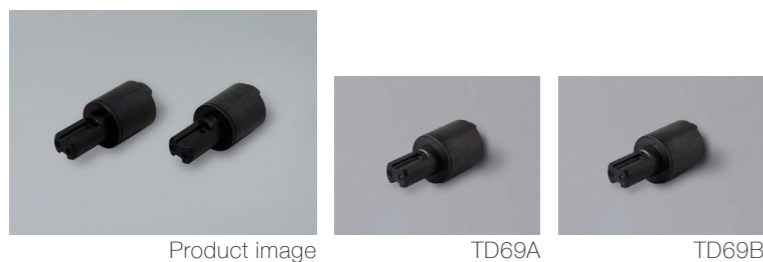


Product lineup



Features

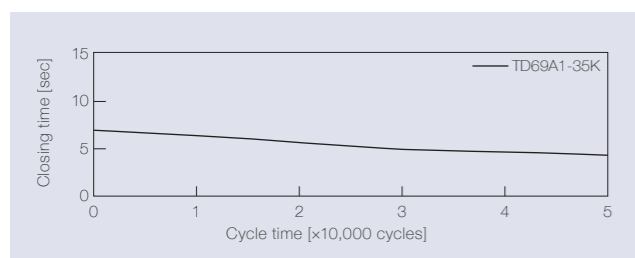
- Made with super engineering plastic (PEI)
- Wide temperature range for operation (-5°C to 80°C)
- Made with chemical-resistant
- Highest torque with Ø 20 mm damper (Up to 4 N·m)

Product name	Torque [N·m] (lbf·in)	Damping direction	Operating temperature range [°C](°F)
TD69A1-15K	1.5 (13.28)	CW	-5 to 80 (23 to 176)
TD69A1-20K	2.0 (17.70)		
TD69A1-25K	2.5 (22.13)		
TD69A1-30K	3.0 (26.55)		
TD69A1-35K	3.5 (30.98)		
TD69A1-40K	4.0 (35.40)		-5 to 50 (23 to 122)
			0 to 40 (32 to 104)

Product name	Torque [N·m] (lbf·in)	Damping direction	Operating temperature range [°C](°F)
TD69B1-15K	1.5 (13.28)	CCW	-5 to 80 (23 to 176)
TD69B1-20K	2.0 (17.70)		
TD69B1-25K	2.5 (22.13)		
TD69B1-30K	3.0 (26.55)		
TD69B1-35K	3.5 (30.98)		
TD69B1-40K	4.0 (35.40)		-5 to 50 (23 to 122)
			0 to 40 (32 to 104)

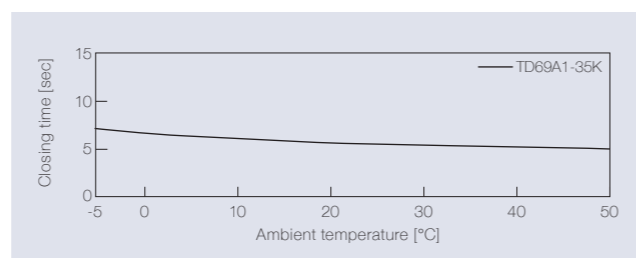
Product specifications

Durability



Torque	3.5 N·m (30.98 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	Excluding TD69A1/B1-40K
	TD69A1/B1-40K
	50,000 cycles
	20,000 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.

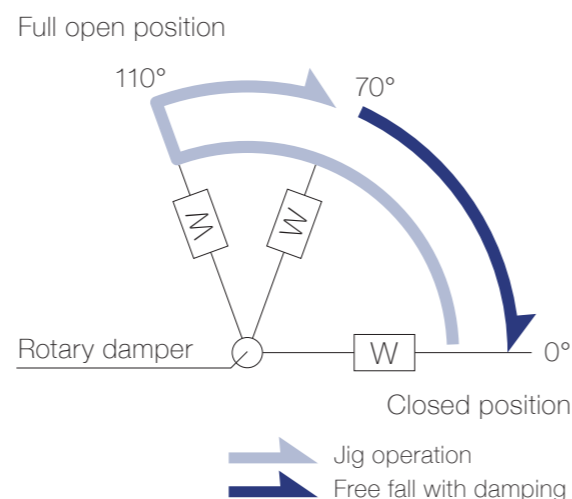
[Operation during measurement]

(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°]

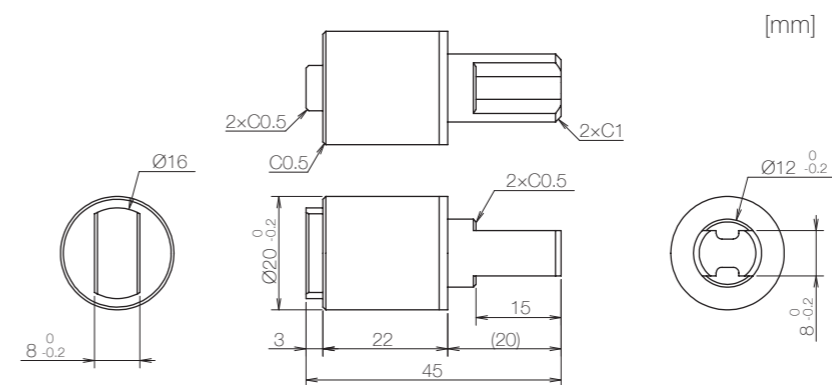
* Horizontal plane: 0°



Inspection specification before shipping

Type	Preset torque [N·m] (lbf·in)	Closing time
15K	1.5 (13.28)	3 to 12 sec
20K	2.0 (17.70)	
25K	2.5 (22.13)	
30K	3.0 (26.55)	
35K	3.5 (30.98)	
40K	4.0 (35.40)	

Product information



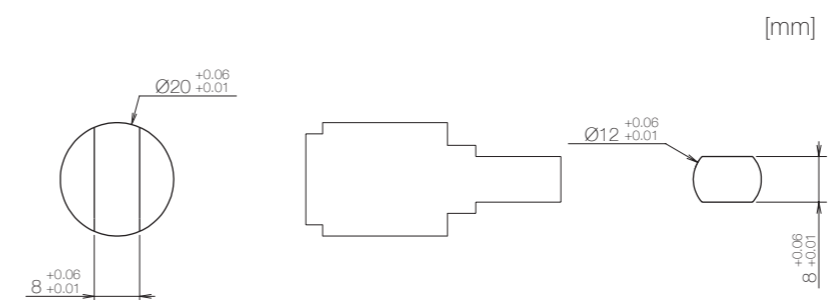
* General tolerance: ±0.3

- Opening angle: 110°
- Product weight: Approx. 12 g
- Allowable radial load (P): 29.4 N

Main materials

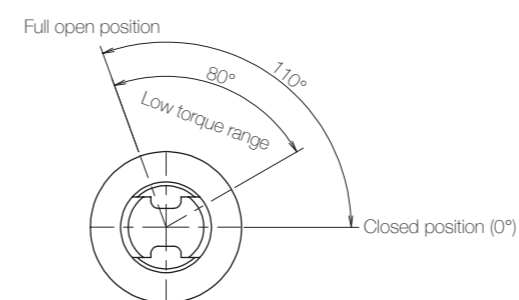
Housing	Plastic (PEI)
Cap	Plastic (PEI)
Shaft	Plastic (PEI)

Dimensions related to mounting

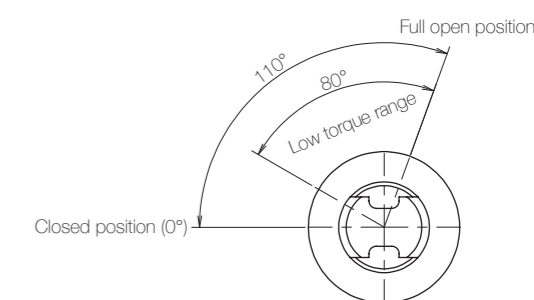


Opening angle

TD69A



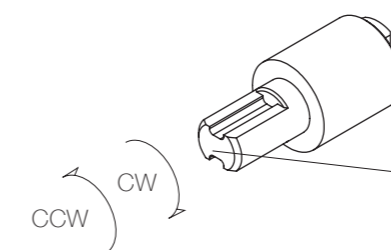
TD69B



* 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	Engraved mark
CW	CW
CCW	CCW