

## Product lineup



### Features

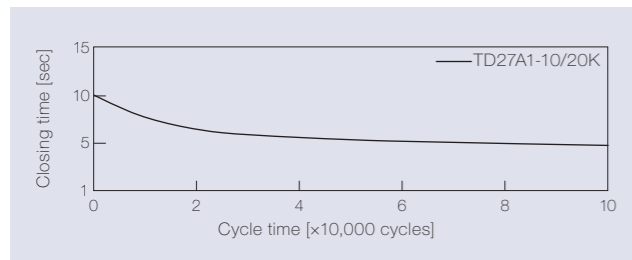
- Equipped with torque adjustment function
- A dedicated bracket enables the use of this product as a rotary damper hinge

Product name	Torque [N·m] (lb·in)	Damping direction
TD27A1-5/13K	0.49 (4.34) to 1.27 (11.24)	CW
TD27B1-5/13K		CCW
TD27A1-10/20K	0.98 (8.67) to 1.96 (17.35)	CW
TD27B1-10/20K		CCW

Product name	Torque [N·m] (lb·in)	Damping direction
TD28A1-5/13K	0.49 (4.34) to 1.27 (11.24)	CW
TD28B1-5/13K		CCW
TD28A1-10/20K	0.98 (8.67) to 1.96 (17.35)	CW
TD28B1-10/20K		CCW

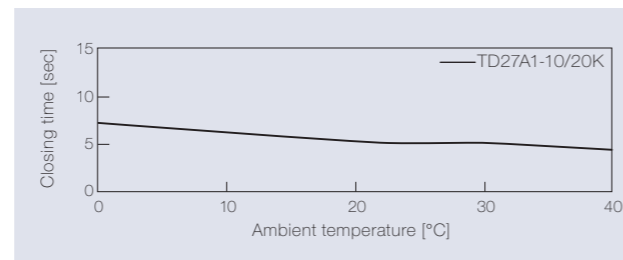
## Product specifications

### Durability

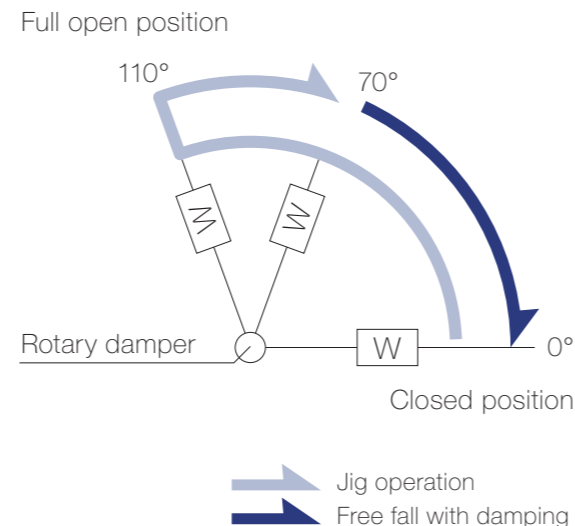


Torque	1.96 N·m(17.35 lb·in)
Radial load	N/A
Angle range of closing time	70 to 0 deg.
Temperature	23 ± 2°C (73.4 ± 35.6°F)
Durability	100,000 cycles

### 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.

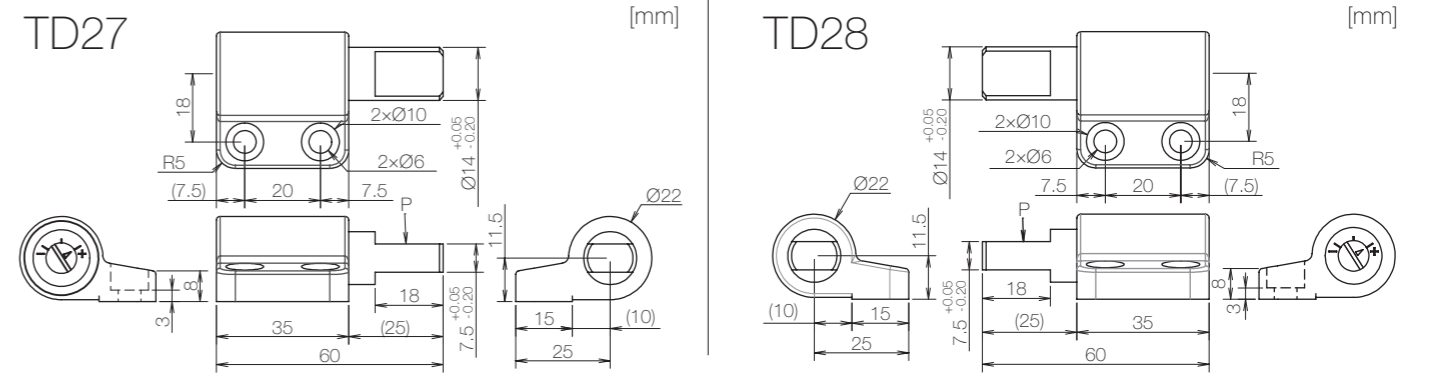
[Operation during measurement]  
(Secures the housing of a rotary damper and moves its shaft.)  
All rotary dampers are managed by the following closing time test.

Test mode [110° → 70° (Pause) → (Free fall with damping) → 0°]  
\* Horizontal plane: 0°

### Inspection specification before shipping

Type	Preset torque [N·m] (lb·in)	Closing time
5/13K	1.27 (11.24)	3 to 15 sec
10/20K	1.96 (17.35)	

## Product information



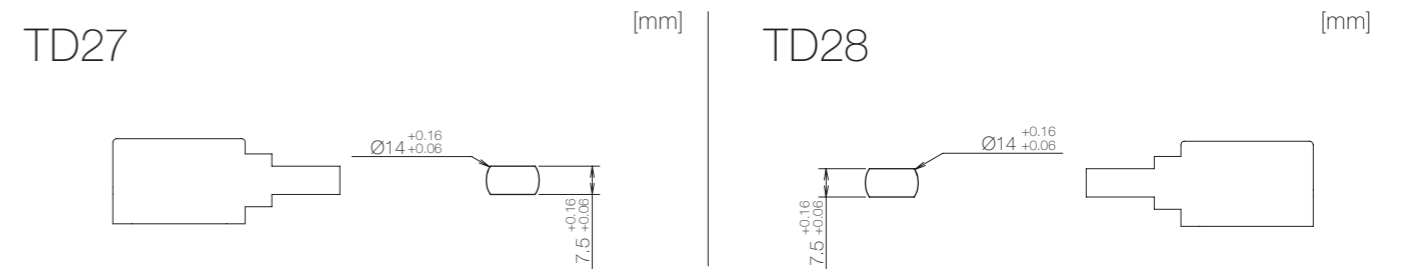
- Opening angle: 110°
- Product weight: Approx. 30 g
- Allowable radial load (P): 29.4 N

\* General tolerance: ±0.2

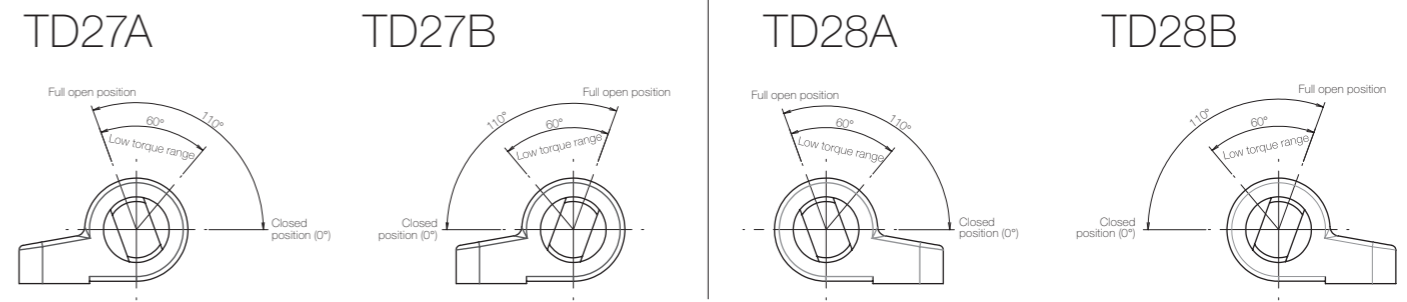
### Main materials

Housing	Plastic (PBT)
Cap	Plastic (PBT)
Shaft	Plastic (PBT)

## Dimensions related to mounting



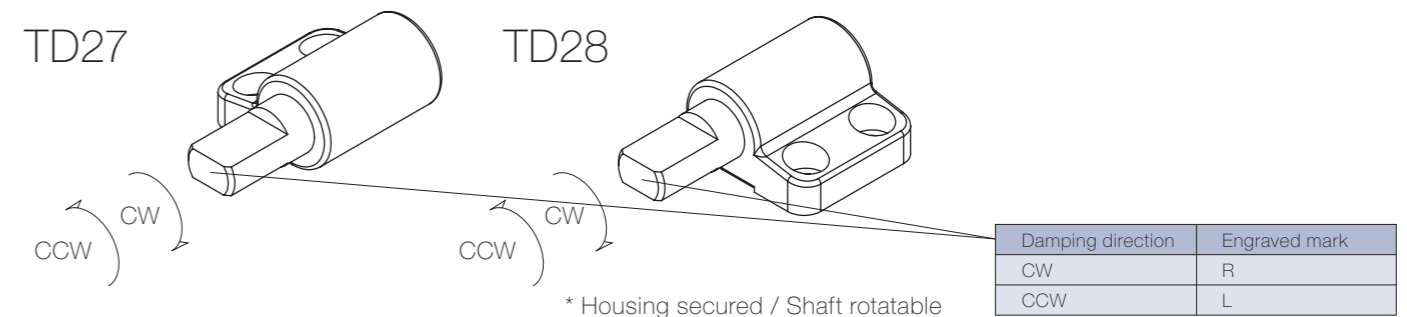
## Opening angle



- \* Shaft position at the time of shipping: Closed position
- \* The adjustment slot position at the time of shipping: Max. torque

## Damping directions

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



Damping direction	Engraved mark
CW	R
CCW	L

Torque adjustment function



Torque adjustment slot

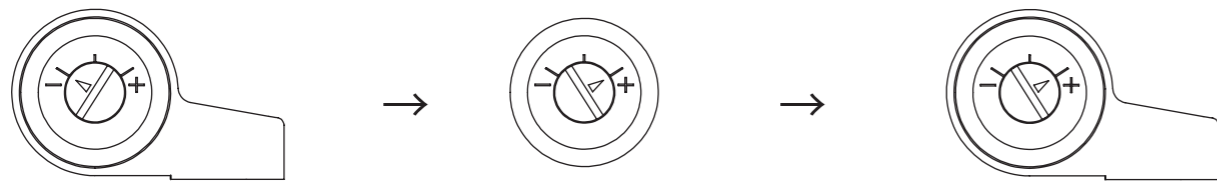


Enlarged view

As the torque of the rotary damper is adjustable, it is not necessary to obtain the products with various torques according to the application to be used. The torque can be adjusted simply by turning the slot of the rotary damper with a flathead screwdriver. Since the torque adjustment range can be more than doubled, the same rotary damper is applicable to both an application of 0.49 N·m and an application of 1.27 N·m. Adjusting the torque makes coping with fine feeling and variation in an application possible.

Torque adjustment method

When increasing the torque

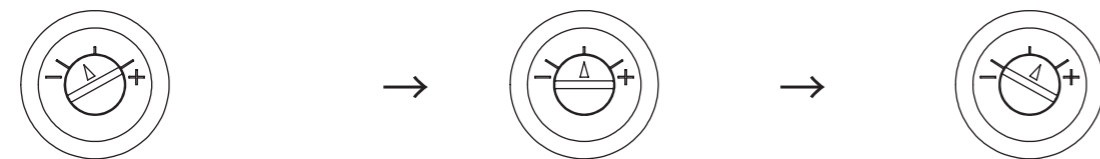


5/13K : 0.49N·m (4.34 lbf-in)  
10/20K : 0.98N·m (8.67 lbf-in)

Rotate in the + (plus) direction

5/13K : 1.27N·m (11.24 lbf-in)  
10/20K : 1.96N·m (17.35 lbf-in)

Adjustment position

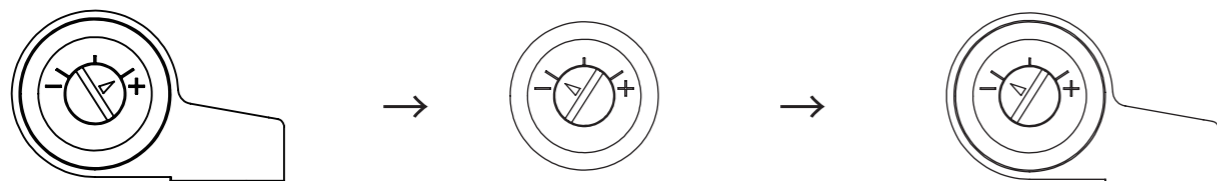


5/13K : 0.69N·m (6.11 lbf-in)  
10/20K : 1.22N·m (10.80 lbf-in)

5/13K : 0.88N·m (7.79 lbf-in)  
10/20K : 1.47N·m (13.01 lbf-in)

5/13K : 1.08N·m (9.56 lbf-in)  
10/20K : 1.72N·m (15.22 lbf-in)

When decreasing the torque

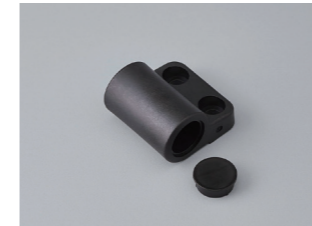


5/13K : 1.27N·m (11.24 lbf-in)  
10/20K : 1.96N·m (17.35 lbf-in)

Rotate in the - (minus) direction

5/13K : 0.49N·m (4.34 lbf-in)  
10/20K : 0.98N·m (8.67 lbf-in)

Product lineup

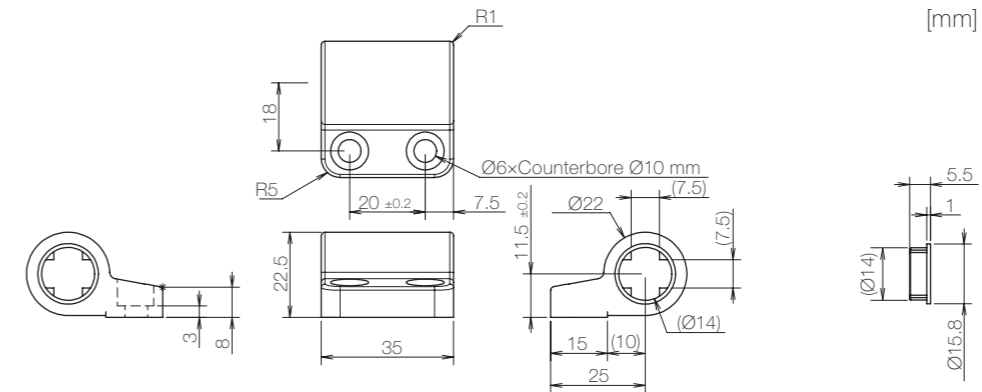


TD27/28 Bracket

Combining TD27/28 with an optional bracket enables the use of this product as a rotary damper hinge. It can be attached easily, and the shape of the rotary damper hinge can be changed depending on the method of mounting the bracket. And the cap of the bracket is detachable and can be used for either side. (It's best to minimize the number of times of detaching the cap)

Product name
TD27/28 Bracket

Product information



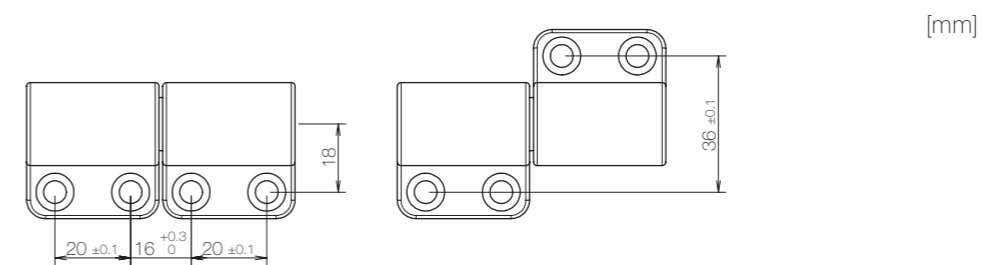
- Product weight: Approx. 15 g

Main materials

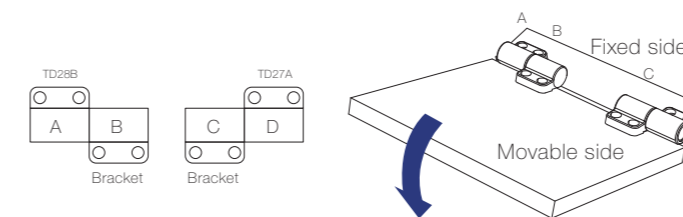
Housing	Plastic (PBT)
Cap	Plastic (PBT)

\* General tolerance: ±0.3

Dimensions related to mounting

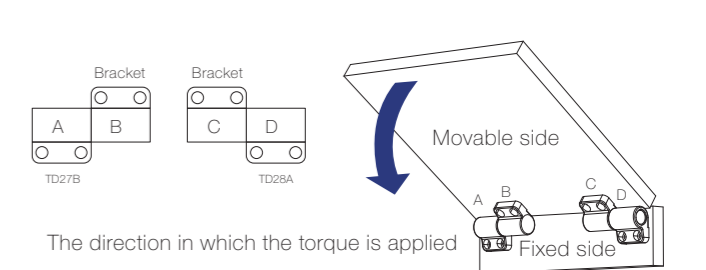


Combination of the products that are mounted outside



The direction in which the torque is applied

Combination of the products that are mounted inside



The direction in which the torque is applied