments
- Protects against external objects and dust
- Applicable to more working conditions

More open platform

- Open source ROS interface, which allows users to control the robot joints in real time through EtherCAT under the ROS environment
- ROS platform, which greatly improves the robot's scalability. The robot can be controlled without an additional control box
- Used for ROS teaching in colleges and universities

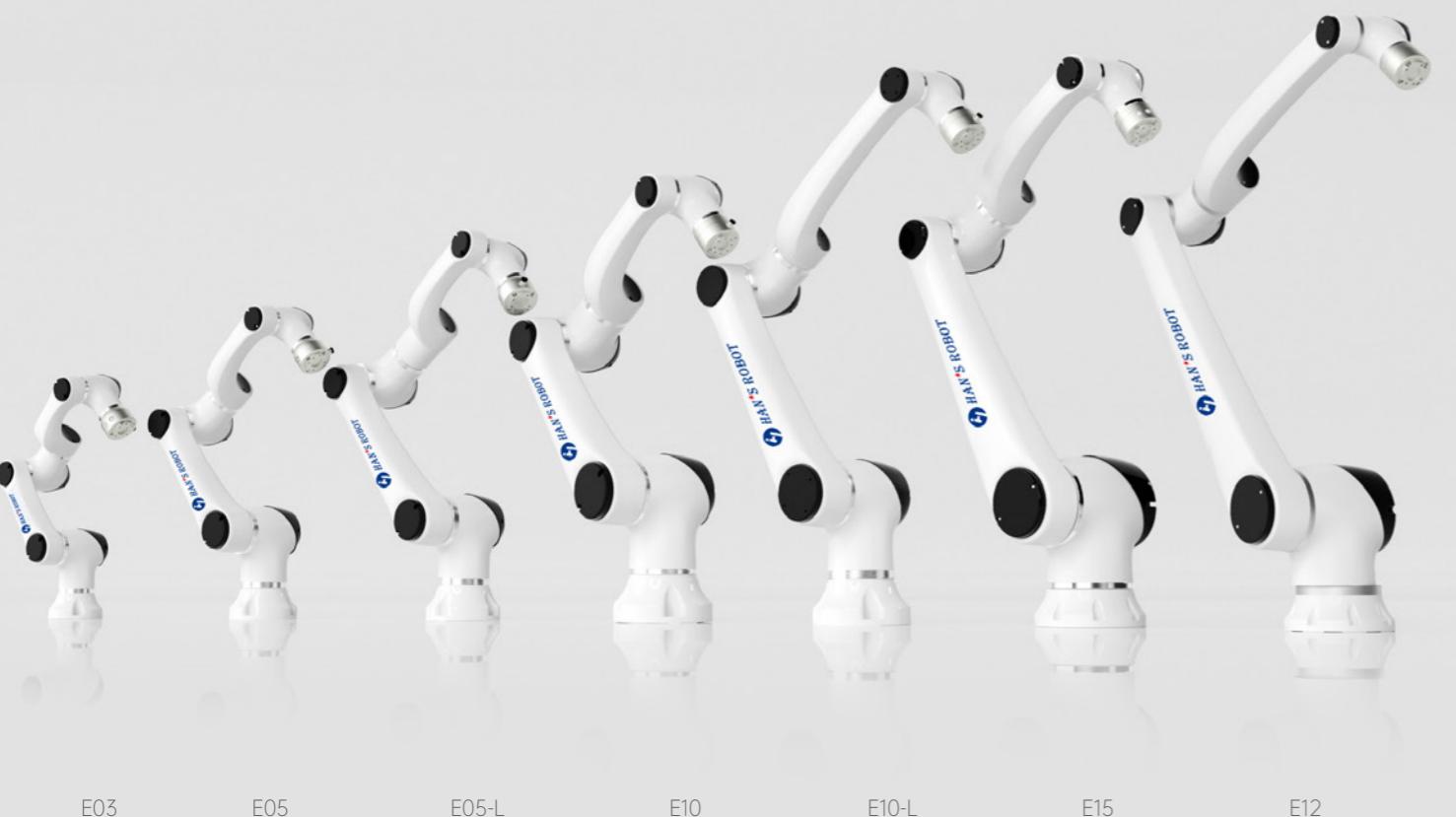
More than 20 years of industrial experience

- Incubated from the Robotics Research Institute team of Han's Motor
- More than 20 years experience in motors, servo drives and motion control
- Long-term cooperation with famous universities at home and abroad
- Dedicated to collaborative robot technologies and applications

Overview

Elfin

Collaborative Robot



The Elfin collaborative robot can be used in automated integrated production lines, assembly, picking, welding, grinding, spraying and other applications, and has been exported to more than 100 countries and regions. It adopts a unique double-joint module design, where one motion module contains two joints to form a unique kinematic structure, which not only differs from most collaborative robots on the market, but also provides more flexibility when working.

-  First Dual-joint Module Design In China
-  Optimized singularity
-  Highly Flexible 6-DOF Collaborative Robot
-  Modularity

Configuration Details

Configuration instructions	Robot	Control Box	Teach Pendant	Cable	Applications
Standard		Standard control box	Standard teach pendant (Resolution 1024x800, screen size 10.4 inches)	5m	/
Mini control box		Mini control box Power module(Optional)	Tablet teach pendant (Optional)	5m	Applied for automation equipment, AGV, mobile robots, etc.

Control box	Mini Control Box (Optional)	Teach pendant			
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	323x221x80(mm)	Dimensions	290x234x108(mm)
Stand height	176mm	Power Input	DC30~60V	Weight	2.5kg
Weight	18.5kg	I/O Source	DC24V	Display	11"
Power output	48V DC	I/O Port	Inputs 8 , Outputs 8	Resolution	1920x1200
Working temperature	0~50°C	IP Classification	IP20	E-stop button	1
Working Humidity	90% relative humidity (non-condensing)	Communication	TCP/IP Modbus		
IP classification	IP20	Notes	E12, E15 Non-optional		

E03

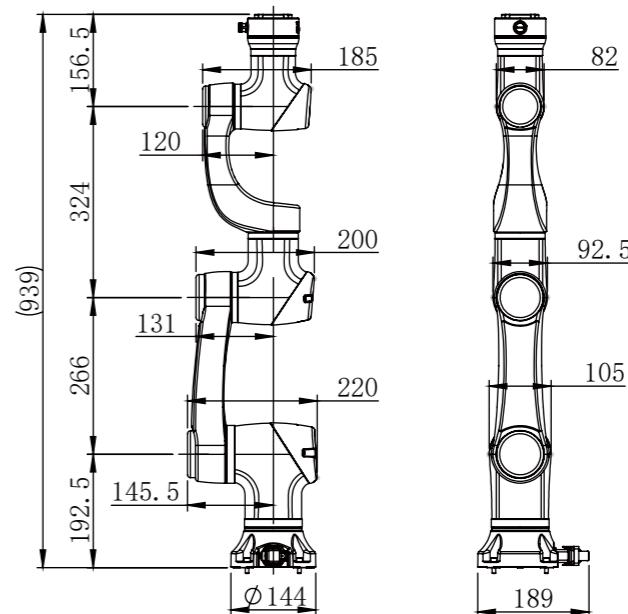
Elfin
 Collaborative Robot

Tech Specs

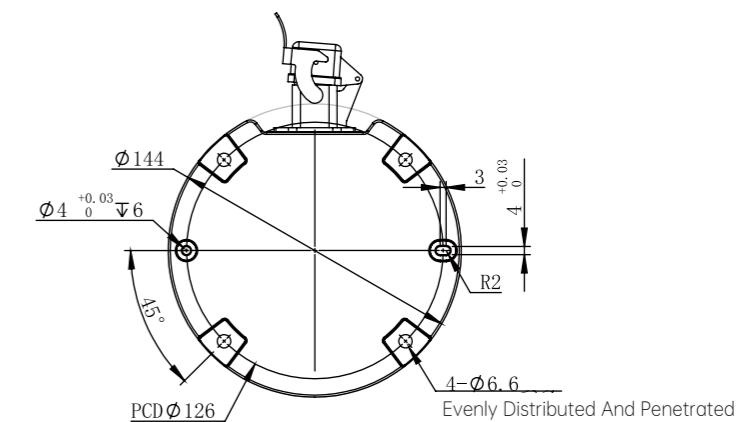
Weight	18kg
Payload	3kg
Reach	590mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±150° J5 ±147°
Repeatability	±0.02mm
Power consumption	100W typical application
Joint speed	J1-J4 180° /s J5-J6 200° /s
Tool speed	2m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54/(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m



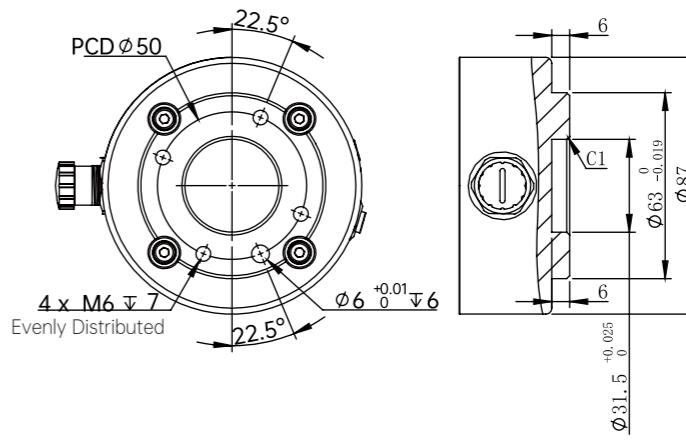
Control box	Mini Control Box (Optional)	Teach pendant	
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	323x221x80(mm)
Stand height	176mm	Power Input	DC30~60V
Weight	18.5kg	I/O Source	DC24V
Power output	48V DC	I/O Port	Inputs 8 , Outputs 8
Working temperature	0~50°C	IP Classification	IP20
Working Humidity	90% relative humidity (non-condensing)	Communication	TCP/IP Modbus
IP classification	IP20		



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

E05

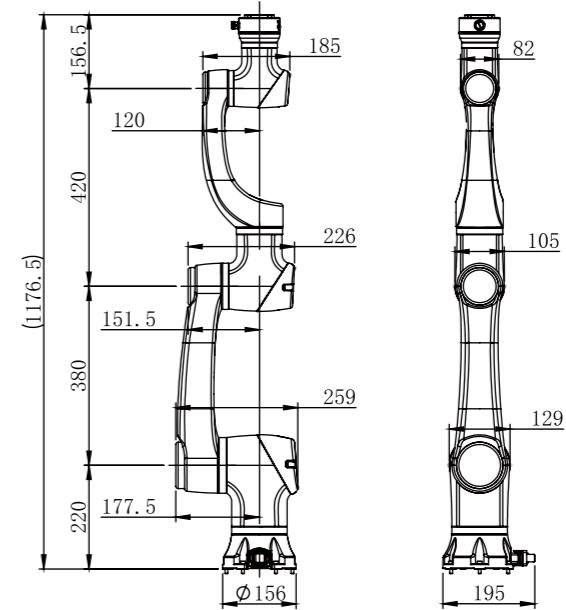
Elfin
 Collaborative Robot

Tech Specs

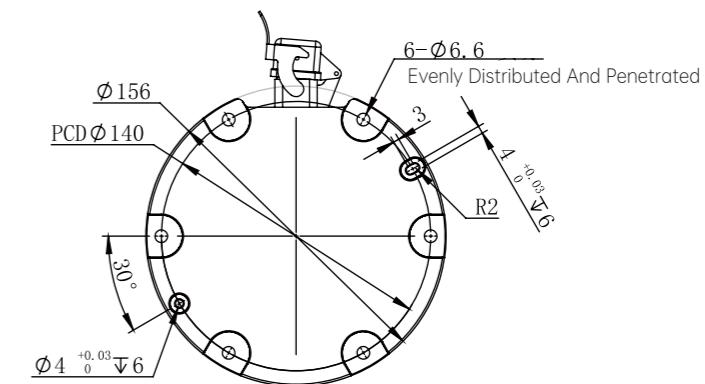


Weight	25kg
Payload	5kg
Reach	800mm
Joint range	J1, J4, J6 $\pm 360^\circ$ J2 $\pm 135^\circ$ J3 $\pm 153^\circ$ J5 $\pm 180^\circ$
Repeatability	$\pm 0.02\text{mm}$
Power consumption	180W typical application
Joint speed	J1-J4 180° /s J5-J6 200° /s
Tool speed	3m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP, ModbusTCP, Profinet (Optional), Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54/(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50°C
Power input	200~240V AC(Optional 110~240V AC), 50~60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

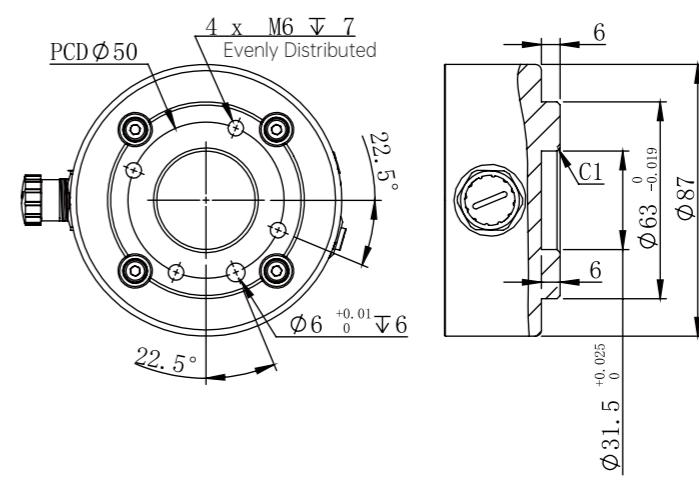
Control box	Mini Control Box (Optional)	Teach pendant
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions
Stand height	176mm	Dimensions 323x221x80(mm)
Weight	18.5kg	Dimensions 290x234x108(mm)
Power output	48V DC	Power Input DC30~60V
Working temperature	0~50°C	Weight 2.5kg
Working Humidity	90% relative humidity (non-condensing)	I/O Source DC24V
IP classification	IP20	Display 11"
	Communication TCP/IP Modbus	I/O Port Inputs 8, Outputs 8
		Resolution 1920x1200
		E-stop button 1



Base Installation Dimensions



End Tool Installation Dimensions



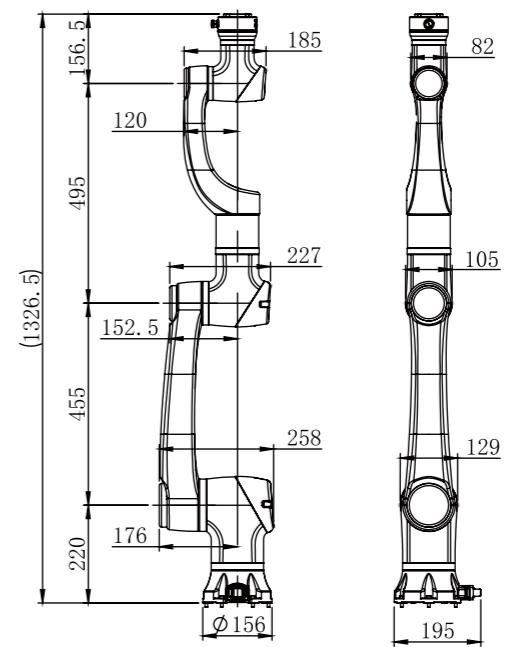
E05-L Elfin Collaborative Robot

Tech Specs

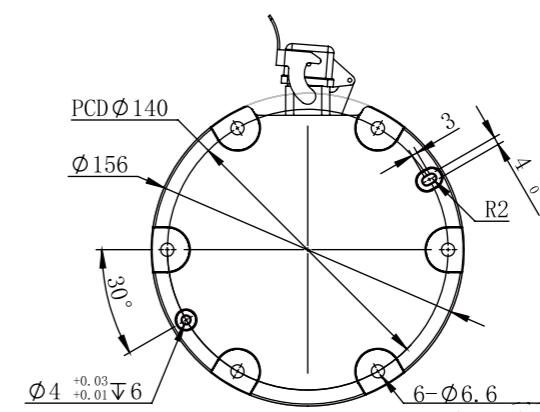


Weight	26kg
Payload	3.5kg
Reach	950mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Repeatability	±0.02mm
Power consumption	180W typical application
Joint speed	J1-J4 180° /s J5-J6 200° /s
Tool speed	3m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

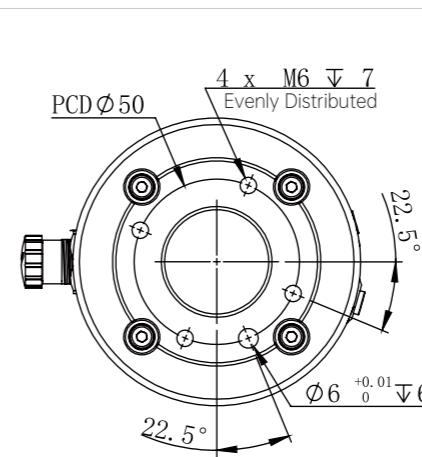
Control box	Mini Control Box (Optional)	Teach pendant
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions 323x221x80(mm)
Stand height	176mm	Power Input DC30~60V
Weight	18.5kg	I/O Source DC24V
Power output	48V DC	I/O Port Inputs 8 , Outputs 8
Working temperature	0~50°C	IP Classification IP20
Working Humidity	90% relative humidity (non-condensing)	Communication TCP/IP Modbus
IP classification	IP20	



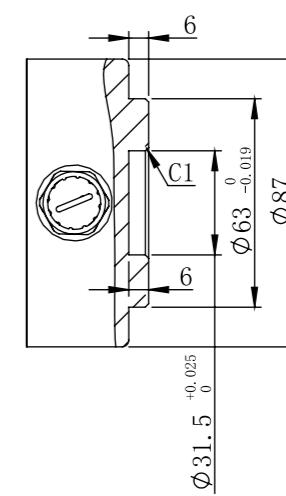
Base Installation Dimensions



Evenly Distributed And Penetrated



End Tool Installation Dimensions



E10

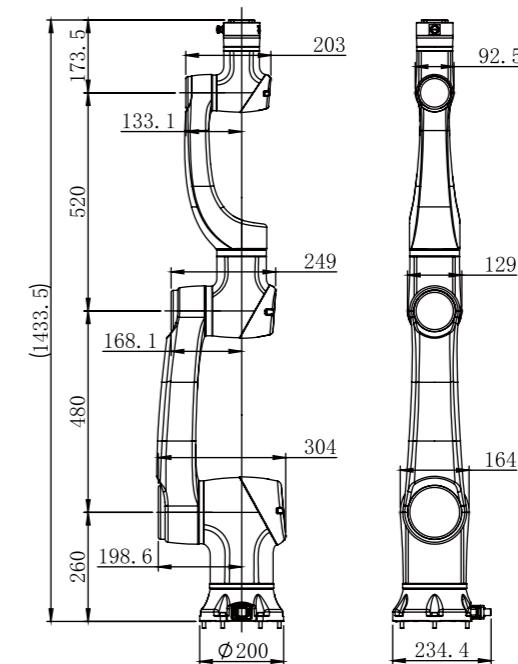
Elfin
Collaborative Robot

Tech Specs

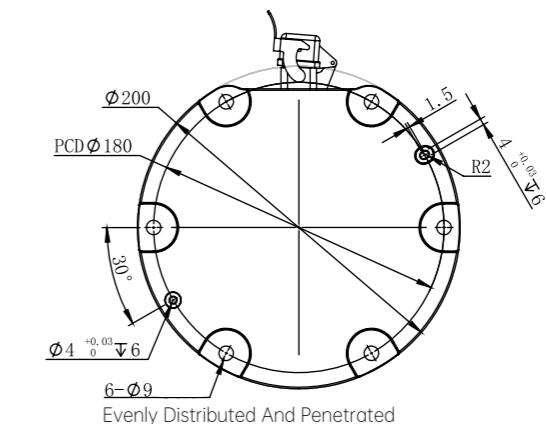


Weight	43kg
Payload	10kg
Reach	1000mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Repeatability	±0.03mm
Power consumption	350W typical application
Joint speed	J1-J2 100° /s J3-J4 150° /s J5-J6 180° /s
Tool speed	2m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Control box	Mini Control Box (Optional)	Teach pendant
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions
Stand height	176mm	323x221x80(mm)
Weight	18.5kg	Dimensions
Power output	48V DC	290x234x108(mm)
Working temperature	0~50°C	Power Input
Working Humidity	90% relative humidity (non-condensing)	DC30~60V
IP classification	IP20	Weight
	Communication	2.5kg
	TCP/IP Modbus	I/O Source
		Display
		11"
		I/O Port
		Inputs 8 , Outputs 8
		Resolution
		1920x1200
		IP Classification
		IP20
		E-stop button
		1

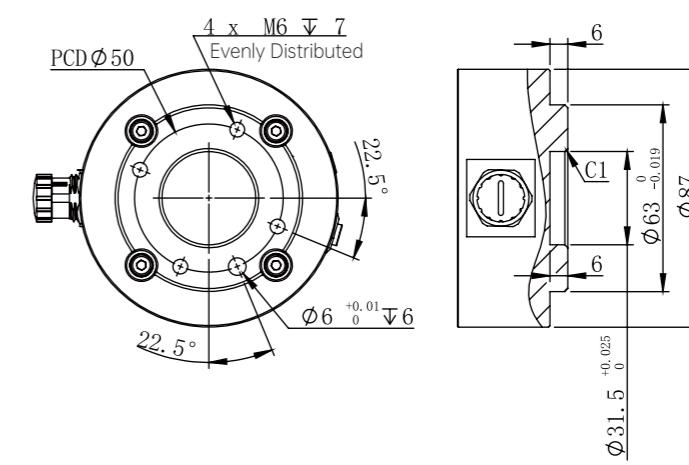


Base Installation Dimensions



Evenly Distributed And Penetrated

End Tool Installation Dimensions



E10-L

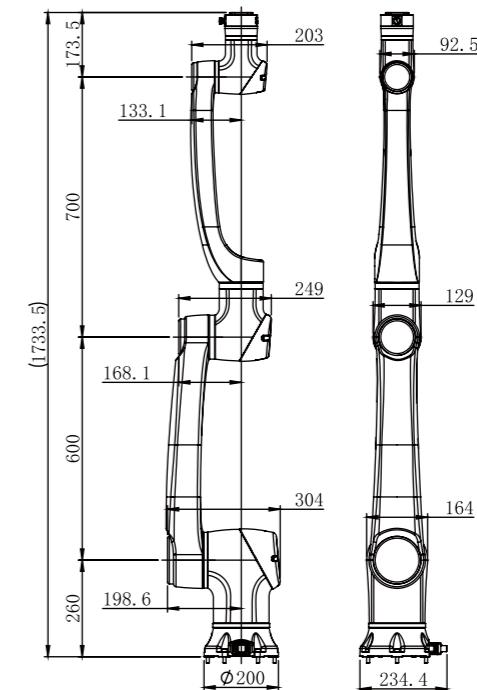
Elfin Collaborative Robot

Tech Specs

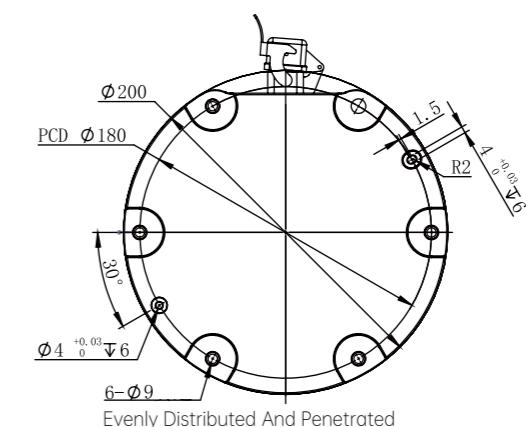


Weight	45kg
Payload	8kg
Reach	1300mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Repeatability	±0.03mm
Power consumption	350W typical application
Joint speed	J1-J2 100° /s J3-J4 150° /s J5-J6 180° /s
Tool speed	2.5m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

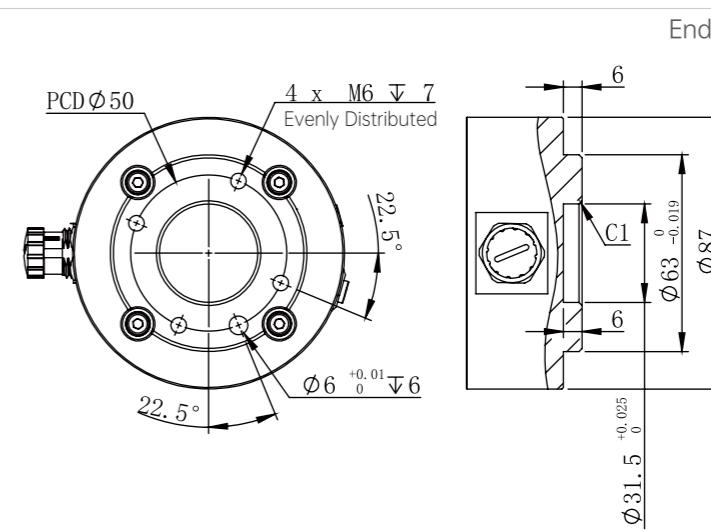
Control box	Mini Control Box (Optional)	Teach pendant
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions
Stand height	176mm	Dimensions 323x221x80(mm)
Weight	18.5kg	Weight 2.5kg
Power output	48V DC	I/O Source DC24V
Working temperature	0~50°C	I/O Port Inputs 8 , Outputs 8
Working Humidity	90% relative humidity (non-condensing)	IP Classification IP20
IP classification	IP20	Communication TCP/IP Modbus



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

E12

Elfin

Collaborative Robot

Tech Specs



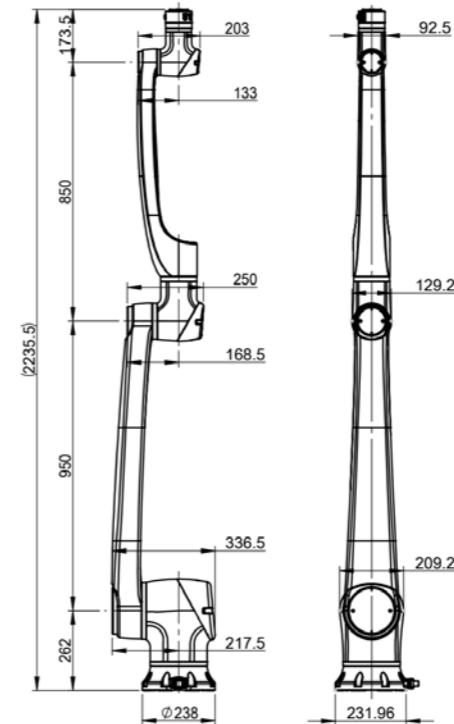
Weight	70kg
Payload	12kg
Reach	1800mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±155° J5 ±180°
Repeatability	±0.05mm
Power consumption	600W typical application
Joint speed	J1-J2 120° /s J3-J4 120° /s J5-J6 150° /s
Tool speed	3m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m



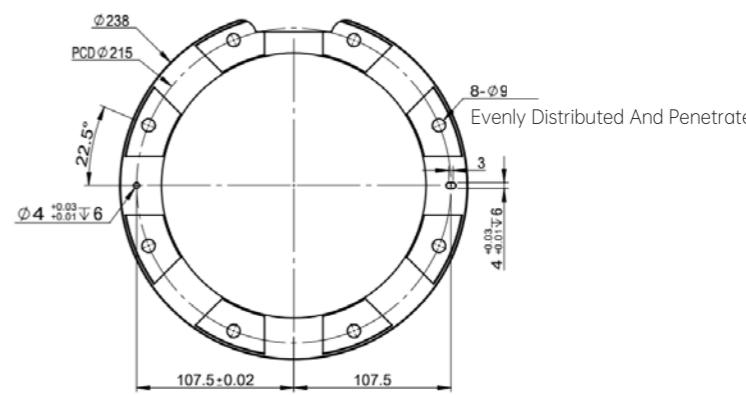
Control box	
Dimensions	445.2mm x 318.8mm x (360+176)mm
Stand height	176mm
Weight	18.5kg
Power output	48V DC
Working temperature	0~50°C
Working Humidity	90% relative humidity (non-condensing)
IP classification	IP20



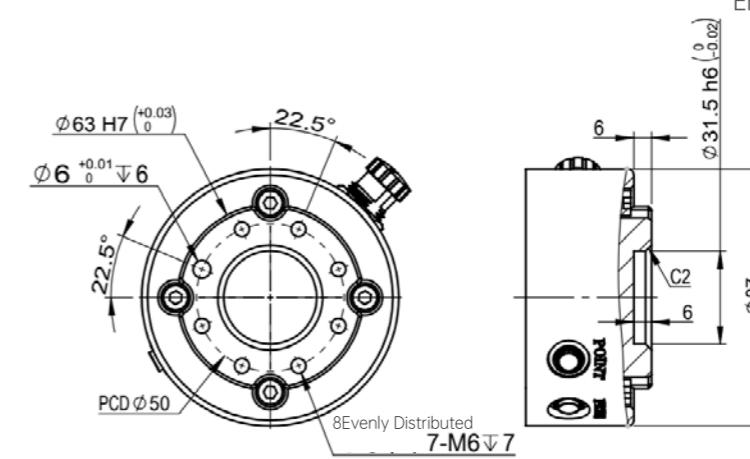
Teach pendant	
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop button	1



Base Installation Dimensions



End Tool Installation Dimensions



E15

Elfin
Collaborative Robot

Tech Specs



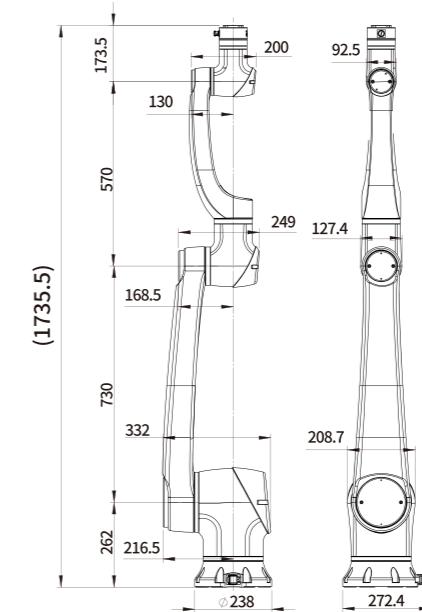
Weight	60kg
Payload	15kg
Reach	1300mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Repeatability	±0.05mm
Power consumption	600W typical application
Joint speed	J1-J2 80° /s J3-J4 120° /s J5-J6 150° /s
Tool speed	2m/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP , ModbusTCP , Profinet (Optional) , Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
IP classification	IP54(Optional IP66)
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	200-240V AC(Optional 110-240V AC), 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m



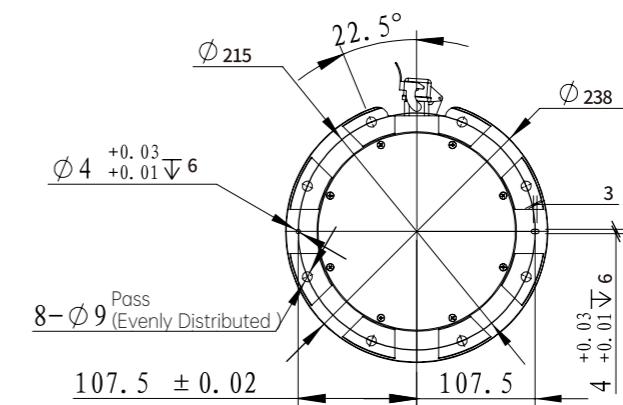
Dimensions	290x234x108(mm)
Stand height	
Weight	2.5kg
Power output	
Working temperature	
Working Humidity	
IP classification	IP20



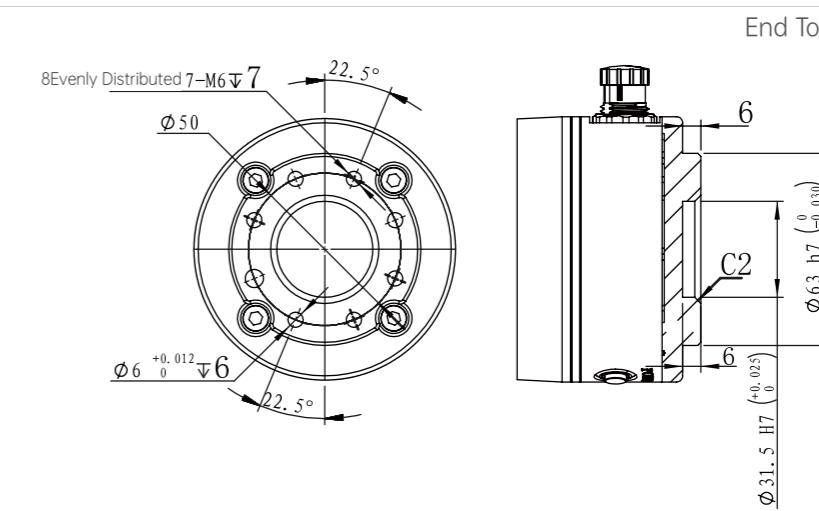
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop button	1



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

Overview

Elfin-Pro

Collaborative Robot



E03-Pro

E05-Pro

E05L-Pro

E10-Pro

E10L-Pro

E12-Pro



Elfin-PRO collaborative robot is developed on the basis of elfin collaborative robot. It not only has all the advantages of the elfin collaborative robot such as a variety models, easy deployment, high precision, high flexibility, double-joint module design and modular design, but also has upgraded the product capability through the integration of cutting-edge AI technology, end force control integration, end vision integration. In addition, it adopts a new elegant and practical surface treatment process which is more stable and reliable. With all these advantages, Elfin PRO offers a better human-robot collaboration experience and could support wider application scenarios.

-  Force Control Integration
-  Camera System
-  Internal Wiring
-  1000Hz Communication Frequency
-  Higher Protection, more applications
-  High Sensitivity, Much Safer

Configuration Details

Configuration instructions	Robot	Control Box	Teach Pendant	IP Classification
Force control integration		Standard control box	Standard teach pendant	IP54 or IP66
Camera System integration		Standard control box External WiFi For Wireless Commissioning (Optional)	Standard teach pendant	IP54
Control Box	Mini Control Box (Optional)	Teach Pendant		
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	387x246x85(mm)	Dimensions
Stand Height	176mm	Power Input	DC30~60V	290x234x108(mm)
Weight	18.5kg	I/O Source	DC24V	Weight
Power Output	48V DC	I/O Port	Inputs 8 , Outputs 8	2.5kg
Working Temperature	0~50°C /	IP Classification	IP20	Display
Working Humidity	90%Relative Humidity (non-condensing)	Communication	TCP/IP Modbus	11"
IP Classification	IP20	Notes	E12-Pro, E15Pro Non-optional	Resolution
Communication Frequency	1000Hz			1920x1200

E03-Pro

Elfin-Pro
Collaborative Robot

Tech Specs



Weight	18kg
Payload	3kg
Reach	590mm
Joint range	J1, J4, J6 $\pm 360^\circ$ J2 $\pm 135^\circ$ J3 $\pm 150^\circ$ J5 $\pm 147^\circ$
Tool speed	2m/s
Repeatability	$\pm 0.02\text{mm}$
Power consumption	100W typical application
Joint speed	J1-J4 180° /s J5-J6 200° /s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP, ModbusTCP, Profinet (Optional), Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz
Range	200N, 10Nm
Precision	2N, 0.1Nm
Accuracy	4N, 0.2Nm
IP classification	IP54 or IP66

Vision parameters (optional)

Focus height	100mm~500mm
Application accuracy	$\pm 0.2\text{mm}$
IP classification	IP54
Hardware size	93.78mm x 54.45mm x 146.24mm
Optional lens	8mm
Camera pixels	6 million pixels

Control Box

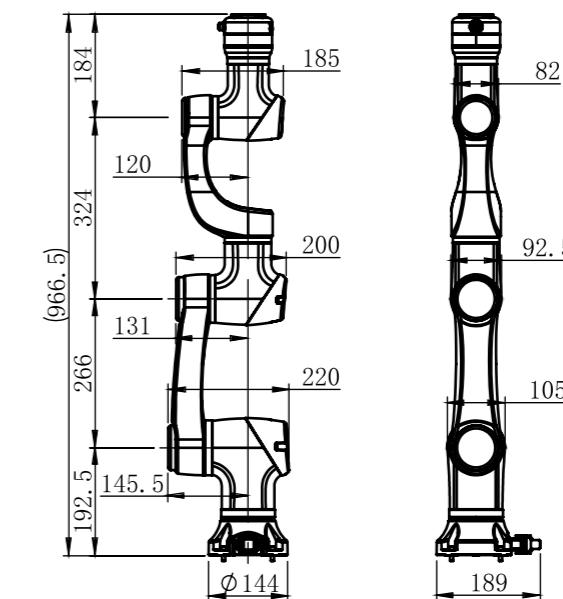
Dimensions	445.2mm x 318.8mm x (360+176)mm
Stand Height	176mm
Weight	18.5kg
Power Output	48V DC
Working Temperature	0~50°C
Working Humidity	90%Relative Humidity(non-condensing)
IP Classification	IP20
Communication Frequency	1000Hz

Mini Control Box (Optional)

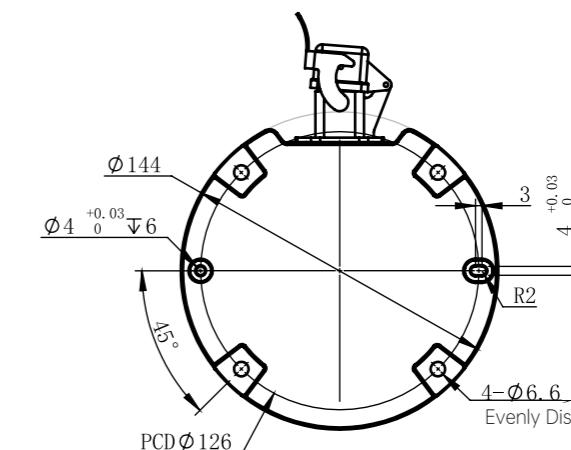
Dimensions	387x246x85(mm)
Power Input	DC30~60V
I/O Source	DC24V
I/O Port	Inputs 8 , Outputs 8
IP Classification	IP20
Communication	TCP/IP Modbus

Teach Pendant

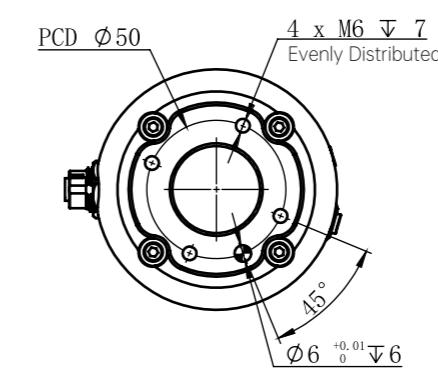
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop Button	1



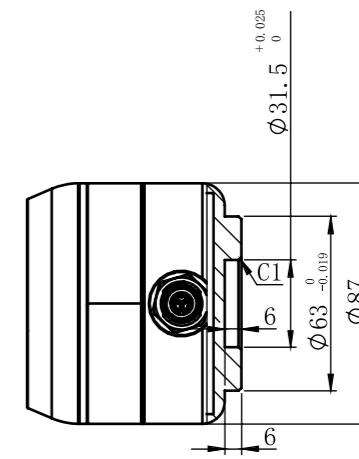
Size Specification



Base Installation Dimensions



End Tool Installation Dimensions



E05-Pro

Elfin-Pro
Collaborative Robot

Tech Specs



Weight	25kg
Payload	5kg
Reach	800mm
Joint range	J1, J4, J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Tool speed	3m/s
Repeatability	±0.02mm
Power consumption	180W typical application
Joint speed	J1-J4 180°/s J5-J6 200°/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50°C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x 146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				



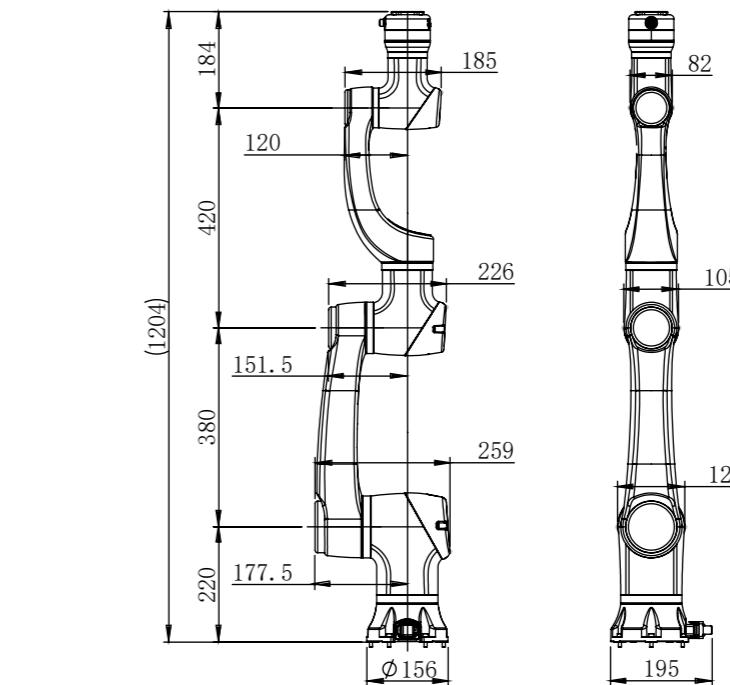
Control Box
Dimensions
Stand Height
Weight
Power Output
Working Temperature
Working Humidity
IP Classification
Communication Frequency



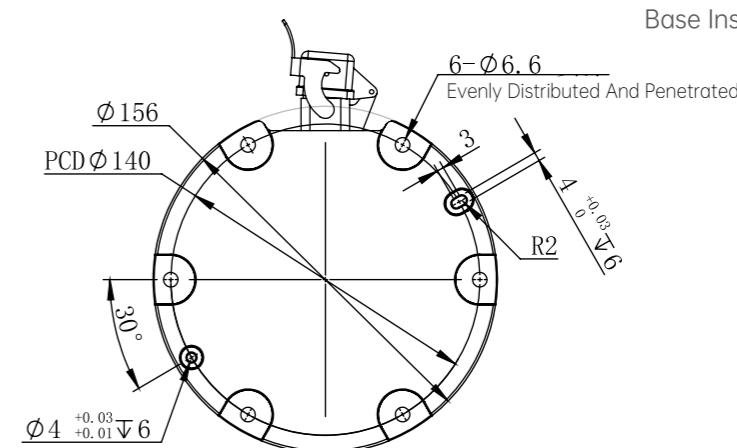
Mini Control Box (Optional)
Dimensions
Power Input
I/O Source
I/O Port
IP Classification
Communication



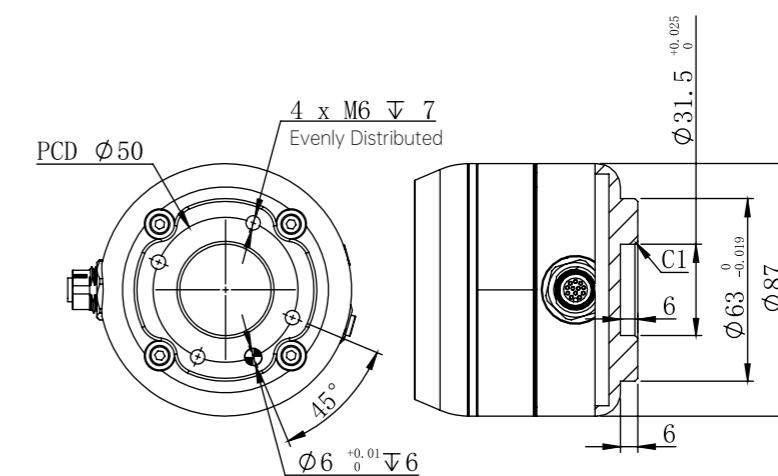
Teach Pendant
Dimensions
Weight
Display
Resolution
E-stop Button



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

E05L-Pro

Elfin-Pro
Collaborative Robot

Tech Specs



Weight	26kg
Payload	3.5kg
Reach	950mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Tool speed	3m/s
Repeatability	±0.02mm
Power consumption	180W typical application
Joint speed	J1-J4 180° /s J5-J6 200° /s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				



Control Box

Dimensions	445.2mm x 318.8mm x (360+176)mm
Stand Height	176mm
Weight	18.5kg
Power Output	48V DC
Working Temperature	0~50°C /
Working Humidity	90%Relative Humidity(non-condensing)
IP Classification	IP20
Communication Frequency	1000Hz

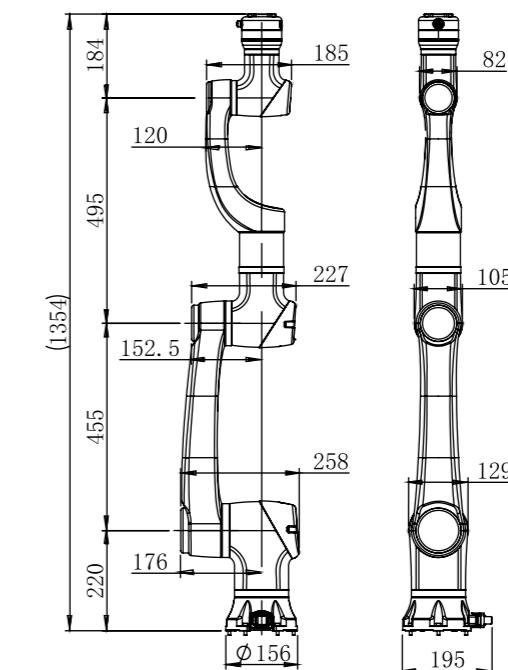


Mini Control Box (Optional)

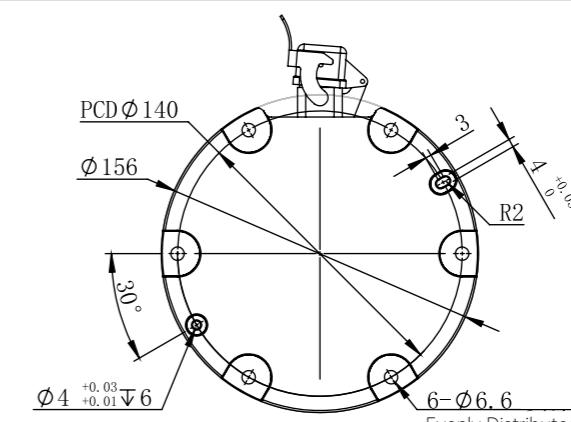
Dimensions	387x246x85(mm)
Power Input	DC30~60V
I/O Source	DC24V
I/O Port	Inputs 8 , Outputs 8
IP Classification	IP20
Communication	TCP/IP Modbus

Teach Pendant

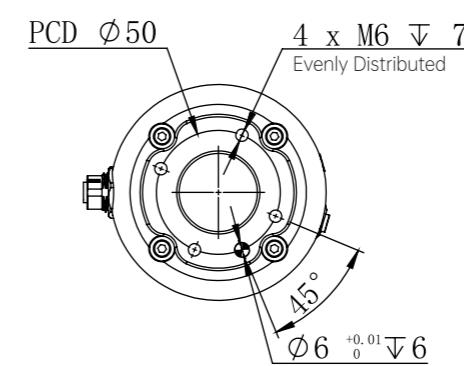
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop Button	1



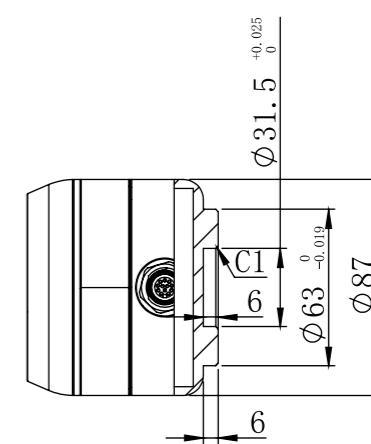
Size Specification



Base Installation Dimensions



End Tool Installation Dimensions



E10-Pro

Elfin-Pro
Collaborative Robot

Tech Specs



Weight	43kg
Payload	10kg
Reach	1000mm
Joint range	J1, J4, J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Tool speed	2m/s
Repeatability	±0.03mm
Power consumption	350W typical application
Joint speed	J1-J2 100° /s J3-J4 150° /s J5-J6 180° /s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				



Control Box

Dimensions	445.2mm x 318.8mm x (360+176)mm
Stand Height	176mm
Weight	18.5kg
Power Output	48V DC
Working Temperature	0~50°C /
Working Humidity	90%Relative Humidity(non-condensing)
IP Classification	IP20
Communication Frequency	1000Hz



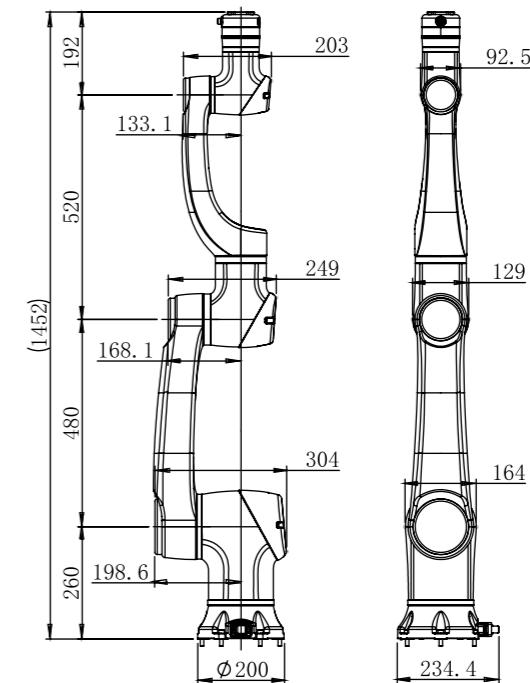
Mini Control Box (Optional)

Dimensions	387x246x85(mm)
Power Input	DC30~60V
I/O Source	DC24V
I/O Port	Inputs 8 , Outputs 8
IP Classification	IP20
Communication	TCP/IP Modbus

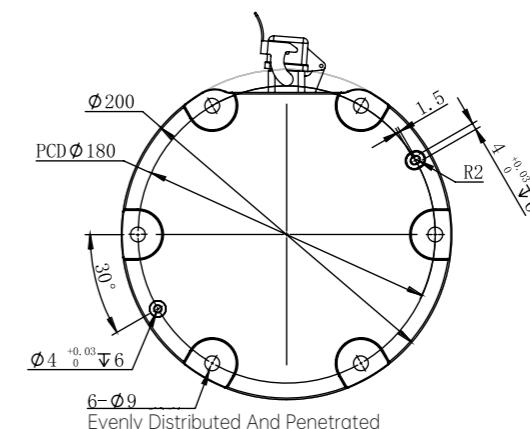


Teach Pendant

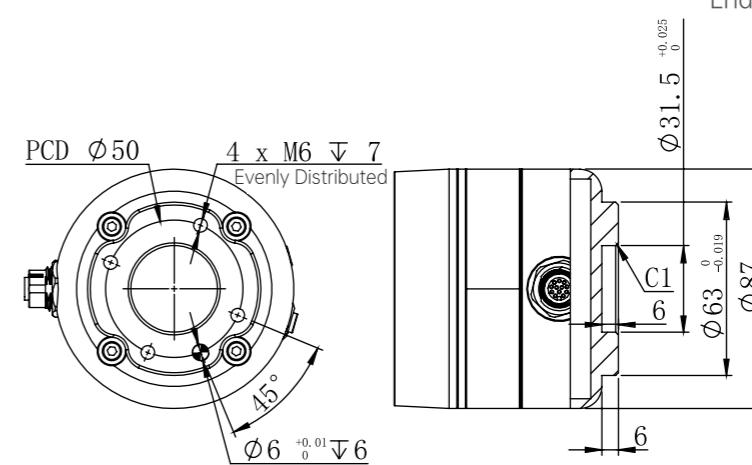
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop Button	1



Size Specification
(Force Control Version)



Base Installation Dimensions



End Tool Installation Dimensions

E10L-Pro

Elfin-Pro Collaborative Robot

Tech Specs



Weight	45kg
Payload	8kg
Reach	1300mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Tool speed	2.5m/s
Repeatability	±0.03mm
Power consumption	350W typical application
Joint speed	J1-J2 100° /s J3-J4 150° /s J5-J6 180° /s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50° C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				



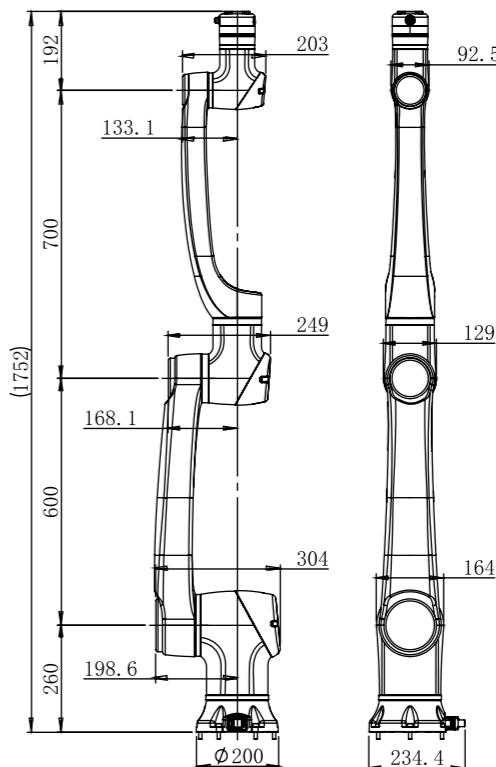
Control Box	
Dimensions	445.2mm x 318.8mm x (360+176)mm
Stand Height	176mm
Weight	18.5kg
Power Output	48V DC
Working Temperature	0~50°C /
Working Humidity	90%Relative Humidity(non-condensing)
IP Classification	IP20
Communication Frequency	1000Hz



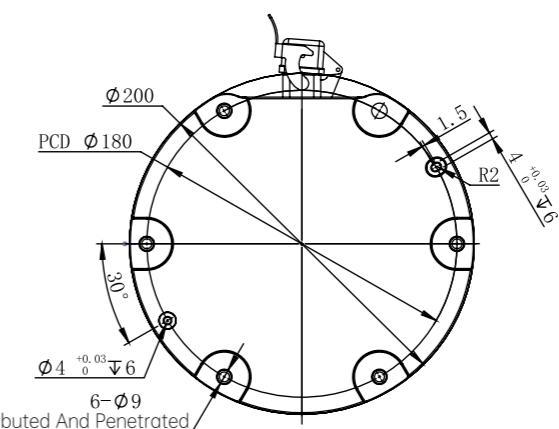
Mini Control Box (Optional)	
Dimensions	387x246x85(mm)
Power Input	DC30~60V
I/O Source	DC24V
I/O Port	Inputs 8 , Outputs 8
IP Classification	IP20
Communication	TCP/IP Modbus



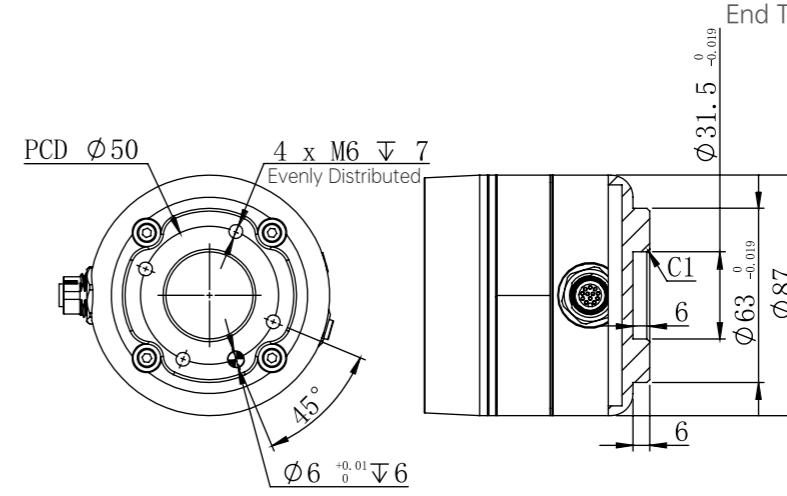
Teach Pendant	
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop Button	1



Base Installation Dimensions



End Tool Installation Dimensions



E12-Pro

Elfin-Pro
Collaborative Robot

Tech Specs



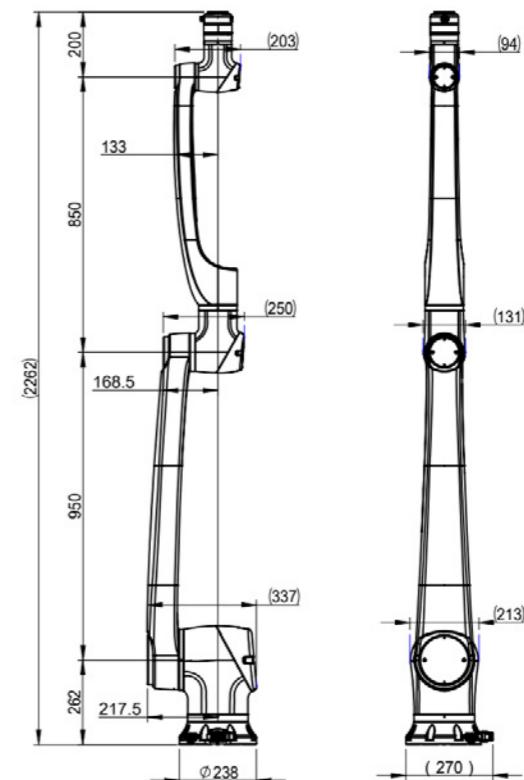
Weight	70kg
Payload	12kg
Reach	1800mm
Joint range	J1, J4, J6 ±360° J2 ±135° J3 ±155° J5 ±180°
Tool speed	3m/s
Repeatability	±0.05mm
Power consumption	600W typical application
Joint speed	J1-J2 80°/s J3-J4 120°/s J5-J6 150°/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0-50°C
Power input	100-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

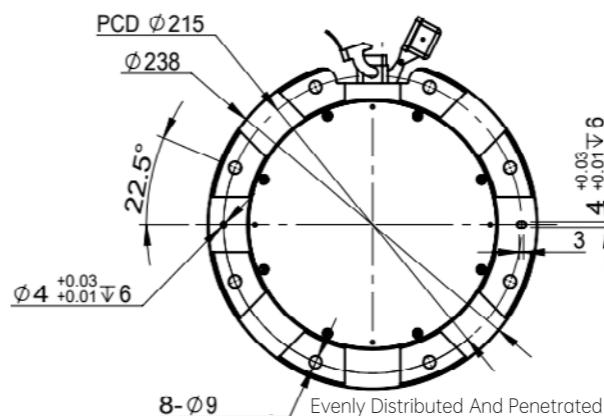
Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x 146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				

Vision parameters (optional)

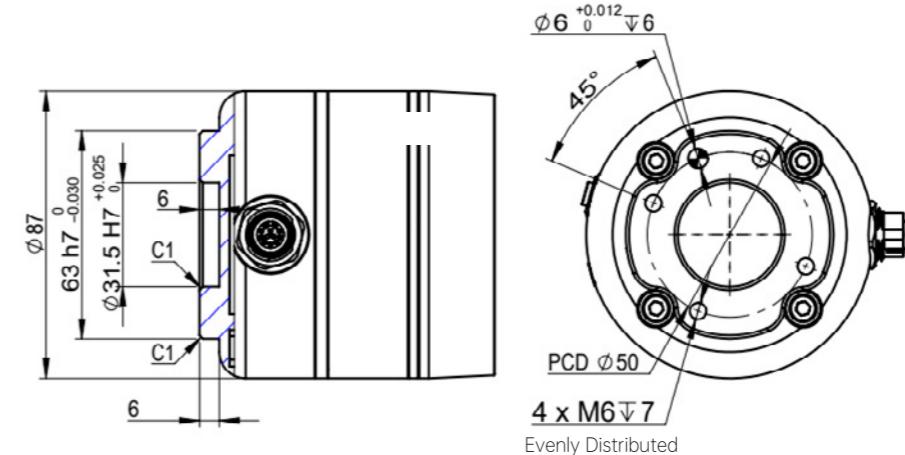
Control Box		Teach Pendant	
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	290x234x108(mm)
Stand Height	176mm	Weight	2.5kg
Weight	18.5kg	Display	11"
Power Output	48V DC	Resolution	1920x1200
Working Temperature	0~50°C /	E-stop Button	1
Working Humidity	90%Relative Humidity(non-condensing)		
IP Classification	IP20		
Communication Frequency	1000Hz		



Base Installation Dimensions



End Tool Installation Dimensions



E15-Pro

Elfin-Pro
 Collaborative Robot

Tech Specs

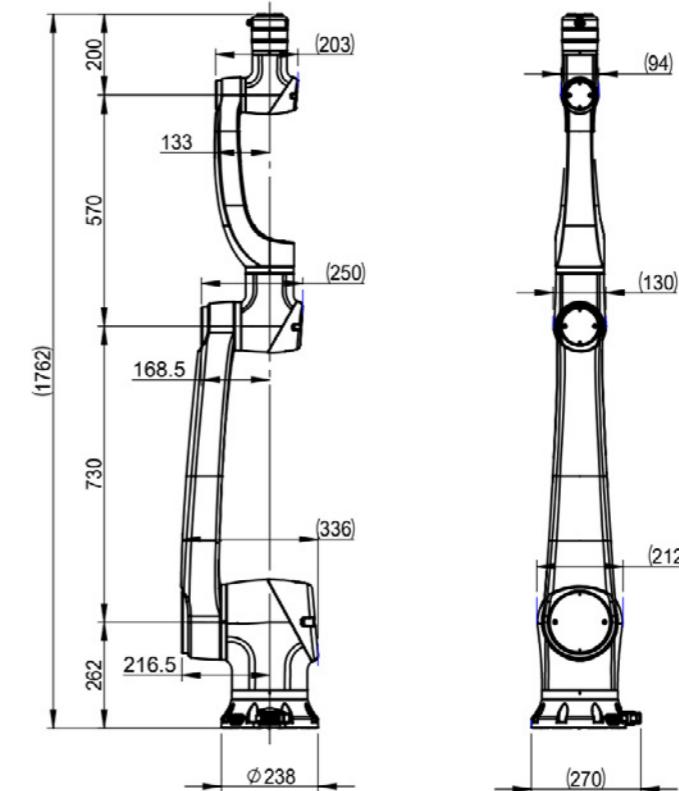

Weight	60kg
Payload	15kg
Reach	1300mm
Joint range	J1、J4、J6 ±360° J2 ±135° J3 ±155° J5 ±180°
Tool speed	2m/s
Repeatability	±0.05mm
Power consumption	600W typical application
Joint speed	J1-J2 80°/s J3-J4 120°/s J5-J6 150°/s
Degree of freedom	6
End I/O port	Digital input: 3 Digital output: 3 Analog input: 2
Control box I/O port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2
I/O Source	24V 2A
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming remote call interface
Collaborative operation	10 advanced security configuration functions
Main material	Aluminum alloy
Working temperature	0~50°C
Power input	100~240V AC, 50~60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

Force control parameters (optional)

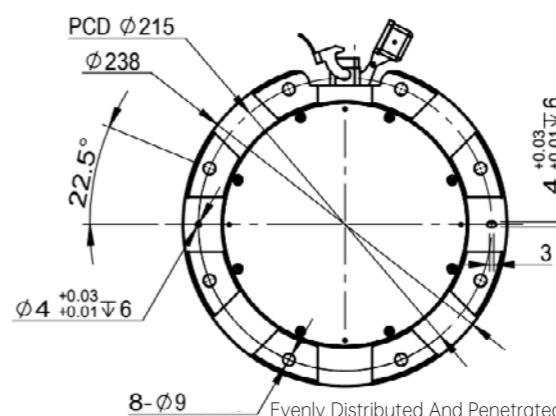
Force control, tool flange	Force x-y-z, Torque Rx-Ry-Rz	Focus height	100mm~500mm	Communication interface	WiFi, network port
Range	200N, 10Nm	Application accuracy	±0.2mm	IP classification	IP54
Precision	2N, 0.1Nm	Hardware size	93.78mm x 54.45mm x 146.24mm	Optional lens	8mm
Accuracy	4N, 0.2Nm	Camera pixels	6 million pixels		
IP classification	IP54 or IP66				

Vision parameters (optional)

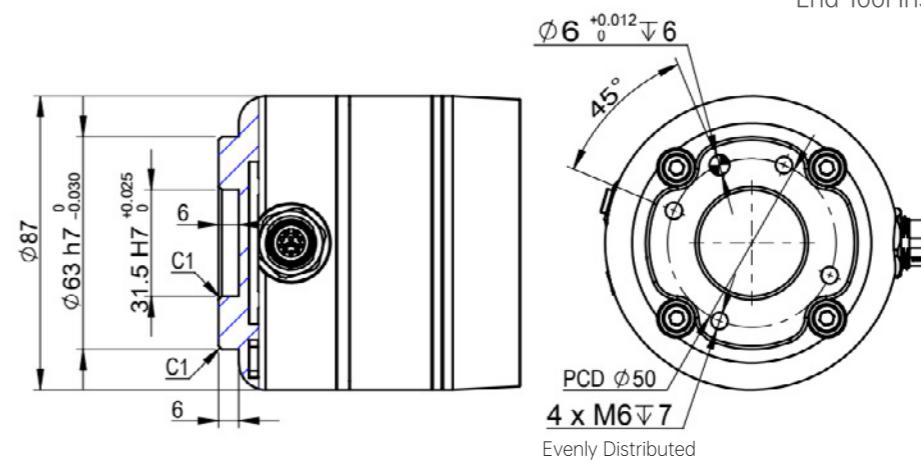
Control Box		Teach Pendant	
Dimensions	445.2mm x 318.8mm x (360+176)mm	Dimensions	290x234x108(mm)
Stand Height	176mm	Weight	2.5kg
Weight	18.5kg	Display	11"
Power Output	48V DC	Resolution	1920x1200
Working Temperature	0~50°C /	E-stop Button	1
Working Humidity	90%Relative Humidity(non-condensing)		
IP Classification	IP20		
Communication Frequency	1000Hz		



Base Installation Dimensions



End Tool Installation Dimensions



Evenly Distributed

Overview

S Heavy Payload Robot



Han's Robot S heavy payload robot with high payloads and long arm reach, which can easily handle a super heavy 35KG payload and 1650mm~1800mm working radius. It can be widely used in machine loading and unloading, palletizing, assembly and heavy load handling applications. Han's Robot S heavy payload robot is a great tool for users to improve their productivity comprehensively, with a qualitative leap in product performance, safety protection, response time and anti-interference capability.

- Very low barrier to entry
- Suitable for heavy load scenarios
- Smooth operation
- Simple customisation and easy deployment
- Extremely fast response

Configuration Details

Configuration instructions	Robot	Control Box	Teach Pendant	Cable	Applications
Standard				Standard teach pendant (Resolution 1024x800, screen size 10.4 inches)	5m /
Control box			Dimensions 445.2mmx318.8mmx(360+176)mm Stand height 176mm Weight 18.5kg Power output 48V DC Working temperature 0~50°C Working Humidity 90% relative humidity (non-condensing) IP classification IP20	Dimensions 290x234x108(mm) Weight 2.5kg Display 11" Resolution 1920x1200 E-stop button 1	

S20

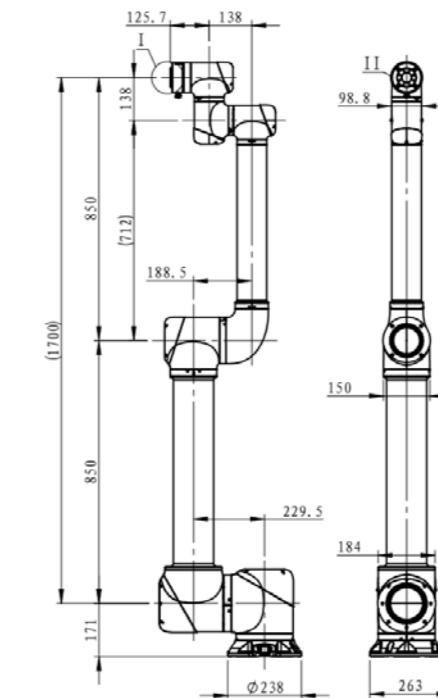
S Heavy Payload Robot

Tech Specs

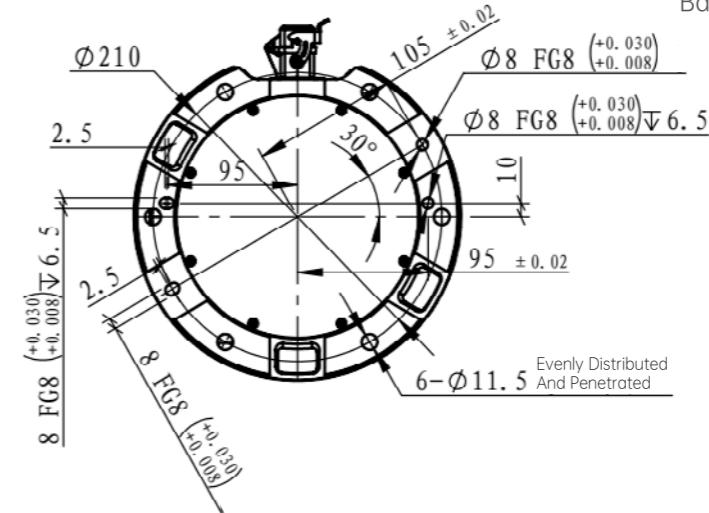


Weight	64kg
Payload	20kg
Reach	1700mm
Joint speed	J1, J4, J5, J6 $\pm 360^\circ$ J2 $-190^\circ / + 10^\circ$ J3 $\pm 168^\circ$
Tool speed	2m/s
Repeatability	$\pm 0.05\text{mm}$
Power consumption	800W typical application
Joint speed	J1-J2 120°/s J3 120°/s, J4-J6 180°/s
Degree of freedom	6
End I/O port	Digital input: 3, digital output: 3, analogue input: 2
Control box I/O port	Digital input: 16, digital output: 16, analogue input: 2, analogue output: 2
I/O Source	24V 2A
Communication	TCP/IP, Modbus
Programming	Graphical programming, remote call interface
IP classification	IP54
Main material	Aluminum alloy
Working temperature	0~45°C
Power input	200~240V AC, 50~60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

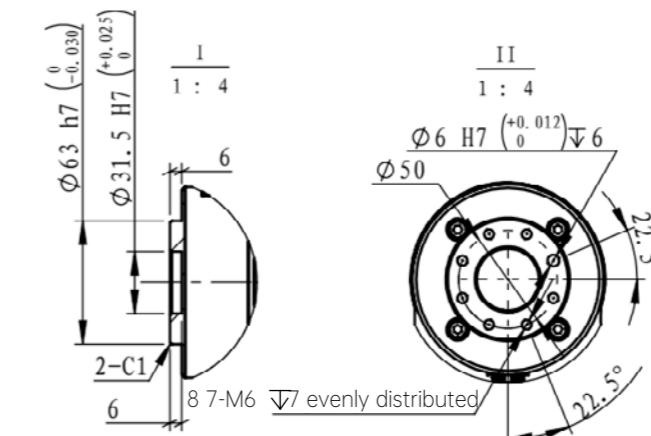
Control box	Teach pendant
Dimensions	445.2mmx318.8mmx(360+176)mm
Stand height	176mm
Weight	18.5kg
Power output	48V DC
Working temperature	0~50°C
Working Humidity	90% relative humidity (non-condensing)
IP classification	IP20
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop button	1



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

S30

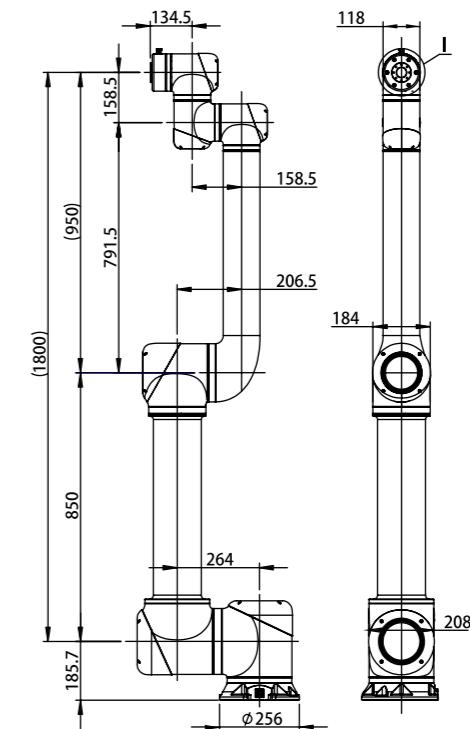
S Heavy Payload Robot

Tech Specs

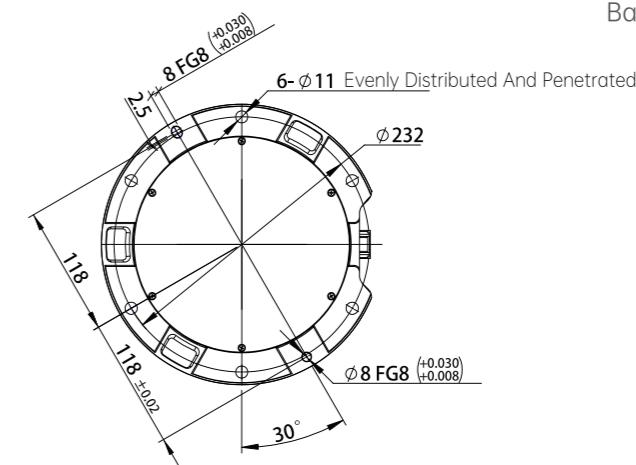


Weight	93kg
Payload	30kg
Reach	1800mm
Joint speed	J1, J4, J5, J6 $\pm 360^\circ$ J2 $-190^\circ/+10^\circ$ J3 $\pm 160^\circ$
Tool speed	2.5m/s
Repeatability	$\pm 0.05\text{mm}$
Power consumption	1000W typical application
Joint speed	J1-J2 $120^\circ/\text{s}$ J3 $120^\circ/\text{s}$, J4-J6 $180^\circ/\text{s}$
Degree of freedom	6
End I/O port	Digital input: 3, digital output: 3, analogue input: 2
Control box I/O port	Digital input: 16, digital output: 16, analogue input: 2, analogue output: 2
I/O Source	24V 2A
Communication	TCP/IP, Modbus
Programming	Graphical programming, remote call interface
IP classification	IP54
Main material	Aluminum alloy
Working temperature	0-50°C
Power input	110-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

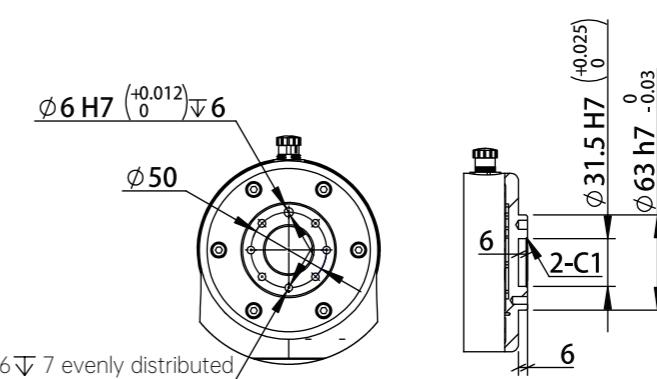
Control box	Teach pendant
Dimensions	445.2mmx318.8mmx(360+176)mm
Stand height	176mm
Weight	18.5kg
Power output	48V DC
Working temperature	0~50°C
Working Humidity	90% relative humidity (non-condensing)
IP classification	IP20
Dimensions	290x234x108(mm)
Weight	2.5kg
Display	11"
Resolution	1920x1200
E-stop button	1



Base Installation Dimensions



End Tool Installation Dimensions



S35

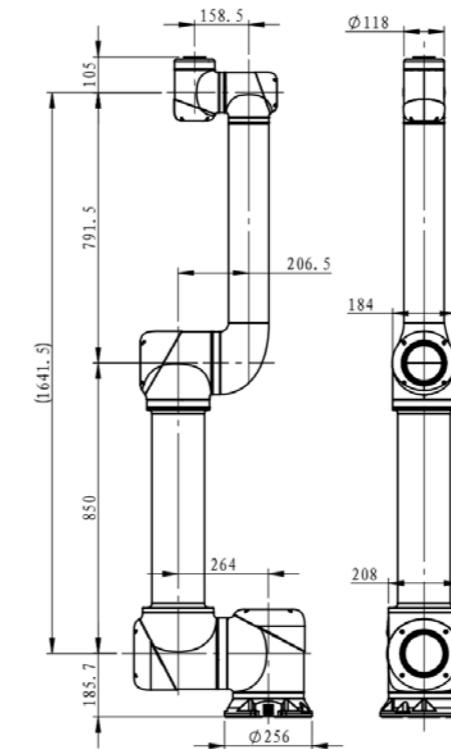
S Heavy Payload Robot

Tech Specs

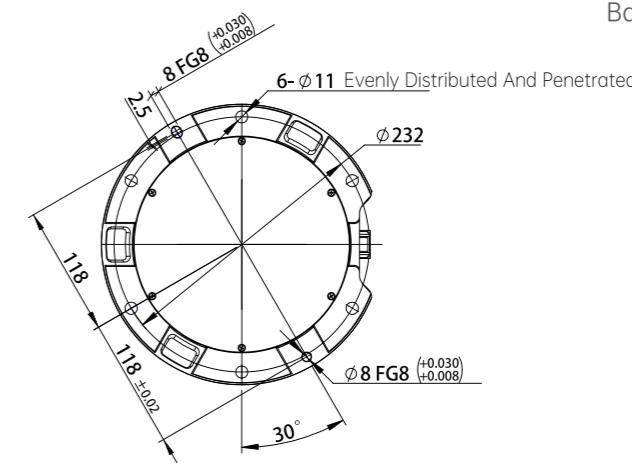


Weight	88kg
Payload	35kg
Reach	1650mm
Joint speed	J1、J4、J5、J6 ±360° J2 -190°/+10° J3 ±160°
Tool speed	2.5m/s
Repeatability	±0.1mm
Power consumption	1000W typical application
Joint speed	J1-J2 120°/s J3 120°/s, J4-J6 180°/s
Degree of freedom	5
Communication	TCP/IP, Modbus
Programming	Graphical programming, remote call interface
IP classification	IP54
Main material	Aluminum alloy
Working temperature	0-50°C
Power input	110-240V AC, 50-60Hz
Cable	Cable to the control box: 5m; cable to the teach pendant: 5m

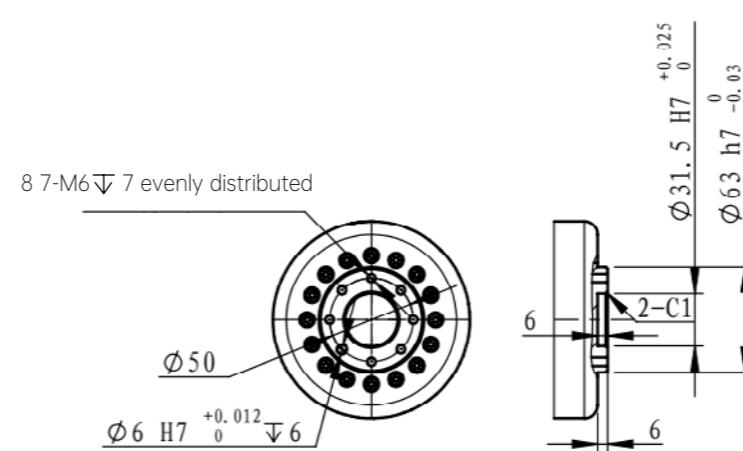
Control box		Teach pendant	
Dimensions	445.2mmx318.8mmx(360+176)mm	Dimensions	290x234x108(mm)
Stand height	176mm	Weight	2.5kg
Weight	18.5kg	Display	11"
Power output	48V DC	Resolution	1920x1200
Working temperature	0~50°C	E-stop button	1
Working Humidity	90% relative humidity (non-condensing)		
IP classification	IP20		



Size Specification



Base Installation Dimensions



End Tool Installation Dimensions

Elfin-Ex

Explosion-proof Collaborative Robot



Overview

Han's Robot introduces the explosion-proof collaborative robots, which have received national certification for explosion protection. It can replace workers and work in explosive hazardous environments to significantly reduce operational risks.

The series adopts a leak-compensated positive pressure explosion-proof system with medium isolation of the ignition source, and the shell is designed with multiple sealing structures, thus realising a compound explosion-proof structure of intrinsic safety and positive pressure; equipped with a positive pressure monitoring system, the positive pressure protection gas pressure of the robot can be monitored in real time and provides power failure protection , blocking explosive combustible gases and dust from entering the robot to avoid the risk of explosion.



Economic Explosion-Proof Cobot

Configuration 1



Explosion-proof robot arm body

Built-in pressure sensor, positive pressure explosion-proof construction



Economic version of electric control box

Wireless router and audible and visual alarms, with wireless ipad operation, body pressure monitoring and power failure protection in abnormal conditions



Explosion-proof iPad

Intrinsically safe explosion-proof

The Economic version of electric control box must be placed in a safe environment, and the robot arm and control box must be debugged in a non-explosion-proof environment. The maximum length of the connection cable between the robot arm and electric control box is 20 meters, and the maximum wireless communication distance of the explosion-proof ipad is 50 meters.

Standard Explosion-Proof Cobot

Configuration2



Explosion-proof robot arm body

Built-in pressure sensor, positive pressure explosion-proof construction



Explosion-proof Electric Control Box

Robotic arm control module, explosion-proof cabinet with pressure monitoring system to ensure normal operation of the arm in real time and protection against power failure in case of pressure abnormalities



Explosion-proof iPad

Intrinsically safe explosion-proof

Can be used in explosive environments!

Standard version: Both the robot arm and electronic control box have positive pressure explosion-proof function, can be placed in explosive hazardous areas, to meet the requirements of explosion-proof certification, and have explosion-proof certificates.

Economic version: The robot arm has positive pressure explosion-proof function, the electronic control box does not have explosion-proof function, and should be placed in the safe area; it meets the requirements of explosion-proof certification, and has an explosion-proof certificate.

Customized version: Customized development of explosion-proof function according to customers' requirements, to meet the special requirements of customers.

Economic version of electric control box (Optional)

Dimensions 600x350x655(500+155)(mm)

Power Input AC220V

Weight 50kg

Explosion-proof Ex pxb IIC T6 Gb

IP Classification Ex pxb IIIC T80°C Db

IP Classification IP66



Explosion-proof Electric Control Box (Optional)

Dimensions 650x400x800(mm)

Power Input AC220V

Weight 100kg

Explosion-proof Ex pxb IIC T6 Gb

IP Classification Ex pxb IIIC T80°C Db

IP Classification IP66



E05F

Elfin-Ex
Explosion-proof Collaborative Robot

Tech Specs



Weight	25kg
Payload	5kg
Reach	800mm
Power consumption	180W typical application
Joint Range	J1, J4, J6 $\pm 360^\circ$ J2 $\pm 135^\circ$ J3 $\pm 153^\circ$ J5 $\pm 180^\circ$
Joint Speed	J1-J4: $180^\circ/\text{s}$ J5-J6: $200^\circ/\text{s}$
Maximum tool speed	3m/s
Repeatability	$\pm 0.02\text{mm}$
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
Degree of freedom	6
Control box/I/O port	Digital input:16 Digital output:16 Analogue input:2 Analogue output:2
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming, remote call interface
IP Classification	IP66
Collaborative operation	10 advanced security configuration functions
Main material	Aluminium alloy
Working Temperature	-20—40°C
Power input	200-240V AC, 50-60Hz
Cable	Maximum length customizable 15-20m

Economic version of electric control box (Optional)

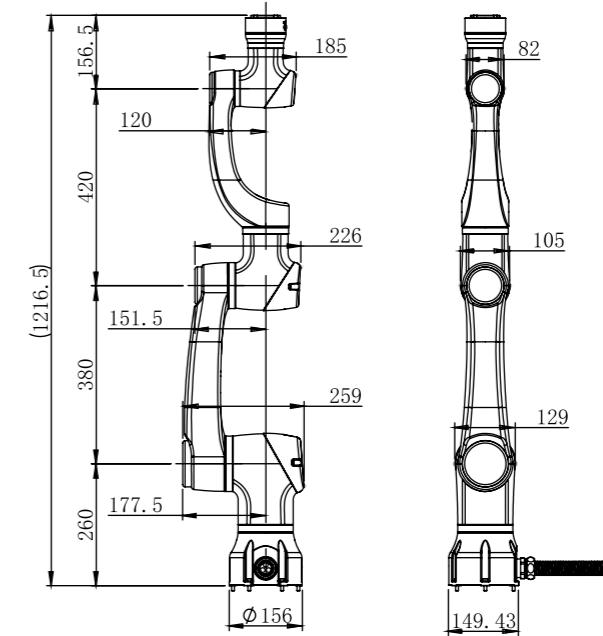


Dimensions	600x350x655(500+155)(mm)
Power Input	AC220V
Weight	50kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb Ex pxb IIIC T80°C Db
IP Classification	IP66

Explosion-proof Electric Control Box (Optional)

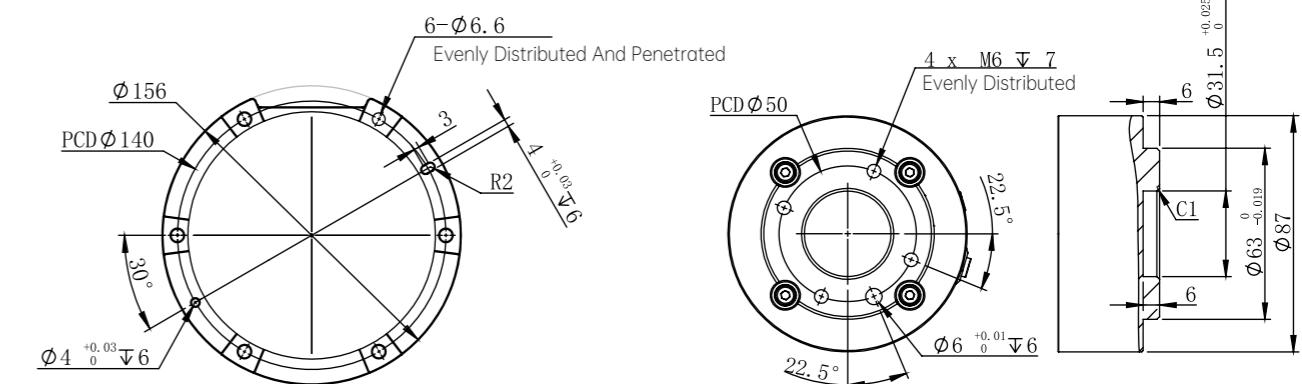


Dimensions	650x400x800(mm)
Power Input	AC220V
Weight	100kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb Ex pxb IIIC T80°C Db
IP Classification	IP66

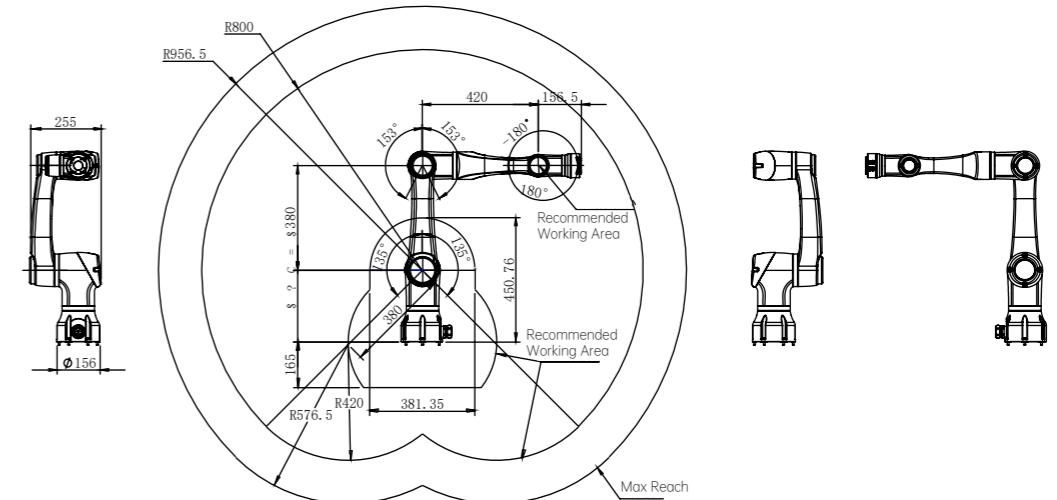


Base Installation Dimensions

End Tool Installation Dimensions



Motion Range



E10F

Elfin-Ex Explosion-proof Collaborative Robot

Tech Specs



Weight	43kg
Payload	10kg
Reach	1000mm
Power consumption	350W typical application
Joint Range	J1, J4, J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Joint Speed	J1-J2: 100°/s J3-J4: 150°/s J5-J6: 180°/s
Maximum tool speed	2m/s
Repeatability	±0.03mm
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
Degree of freedom	6
Control box/I/O port	Digital input:16 Digital output:16 Analogue input:2 Analogue output:2
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming, remote call interface
IP Classification	IP66
Collaborative operation	10 advanced security configuration functions
Main material	Aluminium alloy
Working Temperature	-20—40°C
Power input	200-240V AC, 50-60Hz
Cable	Maximum length customizable 15-20m

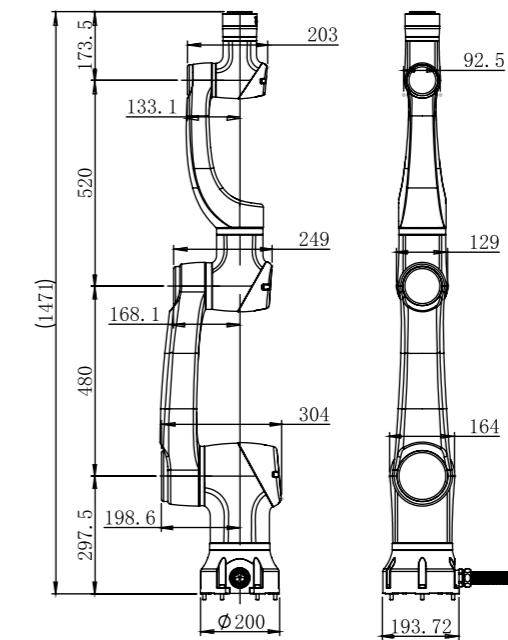
Economic version of electric control box (Optional)

Dimensions	600x350x655(500+155)(mm)
Power Input	AC220V
Weight	50kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
IP Classification	IP66

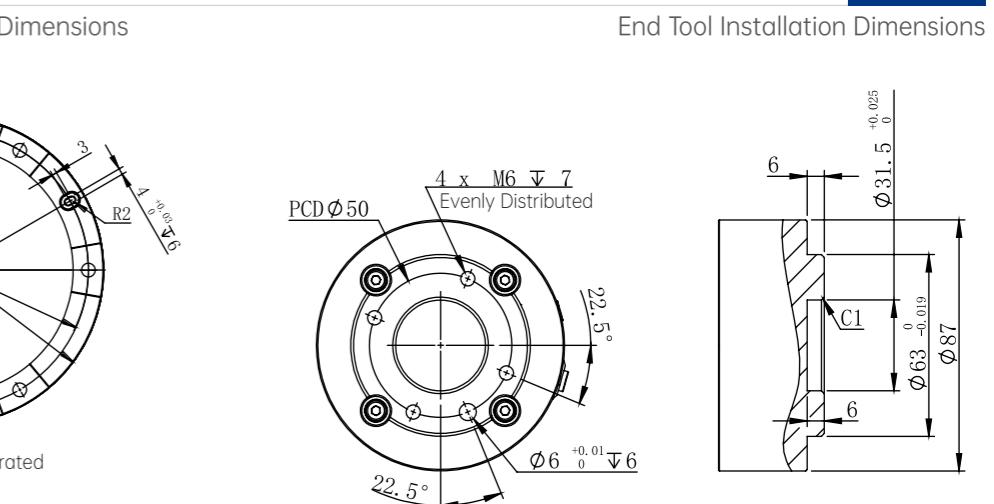


Explosion-proof Electric Control Box (Optional)

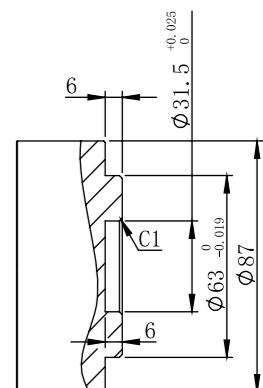
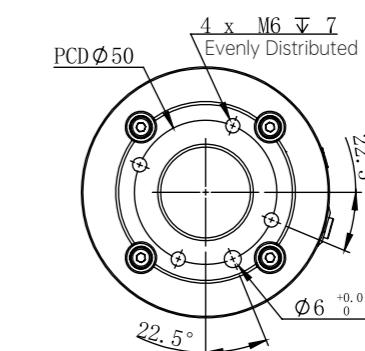
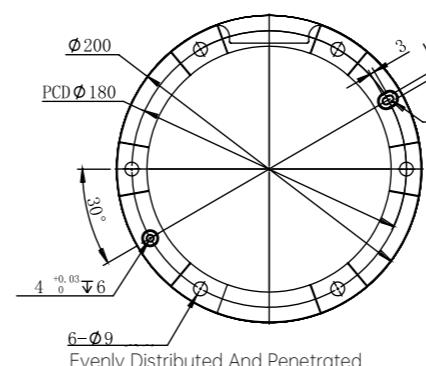
Dimensions	650x400x800(mm)
Power Input	AC220V
Weight	100kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
IP Classification	IP66



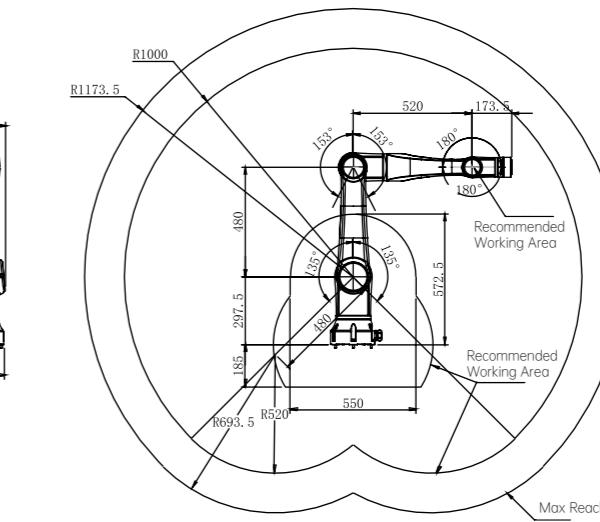
Base Installation Dimensions



End Tool Installation Dimensions



Motion Range



E10F-L

Elfin-Ex
Explosion-proof Collaborative Robot

Tech Specs



Weight	45kg
Payload	8kg
Reach	1300mm
Power consumption	350W typical application
Joint Range	J1, J4, J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Joint Speed	J1-J2: 100°/s J3-J4: 150°/s J5-J6: 180°/s
Maximum tool speed	2.5m/s
Repeatability	±0.03mm
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
Degree of freedom	6
Control box/I/O port	Digital input:16 Digital output:16 Analogue input:2 Analogue output:2
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming, remote call interface
IP Classification	IP66
Collaborative operation	10 advanced security configuration functions
Main material	Aluminium alloy
Working Temperature	-20—40°C
Power input	200-240V AC, 50-60Hz
Cable	Maximum length customizable 15-20m

Economic version of electric control box (Optional)

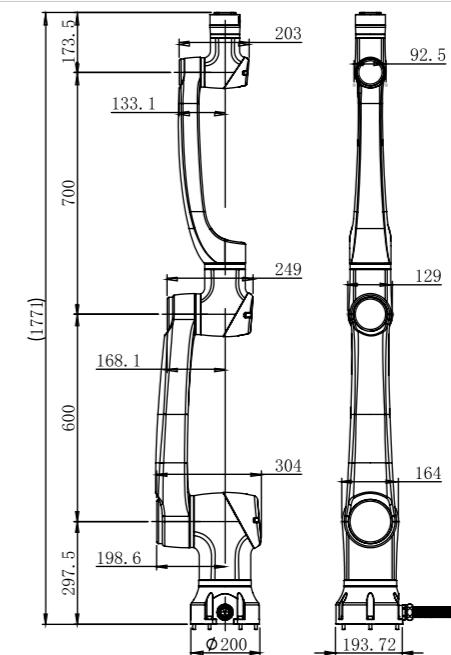


Dimensions	600x350x655(500+155)(mm)
Power Input	AC220V
Weight	50kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb Ex pxb IIIC T80°C Db
IP Classification	IP66

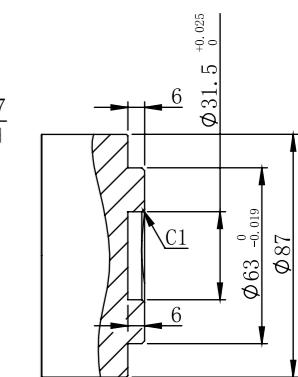
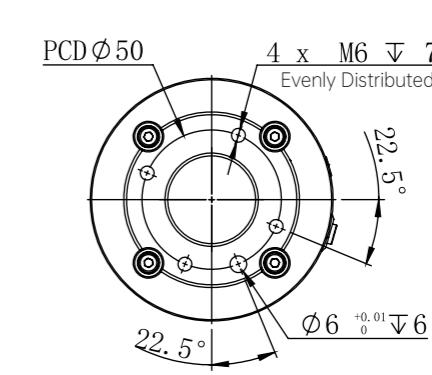
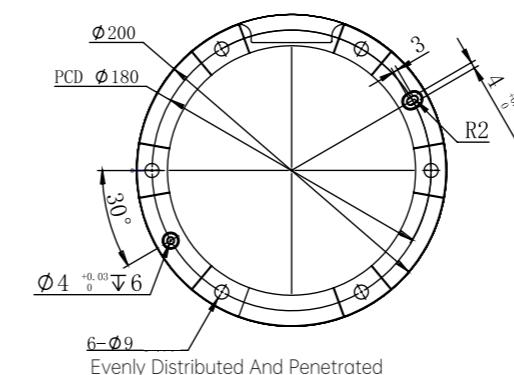
Explosion-proof Electric Control Box (Optional)



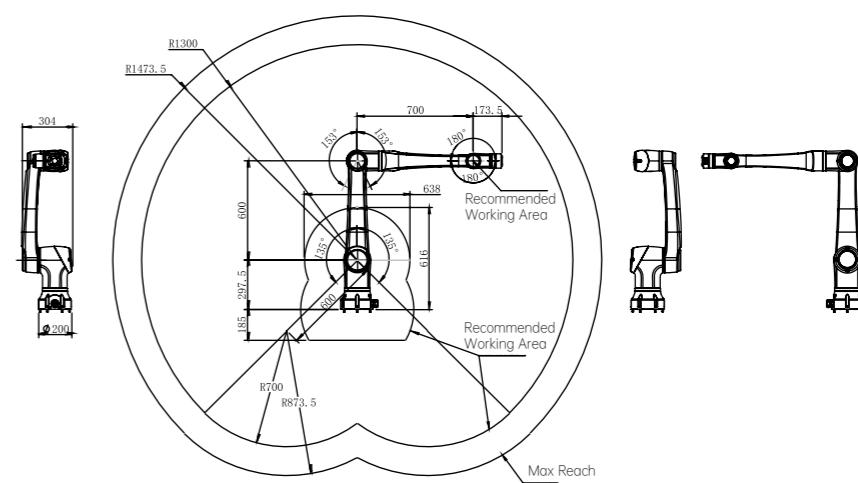
Dimensions	650x400x800(mm)
Power Input	AC220V
Weight	100kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb Ex pxb IIIC T80°C Db
IP Classification	IP66



Base Installation Dimensions



Motion Range



E12F

Elfin-Ex Explosion-proof Collaborative Robot

Tech Specs



Weight	72kg
Payload	12kg
Reach	1800mm
Power consumption	600W typical application
Joint Range	J1、J4、J6 ±360° J2 ±135° J3 ±155° J5 ±180°
Joint Speed	J1-J2: 120°/s J3-J4: 120°/s J5-J6: 150°/s
Maximum tool speed	3m/s
Repeatability	±0.05mm
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
Degree of freedom	6
Control box/I/O port	Digital input:16 Digital output:16 Analogue input:2 Analogue output:2
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming, remote call interface
IP Classification	IP66
Collaborative operation	10 advanced security configuration functions
Main material	Aluminium alloy
Working Temperature	-20—40° C
Power input	200-240V AC, 50-60Hz
Cable	Maximum length customizable 15-20m

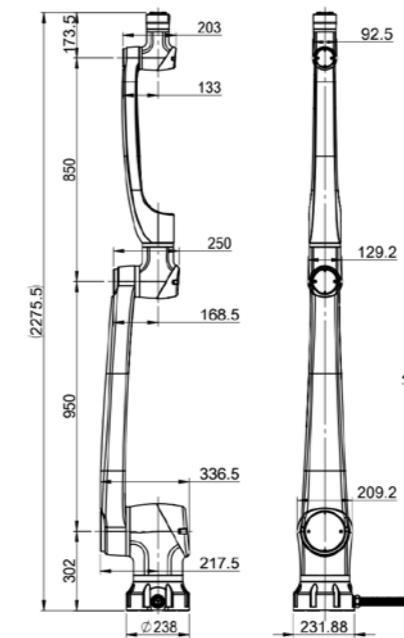
Economic version of electric control box (Optional)

Dimensions	600x350x655(500+155)(mm)
Power Input	AC220V
Weight	50kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
IP Classification	IP66



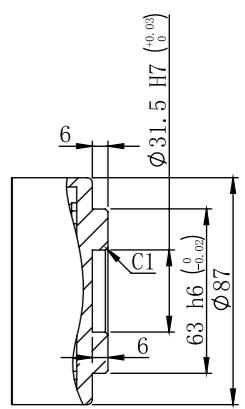
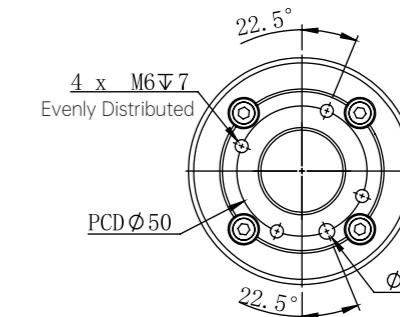
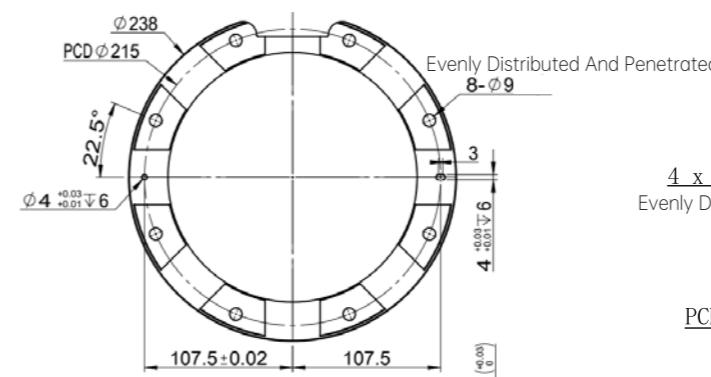
Explosion-proof Electric Control Box (Optional)

Dimensions	650x400x800(mm)
Power Input	AC220V
Weight	100kg
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
IP Classification	IP66

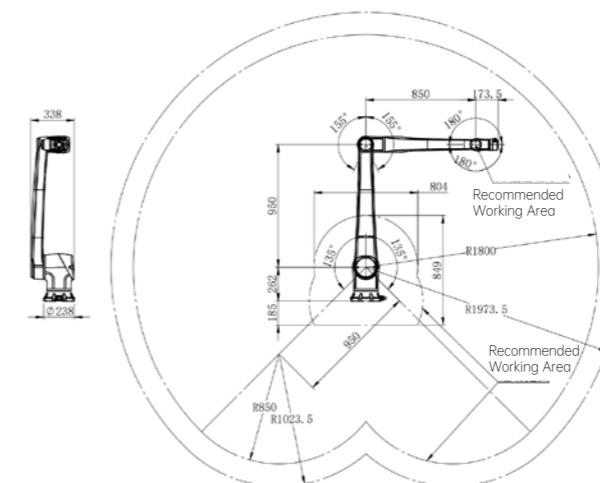


Base Installation Dimensions

End Tool Installation Dimensions



Motion Range



E15F

Elfin-Ex
Explosion-proof Collaborative Robot

Tech Specs



Weight	60kg
Payload	15kg
Reach	1300mm
Power consumption	600W typical application
Joint Range	J1、J4、J6 ±360° J2 ±135° J3 ±153° J5 ±180°
Joint Speed	J1-J2: 80°/s J3-J4: 120°/s J5-J6: 150°/s
Maximum tool speed	2m/s
Repeatability	±0.05mm
Explosion-proof IP Classification	Ex pxb IIC T6 Gb / Ex pxb IIIC T80°C Db
Degree of freedom	6
Control box/I/O port	Digital input:16 Digital output:16 Analogue input:2 Analogue output:2
Communication	TCP/IP ModbusTCP Profinet (Optional) Ethernet/IP (Optional)
Programming	Graphical programming,remote call interface
IP Classification	IP66
Collaborative operation	10 advanced security configuration functions
Main material	Aluminium alloy
Working Temperature	-20—40° C
Power input	200-240V AC, 50-60Hz
Cable	Maximum length customizable 15-20m

Economic version of electric control box (Optional)

Dimensions	600x350x655(500+155)(mm)
Power Input	AC220V
Weight	50kg
Explosion-proof	Ex pxb IIC T6 Gb
IP Classification	Ex pxb IIIC T80°C Db
IP Classification	IP66

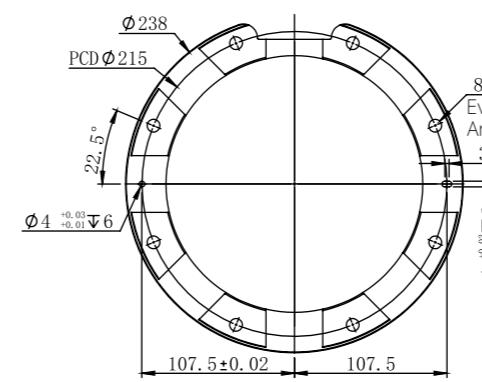


Explosion-proof Electric Control Box (Option)

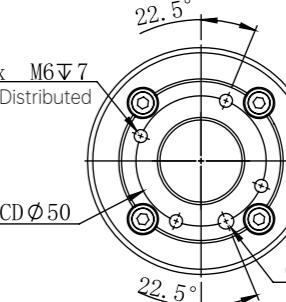
Dimensions	650x400x800(mm)
Power Input	AC220V
Weight	100kg
Explosion-proof	Ex pxb IIC T6 Gb
IP Classification	Ex pxb IIIC T80°C Db
IP Classification	IP66



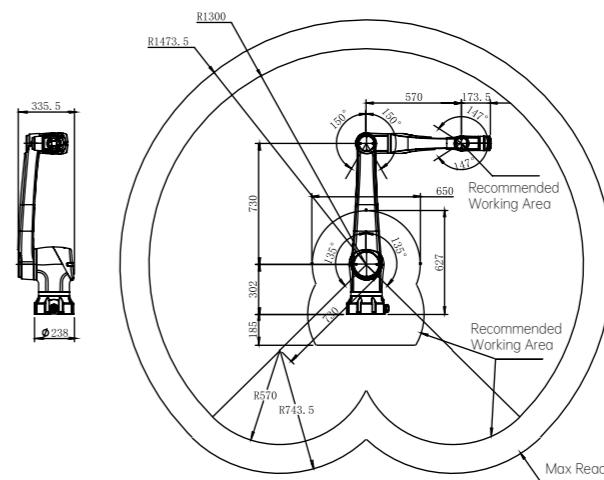
Base Installation Dimensions



End Tool Installation Dimensions



Motion Range



The diagram illustrates a mechanical linkage system, likely a component of a robotic arm. It consists of several links connected by joints. In the left view, a vertical link is shown with a horizontal slot or track. A smaller link is attached to the side of this vertical link and is constrained to move within the slot. In the right view, the same mechanism is shown from a different angle, revealing more of the internal structure and the way the links are interconnected.



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