

ENGINEERING DOCUMENTATION

Two-Finger Parallel Electric Gripper

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-EG-C00-S005-V001	DRAFT-08 / 28 Aug 2026	Engineering Integration Reference

Integration Overview

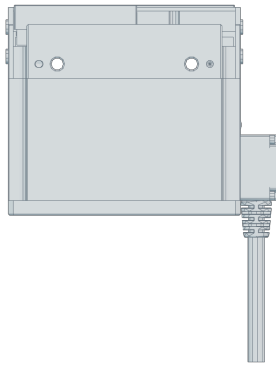
Electric end effector for automated gripping and workpiece handling. This guide supports mounting, finger interface, load-path, cable, commissioning and service planning for ES-EG-C00-S005-V001.

Key Integration Facts

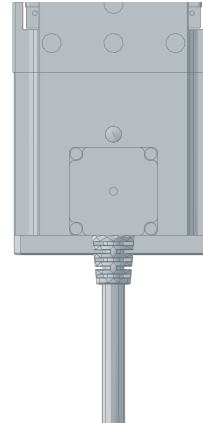
INTEGRATION ITEM	VALUE
Measurement Repeatability	± 0.02 mm
Gripping Force (Per Side)	40~140 N
Maximum Recommended Payload	3 kg
Weight	1 kg
Driving Method	+
Communication Interface	: Modbus RTU (RS485), Digital I/O : TCP/IP (USB2.0 CAN2.0A PROFINET EtherCAT) *4
Peak Current	0.7 A () / 1.6 A () *4A
Standards Compliance	CE, FCC, RoHS

3D Orientation and Interface Views

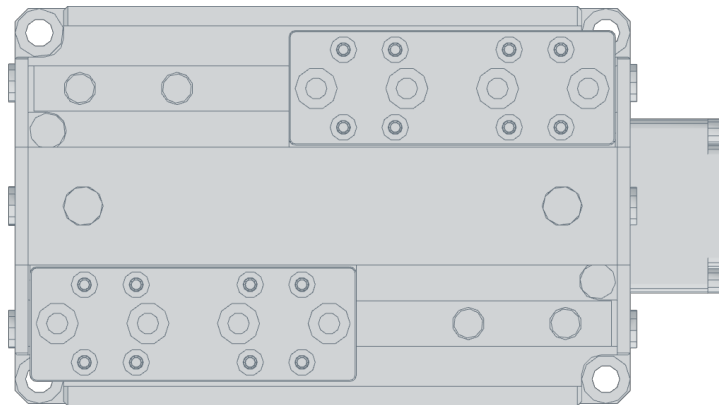
The front, right-side and top views are retained because each exposes a different integration relationship: finger geometry, cable routing direction and robot-side mounting orientation. Dimensions remain governed by the applicable 2D drawing and exact-SKU parameters.



Front View



Right Side View

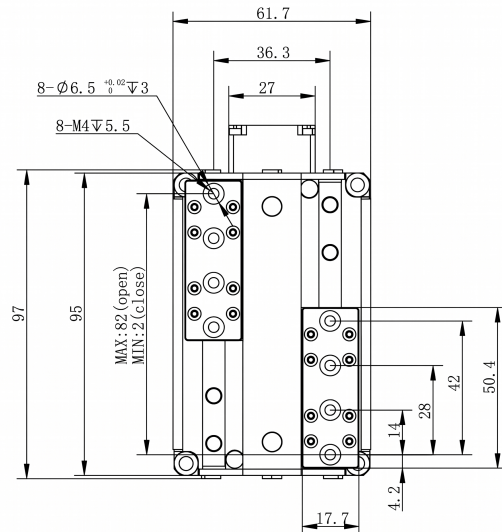


Top View

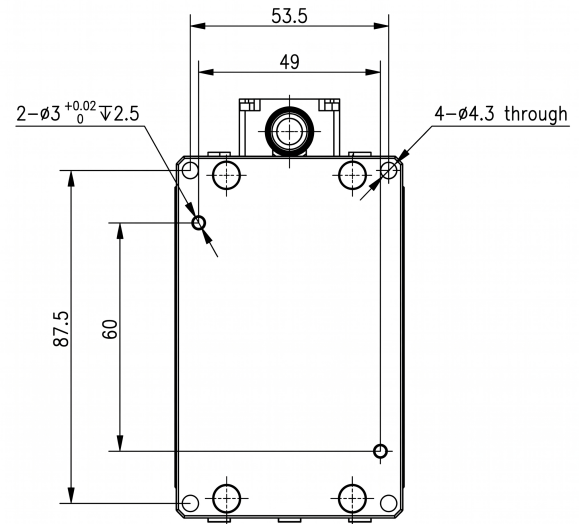
Each selected view contributes a distinct orientation or interface relationship used by the integration guidance.

Product Structure & Views

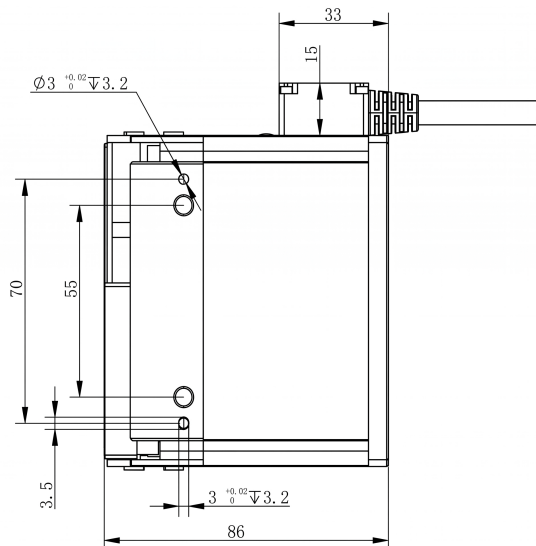
These views present product structure, mounting interfaces and relevant integration geometry for this SKU.



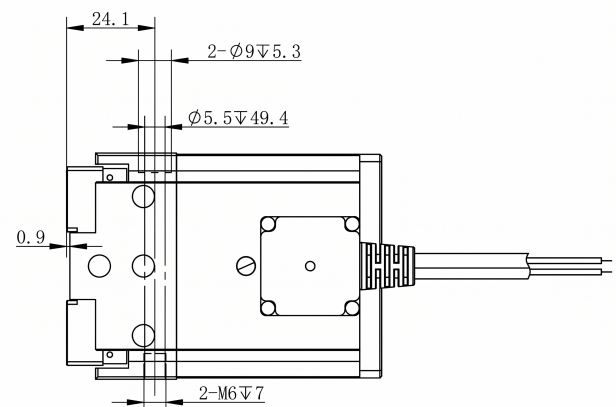
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

VIEW	FIELD	VALUE
Mechanical View 1	Overall height	61.7 mm
	Overall width	36.3 mm
	Mounting holes specification (quantity-diameter)	8 holes, $\varnothing 5$ mm
	Bolt circle diameter	27 mm
	Threaded holes specification	8 threaded holes, M4
	Maximum dimension (open state)	82 mm maximum (open)
	Minimum dimension (closed state)	2 mm minimum (closed)
	Length dimension	97 mm
	Width dimension	50.4 mm
	Local dimension	28 mm
	Local dimension	4.2 mm
	Local dimension	17.7 mm
Mechanical View 2	Overall length	53.5 mm
	Main body width	49 mm
	Mounting holes (2 holes)	2- $\varnothing +0.02/\varnothing 5$
	Through holes (4 holes)	4- $\varnothing 3$ through
	Overall height	87.5 mm
	Partial height	60 mm
Mechanical View 3	Side view width	33 mm
	Local height dimension	15 mm
	Hole diameter with upper tolerance	$\varnothing 2 +0.02/0$ mm
	Overall height	70 mm
	Local depth or offset	5 mm
	Hole depth or offset	3.5 mm
	Horizontal spacing or total width	98 mm
Mechanical View 4	Dimension callout	24.1 mm
	Mounting hole diameter	2× $\varnothing 5.3$ mm
	Hole diameter with tolerance	$\varnothing 5 \pm 0.4$ mm
	Dimension callout	0.9 mm
	Threaded hole specification	2× M6×7 threaded holes

Technical Specifications - 1

PARAMETER	VALUE	UNIT
Measurement Repeatability	± 0.02	mm
Gripping Force (Per Side)	40~140	N
Maximum Recommended Payload	3	kg
Weight	1	
Driving Method	+	
Communication Interface	: Modbus RTU (RS485), Digital I/O : TCP/IP (USB2.0 CAN2.0A PROFINET EtherCAT) *4	
Peak Current	0.7 A () / 1.6 A () *4	A
Standards Compliance	CE, FCC, RoHS	

Technical Specifications - 2

PARAMETER	VALUE	UNIT
Permissible Moment (My)	7	N·m
Continuous Rated Current	0.7 A () / 1.6 A () *4	A
Allowable Static Vertical Load Fz	300	N
Permissible Moment (Mx)	7	N·m
Permissible Moment (Mz)		
Peak Power	40	W

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-S005-V001 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.