

# HA110 Haptic Actuator

## HA110 Specifications

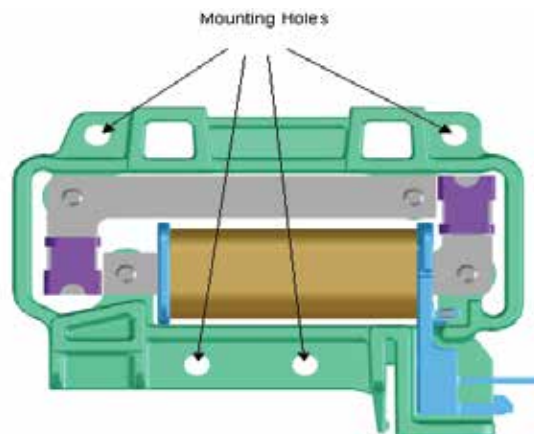
Part Number	1.70.008.001	
Description	The Ledex HA110 actuator adds tactile feedback to touch screens with software incorporated under license from Immersion Corporation*. The HA110 can be utilized in many applications that include automotive interior devices, gaming devices, training simulators, industrial equipment visual displays and medical device displays	
Performance Data	Intermittent Duty Cycle	15% for less than 20 minutes
	Rated Life	10 million cycles
	Response Time	<5 ms
	Dynamic Displacement	0.21 mm - 0.39 mm
	Noise	65 dBA Max @ 30 cm
	Return Spring Rate	11 N/mm
Electrical Data	Coil Resistance @ 20° C	12 $\Omega$ $\pm$ 10%
	Operating Voltage Range	9 - 16 VDC
Mechanical Data	Dimensions	46 mm x 34 mm x 12 mm (w x h x thickness)
	Total Weight	24 grams
	Operating Temperature	-40 to +85°C, 20 to 70% RH non-condensing
	Mating Terminal	Molex - P/N 0008510108
	Mating Connector	Molex - P/N 0022012027



### Notes:

All data is typical  
All specifications subject to change without notice  
Other voltages available on request  
This is a no load supporting device  
Units can be combined together for higher loads  
\* See [www.immersion.com](http://www.immersion.com)

## Mounting Guide

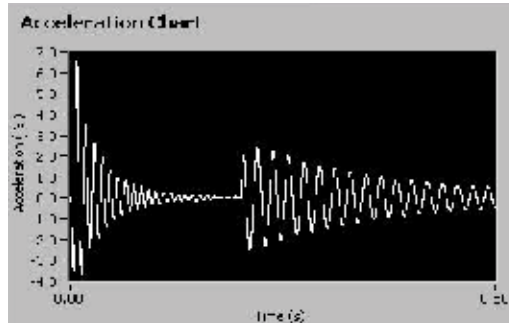


Note: 2 mm diameter clearance holes for screw or snap post mounting

## Performance

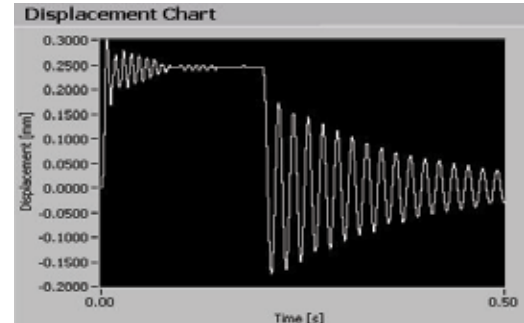
### Typical Acceleration Waveform

@ 12VDC @ 20° C

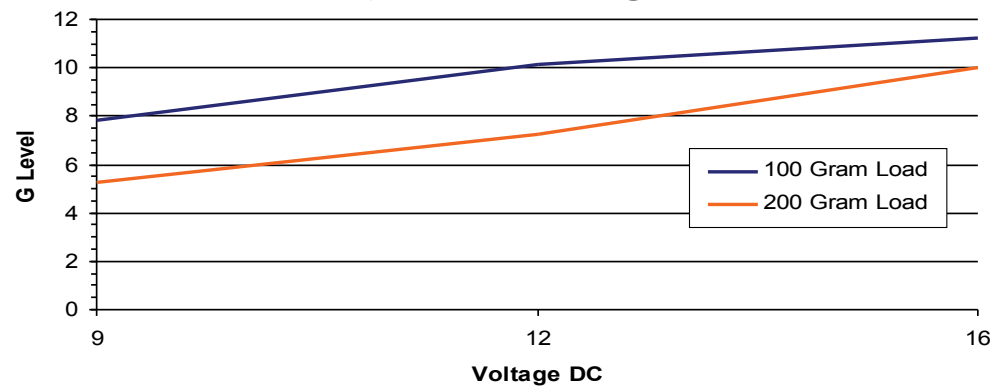


### Typical Displacement Waveform

@ 12VDC @ 20° C



### Typical Acceleration @ 20° C



## Dimensions (mm)

