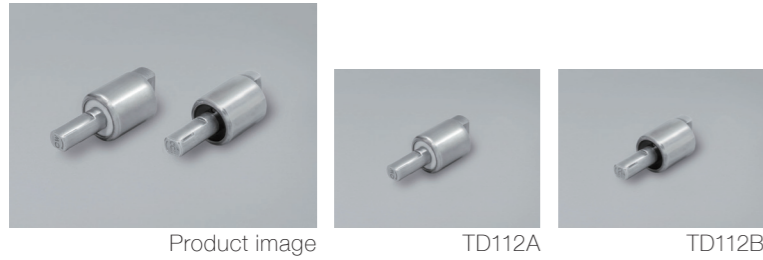


## Product lineup



### Features

- Compact design made with zinc alloy
- Shaft is thinner than that of plastic rotary dampers
- High rigidity achieved by the use of zinc alloy
- High torque up to 3 N·m
- Using the attachment, the form of TD112 will be the same as TD99

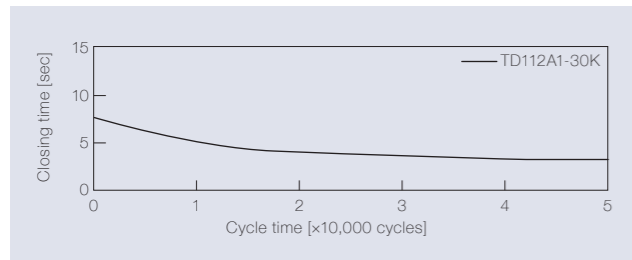
Product name	Torque [N·m] (lbf·in)	Damping direction	Cap color
TD112A1-15K	1.5 (13.28)	CW	Natural
TD112A1-20K	2.0 (17.70)		
TD112A1-25K	2.5 (22.13)		
TD112A1-30K	3.0 (26.55)		

Product name	Torque [N·m] (lbf·in)	Damping direction	Cap color
TD112B1-15K	1.5 (13.28)	CCW	Black
TD112B1-20K	2.0 (17.70)		
TD112B1-25K	2.5 (22.13)		
TD112B1-30K	3.0 (26.55)		

Long shaft is also available (Shaft length 15mm → 22mm) The products with the attachment have "-AT1" at the end of the product name.

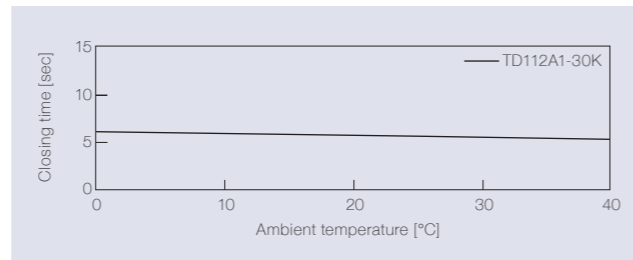
## Product specifications

### Durability



Torque	3.0 N·m (26.55 lbf·in)
Radial load	N/A
Angle range of closing time	70 to 0 deg.
Temperature	23 ± 2°C (73.4 ± 35.6°F)
Durability	50,000 cycles

### Temperature characteristics



Measured according to the performance management testing method shown below after leaving in each designated ambient temperature for over one hour.

### Performance management testing method

As the torque of partial rotation angle dampers is not consistent, the closing time measurement jig is used for the performance tests.

[Operation during measurement]

(Secures the housing of a rotary damper and moves its shaft)

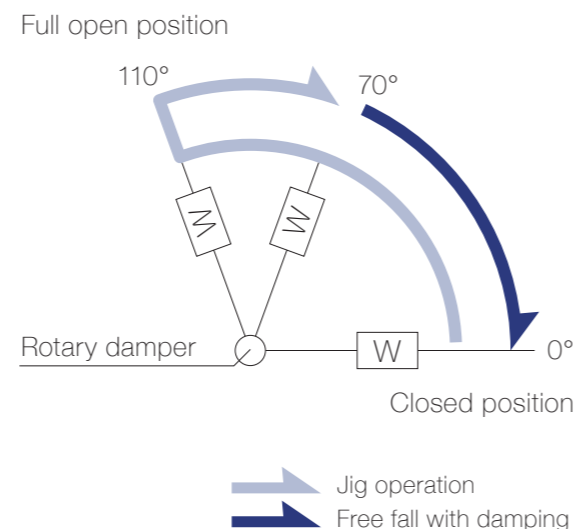
All rotary dampers are managed by the following closing time test.

Test mode [110° → 70° (Pause) → (Free fall with damping) → 0°]

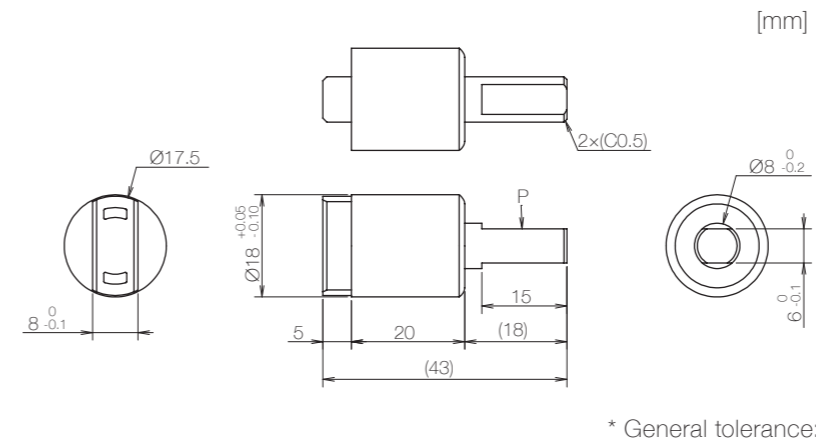
\* Horizontal plane: 0°

### Inspection specification before shipping

Type	Preset torque [N·m] (lbf·in)	Closing time
15K	1.5 (13.28)	3 to 10 sec
20K	2.0 (17.70)	
25K	2.5 (22.13)	
30K	3.0 (26.55)	



## Product information



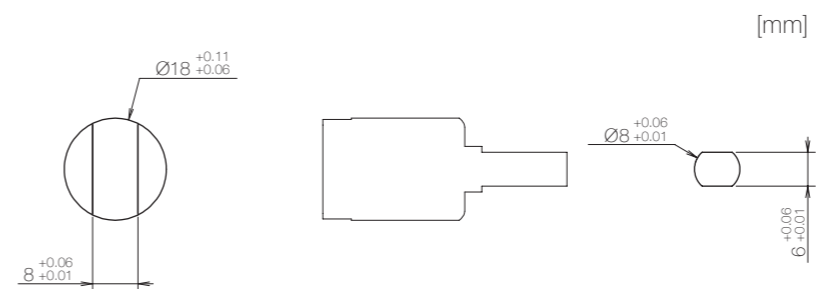
\* General tolerance: ±0.3

- Opening angle: 110°
- Product weight: Approx. 30 g
- Allowable radial load (P): 19.6 N

### Main materials

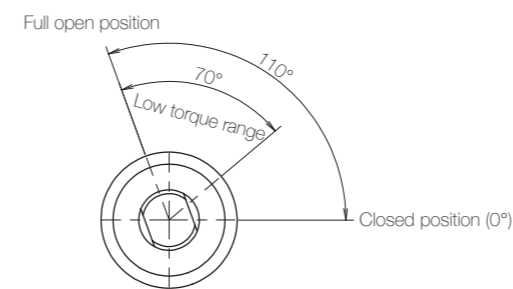
Housing	Zinc alloy(ZDC)
Cap	Plastic (PBT)
Shaft	Zinc alloy (ZDC)

## Dimensions related to mounting

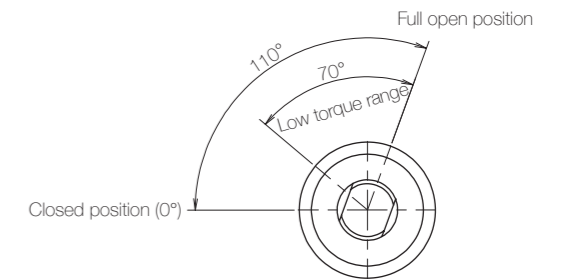


## Opening angle

### TD112A



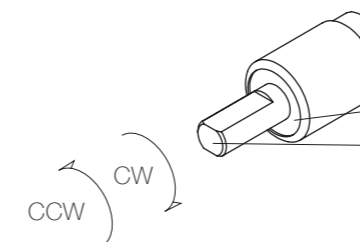
### TD112B



\* Shaft position at the time of shipping: Closed position

## Damping directions

### Rotation directions of the shaft to which torque is applied



\* Housing secured / Shaft rotatable

Damping direction	Cap color
CW	Natural
CCW	Black

Damping direction	Engraved mark
CW	CW
CCW	CCW