CKD

For Electric Actuators
Controller
ESC4 Series

Easy 👍 to use just became more user friendly!

NEW Controller

ROBODEX *Pulse*

Easy adjustment

Manual operation mechanism added *New*

Manual operation mechanism of JOG operation and alarm reset added

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Easy adjustment

Improved rotary switch operation *New*

Improved visibility and operability

Approximately 15.5 mm (Original size) → Approximately 20 mm (Original size)

ESC3   ESC4
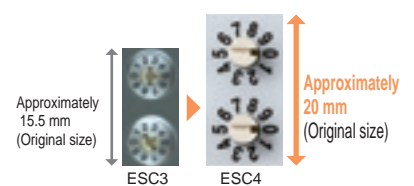
Easy Controls

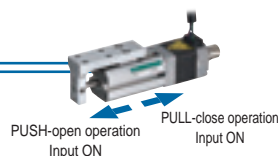### Operation is possible with 3 input signals

Controller ESC4

[I/O input]
- **PULL/closing operation input**
- **PUSH/Opening operation input**
- Operation input COM
- **Alarm reset input**
- Alarm reset input COM

PUSH-open operation Input ON
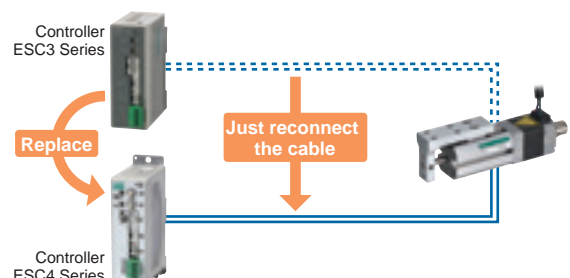
PULL-close operation Input ON

Easy maintenance **Reduced work hours** **High versatility**

Easy replacement

Can be replaced without the need for dedicated tools

Controller ESC3 Series

Replace

Just reconnect the cable

Controller ESC4 Series

CKD Corporation

CC-1635A

How to order

CE RoHS

ESC4	–	D	P	–	01	20	–	06	100
		❶	❷		❸			❹	❺

❶Controller mounting method	
D	DIN rail mount
P	Panel mount

❷Model group	
01	DSSD2
02	DSTK
03	DSTG
04	DSTS
05	DSTL
06	DMSDG
07	DLSH
08	DCKW

❸Actuator size	
08	8
16	16
20	20
32	32
50	50

❹Actuator lead	*2
NN	None
06	6 mm
09	9 mm
12	12 mm

❺Actuator Stroke*3	
NNN	None
010	10 mm
020	20 mm
025	25 mm
030	30 mm
050	50 mm
075	75 mm
100	100 mm
150	150 mm
200	200 mm

1. Actuator type can also be selected.
2. Select "None" when 06 (DMSDG), 07 (DLSH), or 08 (DCKW) is selected for the model group.
3. Select "None" when 07 (DLSH) or 08 (DCKW) is selected for the model group.

System configuration

Surge protector

Controller
ESC4 Series

Customer-provided

PLC

I/O cable

Noise filter for power supply

DC power supply

Motor cable   Switch cable

Connectable actuators

DSSD2   DSTK   DSTG   DSTS

DSTL   DMSDG   DLSH   DCKW
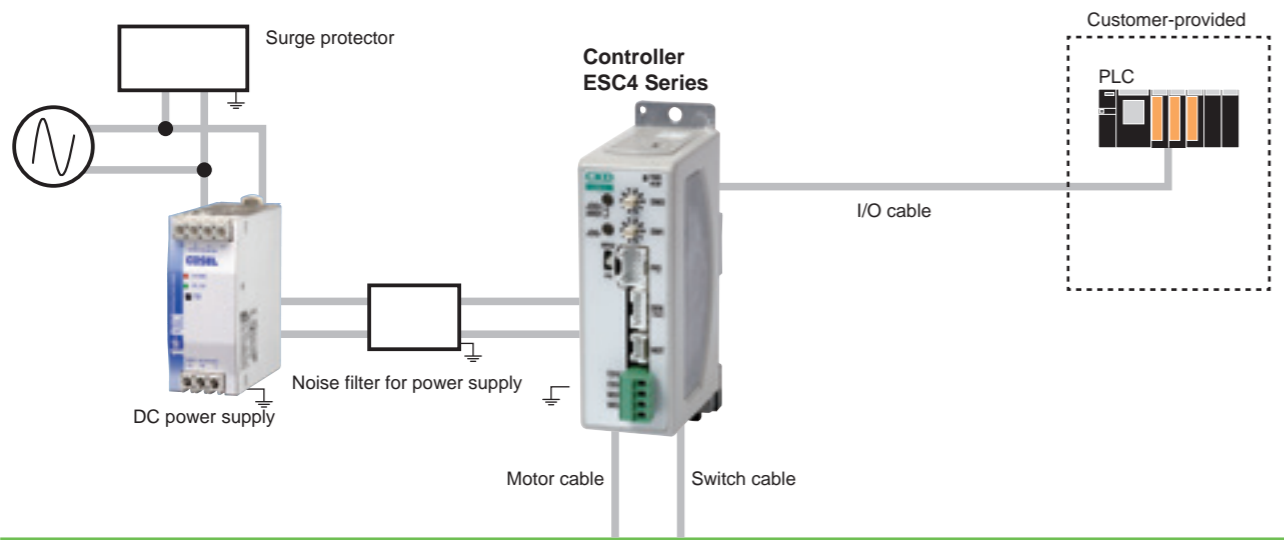
*Refer to the Instruction Manual for details about how to install and wire the noise filter and surge protector.

General specifications

Item	Description
Settings tool	Rotary switch 1, rotary switch 2, control mode changeover switch, operation mode changeover switch, JOG(+) / alarm reset switch, JOG(-) switch
Indicator lamp	Green ON: Motor in energized state, green blinking: Motor in un-energized state, manual operation mode Red ON: System alarm generated, red blinking: Operation alarm generated, or warning generated
Withstand voltage	500 VAC for 1 minute
Degree of protection	IP20
Weight	Approx. 180 g

*Only changes to specifications are shown. Refer to the specifications of controller ESC3 in catalog CC-1591A for other specifications.
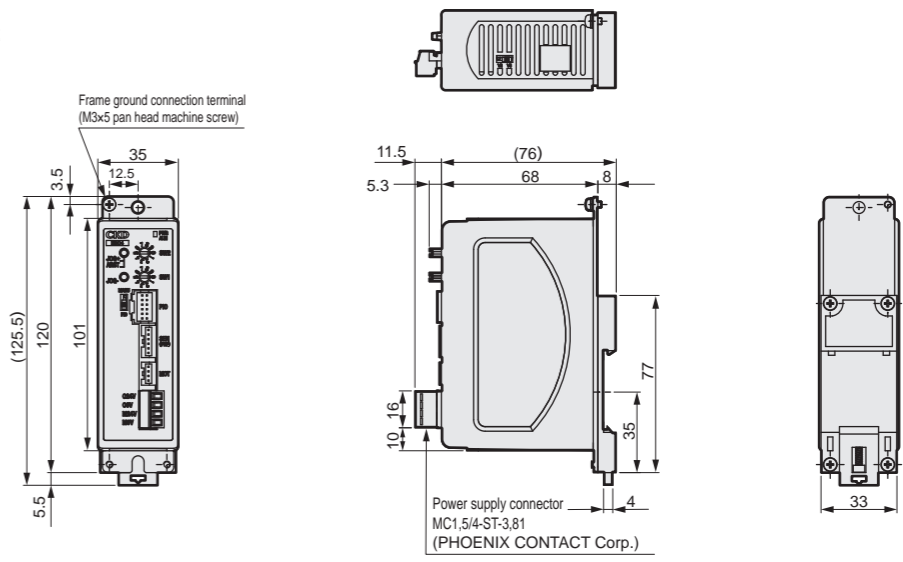
Parallel I/O (PIO) input/output specifications

Input specification

Item	ESC4
Input current	4 mA/point
Input current when ON	3 mA or more

Output specifications

Item	ESC4
Load current	9 mA/point
Internal voltage drop when ON	6 V or less

*Only changes to specifications are shown. Refer to the specifications of controller ESC3 in catalog CC-1591A for other specifications.
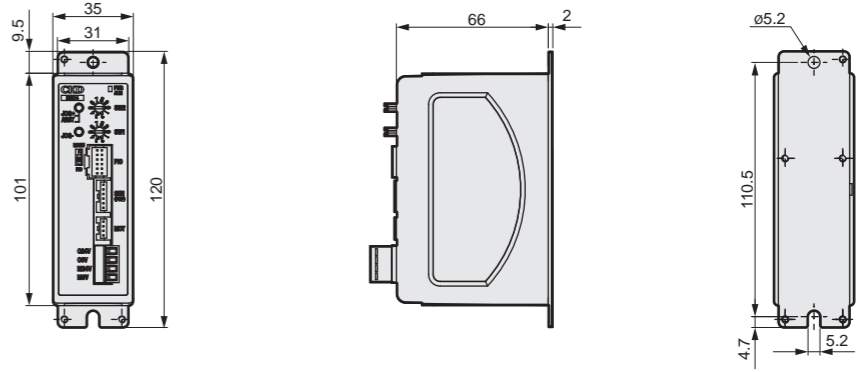
*For the wiring diagram, circuit, etc., refer to the specifications of controller ESC3 in catalog CC-1591A.
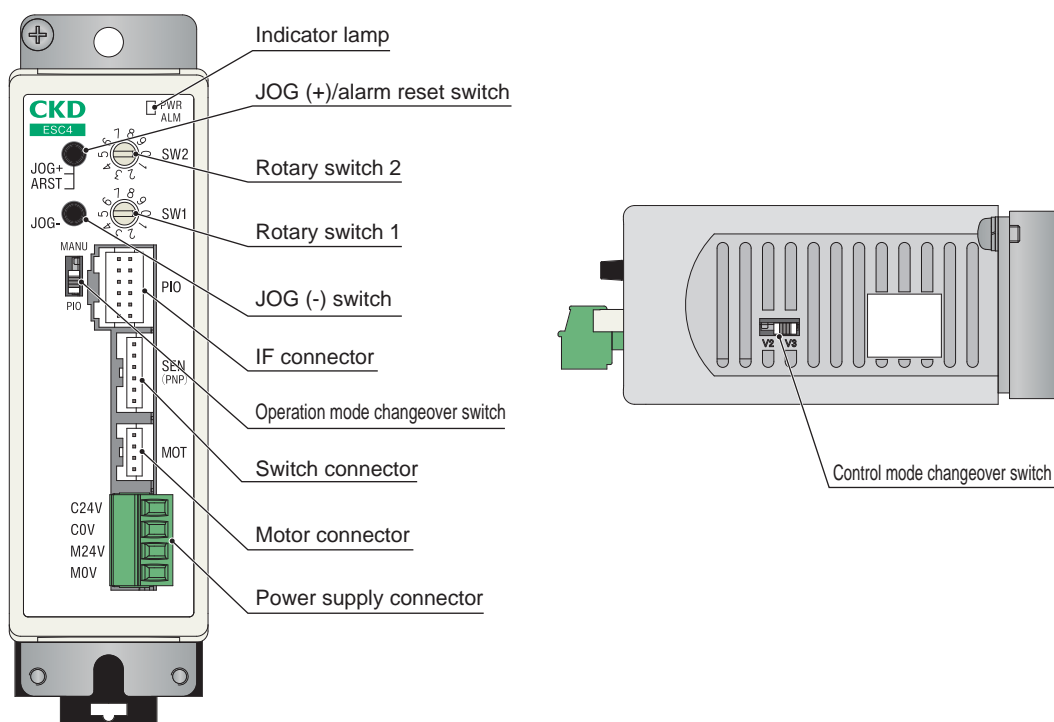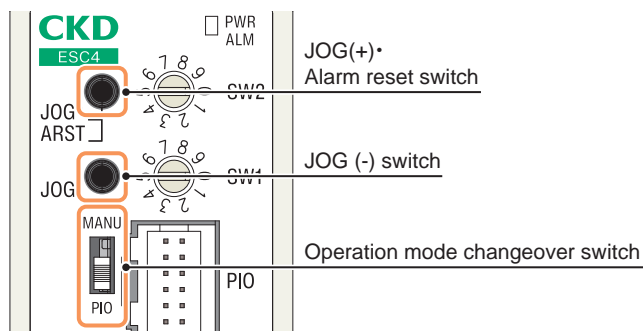
Dimensions

● DIN rail mount

Frame ground connection terminal
(M3x5 pan head machine screw)

35
12.5
3.5
(125.5)
120
101
5.5

11.5
(76)
5.3
68
8
77
10 16
35
Power supply connector
MC1,5/4-ST-3,81
(PHOENIX CONTACT Corp.)
4

33

● Panel mount

35
9.5
31
101

66
2

ø5.2
110.5
4.7   5.2
120

Additional functions

Panel

- Indicator lamp
- JOG (+)/alarm reset switch
- Rotary switch 2
- Rotary switch 1
- JOG (-) switch
- IF connector
- Operation mode changeover switch
- Switch connector
- Motor connector
- Power supply connector

Control mode changeover switch

Operation mode changeover switch

- JOG(+)・Alarm reset switch
- JOG (-) switch
- Operation mode changeover switch

Code	Operation mode	Overview
MANU	Manual	This mode operates the actuator with the JOG (+) switch and JOG (-) switch on the controller front. This can be used for trial run or when adjusting the position of the cylinder switch, etc. Input signal from the PLC cannot be received during this operation mode. When an alarm occurs, the JOG (+) switch can be used as an alarm reset switch.
PIO	PIO	Mode in which the actuator is operated using an input signal from the PLC. During this operation mode, the JOG (+), alarm reset switch and JOG (-) switch on the controller front cannot be received.

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