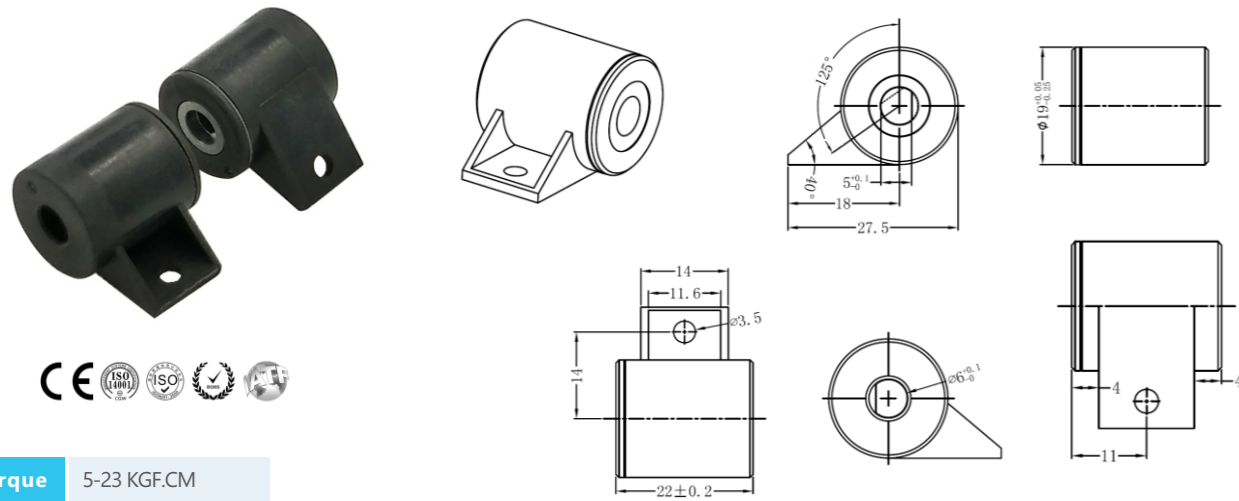


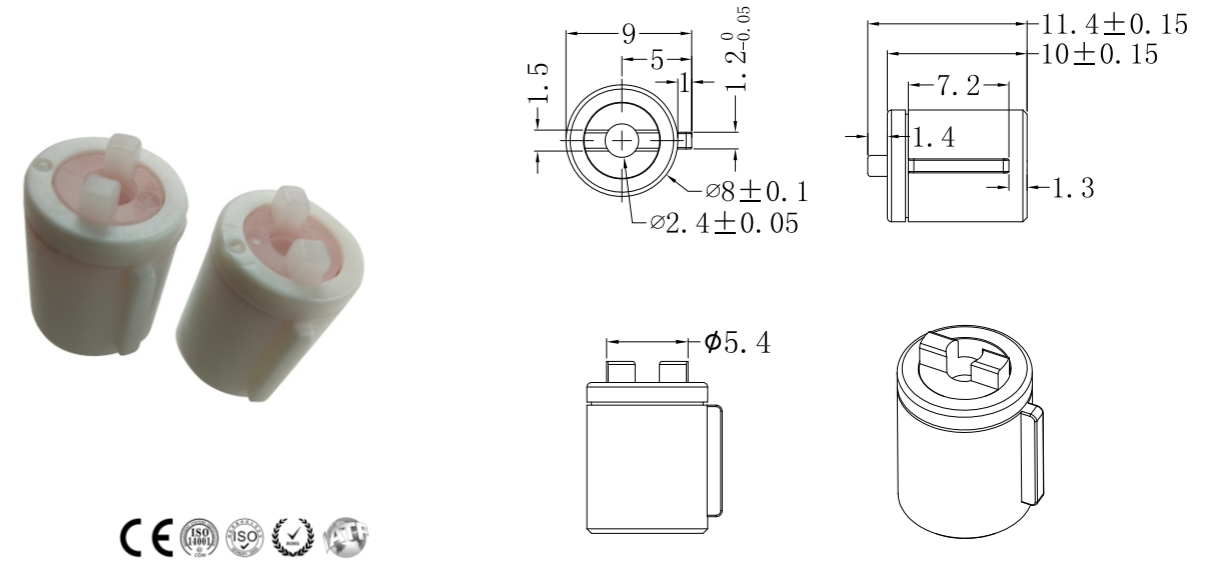
Model: PR-T021A-Two way (For rice cooker, etc)



Torque 5-23 KGf.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PA66	Zinc Alloy	Silicone Oil

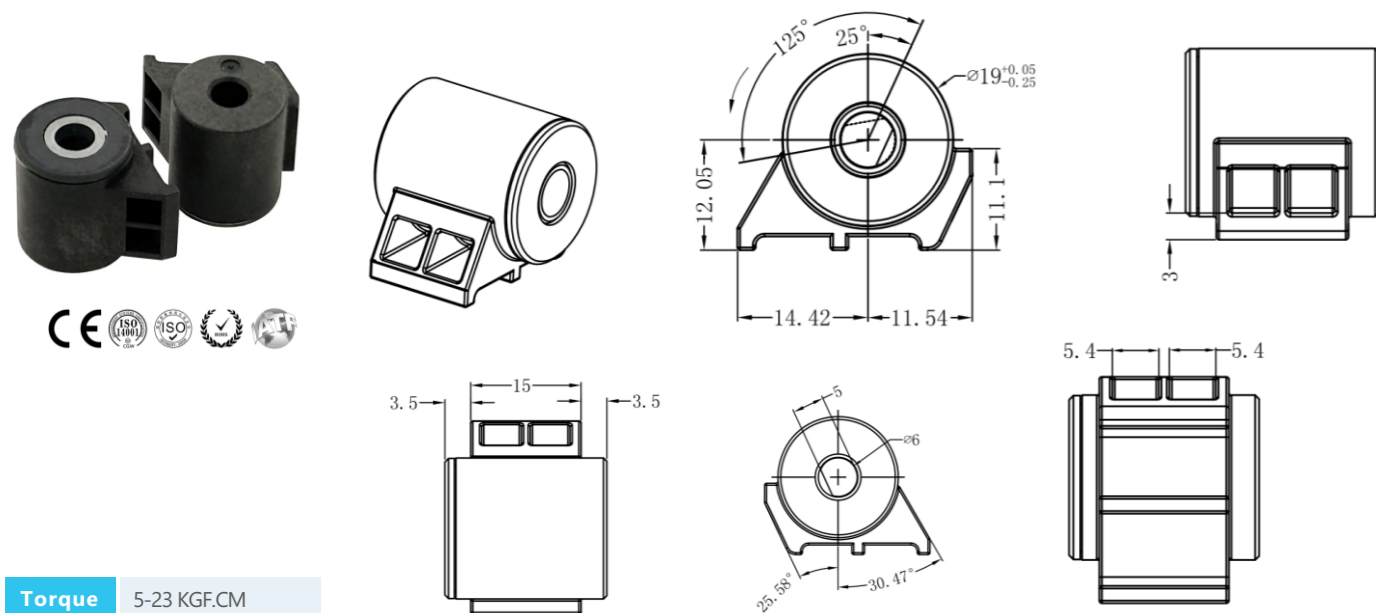
Model: PR-T026A-Two way



Torque 50-220 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

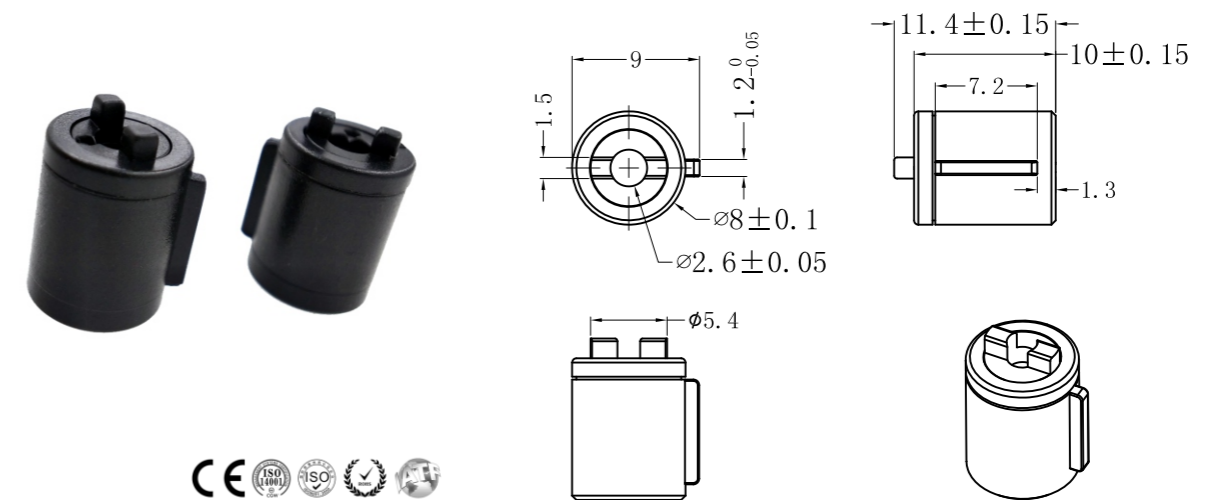
Model: PR-T021B-Two way (For rice cooker, etc)



Torque 5-23 KGf.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PA66	Zinc Alloy	Silicone Oil

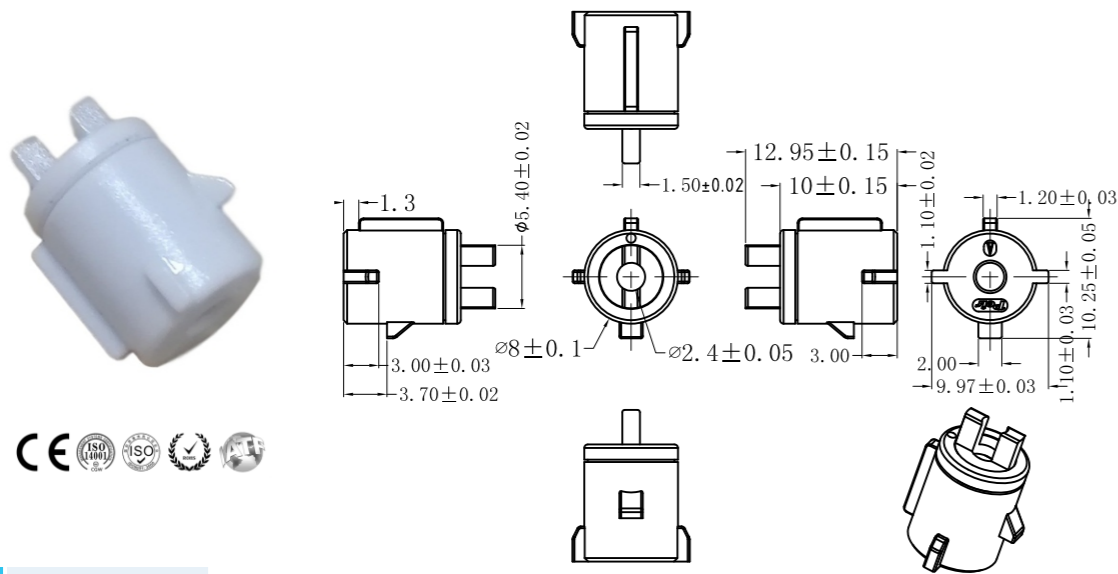
Model: PR-T026C-Two way



Torque 50-220 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

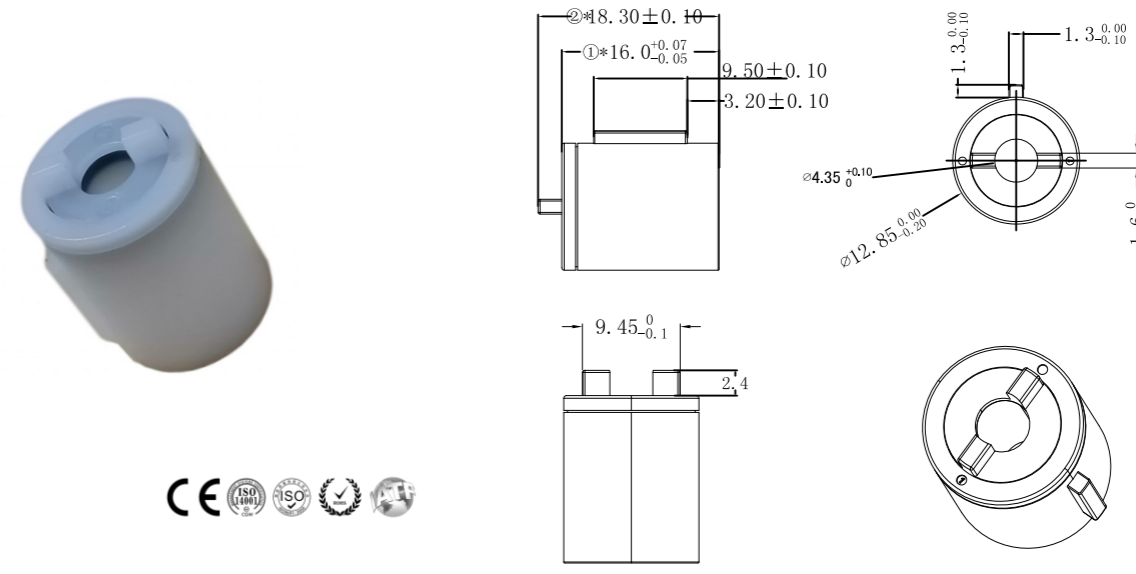
Model: PR-T026D-Two way



Torque 50-220 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

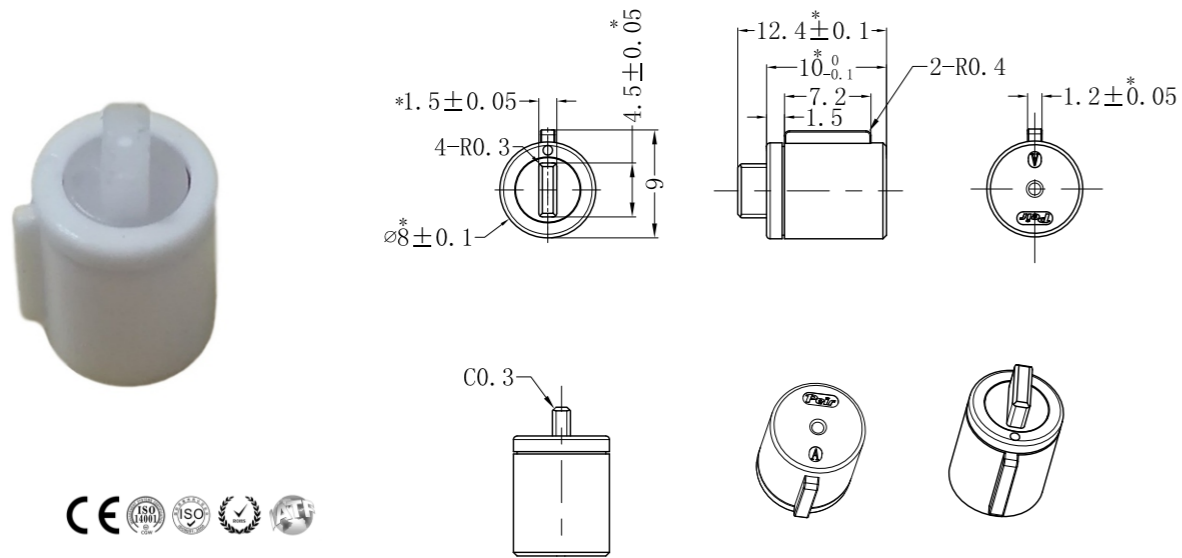
Model: PR-T027A-Two way



Torque 200-2000 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	POM	POM	Silicone Oil

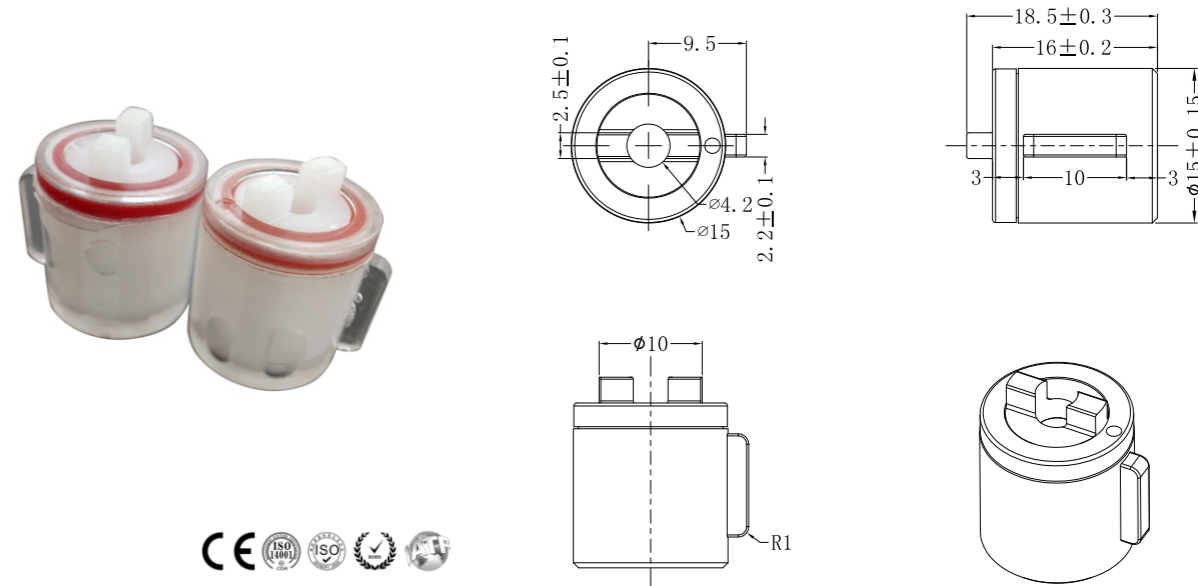
Model: PR-T026F-Two way



Torque 50-220 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

Model: PR-T028A-Two way



Torque 300-4500 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

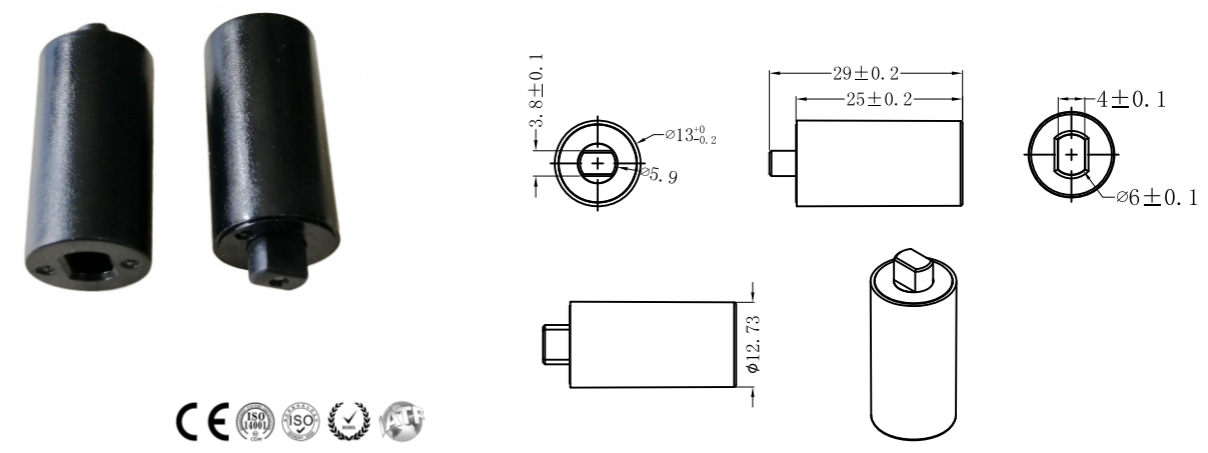
Model: PR-T029A-Two way



Torque 300-2000 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

Model: PR-T080A-Two way

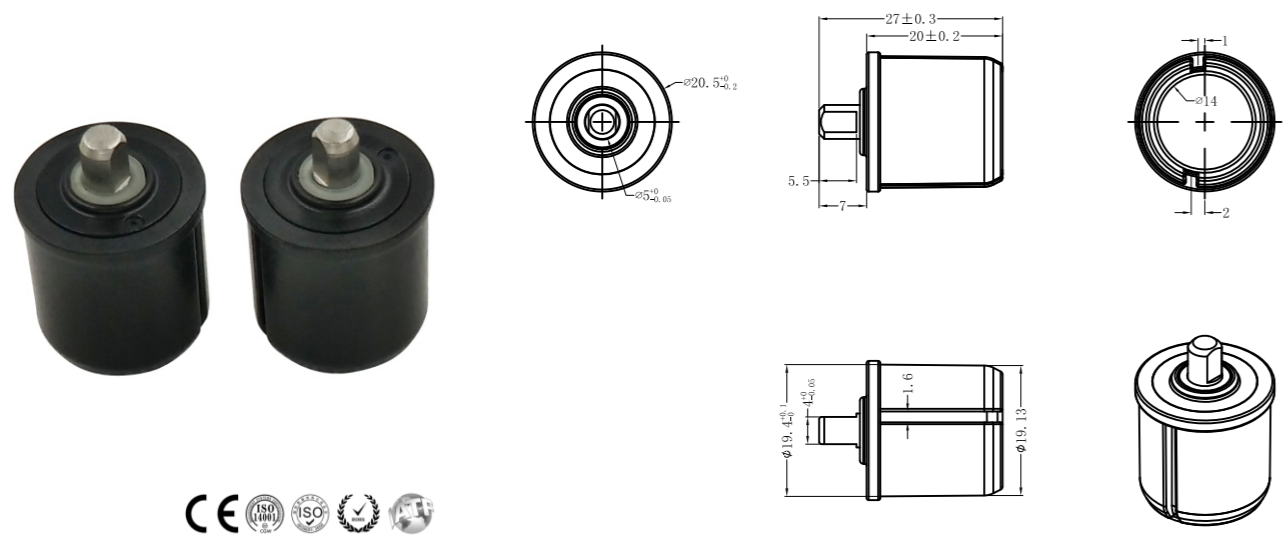


Torque 650-4500 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

Remarks:
Compared with T080A, T080B is of different shaft dimension, 4.1±0.1mm.

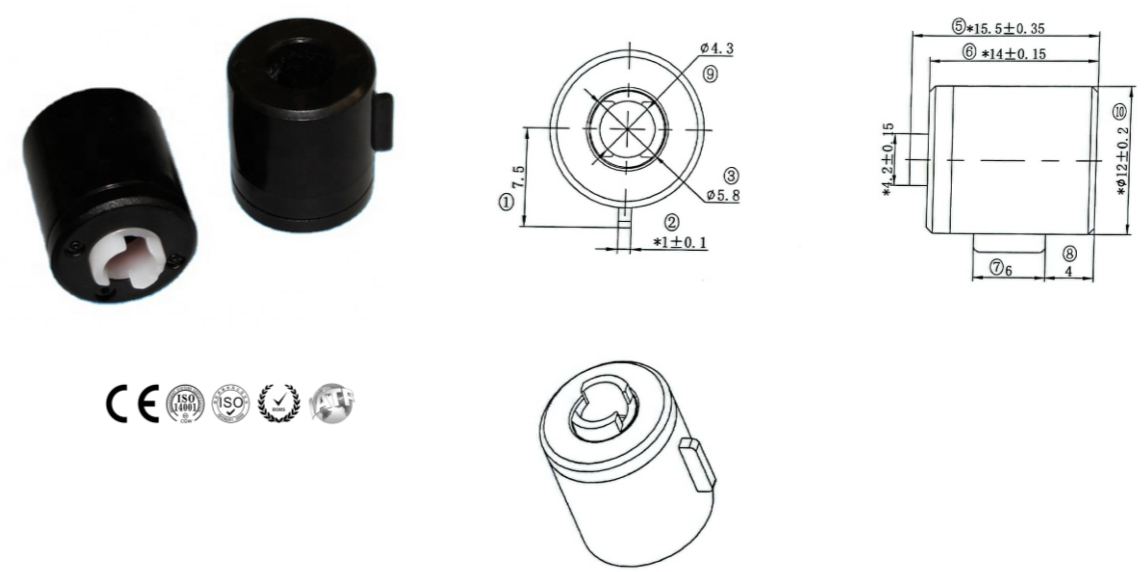
Model: PR-T066A-One/Two way (For curtain, etc)



Torque 50-1000 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

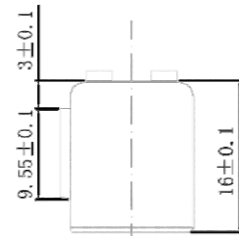
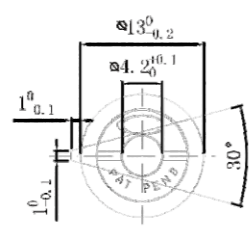
Model: PR-H45-Two way



Torque 340±100 GF.CM

Static Storage Temperature	Dynamic Working Temperature	Body Material	Shaft Material	Oil
-40°C-110°C	-5°C-50°C	PC	POM	Silicone Oil

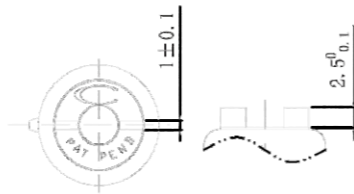
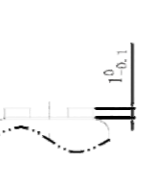
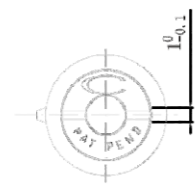
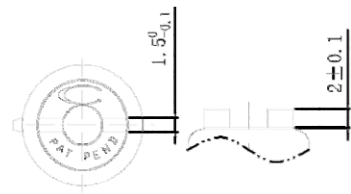
Model: PR-FA-Two way



PR-FA1

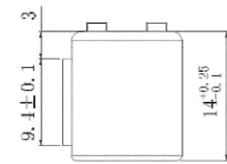
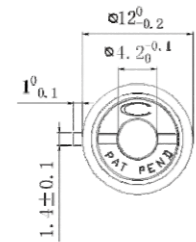
PR-FA2

PR-FA3



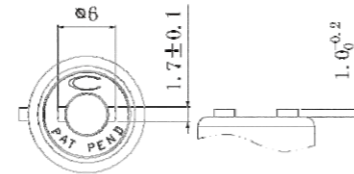
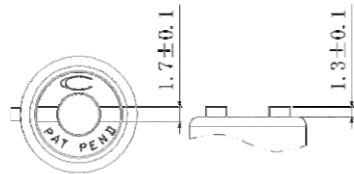
Torque	
At 20 rpm, 20°C	5-10Ncm

Model: PR-FB-Two way



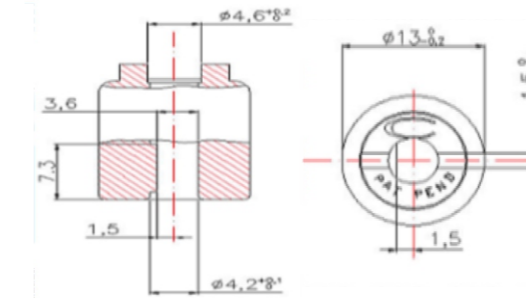
PR-FB4

PR-FB5



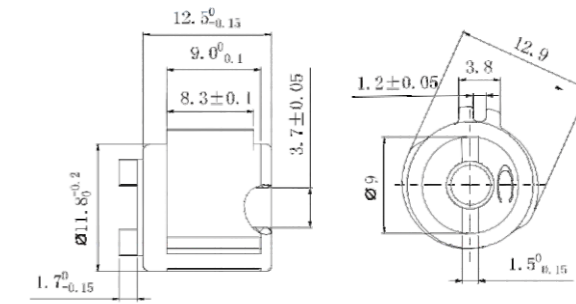
Torque	
At 20 rpm, 20°C	3.4-6.2Ncm

Model: PR-FE-Two way



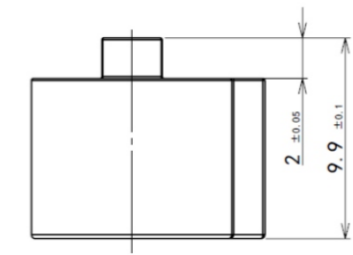
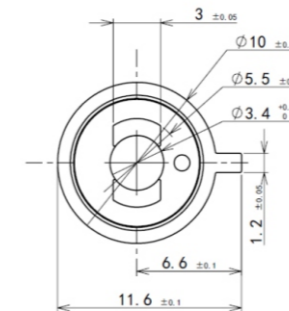
Torque	
At 20 rpm, 20°C	10Ncm ± 1.5

Model: PR-FG-Two way



Torque	
At 20 rpm, 20°C	5Ncm ± 0.85

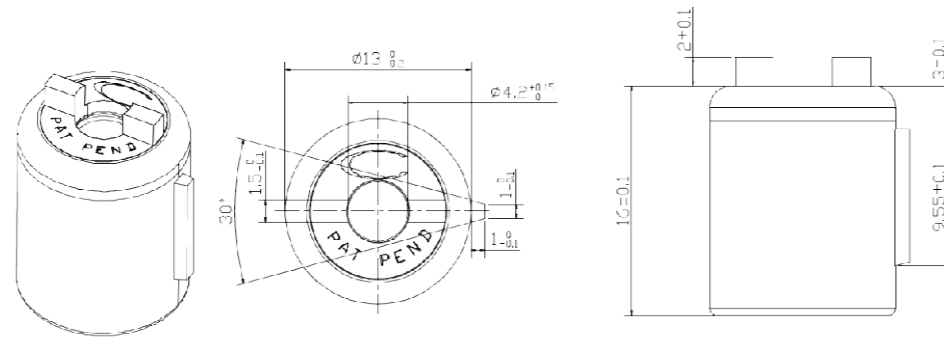
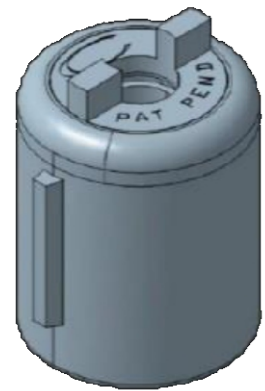
Model: PR-DC002-Two way



Body Material	PC
Shaft Material	POM

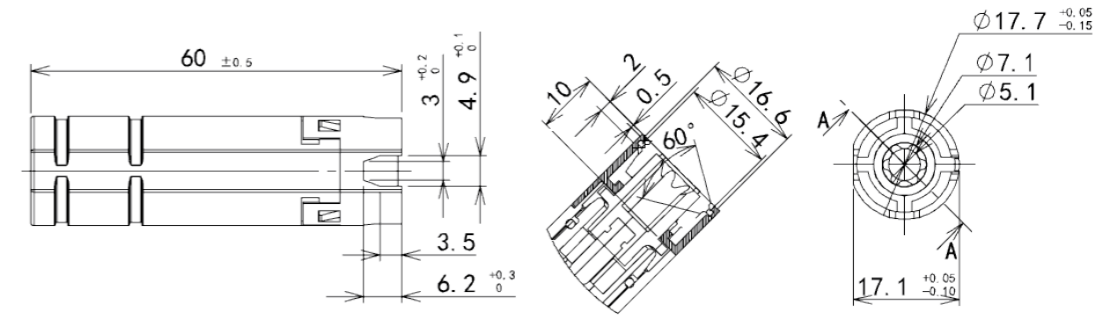
Torque	
	0.5-4.0Ncm

Model:PR-BA-Two way

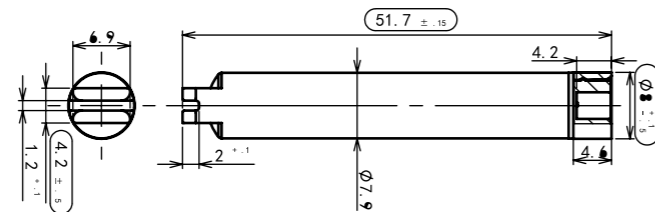


Shaft Material	POM	Static Storage Temperature	-30°C- 90°C
Body Material	PA6GF15	Torque at 20 rpm, 20°C	15-20 Ncm
Oil	Silicone Oil	Life Cycle	50,000 cycles

Model:PR-DEC003-Two way (For automotive package tray, etc)

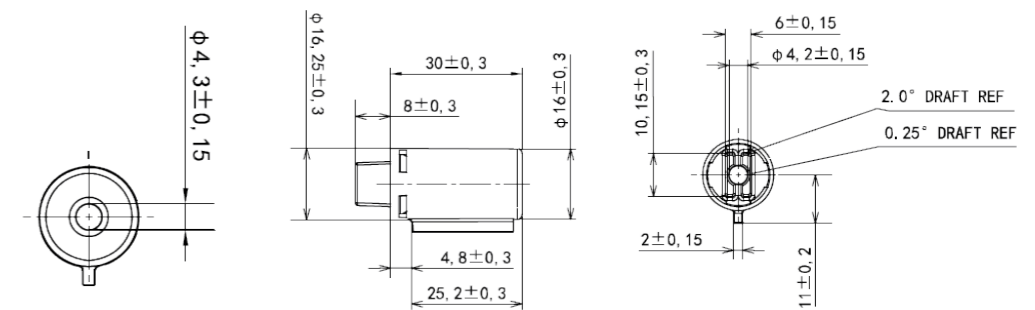


Model: PR-DEC001-Two way (For cosmetic mirror , etc)



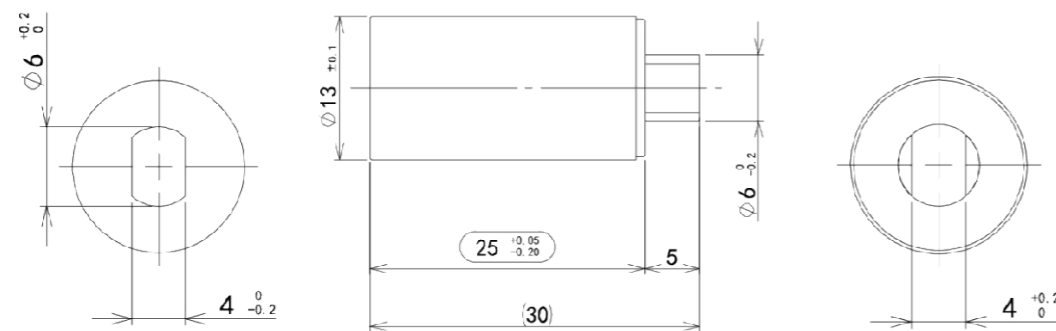
Torque at 20rpm	2.5-6.5 Ncm
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Model: PR-DE006-Two way (For automotive arm rest, etc)



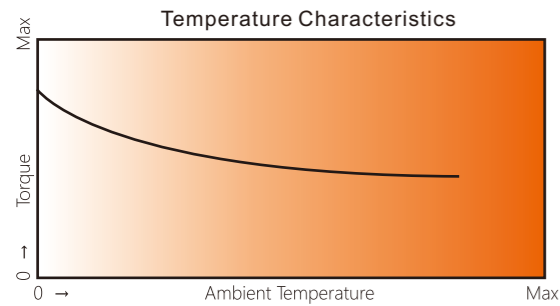
Torque at 20 rpm, 23°C	9-25 Ncm
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Model: PR-DEC002-Two way (For automotive curtain, etc)

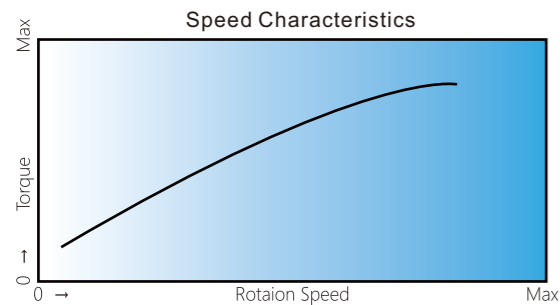


Shaft Material	POM+GF25	Static Storage Temperature	-10°C- 50°C
Body Material	POM+GF25	Torque at 20 rpm, 20°C	1.5 - 40 Ncm
Oil	Silicone Oil		

Rotary Damper Temperature & Speed Characteristics



Temperature Characteristics
 The torque of the rotary damper varies according to the temperature. The higher temperature for the lower torque; The lower temperature for the higher torque. When the temperature returns to normal, the damper characteristics will return to normal as well.



Speed Characteristics
 The torque of the rotary damper varies according to rpm. In general, if the rpm goes up, the torque increases; If the rpm goes down, the torque decreases. In addition, please note that the starting torque slightly differs from the rated torque. (The torque value indicated in the product data is measured at the rotation speed of 20r/min)

Example:

$W=1\text{ KG}, L=200\text{mm}$

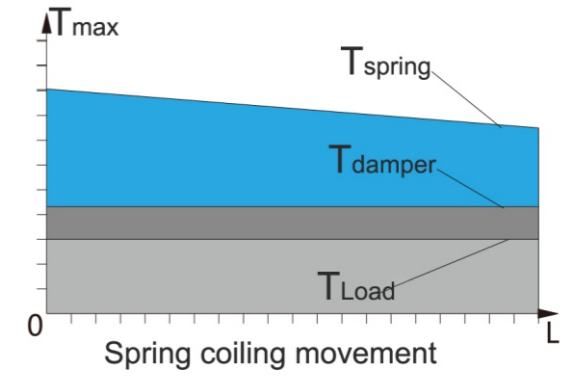
$T_{\text{load}}=1*9.8*(0.2/2)=0.98\text{Nm}$

$T_{\text{spring}}=1.2\sim 0.5\text{Nm}$

$T_{\text{damper}} \leq T_{\text{spring}} - T_{\text{load}}$

$= (1.2 - 0.98)\text{Nm} \sim (0.5 - 0)\text{Nm}$

$= 0.22 \sim 0.5\text{Nm}$



Note:

T: Torque.

L/2: 1/2 the length of the cover from the pivot to the end (Center of gravity).

W: Actual weight of lid.

a: Max angle between the cover and horizontal position.

Torque calculation method in different scenarios

1. Controlled slow closing down. (From 90° - 0°)

Shown on the right figure, the flat starts to close down from position of less than 90 to horizon position.

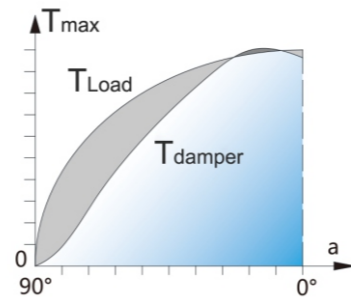
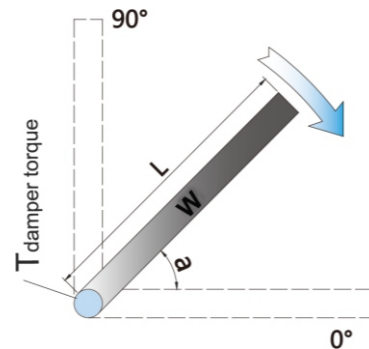
$T = (W * g) * (L/2) * (\cos a)$

Example:

$W=2\text{KG}, L=300\text{mm}$

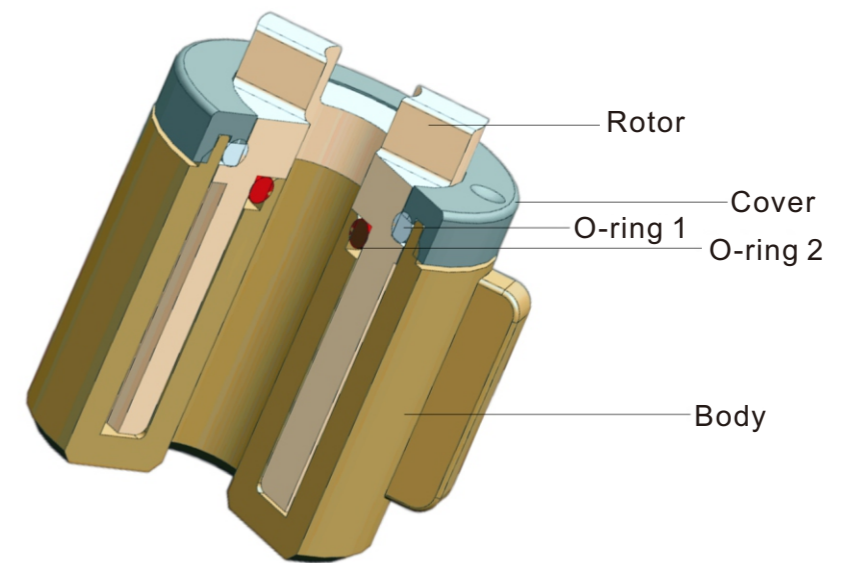
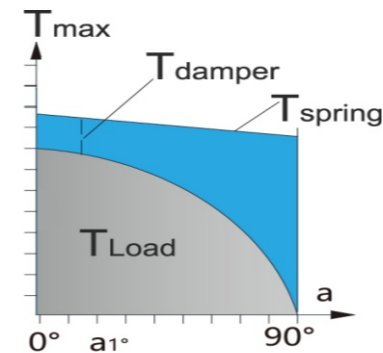
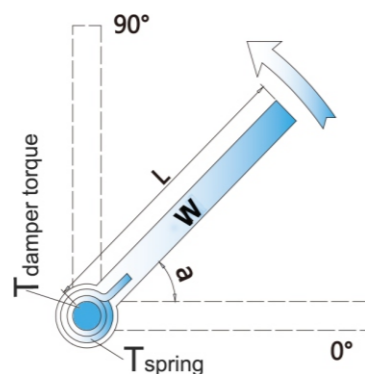
$T_{\text{max}} = (2 * 9.8) * (0.3/2) = 2.94\text{ Nm}$

$T_{\text{damper}} = 0 - 3.0\text{Nm}$



2. Damper and springs achieve soft opening. (0° ~ 90°)

As the right picture shows, the flat open along the axis when the spring exerts force on it. The graph below shows the relation among spring Force T, gravity of flat W and the resistance of rotation of damper:



Barrel Damper