

PRODUCT DATASHEET

ES-SD-C01-S007-V005

Industrial Motion Controller

24 60 V Low Voltage Micro Servo Drives | 24-60 V Compact Servo Drive Series - ES-SD-C01-S007

Product Overview

Industrial Motion Controller with logic Supply Voltage 24 V DC, peak Output Current 48 A peak and continuous Output Current Without Auxiliary Heatsink 12 Arms.

Key Specifications

PARAMETER	VALUE	UNIT
Logic Supply Voltage	24	V DC
Peak Output Current	48 A peak	
Continuous Output Current Without Auxiliary Heatsink	12 Arms	
Communication Protocol	EtherCAT; CoE CiA 402; Pulse	
Control Method	EtherCAT and pulse	
Protection Class	IP20; X5 power terminal is IP00	
Weight	0.405	kg
Digital I/O	3 digital inputs; 1 digital output	
Analog Input Count	1	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Continuous Output Current Without Auxiliary Heatsink	12 Arms	
Supported Motor Power Range	200 to +2000	W
ELECTRICAL		
Logic Supply Voltage	24	V DC
Peak Output Current	48 A peak	
Braking Absorption Voltage	63 ±2 V VDC / 63	V DC
Braking Resistor	External braking resistor supported when required by the duty cycle, particularly for rapid start/stop operation	
External Braking Resistor Required	Yes / 1	
Overvoltage Alarm Voltage	70 ±2 V VDC / 70	V DC
Undervoltage Alarm Voltage	16 ±2 V VDC / 16	V DC
Power-to-Logic Isolation Voltage	500	V DC
Logic Supply Current	500 mA plus brake-coil current	
Servo Drive AC Supply Voltage	24 to +60	V DC
Logic Power Loss	2500	mW
Protection Functions	Overvoltage; Undervoltage; Motor overtemperature (I ² T); Short circuit; Drive overtemperature	
Logic Supply Voltage Range	18 to +30	V DC
MECHANICAL		
Weight	0.405	kg
INTERFACES		
Communication Protocol	EtherCAT; CoE CiA 402; Pulse	
Control Method	EtherCAT and pulse	

Technical Specifications

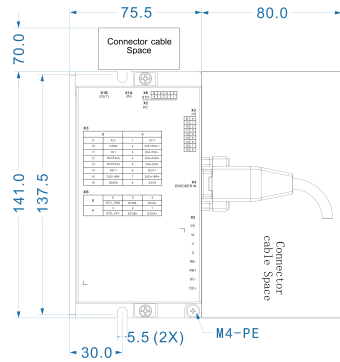
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Digital I/O	3 digital inputs; 1 digital output	
Gantry Synchronization Supported	No / false	
USB Debug Interface	Yes / 1	
Digital Output Count	1	
High-Speed Digital Input Count	2	
Analog Input Count	1	
Digital Input Count	3	
Analog Input Range	-10 to +10	V
Analog Input Resolution	12 bit	
Node Address Switch Resolution	16 bit	
Pulse Input Voltage	12 to +24	V DC
Feedback Signal Support	Tamagawa serial protocol; Incremental encoder	
Pulse Input Maximum Frequency	500	kHz
Pulse Input Count	2	
Brake Output Count	1	
Node Address Rotary Switch Count	2	
Brake Output Current	1	A
ENVIRONMENTAL		
Protection Class	IP20; X5 power terminal is IP00	

Dimensional & Integration Overview

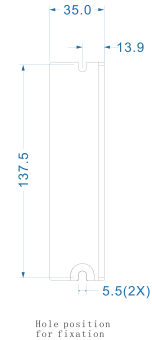
Mechanical Overview

PARAMETER	VALUE	UNIT
Weight	0.405	kg

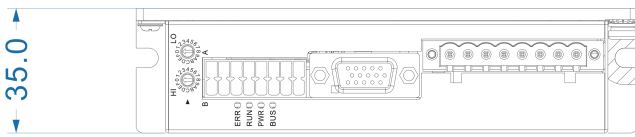
Dimensional Drawings



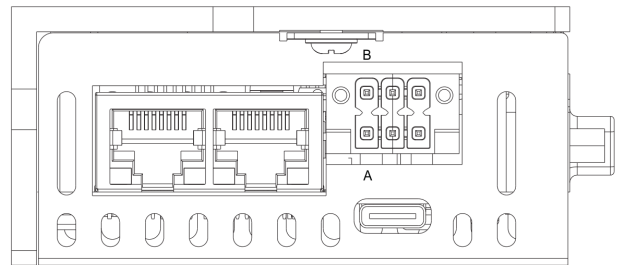
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Width from top to first connector upper edge	75.5 mm
	Width from connector region to right edge	80.0 mm
	Vertical height on left side	70.0 mm
	Total device height	141.0 mm
	Middle section height	137.5 mm
	Bottom mounting hole position	30.0 mm
	Mounting hole diameter	Φ5.5 mm (2 places)
	Grounding screw hole specification	M4 thread for PE grounding
Mechanical View 2	Horizontal hole spacing	35.0 mm
	Hole to right edge distance	13.9 mm
	Vertical hole spacing	137.5 mm
	Mounting hole diameter	Φ5.5 mm (2 places)

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Front panel height	35.0 mm
	Datum A	
	Datum B	
	ERR indicator LED	ERR indicator
	RUN indicator LED	RUN indicator
	PWR indicator LED	PWR indicator
	BUS indicator LED	BUS indicator
Mechanical View 4	Datum B	
	Datum A	

[View Product Online](#) [Request Engineering Data](#) [Request a Quote](#)

01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.