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Raybot Smartworks GP2-51-90-E Gripper

RAYBOT



01

Smart Adaptive Gripping

Two-finger linkage spring structure automatically conforms to the contour of objects, enabling gripping of various shapes without complex programming.

02

Programmable Force & Position

Gripping position and force are independently configurable, and the preset values are stably maintained during operation, achieving both firm and flexible gripping.

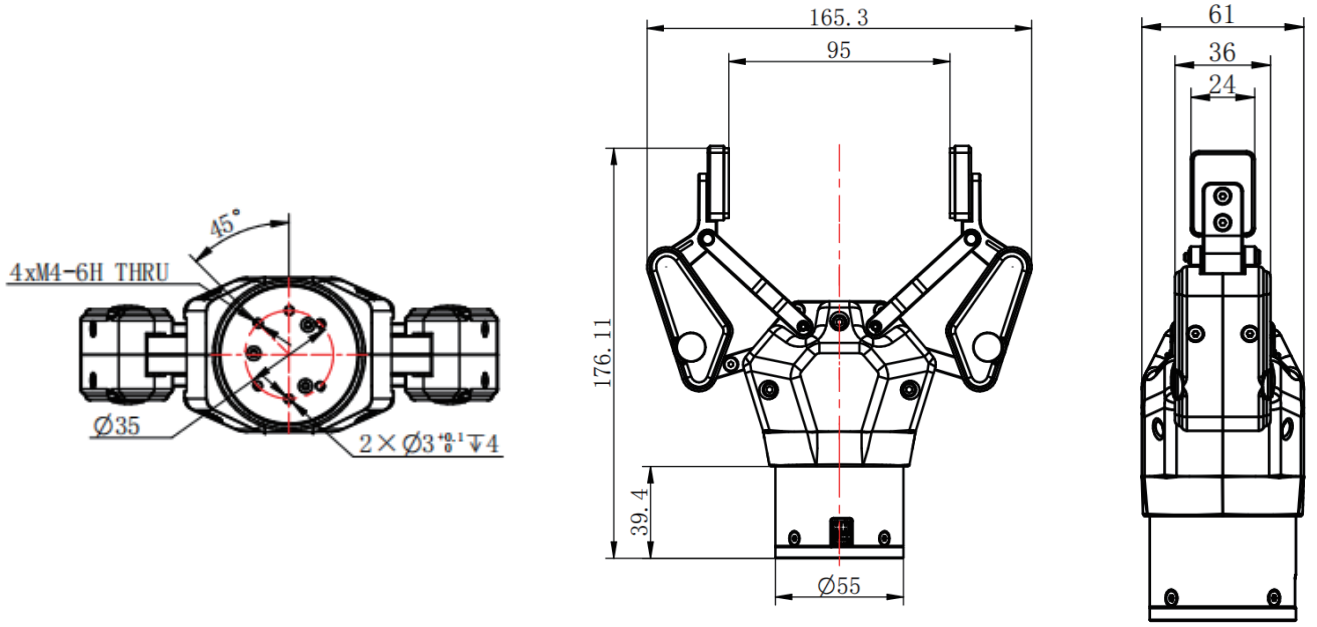
03

Intelligent Judgment & Easy Integration

Integrates force and position dual-control strategy, intelligently determines gripping status, supports CAN and EtherCAT communication protocols – plug and use.

GP2-51-90-E Gripper

This gripper features an innovative two-finger adaptive design. The two fingers integrate a ball screw, planetary gear reducer, and linkage mechanism internally, enabling high gripping force. This ingenious structure gives it a "dexterous" characteristic, allowing it to naturally conform to object surfaces like a human hand, automatically adapting to different shapes for simple and efficient grasping. During operation, the gripper intelligently maintains the set gripping force, ensuring each grasp is both secure and safe, avoiding damage to objects. It provides object drop detection functionality, enabling users to easily handle scenarios where grasped items are dropped. The gripper is equipped with both high-speed EtherCAT and CAN 2.0 communication interfaces, supporting communication frequencies up to 4kHz, allowing for easy integration into various automation systems for seamless connection and control.



Gripper Parameters	Value
Rated Gripping Force	90 N
Peak Gripping Force	120 N
Total Stroke	95 mm
Peak Speed	100 mm/s
Operating Noise	<60dB
Weight	0.75kg
Transmission Method	Planetary gear + Lead screw nut + Linkage mechanism
Dimensions	169.8mmx172.67mmx62.5mm
Electrical Parameters	**Value**
Operating Voltage	24~48V
Current (24V test)	0.2A (Rated) / 0.89A (peak)
Rated Power (24V test)	4.8W
Communication Protocols	CAN/EtherCAT

* Rated grasping force is tested with a gripping stroke of 50mm.