User Guide Industrial Actuator

ID10 Standard or Hall Sensor Type



Model: ID10



ID10 with Limit Switches or Potentiometer Type

The load should be centered on the operating direction.

Side Load is NO good for actuators.

RESET LIMIT

CAUTION:

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The most extended position is defined by the "Upper Limit Cam", and the most retracted position is defined by the "Lower Limit Cam" as well. Please set the limit positions according to the rules as follows:

- Step 1. If the actuator has been installed, uninstall it first, and then remove the gearbox cover. Step 2. Connect the power wire to correct DC power and let the actuator starts to retract, till the "Lower Limit Cam" presses the lower limit switch, then the motor stops immediately. If you really want to adjust the retracted position, you can turn the inner tube in CW or CCW direction only a little bit (less than a full circle on inner tube) to the demanded position. Then, the lower limit is set.
- Step 3. Let the actuator extends to the position you want, then loosen the screw and adjust the "Upper Limit Cam" to press the limit switch, and then the demanded stroke is done after you lock the screw.

- Be sure that never let inner tube revolves when driving the inner tube to retract or extend during the whole process.
- Reset limit is doable only the ingress protection grade is lower than IP65.

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Side Load



MANUAL DRIVE (MD) CONNECTOR

The MD (manual drive) is an alternative way to drive the motor directly, if the power is not available. Step 1. Remove the plug on the gearbox cover.

- Step 2. Use a 8.0mm hex bit or electric screwdriver (recommended) to drive the gear directly.
- Step 3. Insert the plug into the hole, and confirm the plug is installed properly.
- The Max. drive torque is 6kg-cm with 4500N load.(Ball Screw)



WIRE CONNECTION

For ID10 actuators, connection rule of power wires varies according to different types and gear ratio(s). Please follow the instructions below.

Standard Type

Please refer to the table below to define the actuator's extension. Red and Black is the color of wires. M+ is "+" and M- is "-" of DC power.

	Gear Ratio	Wiring	
	5:1, 10:1, 20:1	Red	
5		Black	
	20.4 40.4	Red	
	30:1, 40:1	Black	

With Hall Sensor Type

- Please refer to the table below to define the actuator's extension. When Red (M+) is connected to "+" and Black (M-) is connected to "-" of DC power the actuator will extend.
- White, Yellow & Blue are positioning signal wires as shown in table. The resistance between Blue and Yellow wires increases when
- extending, and decreases when retracting.
- Signal resolution : 20PPI, 1.27mm/pulse (0.787 pulses/mm)



Wiring		
Red	M+	
Black	M-	
White	VCC input	
Yellow	Resist output	
Blue	GND	

M+ M-M-M+

- With Limit Switch Type Please refer to the table below to define the actuator's extension. When Red (M+) is connected to "+" and Black (M-) is connected to "-" of DC power the actuator will extend.

Wiring	
Red	M+
Black	M-

- With Potentiometer Type
 - Please refer to the table below to define the actuator's extension. When Red (M+) is connected to "+" and Black (M-) is connected to "-" of DC power the actuator will extend.
 - White, Yellow & Blue are positioning signal wires as shown in table.
 - The resistance between Blue and White wires increases when extending, and decreases when retracting.



Actuator retracting

Value of Potentiometer

The Ohm value between blue and white wire		
Stroke(mm)	Resistance	
102	0.3-8.1 K	
153	0.3-8.7 K	
203	0.3-9.2 K	
254	0.3-7.4 K	
305	0.3-8.8 K	
457	0.3-9.4 K	
610	0.3-9.8 K	
Tolerance: \pm 0.3 K		

Wiring	
Red	M+
Black	M-
White	GND
Yellow	VCC input
Blue	Resist output

SAFETY DECLARATION

This appliance cannot be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

