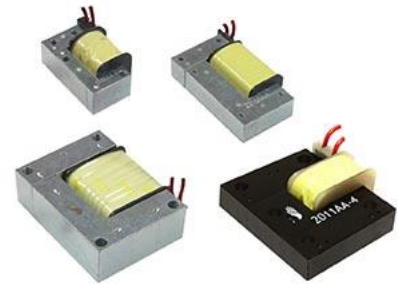


# Cost- and Space-Saving IHPT Haptic Feedback Actuators With Immersion Licenses Now Available in New Sizes and Force Levels; Devices Deliver High Force to 120 N and Low 12 V Operation for HD Haptic Effects in Automotive and Commercial Applications

## Product Benefits:

- Bundled with Immersion license
- Deliver high pulse and vibration capability for clear, high definition (HD) tactile feedback in noisy environments
- Available in four sizes from 29 mm by 21 mm to 44 mm by 37 mm
- Provide force output from 25 N to 120 N
- Compact, two-piece construction with mounting holes for easy installation and direct application of force
- Fast response time of 5 ms combined with high mechanical force to allow for HD haptic effects with operating voltages from 8 V to 16 V
- High reliability in rugged environments:
  - Rigid copper and iron core construction
  - High temperature operation to +105 °C
- AEC-Q200 qualified (IHPT1411AFELR73ABA)
- Low nominal 12 V operation eliminates the need for the additional high voltage circuitry required by other technologies
- Standard lead terminations are dipped in 100 % tin solder
- Vishay can customize the actuators' size, shape, and core material; number of windings; termination types; and performance to any design's specifications
- RoHS-compliant, halogen-free, and Vishay Green



## Market Applications:

- Automotive dashboards and center consoles
- Tactile feedback for electronic shift transmissions, steering wheels, seats, and other in-vehicle controls
- Factory automation and control systems; consumer appliances and entertainment and health devices; and medical, military, avionics, and studio audio equipment

## The News:

Vishay Intertechnology announces that it has expanded its lineup of IHPT solenoid-based haptic actuators featuring Immersion Corporation licenses, with five new devices offering additional sizes and force levels. The Vishay Custom Magnetics actuators provide 12 V operation for LCD displays, touchscreens, touch switches, and button control panels for human-machine interfaces (HMI) in automotive and commercial applications.



- By eliminating the need for additional housing and high voltage supplies, the IHPT series can be implemented at a lower cost than competing technologies — including linear resonant, linear wideband, eccentric rotating mass, and piezo actuators — while reducing component height and delivering higher force density
- By bundling the actuators with Immersion licenses, the design-in process is streamlined and costs are lowered further by eliminating the need to purchase a separate license to implement sophisticated haptic effects
- The IHPT actuators can drive a 0.5 kg load to 6 g of acceleration with a 12 V, 5 ms pulse

## The Key Specifications:

Part #	Force output (N)	Force coefficient	Response time typ. (ms)	Inductance (mH)	DCR typ. (Ω)	DCR max. (Ω)	AEC-Q200?
IHPT1411AFELR73ABA	80	0.73	5	1.8	0.95	1.09	Yes
IHPT1207AGELR39AB0	25	0.39	5	1.35	0.95	1.04	No
IHPT1710ACEL1R2AB0	45	1.2	5	4.04	2.0	2.2	No
IHPT1411AFELR73AB0	80	0.73	5	1.8	0.95	1.09	No
IHPT1614ACEL2R7BB0	120	2.7	5	3.5	1.2	1.32	No

### Availability:

Samples and production quantities of the new haptic IHPT feedback actuators are available now, with lead times of 8 to 12 weeks.

To access the product datasheets on the Vishay Website, go to <http://www.vishay.com/ppg?34616> (IHPT-A, Automotive Grade) <http://www.vishay.com/ppg?34508> (IHPT)

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