

# Magnetic Actuators

RoHS



## Description

Littelfuse offers a wide range of magnetic actuators that are packaged in shapes similar to the relative mating sensors. We also offer a limited family of bare magnets with various grades of materials, including ferrite (ceramic), AlNiCo and neodymium iron boron (NdFeB) materials.

### Rectangular Actuators

These rectangular bare magnets and packaged actuators are ideally suited for mounting on a flat surface. They are suitable for use in a wide range of environments, including high-temperature applications.

| Product Series | Description                                   | Overall Dimensions                           | Material  | Retentivity | Coercivity | Recommended Operating Temp. |
|----------------|-----------------------------------------------|----------------------------------------------|-----------|-------------|------------|-----------------------------|
|                |                                               | mm (inch)                                    |           |             |            | °C                          |
|                |                                               | L x W x H                                    |           | Gauss       | Oersted    | Max.                        |
| H-31           | AlNiCo Magnet                                 | 12.70 (0.500) x 1.60 (0.062) x 1.60 (0.062)  | AlNiCo-5  | 10,900      | 620        | 450                         |
| H-32           | AlNiCo Magnet                                 | 25.40 (1.000) x 4.80 (0.190) x 4.80 (0.190)  | AlNiCo-5  | 10,900      | 620        | 450                         |
| H-33           | AlNiCo Magnet                                 | 19.10 (0.750) x 3.20 (0.120) x 3.20 (0.120)  | AlNiCo-5  | 10,900      | 620        | 450                         |
| H-34           | AlNiCo Magnet                                 | 25.40 (1.000) x 6.35 (0.250) x 6.35 (0.250)  | AlNiCo-5  | 10,900      | 620        | 450                         |
| H-40           | Neodymium Magnet                              | 7.62 (0.300) x 3.18 (0.125) x 3.18 (0.125)   | NdFeB 45H | 13,300      | 11,800     | 120                         |
| H-41           | Neodymium Magnet                              | 19.05 (0.750) x 3.18 (0.125) x 3.18 (0.125)  | NdFeB 35H | 11,700      | 10,800     | 120                         |
| H-58           | Neodymium Magnet                              | 21.00 (0.827) x 7.00 (0.276) x 4.70 (0.185)  | NdFeB 35H | 11,700      | 10,800     | 120                         |
| 57105          | Actuator for Terminal Flange Mount Sensor     | 40.17 (1.582) x 19.05 (0.750) x 6.35 (0.250) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57125          | Actuator for Pinned Flange Mount Sensor       | 28.57 (1.125) x 19.05 (0.750) x 6.35 (0.250) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57135          | Actuator for High-Temp Flange Mount Sensor    | 28.57 (1.125) x 19.05 (0.750) x 6.35 (0.250) | AlNiCo-5  | 12,800      | 640        | 150                         |
| 57140          | Actuator for Mini Flange Mount Sensor         | 23.00 (0.906) x 14.00 (0.551) x 6.00 (0.236) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57141          | Actuator for Mini Flange Mount Sensor         | 23.00 (0.906) x 14.00 (0.551) x 6.00 (0.236) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57142          | Actuator for Mini Flange Mount Sensor         | 23.00 (0.906) x 14.00 (0.551) x 6.00 (0.236) | NdFeB 35H | 11,700      | 10,800     | 105                         |
| 57143          | White Actuator for Mini Flange Mount Sensor   | 23.00 (0.906) x 14.00 (0.551) x 6.00 (0.236) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57145          | Actuator for Flange Mount Sensor              | 28.57 (1.125) x 19.05 (0.750) x 6.35 (0.250) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57150          | Actuator for Flange Mount Sensor              | 28.57 (1.125) x 19.05 (0.750) x 6.35 (0.250) | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57155          | Actuator for Subminiature Flange Mount Sensor | 12.70 (0.500) x 7.00 (0.276) x 3.00 (0.118)  | NdFeB 35H | 11,700      | 10,800     | 105                         |
| 57045          | Actuator for Mini PCB Mount Overmolded        | 17.78 (0.700) x 3.30 (0.130) x 4.32 (0.170)  | AlNiCo-5  | 11,000      | 620        | 105                         |
| 57050          | Actuator for PCB Mount Overmolded             | 22.86 (0.900) x 4.57 (0.180) x 4.57 (0.180)  | AlNiCo-5  | 11,000      | 620        | 105                         |

### Cylindrical Actuators

Designed for mounting on a frame, these cylindrical bare magnets and packaged actuators are appropriate for use in a wide range of environments, including high-temperature applications.

| Product Series | Description                                         | Overall Dimensions                | Material   | Retentivity | Coercivity | Recommended Operating Temp. |
|----------------|-----------------------------------------------------|-----------------------------------|------------|-------------|------------|-----------------------------|
|                |                                                     | mm (inch)                         |            |             |            | °C                          |
|                |                                                     | Ø x L                             |            | Gauss       | Oersted    | Max.                        |
| H-35           | Neodymium Magnet                                    | 6.35 (0.250) x 6.35 (0.250)       | NdFeB 35H  | 11,700      | 10,800     | 120                         |
| H-48           | Neodymium Magnet                                    | 4.40 (0.173) x 6.00 (0.236)       | NdFeB 35SH | 11,700      | 10,800     | 150                         |
| CM-1           | Ceramic Magnet                                      | 12.70 (0.500) x 5.08 (0.200)      | Ceramic-5  | 3,900       | 2,400      | 250                         |
| H-36           | AlNiCo Magnet                                       | 4.60 (0.182) x 25.40 (1.000)      | AlNiCo-5   | 12,800      | 640        | 450                         |
| 57020          | Actuator for Mini Cylindrical                       | 5.10 (0.201) x 15.24 (0.600)      | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57022          | Actuator for Cylindrical                            | 5.80 (0.228) x 25.40 (1.000)      | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57025          | Actuator for Cylindrical                            | 6.22 (0.245) x 25.40 (1.000)      | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57040          | Actuator for Cylindrical with Retaining Ribs        | 10.70 (0.420) x 31.00 (1.220)     | NdFeB 35H  | 11,700      | 10,800     | 105                         |
| 57041          | Actuator for Cylindrical with Retaining Ribs        | 10.70 (0.420) x 31.00 (1.220)     | AlNiCo5    | 11 000      | 620        | 105                         |
| 57060          | Actuator for Stainless Steel Threaded Barrel Sensor | M8 x 1.25 Pitch x 36.00 (1.420)   | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57065          | Actuator for Threaded Barrel Sensor (Standard)      | (5/16 x 24) Pitch x 38.10 (1.500) | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57070          | Actuator for Threaded Barrel Sensor (Metric)        | M8 x 1.25 Pitch x 38.10 (1.500)   | AlNiCo-5   | 11,000      | 620        | 105                         |
| 57075          | Actuator for Heavy Duty Threaded Barrel Sensor      | M12 x 1.00 Pitch x 46.00 (1.810)  | Ceramic-2  | 2,900       | 2,400      | 105                         |

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