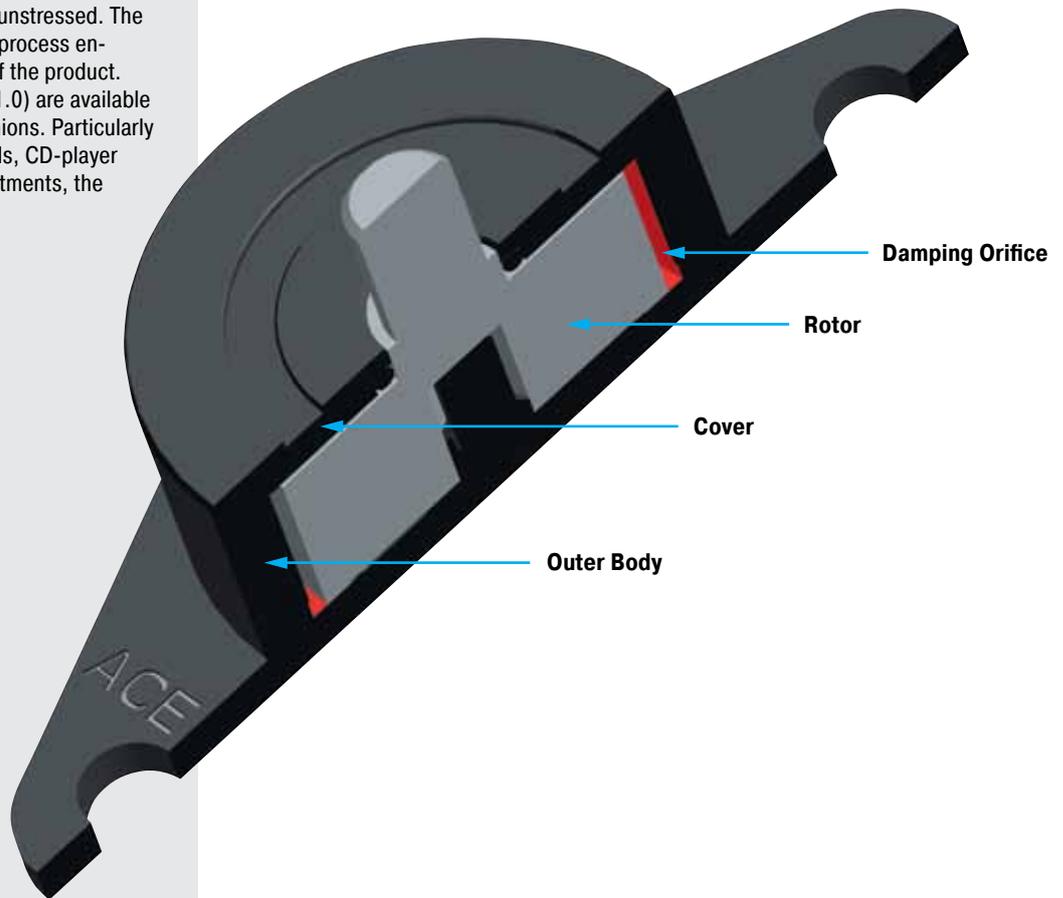


ACE rotary dampers are maintenance-free and ready to install. The damping direction of the rotary dampers with continuous rotation can be clockwise, counter clockwise, or in both directions. The outer body is either of metal or plastic. Rotary dampers with continuous rotation ensure the controlled opening and closing of small hoods, compartments and drawers. They can damp directly at the rotation point or linearly by means of a rack and pinion, in order to produce a smooth and even movement. Sensitive components remain unstressed. The harmonious gentle movement process enhances the quality and value of the product. Plastic racks (modules 0.5 to 1.0) are available for the rotary dampers with pinions. Particularly suitable for flaps, closing hoods, CD-player drawers, vehicle glove compartments, the furniture industry etc.

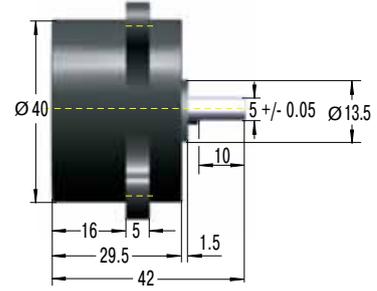
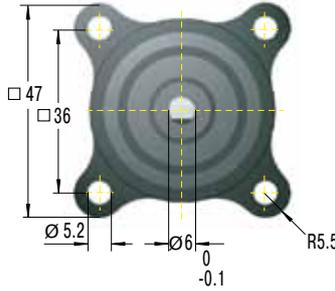


Function: In rotary dampers with continuous rotation, a fluid damping is produced by the shearing of thin silicon layers between the surfaces of a rotor and a stator. The damping moment is determined by the viscosity of the fluid and the dimensioning of the throttle gap. The specified damping moments refer to a speed of 20 rpm and an ambient temperature of 23 °C.

Note: In general, ACE rotary dampers are tested for a service life of 50 000 cycles. Even after this time, the dampers still produce over approx. 80% of their original damping moment. The service life may be significantly higher or lower, depending on the application. Much higher service lives have however been achieved in practice.



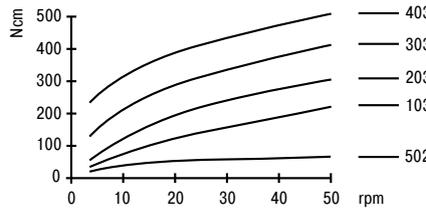
FRT/FRN-K2 and FRT/FRN-F2



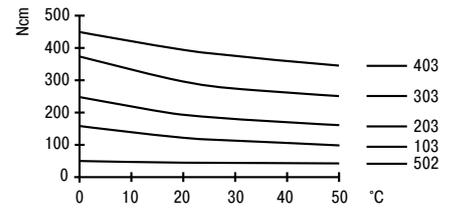
Technical Data

Max. weight: 0.116 kg
Material: Polycarbonate plastic, steel shaft
Operating temperature range: 0 °C to 50 °C

FRT-K2 and -F2 (at 23 °C)

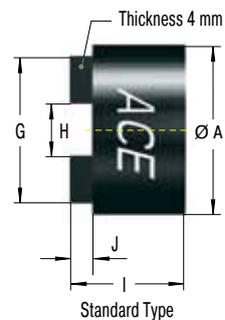
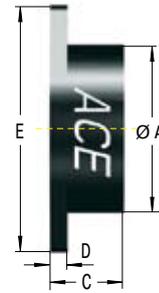
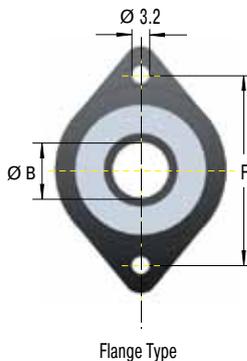
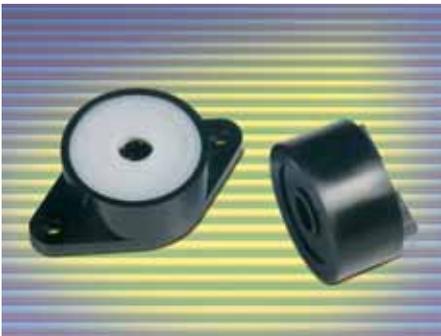


FRT-K2 and -F2 (at 20 rpm)



Bidirectional Damping	Right-Hand Damping (clockwise)	Left-Hand Damping (anti-clockwise)	Nominal 20 rpm, 23 °C
			Damping Torque Ncm
FRT-K2-502	FRN-K2-R502	FRN-K2-L502	50 +/- 10
FRT-K2-103	FRN-K2-R103	FRN-K2-L103	100 +/- 20
FRT-F2-203	FRN-F2-R203	FRN-F2-L203	200 +/- 40
FRT-F2-303	-	-	300 +/- 80
FRT-F2-403	-	-	400 +/- 100

FFD



Technical Data

Recommended shaft details: $\varnothing^{+0}_{-0,03}$
Material: Polycarbonate plastic
Rotational speed max.: 30 rpm
Cycle rate max.: 13 cycles per minute
Operating temperature range: -10 °C to 60 °C

Ordering Example

Friction Damper _____
 Body \varnothing _____
 Mounting Style (Flange = F, Standard = S) _____
 Damping Option (S or W) _____
 Damping Direction (right = R, left = L) _____
 Damping Torque see chart _____

FFD-25-FS-L-102

Damping Torque

102 = 0.1 Nm
 502 = 0.5 Nm
 103 = 1.0 Nm
 153 = 1.5 Nm
 203 = 2.0 Nm
 253 = 2.5 Nm
 303 = 3.0 Nm

Type	Damping Torque Nm	Damping Option	Dimensions		Flange Type				Standard Type			
			A	B	C	D	E	F	G	H	I	J
FFD-25	0.1/0.5/1.0	Type S	25	6	13	3	42	34	21	6.2	16	4
FFD-28	0.1/0.5/1.0	Type S	28	8	13	3	44	36	24	8.2	16	4
FFD-30	0.1/0.5/1.0/1.5	Type S	30	10	13	3	46	38	26	10.2	16	4
FFD-25	1.0/1.5/2.0	Type W	25	6	19	3	42	34	21	6.2	22	4
FFD-28	1.0/1.5/2.0	Type W	28	8	19	3	44	36	24	8.2	22	4
FFD-30	1.5/2.0/2.5/3.0	Type W	30	10	19	3	46	38	26	10.2	22	4

¹ Type W with bearing on both sides for a higher damping torque.