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## Item # AZD3A-KED, 3-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.

- 3-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

#### Lead Time<sup>1</sup>

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

#### Return Policy

This product cannot be cancelled or returned once the order has been processed.

#### Product Line

Oriental Motor®

#### Driver Type

Closed Loop, Absolute, Multi-Axis

#### Number of Axes

3-axis

#### Power Supply

24/48 VDC

#### Current

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

<b>Control Power Supply</b>	24 VDC
<b>Control Current</b>	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,
<b>Degree of Protection</b>	IP10
<b>Operating Environment</b>	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.
<b>Storage Condition</b>	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.
<b>Insulation Resistance</b>	The measured value is 100 M $\Omega$ or more when a 500 VDC megger is applied between the following places: Between FG terminal and Power Supply terminal
<b>Dielectric Strength</b>	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

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

## Dimensions Unit = mm (in.)

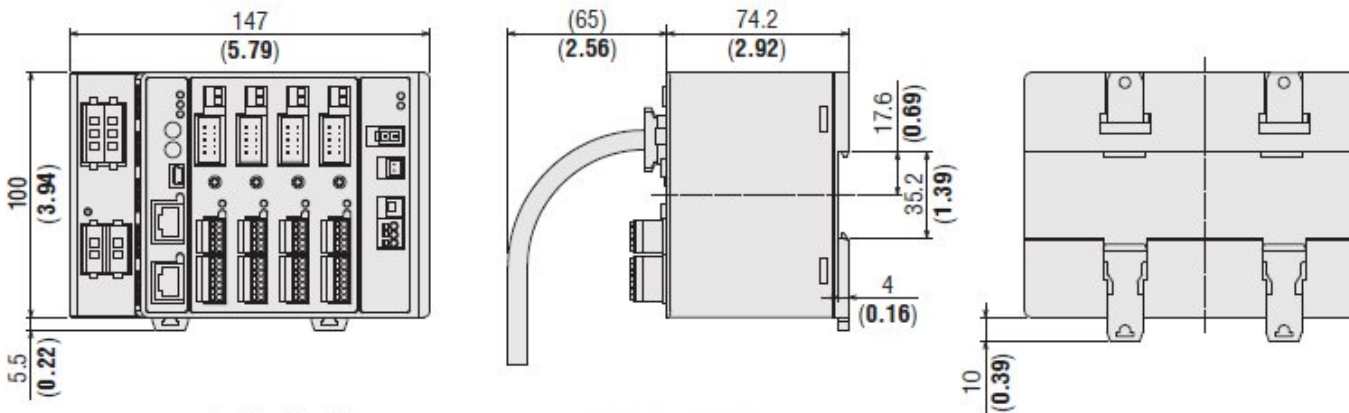
### Multi-Axis Driver

2D & 3D CAD

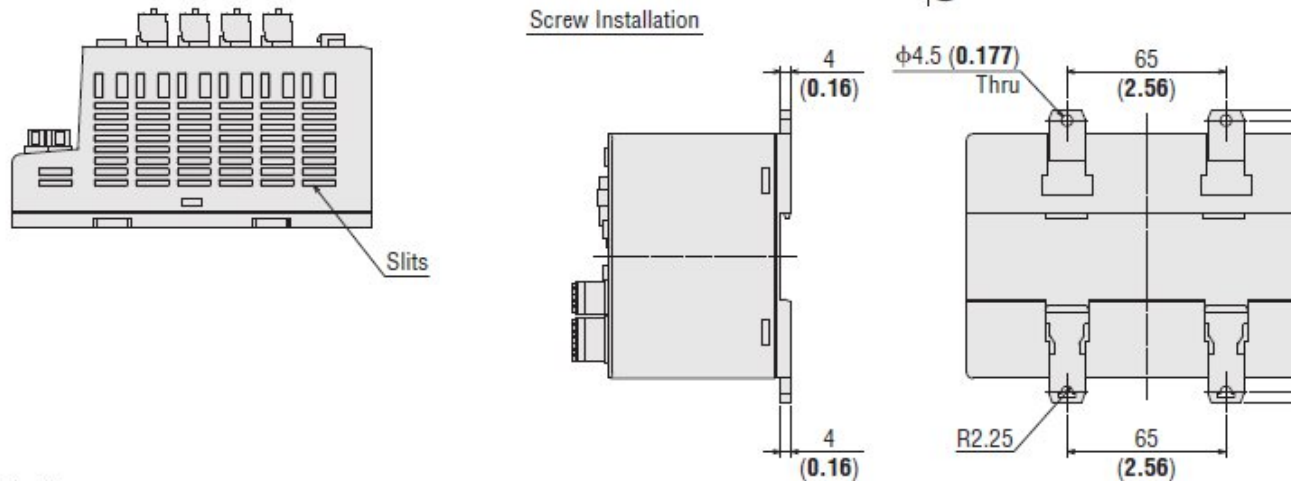
Product Name	Mass kg (lb.)	2D CAD
<b>AZD2A-KED</b>	0.39 (0.86)	B1206
<b>AZD3A-KED</b>	0.42 (0.93)	B1207
<b>AZD4A-KED</b>	0.45 (0.99)	B1208

● Frame size is identical for 2-axes, 3-axes and 4-axes units.

#### DIN Installation



#### Screw Installation



#### Included Items

- Main Power Supply Connector: F32FSS-03V-KX (JST)
- Control Power Supply Connector: F32FSS-02V-KX (JST)
- Contact for Main Power Supply Connector and Control Power Supply 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)

# Product Number

## Multi-Axis Drivers

**AZD 4A - K S3**

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

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

