ENGINEERING DOCUMENTATION

Adaptive Angular Electric Gripper

Dimensional & Integration Guide

DOCUMENT	REVISION / ISSUE	STATUS
DIG-ES-EG-C00-S009-V001	DRAFT-08 / 28 Aug 2026	Engineering Integration Reference

Integration Overview

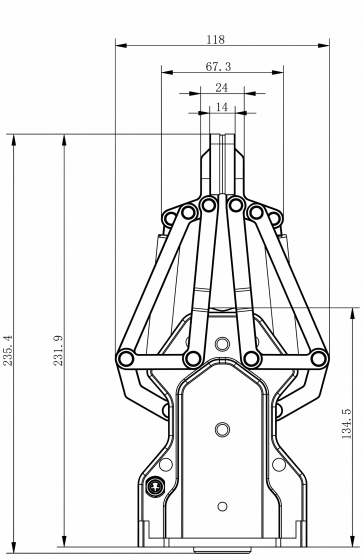
Electric end effector for automated gripping and workpiece handling. This guide supports mounting, finger interface, load-path, cable, commissioning and service planning for ES-EG-C00-S009-V001.

Key Integration Facts

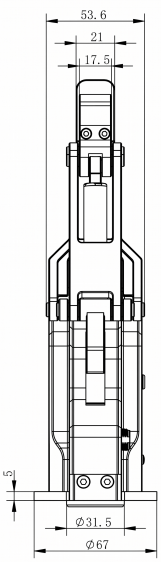
INTEGRATION ITEM	VALUE
Gripping Force (Per Side)	35~105 N
Continuous Rated Output Power	19.2 W
Full-Stroke Closing Time	0.9 s
Operating Noise	< 60 dB
Total Stroke	145 mm
Position Repeatability	± 0.03 mm
Maximum Recommended Payload	2 kg
Full-Stroke Opening Time	0.9 s

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	Upper overall width	118 mm
	Upper inner width	67.3 mm
	Overall height	235.4 mm
	Main body height	231.9 mm
	Right lower height	134.5 mm
Mechanical View 2	Upper outside width	Width 53.6 mm
	Bottom step height	Height 5 mm
	Bottom mounting diameter	Diameter 31.5 mm
	Bottom outside diameter	Diameter 67 mm

Technical Specifications - 1

PARAMETER	VALUE	UNIT
Gripping Force (Per Side)	35~105	N
Continuous Rated Output Power	19.2	W
Full-Stroke Closing Time	0.9	s
Operating Noise	< 60	dB
Total Stroke	145	mm
Position Repeatability	± 0.03	
Maximum Recommended Payload	2	kg
Full-Stroke Opening Time	0.9	s

Technical Specifications - 2

PARAMETER	VALUE	UNIT
Peak Current	1.5	A
Operating Voltage	24 V DC ± 10%	V DC
Continuous Rated Current	0.8	A
Transmission Mechanism	+	
Overall Dimensions	203.9 mm x 212.3 mm x 67	mm
Product Mass	1.3	kg
Recommended Operating Environment	0~40°C, 85% RH	
Standards Compliance	CE, FCC, RoHS	

Technical Specifications - 3

PARAMETER	VALUE	UNIT
Allowable Load Moment (My)	1.95	N·m
Allowable Load Moment (Mx)		
Allowable Static Vertical Load Fz	300	N
Communication Protocol	: Modbus RTU (RS485) Digital I/O(2 2) : TCP/IP USB2.0 CAN2.0A PROFINET EtherCAT*	
Ingress Protection Rating	IP 54	
Allowable Load Moment (Mz)	1.95	N·m

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-S009-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.