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Item # AZD2B-KED, 2-Axis AZ Series EtherCAT Controller / Driver (24/48 VDC)



The AlphaStep AZ Series multi-axis controller / driver supports EtherCAT communication. Compatible with the CiA402 drive profile. It can be connected to the AlphaStep AZ Series DC input motors and electric actuators.

- 2-axis
- Compatible with AlphaStep AZ Series DC input stepper motors and electric actuators
- For easier use download the ESI file

*Requires Multi-Axis Motor Connection Cables. (see applicable motor)



[Specifications](#) | [EtherCAT Specifications](#) | [Dimensions](#) | [Product Number](#) | [System](#)

Specifications

Lead Time¹

Contact your local sales office for product lead-times, available to ship dates and shipping methods.

Product Line

Oriental Motor®

Driver Type

Closed Loop, Absolute, Multi-Axis

Number of Axes

2-axis

Power Supply

24/48 VDC

Current

7.0 A
When using a motor make sure that the average is 4.0 A max.

Control Power Supply

24 VDC

Control Current	1.5 A When using an electromagnetic brake, use a 24 VDC $\pm 5\%$ power supply to electromagnetic brake. When using an electromagnetic brake with a 20 m (65.6 ft.) connection cable, use a 24 VDC $\pm 4\%$ power supply,
Degree of Protection	IP10
Operating Environment	Ambient Temperature: 0 to 50°C (32 ~ 122°F) (non-freezing) Humidity: 85% or less (non-condensing) Altitude: 1000 m (3280 ft.) max. above sea level Atmosphere: Use in an area without corrosive gases and dust. This product should not be exposed to water or oil.
Storage Condition	Ambient Temperature: -25 to 70°C (-13 ~ 158°F) (non-freezing) Humidity: 85% or less (non-condensing) Altitude: 3000 m (9842 ft.) max. above sea level Atmosphere: Use in an area without corrosive gases and dust. This product should not be exposed to water or oil.
Insulation Resistance	The measured value is 100 M Ω or more when a 500 VDC megger is applied between the following places: Between FG terminal and Power Supply terminal
Dielectric Strength	Sufficient to withstand the following for 1 minute: Between FG terminal and Power Supply terminal 1 kVAC 50/60 Hz Leakage current 10 mA max.

EtherCAT Specifications

Baud Rate	100MBps
Communication Period	0.5ms/1ms/2ms/3ms/4ms/5ms/6ms/7ms/8ms
Node Address	0~255 (00h~FFh, initial value:00h)
Communication Protocol	EtherCAT dedicated protocol(CoE) CiA402 drive profile

Dimensions

■ Dimensions Unit: mm (in.)

● Multi-Axis Drivers

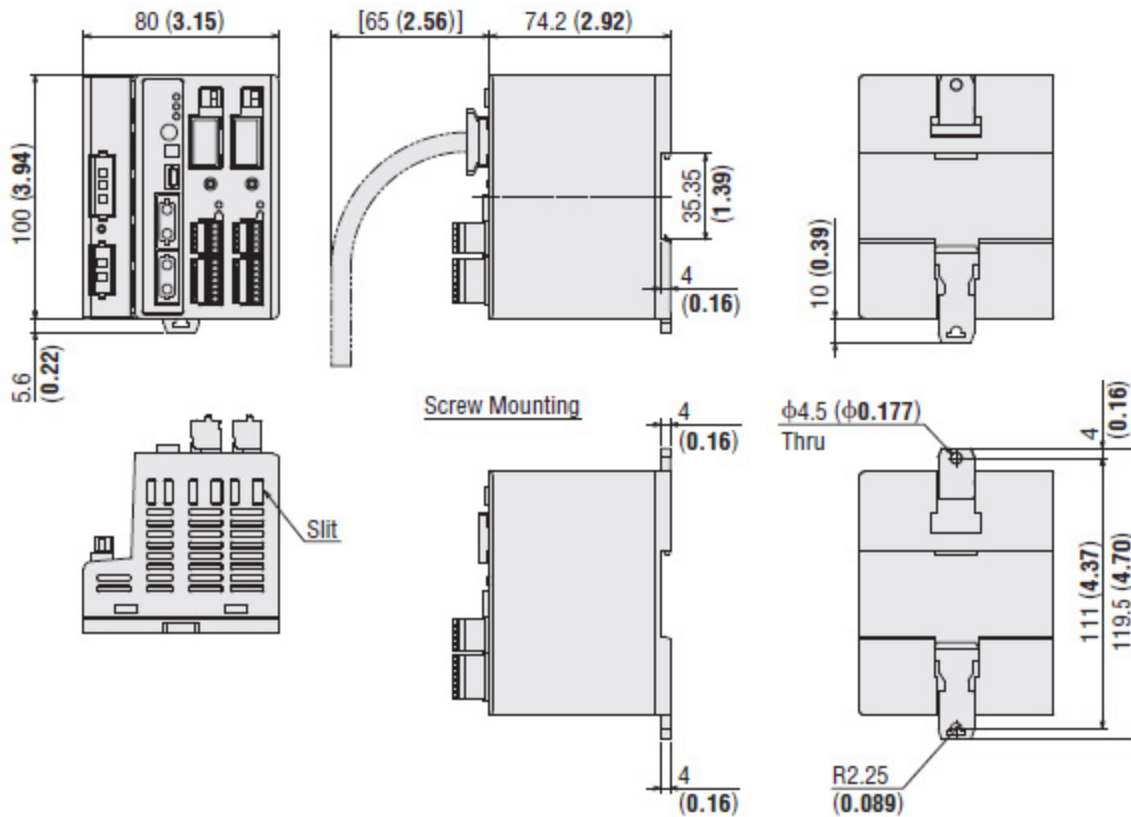
◇ 2 Axes

2D & 3D CAD

Network Type Number of Axes	SSCNET III/H Compatible		MECHATROLINK-III Compatible		EtherCAT Compatible		Mass kg (lb.)
	Product Name	2D CAD	Product Name	2D CAD	Product Name	2D CAD	
2 Axes	AZD2B-KS3	B1519	AZD2B-KM3	B1520	AZD2B-KED	B1521	0.24 (0.53)

● Dimensions shows **AZD2B-KS3**. Dimensions and included items are common to all drivers in the table.

DIN Rail Mounting



● Included Items

- Main Power Connector: F32FSS-03V-KX (JST)
- Control Power Connector: F32FSS-02V-KX (JST)
- Contact for Main Power Connector & Control Power Connector: LF3F-41GF-P2.0 (JST)
- Input Signal Connector: FK-MC 0,5/ 5-ST-2,5 (Phoenix Contact)
- Output Signal Connector: FK-MC 0,5/ 7-ST-2,5 (Phoenix Contact)
- Connector Cap (SSCNET III/H-Compatible only)

Product Number

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■ Product Number

● Multi-Axis Drivers

AZD 4A - K S3

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②

③

④

● Connection Cable Sets / Flexible Connection Cable Sets for **AZ** Series Multi-Axis Drivers

◇ Connection Cable Sets for Motor

CC 050 V Z □ F A

①

②

③

④

⑤

⑥

⑧

◇ Connection Cable Sets for Electromagnetic Brake Motor

CC 050 V Z F B A

①

②

③

④

⑥

⑦

⑧

①	Driver Type	AZD : AZ Series
②	Number of Axes	2B : 2 Axes 3A :
③	Power Supply Input	K : 24 VDC/48 VDC
④	Network Type	S3 : SSCNETⅢ/H M3 : MECHATROLINK ED : EtherCAT Drive

①		CC : Cable
②	Length	005 : 0.5 m (1.6 ft.) 020 : 2 m (6.6 ft.) 0 040 : 4 m (13.1 ft.) 0 100 : 10 m (32.8 ft.)
③	Reference Number	
④	Applicable Model	Z : For AZ Series
⑤	Reference Number	Blank: Frame Size 42 [HPG Geared 2 : Frame Size 20 mm [Harmonic Geared]
⑥	Cable Type	F : Connection Cable S R : Flexible Connection
⑦	Description	B : For Electromagneti
⑧	Driver Type	A : For Multi-Axis Driv

System Configuration

For EtherCAT Drive Profile Compatible

Sample system configuration when combined with **AZ** Series DC Input Standard Type with Electromagnetic Brake.

