

# 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.

**12<sub>kg</sub>**

Payload

**1250<sub>mm</sub>**

Reach

**38<sub>kg</sub>**

Weight

**±0.05<sub>mm</sub>**

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

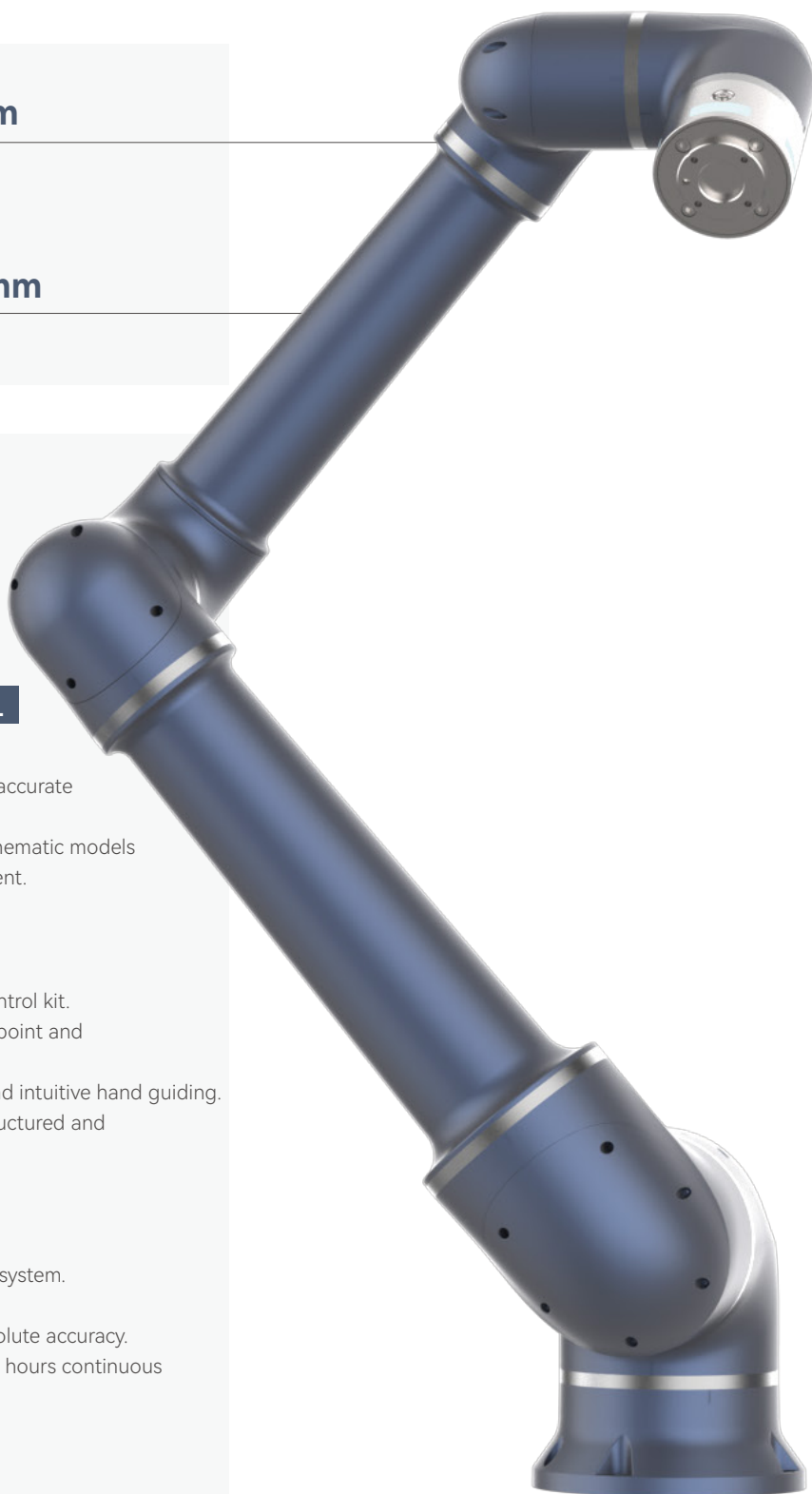
- Paired with the speed of traditional industrial robot.
- Precision upgraded to industrial robot level through accurate calibration and compensation.
- Identification and compensation of high precision kinematic models ensure both accurate trajectory and smooth movement.

## 🔗 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

## Technical specification



### 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 collision detection		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)
		Wi-Fi		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

