

S12-125 Eco

S Series robot redefines programming mode, establishing a shared safety space between humans and robots. Through seamless integration with AI, it delivers flexible manufacturing solutions for enterprises, embodying unparalleled intelligence, efficiency, safety and reliability.

12kg

1250mm

Payload

Reach

38kg

±0.05mm

Weight

Repeatability

✓ TRUSTED SAFETY

- Emergency stop, incl. STO, SBC, conforms to EN ISO 10218-1, EN ISO 13849-1 Pld.Cat.3.
- Sensitive to collisions.
- Brakes built into all axes.

⚡ ADVANCED MOTION CONTROL

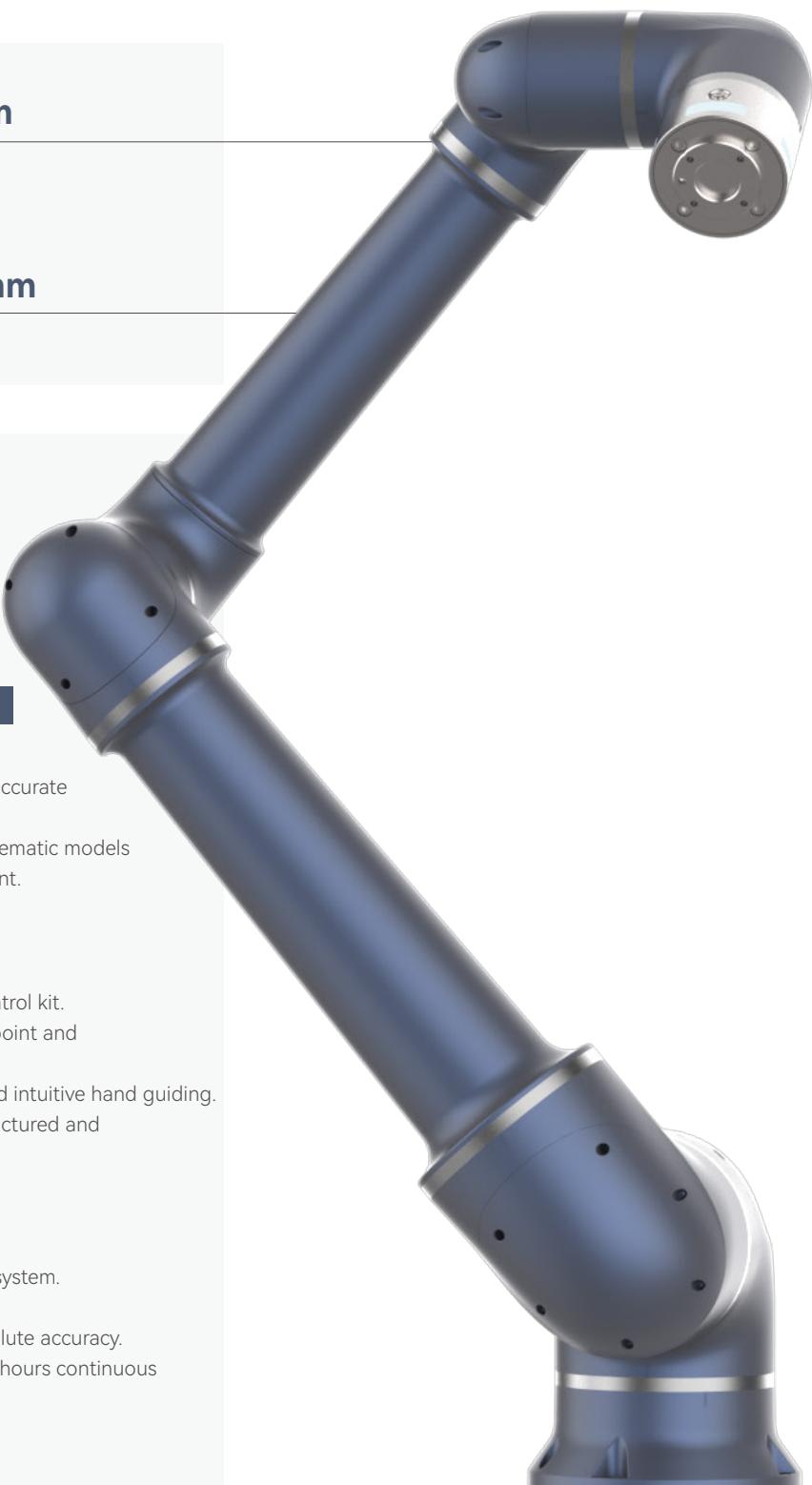
- Paired with the speed of traditional industrial robot.
- Precision upgraded to industrial robot level through accurate calibration and compensation.
- Identification and compensation of high precision kinematic models ensure both accurate trajectory and smooth movement.

⌚ FLEXIBLE USABILITY

- Built-in torque sensor, supporting by wizard force control kit.
- Easy handling with enhanced precision for point-to-point and trajectory programming.
- Mastering the robot in 60 minutes via graphical UI and intuitive hand guiding.
- Integrated vision system, capable of running in unstructured and dynamic automation.

⟲ QUALITY SYSTEM

- Comprehensive manufacturing quality management system.
- Rigorous manufacturing quality control & inspection.
- Kinematic calibration before shipment to ensure absolute accuracy.
- 100+ design type tests, 20+ delivery inspections, 120 hours continuous no failure operating before shipment.



S12-125 Eco



Control Cabinet



Model	S12-125 Eco	Power supply	AC	100~240V 50/60Hz
DOF	6		DC	48V (-15%~+0%)
Payload (kg)	12	IP classification		IP20
Reach (mm)	1250	Working condition		Temperature: 0~50°C
Repeatability (mm)	±0.05			Humidity: 10~90%RH, Non-condensing
Weight (kg)	38	Communication interface	Default	MODBUS TCP, RS485, TCP-IP
Safety	Hand guide, adjustable collisiondetection		Option	ProfiNET (Slave), EtherNet/IP (Slave)
Certification	EN ISO 13849-1 PLd Cat.3 & EN ISO 10218-1		Power supply	24V, 2A
IP Classification	IP54 (Default), IP67 (Option)	IO interface	Digital	DI: PNP/NPN, 16 channels, DO: PNP, 16 channels
Max. Speed at Tool End (m/s)	4.5		Analog	4 channels, AI: Current mode/voltage mode
Working Range	Axis 1/2/4/5/6: ±360° Axis 3: ±160°			AO: Current mode/voltage mode
Max. Speed	Axis1/2: 173 °/s Axis3: 208 °/s Axis4/5/6: 297 °/s	Safety interface	Safety emergency stop input, 4 channels	
Mounting	Any orientation			Safety emergency stop output, 1 channel
Operating Temp.	0 ~ 50 °C	Redevelopment		Remote Script, API
Operating Humidity	70% RH	Cabinet dimension		370*230*190mm
Flange Connector	ISO 9409-1-50-4-M6	Cable length	Robot-Cabinet: 3m, Cabinet power cable: 3m, Handle: 5m	
Flange Communication	2 DI, 2DO, 24VDC, RS485			Heavy-duty Line: 6/12/20m, Flexible Line: 3/6/15/20m (Option)

End Effectors

Various end effectors can be quickly switched to match multiple industry applications



Handling



Screw fastening



Polishing



Welding



Spraying

Teach Pendant optional

Weight (Without cables)	1.24kg
Display Size	10.1 inch
Cable	5m



Technical Drawings

