

ENGINEERING DOCUMENTATION

Two-Finger Parallel Electric Gripper

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-EG-C00-S001-V003	DRAFT-08 / 28 Aug 2026	Engineering Integration Reference

Integration Overview

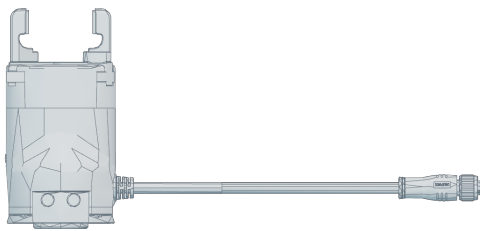
Electric end effector for automated gripping and workpiece handling. This guide supports mounting, finger interface, load-path, cable, commissioning and service planning for ES-EG-C00-S001-V003.

Key Integration Facts

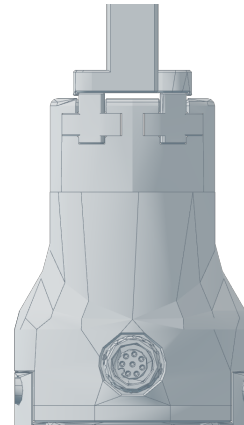
INTEGRATION ITEM	VALUE
Measurement Repeatability	± 0.03 mm
Gripping Force (Per Side)	15-50 N
Maximum Recommended Payload	1 kg
Full-Stroke Open / Close Time	0.7 s/0.7 s
Weight	0.5 kg
Driving Method	+
Unweighted Noise Level	< 50 dB
Communication Interface	: Modbus RTU (RS485) Digital I/O(2 2) : TCP/IP USB2.0 CAN2.0A PROFINET EtherCAT*

3D Orientation and Interface Views

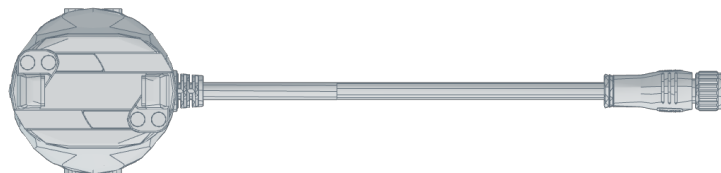
The front, right-side and top views are retained because each exposes a different integration relationship: finger geometry, cable routing direction and robot-side mounting orientation. Dimensions remain governed by the applicable 2D drawing and exact-SKU parameters.



Front View



Right Side View

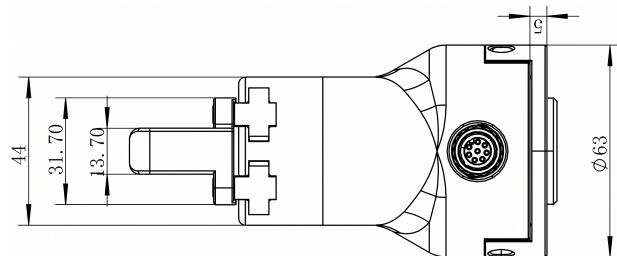


Top View

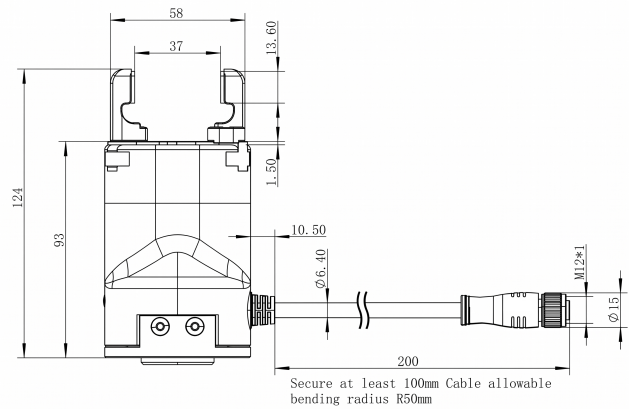
Each selected view contributes a distinct orientation or interface relationship used by the integration guidance.

Product Structure & Views

These views present product structure, mounting interfaces and relevant integration geometry for this SKU.



Mechanical View 1



Mechanical View 2

VIEW	FIELD	VALUE
Mechanical View 1	Angular dimension	5°
	Mounting hole center distance	31.70 mm
	Inner mounting hole center distance	13.70 mm
	Bottom diameter	Ø3 mm
	Top mounting plate width	44 mm
Mechanical View 2	Overall width	58 mm
	Mid-section width	13.60 mm
	Inner width	37 mm
	Dimension	1.50 mm
	Height	124 mm
	Dimension	10.50 mm
	Vertical dimension	93 mm
	Hole diameter	Ø6.40 mm
	Cable length	200 mm

Technical Specifications - 1

PARAMETER	VALUE	UNIT
Measurement Repeatability	± 0.03	mm
Gripping Force (Per Side)	15-50	N
Maximum Recommended Payload	1	kg
Full-Stroke Open / Close Time	0.7 s/0.7	s
Weight	0.5	kg
Driving Method	+	
Unweighted Noise Level	< 50	dB
Communication Interface	: Modbus RTU (RS485) Digital I/O(2 2) : TCP/IP USB2.0 CAN2.0A PROFINET EtherCAT*	

Technical Specifications - 2

PARAMETER	VALUE	UNIT
Peak Current	0.25 A / 0.5 A *	A
Standards Compliance	CE, FCC, RoHS	
Permissible Moment (My)	2	Nm
Continuous Rated Current	0.25 A / 0.5 A *	A
Continuous Rated Output Power	6	W
Allowable Static Vertical Load Fz	150	N
Permissible Moment (Mx)	2.5	Nm
Permissible Moment (Mz)	3	

Mounting, Fingertip and Workpiece Integration

- Support the complete robot mounting interface and verify locating features, fastener engagement and surrounding clearance.
- Validate fingertip mass, overhang, stiffness, retention, contact pressure and the complete finger and workpiece collision envelope.

Load, Cable and Commissioning

- Validate payload, grip contact, workpiece center of mass, acceleration, emergency stop and allowable moments as one installed load case.
- Provide suitable cable routing and strain relief, then verify supply, interface, initialization, command authority and feedback states before automatic operation.

Integration Checklist

- | | |
|----|--|
| 01 | Confirm the exact-SKU drawing and parameter set. |
| 02 | Verify mounting geometry, locating features, fasteners and body envelope. |
| 03 | Validate fingertips, workpiece contact, payload, acceleration and moments. |
| 04 | Route and strain-relieve the cable through the complete motion envelope. |
| 05 | Verify initialization, command authority, feedback and fault behavior. |

[View SKU Product Datasheet](#)[Request controlled 2D drawing](#)[Request controlled STEP review](#)[Request a Quote](#)

Engineering Use and Verification Notice

01. This Dimensional & Integration Guide applies only to EmbodyStack SKU ES-EG-C00-S001-V003 and is intended for dimensional evaluation and preliminary integration. It is not a manufacturing drawing, machine-level load approval, wiring final integration, safety validation or production authorization. Before design freeze, installation or commissioning, verify all dimensions, interfaces, fits, fasteners, loads, motion limits, cable requirements, environmental boundaries and maintenance requirements against the applicable EmbodyStack engineering documentation for this exact SKU. Validate the complete installed system under intended operating and fault conditions.