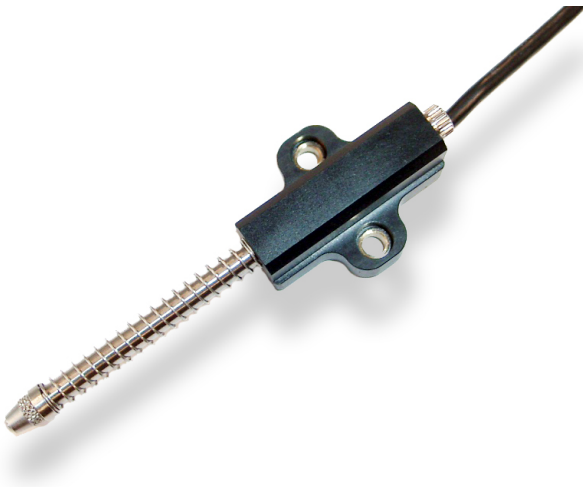


# Linear Position Sensor LP 25-H

www.bosch-motorsport.com



- ▶ Linear movement measurement
- ▶ Measurement range up to 25 mm
- ▶ Superior accuracy  $< \pm 2.5 \%$
- ▶ Operating temperature  $-40$  to  $140^{\circ}\text{C}$

The sensor is designed to measure linear movement, e.g. the stabilizer bar movement. The electronic is designed with a stainless steel magnetic shaft with Hall element. The Hall element is disposed between two magnets in association with a movable specially formed ferromagnetic part. This is used to control flux in the sensor in order to produce a linearly varying output voltage dependent on the position. The main benefit of this sensor is its contactless Hall effect technology and its robust design for motorsport applications.

## Application

Application	Up to 25 mm
Operating temperature range	$-40$ to $140^{\circ}\text{C}$
Max. vibration	Vibration Profile 1 (see <a href="http://www.bosch-motorsport.com">www.bosch-motorsport.com</a> )

## Technical Specifications

### Mechanical Data

Weight w/o wire	21 g
Protection class	IP68 & IP69K
Mounting	2 x M3

Shaft bearing life	25 million cycles
Housing	Glass filled polymer
Shaft	Stainless steel 303

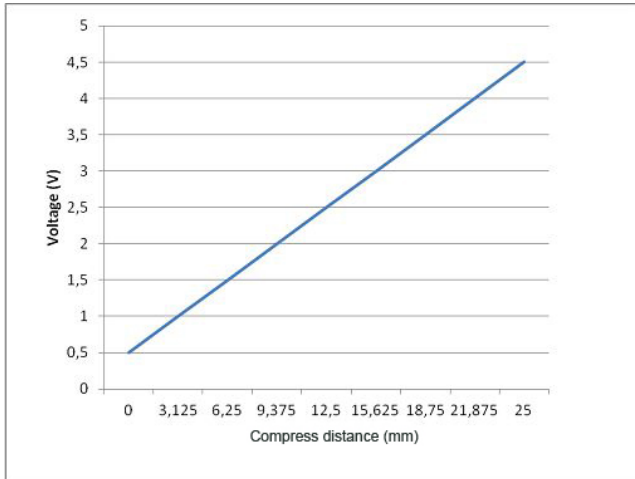
### Electrical Data

Power supply $U_s$	$5\text{ V} \pm 0.5\text{ V}$
Current $I_S$	$< 15\text{ mA}$
Resolution	0.025 % of measurement range

### Characteristic

Temperature coefficient	$< \pm 0.003\% \text{ FS}/^{\circ}\text{C}$
Superior accuracy	$< \pm 2.5\% \text{ FS}$

Other electrical stroke available on request.



## Ordering Information

**Linear Position Sensor LP 25-H**  
Order number **F 02U V02 008-01**

## Connectors and Wires

Connector ASU 6-03-03 PA-HE

Connector loom ASU 0-03-03SA F 02U 000 194-01

Pin 1 Power 5 V

Pin 2 Ground

Pin 3 Signal 0.5 to 4.5 V

Sleeve FDR-25

Wire size AWG 26

Wire length L 150 to 500 mm

Various motorsport and automotive connectors on request.

Please specify the requested wire length with your order.

## Installation Notes

The sensor can be connected directly to most control units.

The sensor is designed with contactless Hall effect technology.

Each mounting orientation is possible.

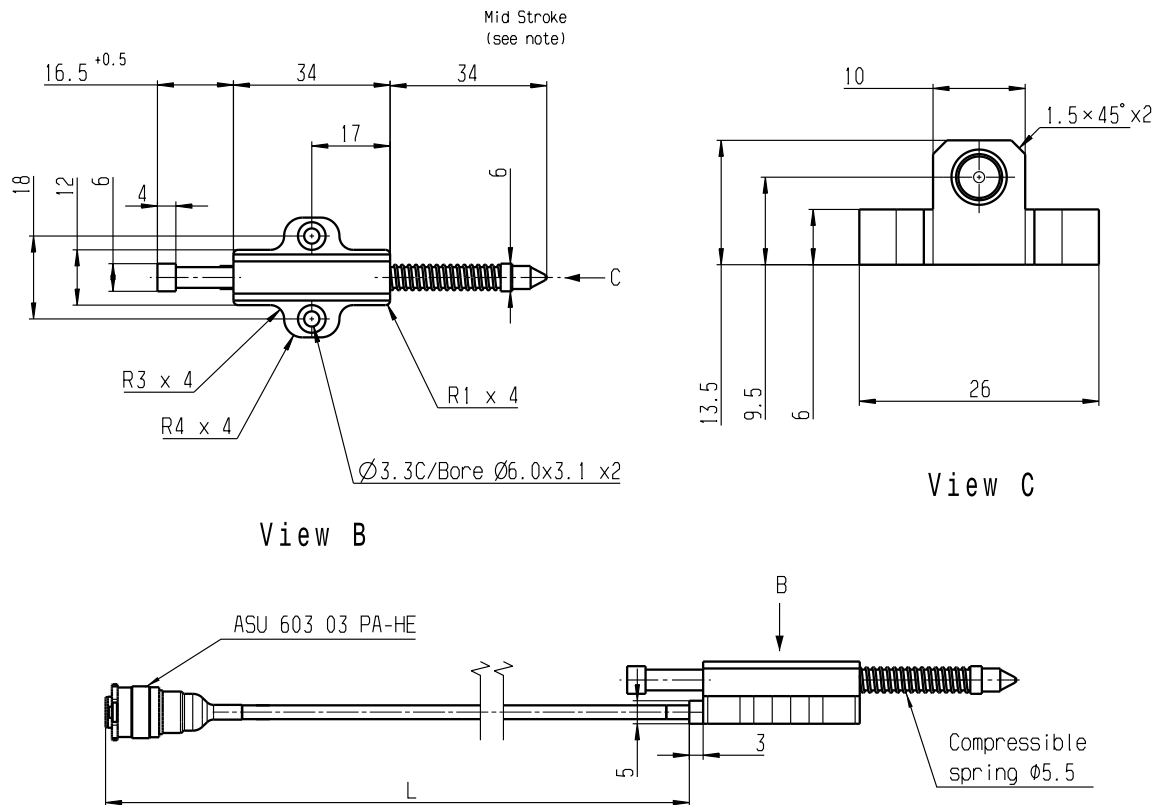
Sensor is at mid point of electrical stroke when the tip of the shaft is exactly 34 mm away from the housing. Please refer this in the offer drawing.

The sensor is also ferromagnetic sensitive. Please make sure the mounting material is not ferromagnetism. This can lead to inaccurate measurement.

## Safety Note

The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

Dimensions



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