

EDDY CURRENT DAMPER

Eddy Current Dampers (ECDs) are passive electromagnetic devices that provide controlled damping for systems such as deployable structures and payloads. ECDs generate more damping per unit volume and are more linear than their fluid-filled counterparts without the need for fluid or seals.



HONEYBEE ROBOTICS

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ACTUATORS & DAMPERS



EDDY CURRENT DAMPERS

RELEASE DATE: 2023-10-06

PART NUMBER		560-101-0048
MECHANICAL PARAMETERS		
	UNITS	
Frame Size	-	C
Axial Length	inches [mm]	3.5 [88.9]
Maximum OD ²	inches [mm]	1.1 [27.9]
Mass	lbm [kg]	0.625 [0.28]
PERFORMANCE		
	UNITS	
Peak Torque Capacity	lbf-in [N·m]	60 [6.77]
Damping Rate ¹	lbf-in/rad/sec [N·m/rad/s]	150 [16.95]
Resistive Static Breakaway Torque ¹	lbf-in [N·m]	2.5 [0.28]
Operating Cycles at 0.9995 Reliability	Minimum	500
ENVIRONMENTAL PARAMETERS		
	UNITS	
Operational Temperature Range	°C	-50 to +100
Operational Relative Humidity Range	%	0 to 90
GEARBOX PARAMETERS		
	UNITS	
Gearbox Type	-	Planetary
Gear Reduction	-	100
Number of Stages	-	2
Typical Backlash	°	1°
<p>1 - Values are nominal at 25 °C and an input torque of 15.75 in-lbf, resulting in a rate of 1RPM at the output shaft. Damping rate is affected by temperature and is also slightly nonlinear with speed. Please contact Honeybee Robotics for damping rates at specific operating temperatures and speeds for your application.</p> <p>2 - Mounting flange not included. See ICD for details.</p>		