

PRODUCT DATASHEET

ES-SD-C01-S007-V002

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 18 A peak and continuous Output Current Without Auxiliary Heatsink 5 Arms.

Key Specifications

PARAMETER	VALUE	UNIT
Logic Supply Voltage	24	V DC
Peak Output Current	18 A peak	
Continuous Output Current Without Auxiliary Heatsink	5 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	5 Arms	
Supported Motor Power Range	200 to +2000	W
ELECTRICAL		
Logic Supply Voltage	24	V DC
Peak Output Current	18 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

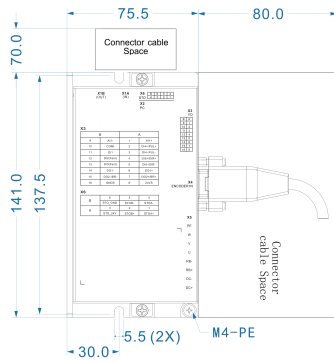
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Digital I/O	3 digital inputs; 1 digital output	
Gantry Synchronization Supported	No / false	
USB Debug Interface	Yes / 1	
Digital Output Count	1	
High-Speed Digital Input Count	2	
Analog Input Count	1	
Digital Input Count	3	
Analog Input Range	-10 to +10	V
Analog 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

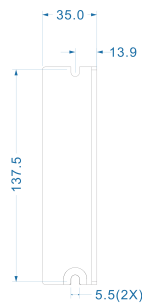
Dimensional Drawings



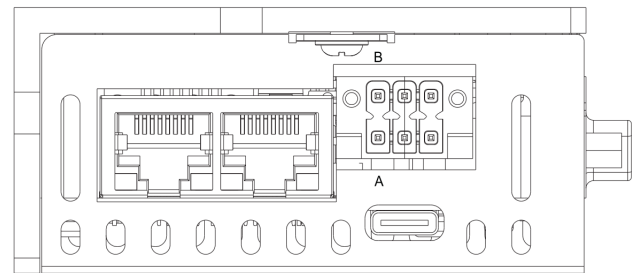
Mechanical View 1



Mechanical View 2



Mechanical View 3



Mechanical View 4

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Right side width (upper section)	75.5 mm
	Right side width (lower section)	80.0 mm
	Right side height (upper section)	70.0 mm
	Right side height (main body)	141.0 mm
	Right side height (lower section)	137.5 mm
	Bottom mounting hole size and quantity	5.5 mm diameter, 2 places
	Bottom mounting hole spacing	30.0 mm
	Grounding screw hole	M4 thread, protective earth (PE) grounding
Mechanical View 2	Drive side panel width	35.0 mm
	Datum B	
	Datum A	
	Status indicator LED - Error	ERR (Error indicator)
	Status indicator LED - Run	RUN (Running indicator)
	Status indicator LED - Power	PWR (Power indicator)
	Status indicator LED - Bus	BUS (Bus communication indicator)

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 3	Mounting hole horizontal spacing	35.0
	Mounting hole slot width	13.9
	Mounting hole vertical spacing	137.5
	Mounting hole diameter	Φ5.5 (2 places)
Mechanical View 4	Datum B	
	Datum A	

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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.