

# Actuator

## ID13



### Features

- ◆ ID13 is a low backlash (small end play) actuator, which is suitable for high precision application. To make it more flexible for different limited installation space, there are 2 motor directions available for customer to choose. Besides, ID13 also can be chosen with external reed switches, which work as limit switches, and make it possible for users to adjust stroke by themselves.
- ◆ Main applications : industrial
- ◆ Input voltage : 24V DC / 12V DC
- ◆ Max. dynamic load : 1200N (ACME) / 4000N (Ball Screw)
- ◆ Max. static load : 1800N (ACME) / 6000N (Ball Screw)
- ◆ Max. current : 7.0A @ 24V DC
- ◆ Max. speed : 35.0 mm/sec @no load
- ◆ Stroke : 100~350mm
- ◆ Duty cycle : 10% or 2 min continuous operation in 18min.
- ◆ IP protection level : IP54
- ◆ Color : Black
- ◆ Certified : UL E356466
- ◆ Ball screw or ACME threaded spindle is available
- ◆ Ambient operation temperature : -25°C~+65°C
- ◆ Stainless steel extension tube
- ◆ Overload protection by clutch

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## Options

- ◆ Motor mounting direction (Refer to paragraph Dimension)
- ◆ Digital positioning feedback : Hall effect sensor
- ◆ IP Protection Level : IP65
- ◆ External Limit Switches : NC-type (i.e. normal close) reed switches

## Compatibility

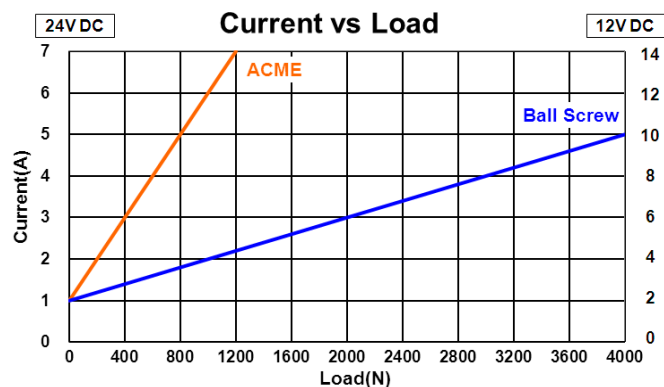
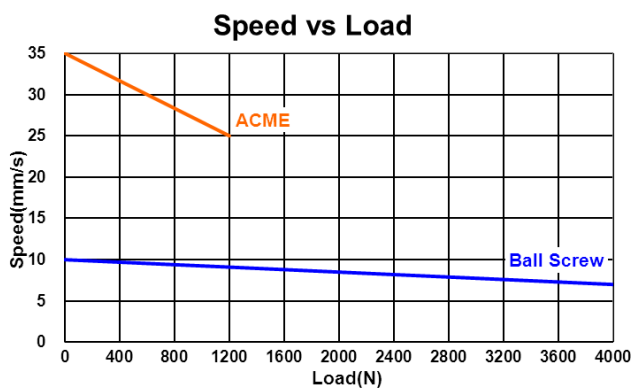
### 1. Control box

None

### 2. Accessory

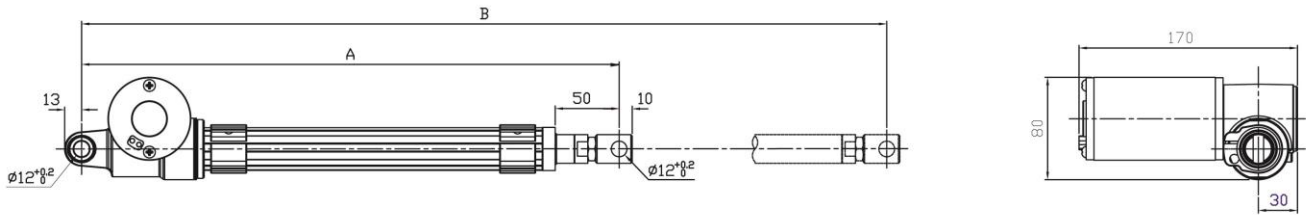
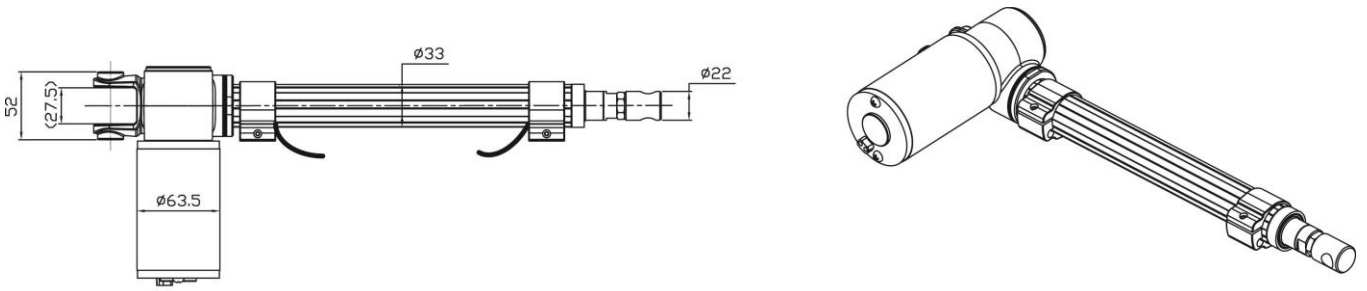
None

# Performance Data



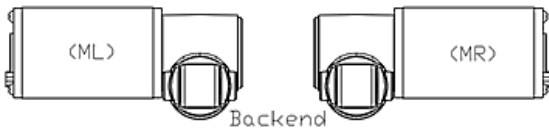
Spindle type	Model No.	Push/Pull Max. (N)	Speed (mm/s)		Current (A)			
			No load	Full load	No load		Full load	
					12V	24V	12V	24V
ACME	ID13-XXFDA-XXX.XXX	1200	35	25	2	1	14	7
Ball Screw	ID13-XXF4B-XXX.XXX	4000	10	7	2	1	10	5

# Dimensions



Unit: mm

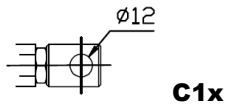
Motor mounting direction:



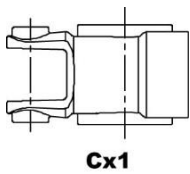
\*ML means motor is mounted on the left hand side and MR means motor is mounted on the right hand side.

Stroke (S) ( $\pm 3\text{mm}$ )	50	100	150	200	250	300	350
Retracted Length (A) ( $A \pm 3\text{mm}$ )	265	315	365	415	465	515	565
Extended Length (B) ( $A \pm 3\text{mm}$ )	315	415	515	615	715	815	915

## ◆ Front Connector



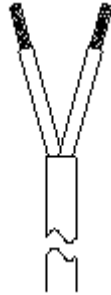
## ◆ Rear Connector



# Wiring

## 1. Standard Type

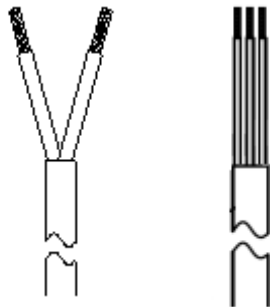
- ◆ When Red (M+) is connected to “+” and Black (M-) is connected to “-“of DC power, the actuator will extend.



Wiring	
Red	M+
Black	M-

## 2. With Hall Effect Sensor

- ◆ When Red (M+) is connected to “+” and Black (M-) is connected to “-“of DC power, the actuator will extend.
- ◆ Brown, Blue, Black (24AWG) are positioning signal wires as shown in table.
- ◆ Signal resolution : 7.69 pulses/mm (ACME) · 25 pulses/mm (Ball Screw)



Wiring	
Red	M+
Black	M-
Brown (24AWG)	VCC
Blue (24AWG)	Data
Black (24AWG)	GND

# Ordering Key

ID13—————

## Input voltage

12 : 12V DC

24 : 24V DC

## Motor

F : Standard motor (3900rpm)

## Spindle type

DA : ACME

4B : Ball Screw

## Retracted length

(Refer to paragraph Dimensions)

## Extended length

(Refer to paragraph Dimensions)

## Front/Rear clevis

11 : Standard

(Refer to paragraph Dimensions)

## Motor direction

R : Motor mounted on right hand side (Standard)

L : Motor mounted on left hand side

(Refer to paragraph Dimensions)

## External limit switches

0 : None

2 : Reed switches x 2 (NC type)

## Hall sensor

0 : None

1 : Single Hall effect sensor

## IP level

4 : IP54 (Standard)

5 : IP65

## Motor cable length

2 : 250mm

5 : 500mm

A : 1000mm

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