

## FDN

The flat disc brake for one direction of rotation

### Continuous Rotation

Damping torque 2 Nm to 11 Nm

The damping direction of the flat, strong FDN rotary dampers with steel body can be either right or left rotation. They can brake directly in the pivot point. ACE rotary dampers are maintenance-free and ready-to-install.



### Technical Data

**Construction size:** Ø 47 mm to 70 mm

**Rotational speed max.:** 50 rpm

**Lifetime:** 50,000 cycles (1 cycle = 360° left-hand, 360° right-hand). 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.

**Operating temperature range:** -10 °C to +50 °C

**Material:** Outer body: Steel

**Mounting:** In any position

**Information to the shaft:**

FDN-47: Ø 6 +0 / -0.03

FDN-57 to FDN-70: Ø 10 +0 / -0.03

Hardness > HRC55, surface smoothness  $R_z < 1 \mu\text{m}$

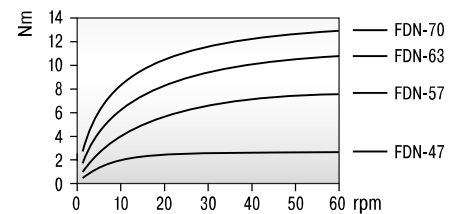
**Mounting information:** Turn the shaft in the opposite direction to the brake direction to avoid damaging the freewheel mount. No axial or radial forces may be induced via the shaft.

**Safety instructions:** Do not use rotary dampers as supports. Provide an external guide or support.

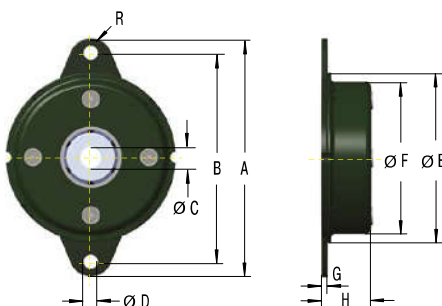
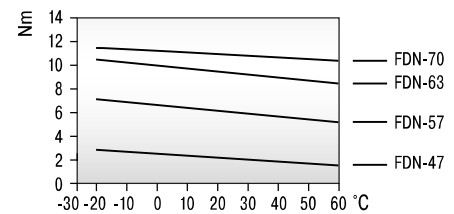
**On request:** Special designs available on request.

### Characteristics

**At 23 °C ambient temperature**



**At 20 rpm rotational speed**



### Performance and Dimensions

TYPES	<sup>1</sup> Damping torque Nm	Damping direction	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Weight kg
FDN-47-R	2.0 +/- 0.3	right	65	56	6	4.5	47	42.8	1.6	10.3	4.5	0.055
FDN-57-R	5.5 +/- 0.3	right	79	68	10	5.5	57	52.4	1.6	14	5.5	0.095
FDN-63-R	8.5 +/- 0.8	right	89	76	10	6.5	63	58.6	1.6	13.9	6.5	0.115
FDN-70-R	11.0 +/- 1.0	right	95	82	10	6.5	70	65.4	1.6	13	6.5	0.135
FDN-47-L	2.0 +/- 0.3	left	65	56	6	4.5	47	42.8	1.6	10.3	4.5	0.055
FDN-57-L	5.5 +/- 0.3	left	79	68	10	5.5	57	52.4	1.6	14	5.5	0.095
FDN-63-L	8.5 +/- 0.8	left	89	76	10	6.5	63	58.6	1.6	13.9	6.5	0.115
FDN-70-L	11.0 +/- 1.0	left	95	82	10	6.5	70	65.4	1.6	13	6.5	0.135

<sup>1</sup> The indicated damping torque refers to a rotational speed of 20 rpm and an ambient temperature of 23 °C.