

## Product Data Sheet

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# Actuator 01KS3

01KS3 features its compact design, which is suitable for various applications that require limited installation space, such as window opener and adjustable car driver seat.



## Feature

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- Main applications: Industrial, homecare, furniture
- Input voltage: 12V DC / 24V DC
- Max. load: 1000N (push / pull)
- Max. static load: 2500N (push / pull)
- Max. speed at no load: 43.9 mm/sec
- Max. speed at full load: 5.5 mm/sec @ 1000N
- Stroke: 50 / 100 / 150 / 200 / 250 / 300 mm
- Noise level:  $\leq 70$ dB
- IP Protection level: IP54
- Color: Aluminum grey
- Preset limit switches
- Duty cycle: 25%, max. 1 min. continuous operation in 4 min.
- Ambient operation temperature:  $-25^{\circ}\text{C} \sim +65^{\circ}\text{C}$
- Certified: CE marking, EMC Directive 2014/30/EU and 2004/108/EC

## Option

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- Quiet version (01KS3Q, noise level  $\leq 5$  5dB)
- Positioning signal feedback with Hall effect sensor x 1
- Positioning signal feedback with Hall effect sensor x 2
- Analog positioning feedback with Potentiometer (POT)
- IP65 Protection level
- Clamp
- Mounting bracket (MB22)

## Compatibility

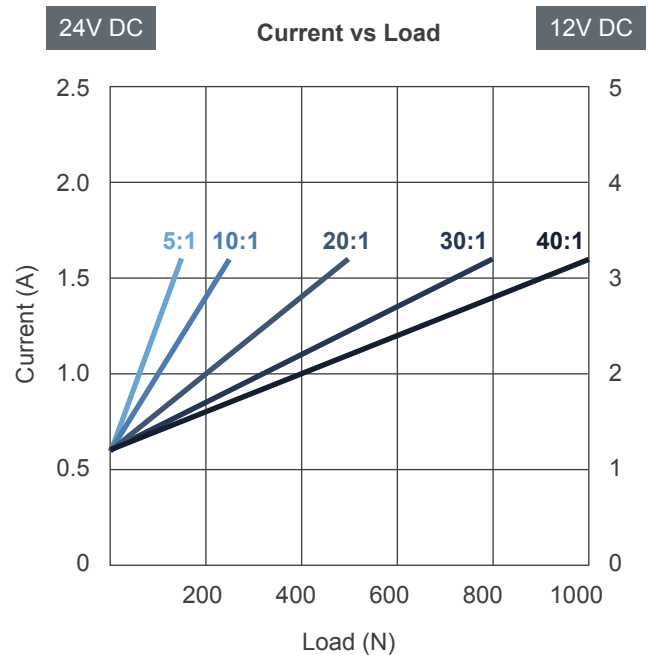
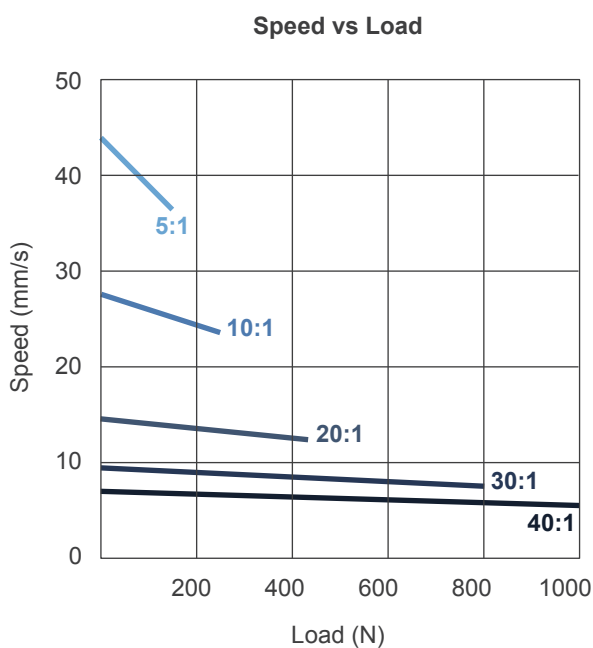
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Product	Model	LD3 spec
<b>Control box</b>	01R control, 01XA1, 01XA2, 01XVR2, 01XV3R, 01XV4N	- Without positioning sensor feedback - 4-Pin Moteck F-type DIN plug
	01XV3R-AT, 01XV4N-A, 01XV4N-V	- With dual Hall sensors - 6-Pin Moteck F-type DIN plug

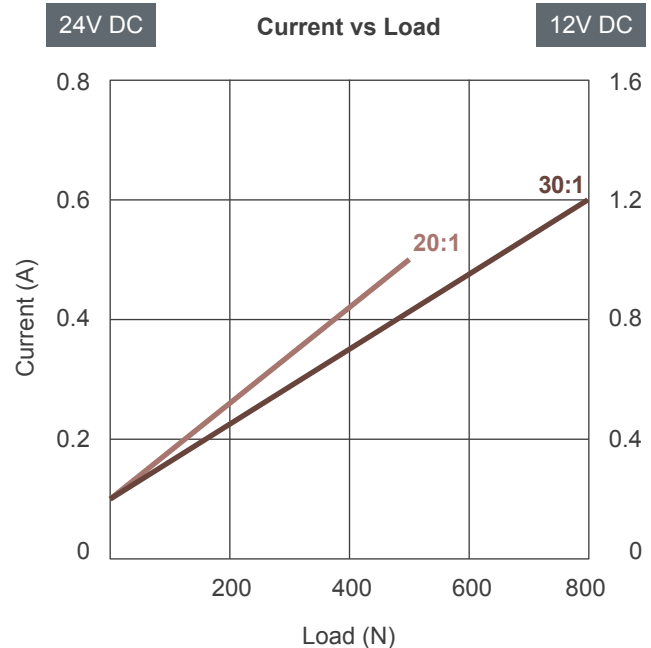
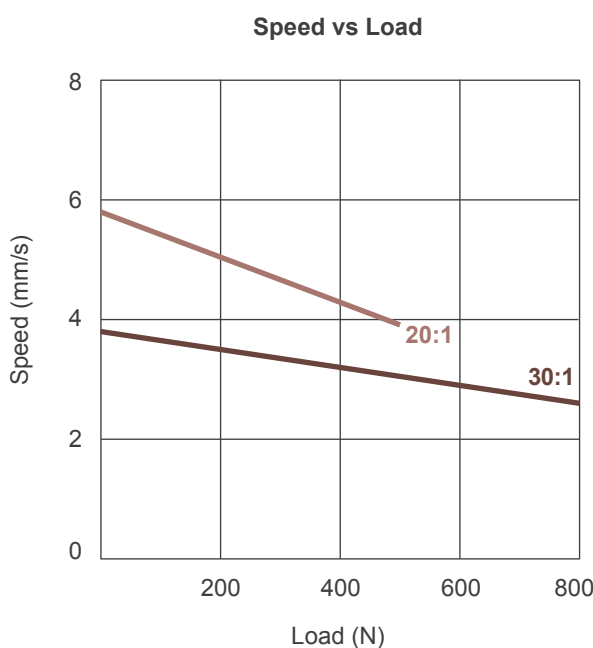
### Performance Data

Model No.	Gear ratio	Push /Pull Max. (N)	Typical speed (mm/s)		Typical current (A)				Noise level (dB)
			No load	Full load	No load		Full load		
					24V	12V	24V	12V	
01KS3-XX-05-K3-CXX...	5:1	150	43.9	36.5	0.6	1.2	1.6	3.2	≤70
01KS3-XX-10-K3-CXX...	10:1	250	27.6	23.5	0.6	1.2	1.6	3.2	≤70
01KS3-XX-20-K3-CXX...	20:1	500	14.6	12.3	0.6	1.2	1.6	3.2	≤70
01KS3-XX-30-K3-CXX...	30:1	800	9.5	7.5	0.6	1.2	1.6	3.2	≤70
01KS3-XX-40-K3-CXX...	40:1	1000	7.0	5.5	0.6	1.2	1.6	3.2	≤70
01KS3Q-XX-20-D3-CXX...	20:1	500	5.8	3.9	0.1	0.2	0.5	1.0	≤55
01KS3Q-XX-30-D3-CXX...	30:1	800	3.8	2.6	0.1	0.2	0.6	1.2	≤55

### Normal version (01KS3)

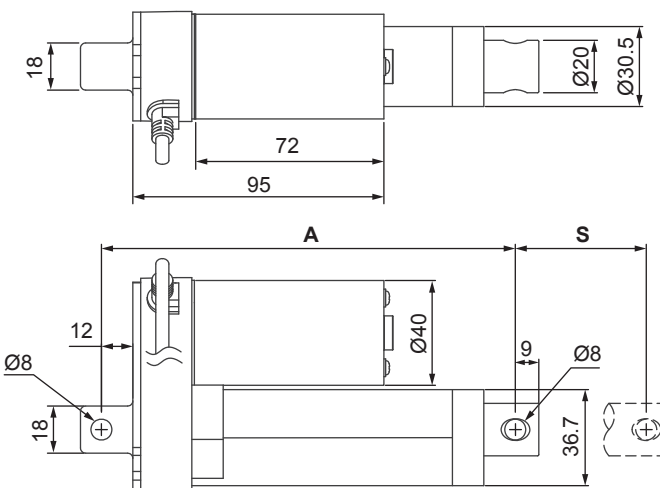
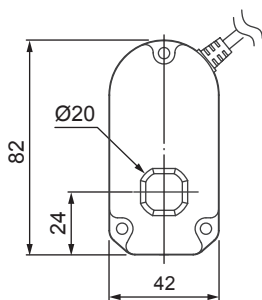


### Quiet version (01KS3Q)

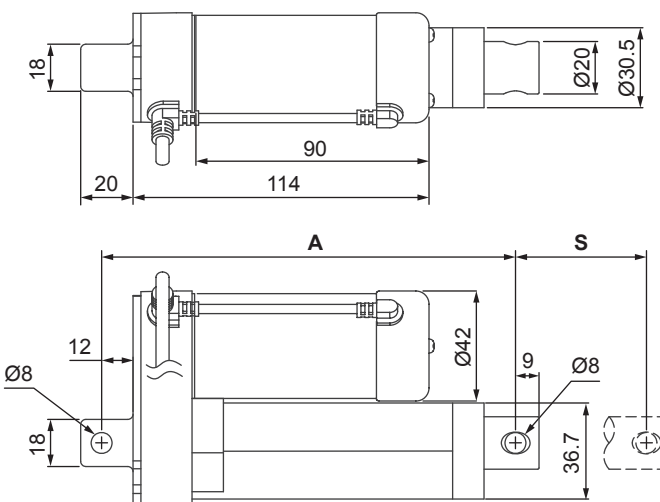
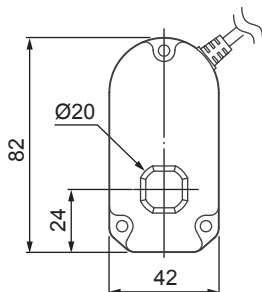


## Dimensions

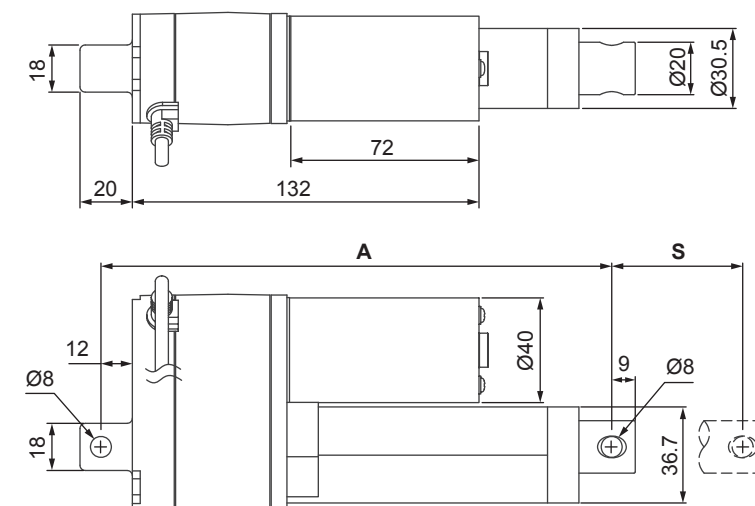
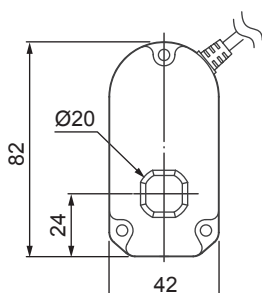
### Standard (without positioning feedback)



### With Hall effect sensor



### With Potentiometer



**Installation Dimension**

	Stroke (S)							
	Option	Front connector code	50	100	150	200	250	300
Retracted length (A)* (tolerance: ±3mm)	Standard or Hall sensor	1, 2, 4	158	209	260	311	362	413
		3	199	250	301	352	403	454
	POT	1, 2, 4	195	246	297	348	399	450
		3	236	287	338	389	440	491

\*Remarks: The dimension "A" is shown in page 4, as indicated in the figure above.

**Front Connector**

**Pivot orientation of rear connector**

1: Drilled hole

2: Plastic

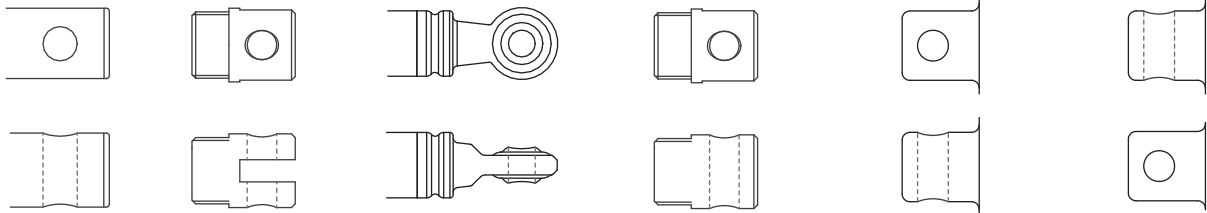
3: Spherical rod eye

4: Plastic

1: Drilled hole

0°

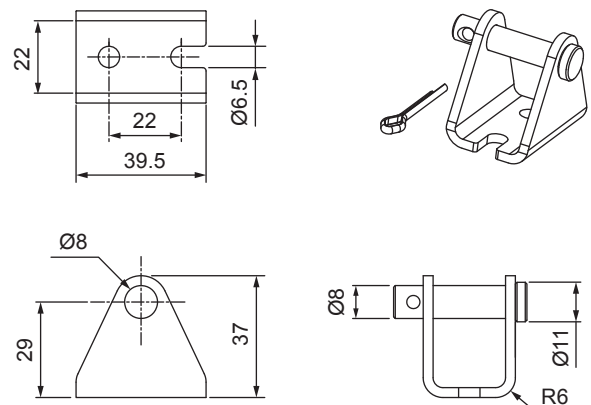
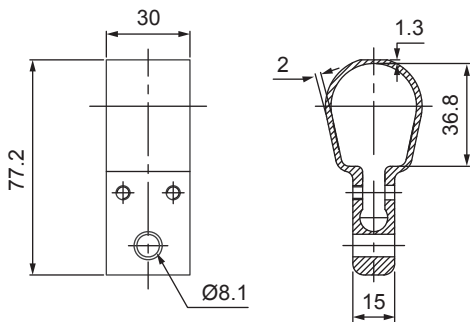
90°



Front connector code	Diameter of pivot without bushing	Slot width	Slot depth
1	Ø6.4, Ø8, Ø10	N/A	N/A
2	Ø8	6	6.5
3	Ø8	N/A	N/A
4	Ø8, Ø10	N/A	N/A
Rear connector code			
1	Ø6.4, Ø8, Ø10	N/A	N/A

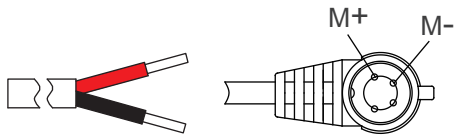
**Clamp**

**Mounting bracket (MB22)**



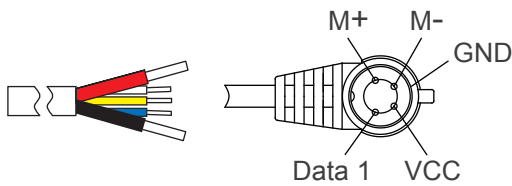
## Wiring & Cable Plug

### Standard



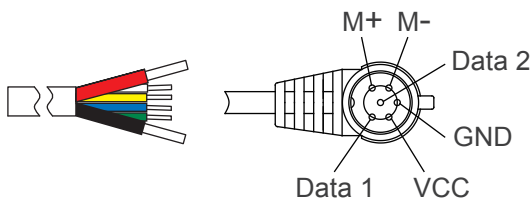
Power	
Red	Black
M+	M-

### With Hall effect sensor x 1



Power		Signal		
Red	Black	White	Yellow	Blue
M+	M-	GND	VCC	Data 1

### With Hall effect sensor x 2

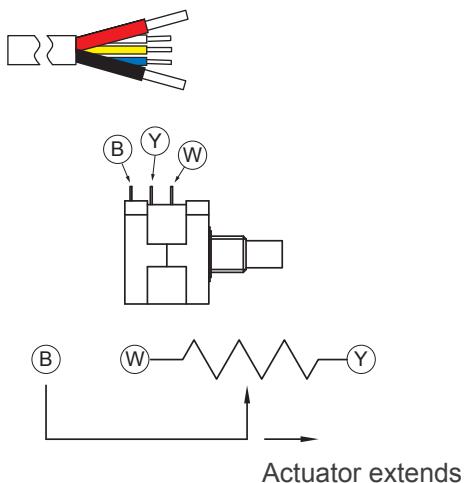


Power		Signal			
Red	Black	White	Yellow	Blue	Green
M+	M-	GND	VCC	Data 1	Data 2

Gear ratio	Resolution (pulses/mm)
5:1	2.3
10:1	3.6
20:1	6.9
30:1	10.6
40:1	14.3

### With potentiometer (POT)

The resistance between blue and white wires increases when the actuator extends, and decreases when it retracts.



Power		Signal		
Red	Black	White	Yellow	Blue
M+	M-	GND	VCC	Data

Stroke (mm)	Resistance (tolerance: $\pm 0.3K\Omega$ )
50	0.3 ~ 9.3K
100	0.3 ~ 9.7K
150	0.3 ~ 8.6K
200	0.3 ~ 9.6K
250	0.3 ~ 9.3K
300	0.3 ~ 9.3K

#### Note:

Connect (M+) to '+' & (M-) to '-' of DC power, the actuator will extend.

## Ordering Key

**01KS3 - 24 - 10 - K3 - 100 - C 1 1 - HS2 - IP54 - 0 0**

<b>Type</b>	<b>Blank:</b> Normal version <b>Q:</b> Quiet version
<b>Input voltage</b>	<b>12:</b> 12V DC <b>24:</b> 24V DC
<b>Gear ratio</b>	<b>05, 10, 40</b> (for normal version only) <b>20, 30</b> (Refer to Performance Data)
<b>Motor and Spindle type</b>	<b>K3</b> <b>D3</b> (for Quiet version only) (Refer to Performance Data)
<b>Stroke</b>	<b>050:</b> 50 mm <b>100:</b> 100 mm <b>150:</b> 150 mm <b>200:</b> 200 mm <b>250:</b> 250 mm <b>300:</b> 300 mm
<b>Front connector</b>	1: Drilled hole 2: Plastic, slot type 3: Spherical rod eye 4: Plastic (Refer to page 5)
<b>Rear connector</b>	1: Drilled hole (Refer to page 5)
<b>Positioning feedback</b>	<b>Blank:</b> None <b>HS1:</b> Hall effect sensor x 1 <b>HS2:</b> Hall effect sensor x 2 <b>POT:</b> Potentiometer
<b>IP Protection level</b>	<b>54:</b> IP54 (standard) <b>65:</b> IP65
<b>Clamp</b>	<b>Blank:</b> None <b>C:</b> Clamp
<b>Mounting bracket</b>	<b>Blank:</b> None <b>M:</b> Mounting bracket (MB22)