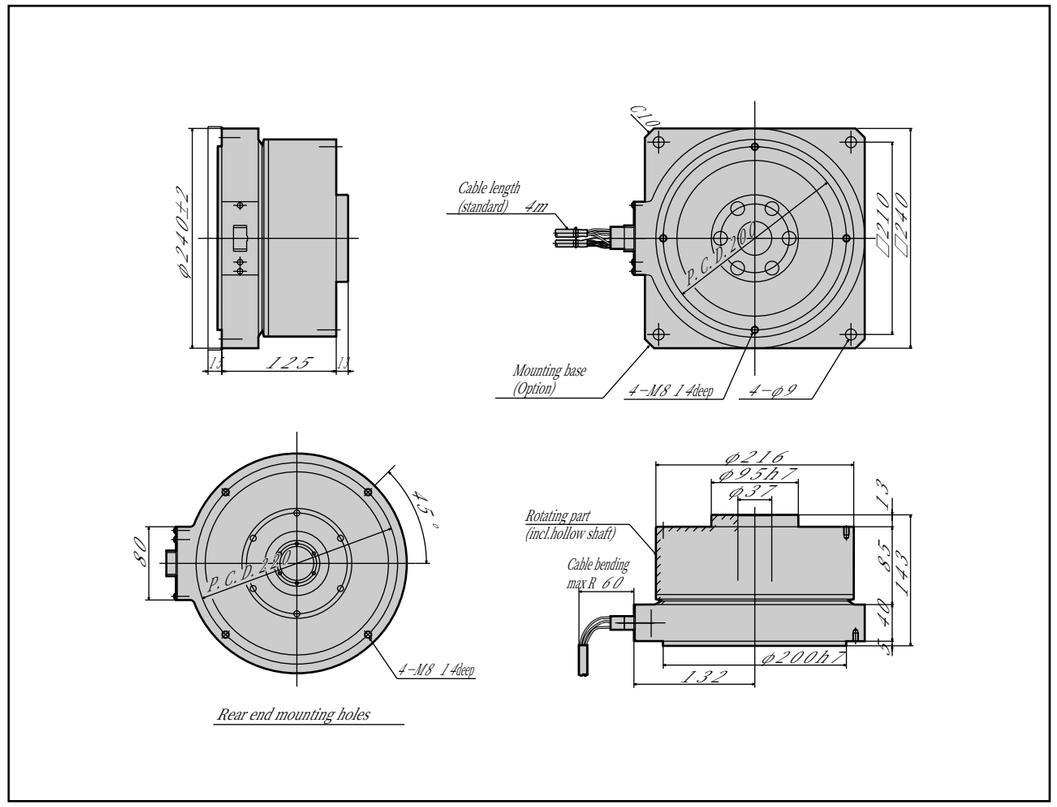
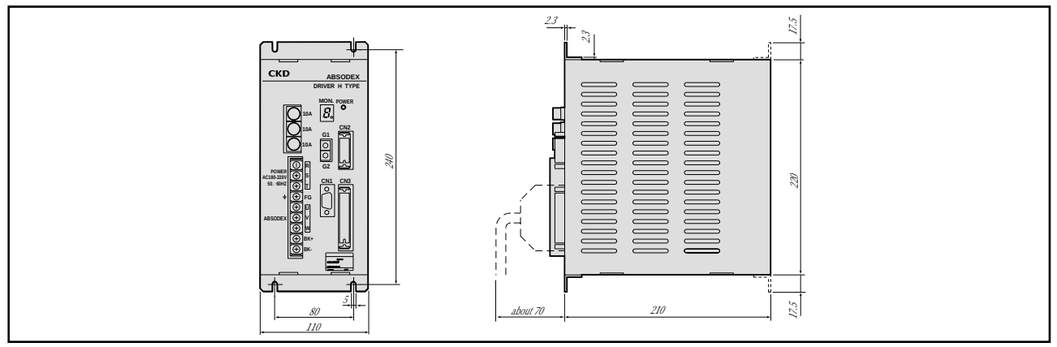
Discontinue

AX3075



Driver Dimensions



Use with Caution!

Read the products' "Instruction Manual" very well before use.

Don't install the product in the place including water, high humidity, dust and lamp black to avoid fire, malfunctioning and electric shock.

CKD Corporation

2-7-2, Meieki-Minami, Nakamura-ku

Nagoya 450, Japan

Phone 052-581-3751 Fax 052-583-9710

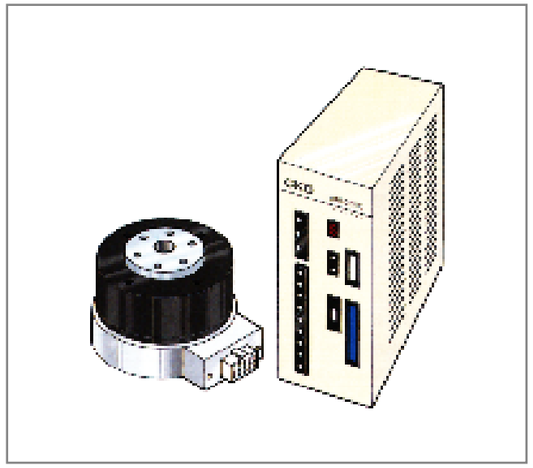
•The appearance or dimensions on this catalog will be changed without notice for improvement.

CKD *New Products*

High Flexibility & Intelligence

ABSODEX AX SERIES (DD ACTUATOR)

Basic Type



- **High Performance & Low Cost**
- **No "Return to Origin" Required**
  Absolute Resolver Recognizes The Present Position.
- **High Presision**
  Index Accuracy ±30 sec., Repeatability ±5 sec.
- **High Performance H Type Driver**
  Additrional Function: "Pulse String Input" and "Continuous Rotation"

Actuator Specifications

	AX3022H	AX3045H	AX3075H
Continuous Output Torque (N•m)	7	15	25
Max. Output Torque (N•m)	22	45	75
Max. Rated Output Speed (rpm)	100		
Allowable Axial Load (N)	600		2200
Allowable Radial Load (N)	1000		4000
Output Shaft Moment Of Inertia ($X10^{-3}$kg•m^2)	11	17	70
Allowable Moment of Inertia (kg•m^2)	0.6	0.9	4.0
Output Shaft Vibration (mm)	0.03		
Output Shaft Surface Vibration (mm)	0.05		
Output Shaft Friction Torque (N•m)	2.5		10
Mass (kg)	12	16	30
Resolver Resolution (PPR)	540672		
Index Accuracy (")	±30		
Repeatability (")	±5		
Insulation	Insulation Class: Class F		
	Withstand Voltage: 1500 VAC for 1 min.		
	Insulation Resistance: 10M Ω or more (500 VDC)		
Ambient Temperature, Humidity	Operating: 0 - 45 °C, 20 - 58%RH No Dew Condensation		
	Storage: -20 - 80°C, 20 - 90%RH No Dew Condensation		

How to Order

AX3 022H-D08
(A) (B) (C)

(A) Ax Series Basic Type

(B) Symbol Size
- 022 22N•m
- 045 45N•m
- 075 75N•m

(C) Option Description
- -B with Mounting Base
- -D** Cable Length Change
  The length is indicated by the last 2 digits (Note 1)
  2m increment until 10m
  5m increment until 30m (MAX30m)
- -J1 100 VAC (AX3022, AX3045)
- -J2 230 VAC

Note 1: Indicate the cable length when the initial order. The cable length cannot be changed after shipment.

The dedicating programming terminal; AX0170H is available for H type driver.

Discontinue

Driver Specifications

	Descriptions
Voltage	1. 200 VAC ±10%, 3-Phase (Standard) 2. 100 VAC ±10%, Single Phase (Option) 3. 220 VAC - 10% to 230 VAC + 10%, 3-Phase (Option)
Friquency	50/60Hz
Structure	Driver and Controller Integrated Type (Open Frame)
Working Environment	Ambient Temperature, Humidity: 0-5° C, 20-90%RH (No Dew Condensation) Storage Temperature: - 20 - 80° C No Corrosive Gas and No dust
Noise Proof	1000V (P-P), Pulse Width 1μsec., Starting 1nsec.
Vibration Proof	0.5G
Mas	4kg
Performance	
Control Axis	1 Shaft/540672/Pulse per turn (A Shaft)
Set Angle Unit	° (degree)/Pulse/Number of Stops
Min. Set Angle	0.001° /Pulse
Set Speed Unit	sec./rpm
Set Speed Range	0.01 sec. - 100 sec. 0.01 - 100 rpm
Number of Stops	1 - 255
Max. Command Number	7 Digits Input ±9999999
Timer	0.01 - 99.99 sec.
Programming Language	NC Language
Programinng Method	Data Setting by Dialogue Terminal or PC via RS-232C Port.
Operation Mode	Auto/MDI/Jog/Single Block/Serbo OFF/ Pulse String Input Mode
Coord	Absolute/Incremental
Acceleration curve	5 types Modified Sine (MS), Deformation Constant Velocity (MC,MC2), Modified Trapezoidal (MT), Tropicoid(TR)
Status Indicator	LED (Power ON)
Alarm Indicator	7 Segments LED
Communication Interface	Comformed to RS-232
I/O	**Input** Return to Origin Command, Reset, Start, Stop, Continuous Rotation Stop, Emergency Stop, Answer, Program Number Selection, Brake Release, Program Number Indication, Pulse String Input **Output** Alarm 1.2, Positioning Completion, Imposition, Start Input Wating, 8 M Codes, during Indexing1.2, Timing, M Code Strobing, Index Position Strobing
Program Volume	100 pieces (EEPROM, 16KB)
Electric thermal	Overheat Protection for Actuator

Connector Specifications

CN3 Input Signal

Pin No.	Signal Name	Logic	Judge
1 - 2	External Power Supply Input +24 V ±10%	Positive	Level
3 - 4	External Power Supply Input GND	Positive	Level
5	Input for Program Number Selection (Bit 0)	Positive	Level
6	Input for Program Number Selection (Bit 1)	Positive	Level
7	Input for Program Number Selection (Bit 2)	Positive	Level Edge
8	Input for Program Number Selection (Bit 3)	Positive	Edge
9	Input for Program Number Selection (Bit 4) The Second Digit for Program Number Setting	Positive	Edge
10	The First Digit for Program Number Setting	Positive	Edge
11	Reset Input	Positive	Edge
12	Return to Origin Command Input	Positive	Edge
13	Start Input	Positive	Edge
14	Program Stop Input	Positive	Edge
15	Continuous Rotating Stop Input	Positive	Edge
16	Answer Input	Positive	Edge
17	Emergency Stop Input	Negative	Level
18	Brake Release Input	Positive	Level

CN3 Output Signal

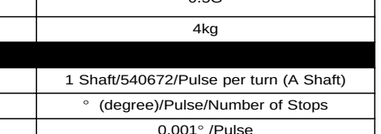
Pin No.	Signal Name	Logic
33	M Code Output (Bit 0)	Positive
34	M Code Output (Bit 1)	Positive
35	M Code Output (Bit 2)	Positive
36	M Code Output (Bit 3)	Positive
37	M Code Output (Bit 4)	Positive
38	M Code Output (Bit 5)	Positive
39	M Code Output (Bit 6)	Positive
40	M Code Output (Bit 7)	Positive
41	Imposition Output	Positive
42	Positioning Completion Output	Positive
43	Start Input Waiting Output	Positive
44	Alarm Output 1	Negative
45	Alarm Output 2	Negative
46	Output during Indexing 1	Positive
47	Output during Indexing 2	Positive
48	Timing Output	Positive
49	Index Position Strobing Output	Positive
50	M Code Strobing Output	Positive

CN3 Pulse String Input Signal

Pin No.	Signal Name
19	PULSE/UP/A PHASE
20	-PULSE/-UP/-A PHASE
21	DIR/DOWN/B PHASE
22	-DIR/-DOWN/-B PHASE

CN3 Input/Output Circuit Diagrams

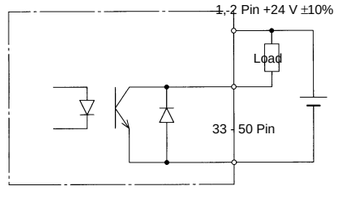
(1) Input Circuit



Equivalent to TLP121 (Toshiba)
Rated Voltage 24 V ±10%, Rated Current 7.5mA
Time Constant 5msec.

Diagram 1 Input Circuit

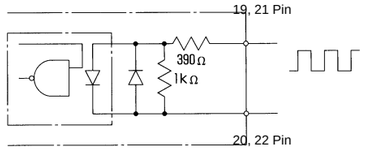
(2) Output Circuit



Equivalent to TLP127 (Toshiba)
Rated Voltage 24 V ±10%, Rated Current 150mA (Max)

Diagram 2 Output Circuit

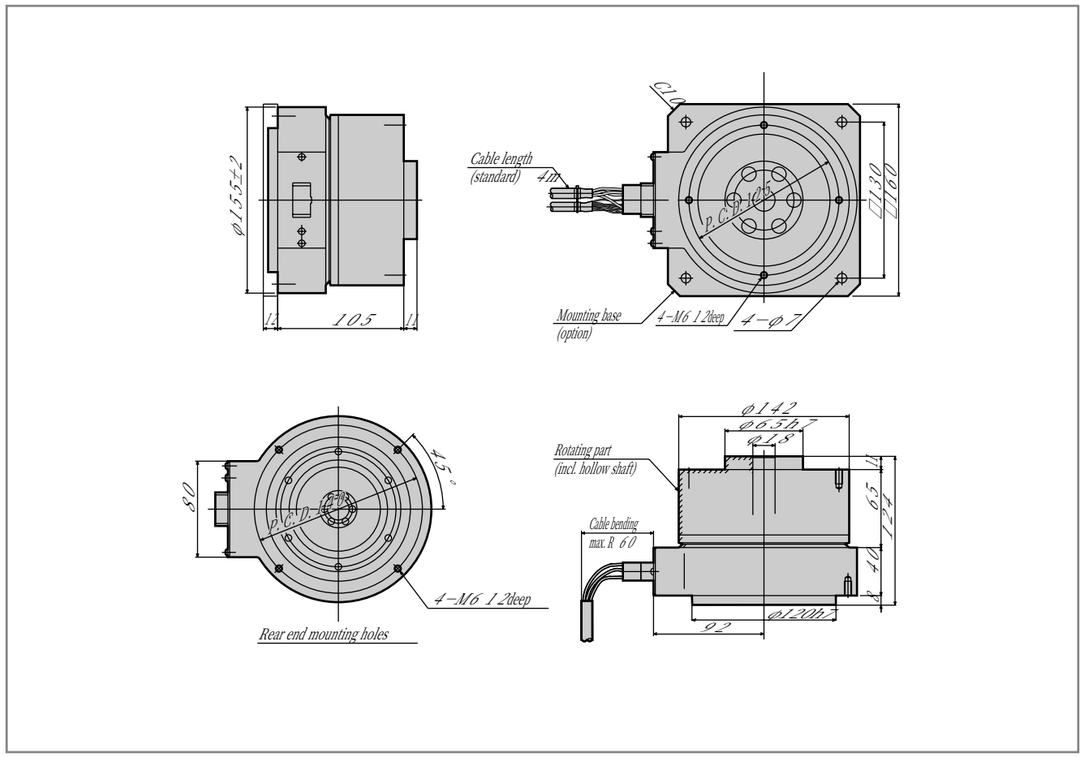
(3) Pulse String Input Circuit



Equivalent to TLP552 (Toshiba)
Rated Voltage 5 V ±10%

Diagram 3 Pulse String Input Circuit

AX3022



AX3045