

RD-8040-1 and RD-8041-1 Dampers

Description

LORD RD-8040-1 (short stroke) and RD-8041-1 (long stroke) dampers are compact, magneto-rheological (MR) fluid dampers suitable for industrial suspension applications. Continuously variable damping is controlled by the increase in yield strength of the MR fluid in response to magnetic field strength.

Features and Benefits

Fast Response Time – responds in less than 15 milliseconds to changes in the magnetic field.

Easy to Use – provides simple electronics and straight forward controls.

Durable – provides excellent long term stability.

Storage

Dampers should be stored at -40 to +100°C (-40 to +212°F).

The RD-8040-1 and RD-8041-1 dampers are monotube shocks containing high-pressure nitrogen gas (300 psi). Handle with care and do not heat or puncture body.

Electrical Properties*

Input Current, Amp	
Continuous for 30 seconds	1 max
Intermittent	2 max
Input Voltage, Volt	12 DC
Resistance, ohms	
@ ambient temperature	5
@ 71°C (160°F)	7

*Data is typical and not to be used for specification purposes.

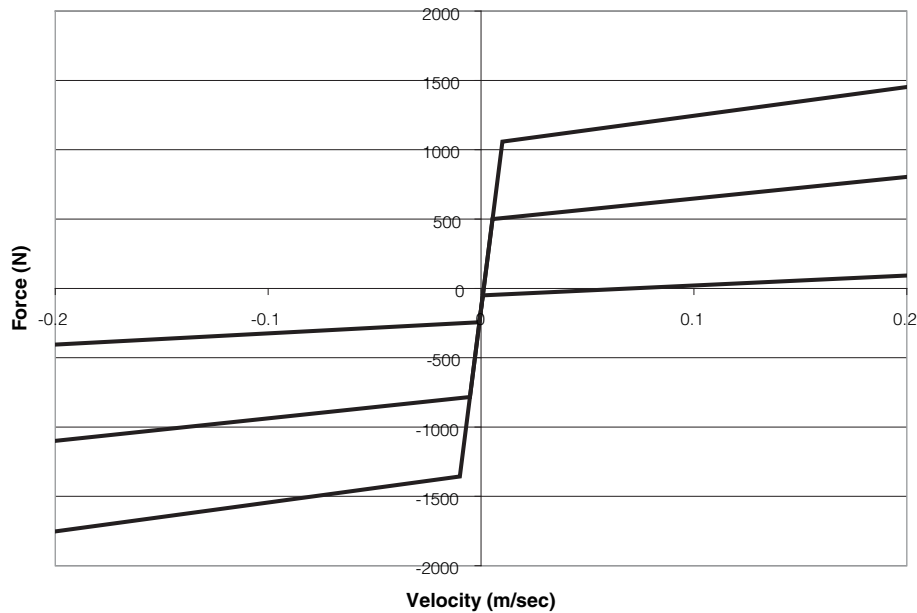
Typical Properties*

	RD-8040-1	RD-8041-1
Stroke, mm (in)	55 (2.17)	74 (2.91)
Extended Length, mm (in)	208 (8.2)	248 (9.76)
Body Diameter, mm (in)	42.1 (1.66) max	42.1 (1.66) max
Shaft Diameter, mm (in)	10 (0.39)	10 (0.39)
Tensile Strength, N (lbf)	8896 (2000) max	8896 (2000) max
Damper Forces, N (lbf)		
Peak to Peak		
5 cm/sec @ 1 A	>2447 (>550)	>2447 (>550)
20 cm/sec @ 0 A	<667 (<150)	<667 (<150)
Operating Temperature, °C (°F)	71 (160) max	71 (160) max

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LORD TECHNICAL DATA

Typical Force vs. Velocity



Offset at origin is due to gas precharge required for temperature compensation and to prevent cavitation.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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