

ENGINEERING DOCUMENTATION

Three-Finger Centric Electric Gripper

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-EG-C00-S008-V001	DRAFT-08 / 28 Aug 2026	Engineering Integration Reference

Integration Overview

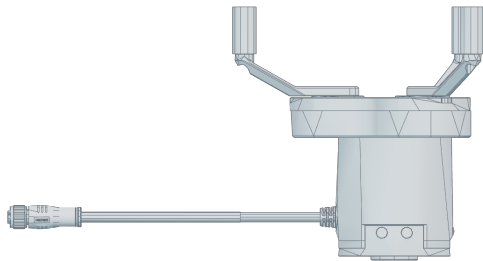
Three-finger centric electric end effector for cylindrical and rotationally symmetric workpieces. This guide supports mounting, fingertip, load-path, cable, commissioning and service planning for ES-EG-C00-S008-V001.

Key Integration Facts

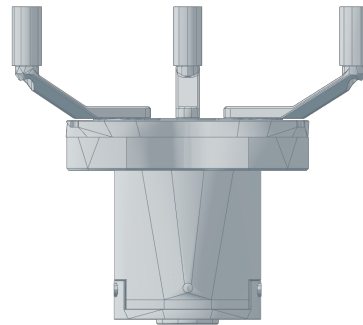
INTEGRATION ITEM	VALUE
Gripping Force (Per Side)	30~100 N
Continuous Rated Output Power	9.6 W
Operating Noise	< 50 dB
Recommended Workpiece Diameter (Inward)	∅10-∅70 mm
Position Repeatability	± 0.03 mm
Maximum Recommended Payload	1.5 kg
Full-Stroke Open / Close Time	1.35 s
Operating Voltage	24 V DC ± 10% V DC

3D Orientation and Interface Views

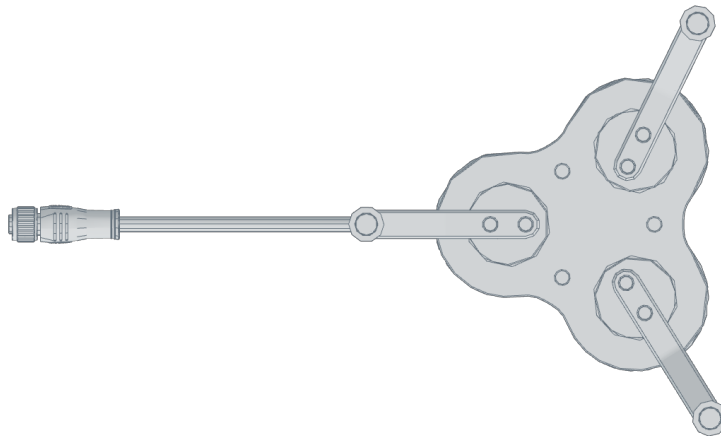
The front, right-side and top views are retained because each exposes a different integration relationship: finger geometry, cable routing direction and robot-side mounting orientation. Dimensions remain governed by the applicable 2D drawing and exact-SKU parameters.



Front View



Right Side View

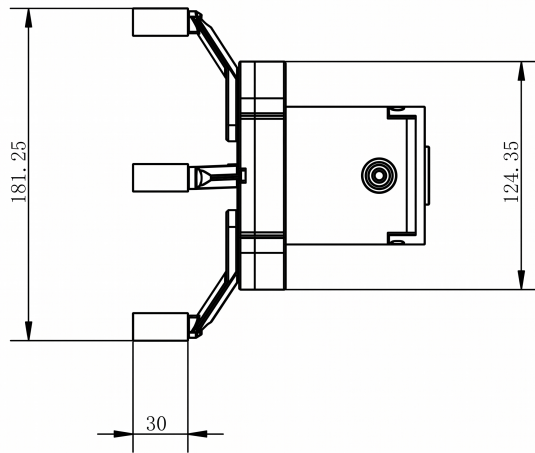


Top View

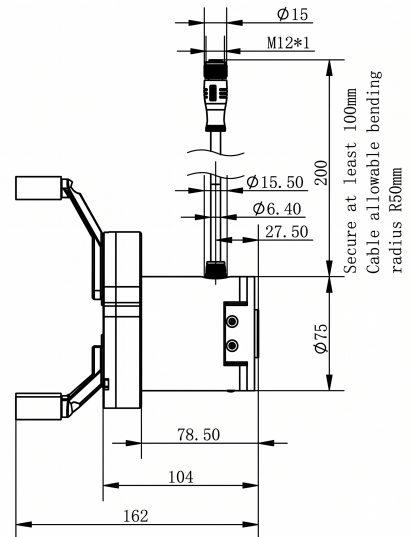
Each selected view contributes a distinct orientation or interface relationship used by the integration guidance.

Product Structure & Views

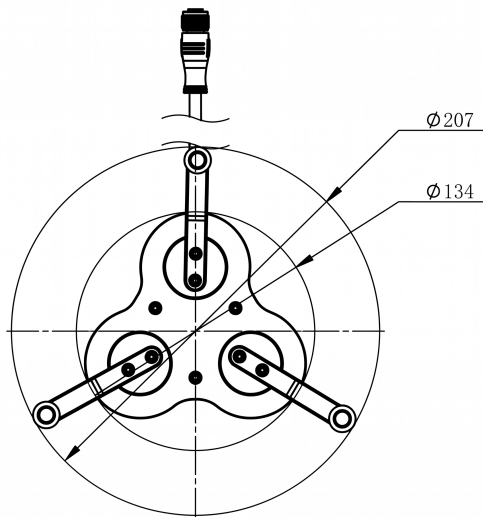
These views present product structure, mounting interfaces and relevant integration geometry for this SKU.



Mechanical View 1



Mechanical View 2



Mechanical View 3

VIEW	FIELD	VALUE
Mechanical View 1	Overall Length	181.25 mm
	Overall Length	124.35 mm
	Local Dimension or Label	30 mm

VIEW	FIELD	VALUE
Mechanical View 2	Cable minimum bending radius	R ≥100 mm
	Allowable length	200 mm allowable
	Mounting dimension	6.40 mm
	Mounting dimension	27.50 mm
	Envelope diameter	Φ5 mm
	Mounting height	78.50 mm
	Mounting dimension	104 mm
	Overall length	162 mm
Mechanical View 3	Outer diameter	Φ07
	Inner diameter	Φ84

Technical Specifications - 1

PARAMETER	VALUE	UNIT
Gripping Force (Per Side)	30~100	N
Continuous Rated Output Power	9.6	W
Operating Noise	< 50	dB
Recommended Workpiece Diameter (Inward)	40 ~ 47 0	mm
Position Repeatability	± 0.03	
Maximum Recommended Payload	1.5	kg
Full-Stroke Open / Close Time	1.35	s
Operating Voltage	24 V DC ± 10%	V DC

Technical Specifications - 2

PARAMETER	VALUE	UNIT
Rated / peak current	0.4 A() / 1 A()*	A
Transmission type	+	
Recommended Operating Environment	0~40°C, 85% RH	
Weight	1.5	kg
Compliance Standards	CE, FCC, RoHS	
Communication Protocol	: Modbus RTU (RS485) Digital I/O(2 2) : TCP/IP USB2.0 CAN2.0A PROFINET EtherCAT *	
Ingress Protection Rating	IP 40	
Dimensions	158.4 mm x 124.35 mm x 116 mm(/)	mm

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-S008-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.