

# HGD25 series

## 3-wire half-bridge LVRT

### Specifications:

Range:  $\pm 25$  to  $\pm 500$ mm

Linearity:  $\pm 0.25\%$ ,  $\pm 0.5\%$  (FS)

AC voltage: 1 to 10V

AC excitation: 400HZ-10kHz

Diameter: 25.4mm (1.0 inch)

Cable protection: SS304

### Applications:

Power plant

Petrochemical

Valve position feedback

Extensometers

Corrosive environment



ABEK SENSORS' HGD25 series 3-wire half-bridge LVRT are designed to handle extremely harsh environments. This robust linear position sensor has a thick wall stainless steel housing suitable for various position measurement fields.

The stroke ranges from  $\pm 25$ mm(0-50mm) to  $\pm 500$ mm(0-1000mm), although other ranges are available at special request.

In addition to the parameters and options provided in the data sheet, we can also customize as per the customer's requirements, such as mechanical interfaces, electrical interfaces and outlet methods. At the same time, in order to facilitate the application of customers, we can provide accessories that match this series of sensors, such as mounting blocks, signal conditioners, etc., please contact our technical team for details.

### Standards and Documentation

GJB 150A-2009 Laboratory enviro methods for military material

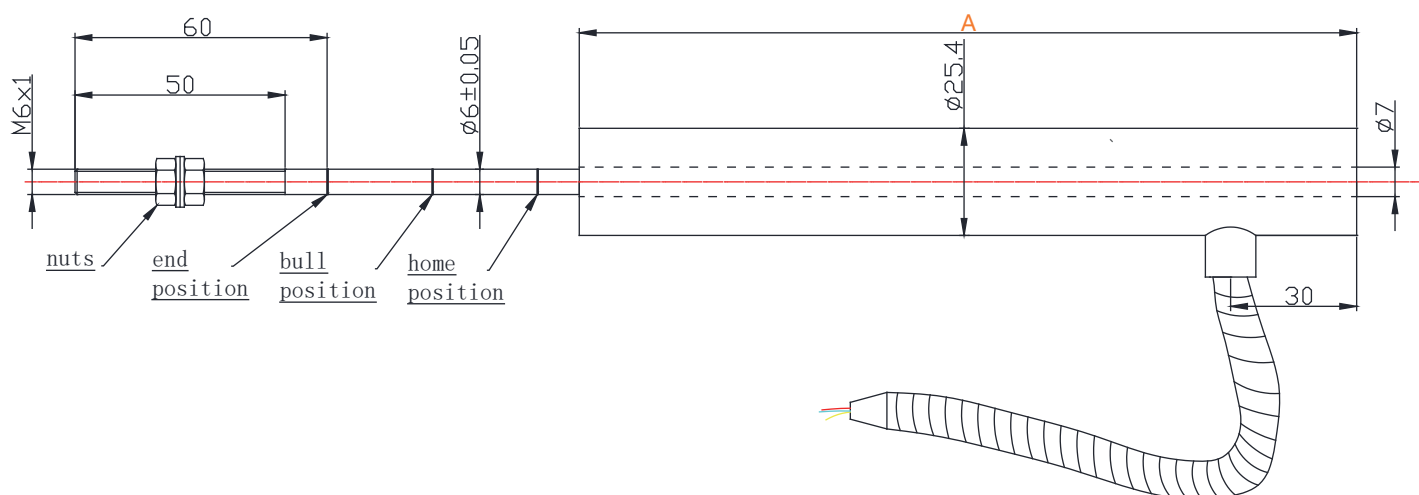
JJF 1305-2011 Calibration specification for linear displacement sensors

GJB 8350-2015 General specification for linear displacement sensors

## General Specifications

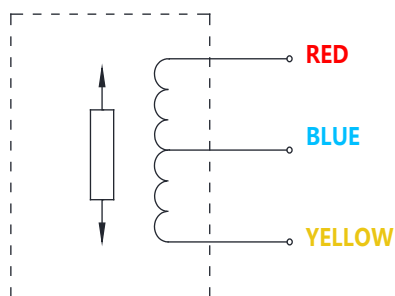
| Parameter              | Specification                                   |
|------------------------|-------------------------------------------------|
| Input voltage:         | 1-10V (3V RMS)                                  |
| Input frequency:       | 400 to 10kHz (2.5kHz RMS)                       |
| Linearity error:       | $<\pm 0.5\%$ 、 $<\pm 0.25\%$ of FS (optional)   |
| Repeatability error:   | $<0.01\%$ of FSO                                |
| Hysteresis error:      | $<0.01\%$ of FSO                                |
| Operating Temperature: | $-55^{\circ}\text{C}$ to $+200^{\circ}\text{C}$ |
| Thermal coefficient:   | $-0.02\%/^{\circ}\text{C}$ (rated)              |
| Vibration resistance:  | 20g, 2kHz                                       |

## Dimensions



| parameter     | range code | 050  | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 500   | 600   | 800   | 1000   |
|---------------|------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| range         | mm         | 0~50 | 0~100 | 0~150 | 0~200 | 0~250 | 0~300 | 0~350 | 0~400 | 0~500 | 0~600 | 0~800 | 0~1000 |
| dimension "A" | mm         | 120  | 200   | 250   | 300   | 350   | 470   | 470   | 620   | 770   | 770   | 950   | 1240   |

## ● Wiring Connection



Details about signal conditioner, please check  
<https://bjabek.com/scac06>

## ● Ordering Guide

| HGD25 | 0                | 050                                                                                                                                                                                        | 25                                                                | 01M                                                           | XXX                                                                                                                 |
|-------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|       | Output<br>0 = AC | Range<br>050 = 50mm<br>100 = 100mm<br>150 = 150mm<br>200 = 200mm<br>250 = 250mm<br>300 = 300mm<br>350 = 350mm<br>400 = 400mm<br>500 = 500mm<br>600 = 600mm<br>800 = 800mm<br>1000 = 1000mm | Linearity<br>25= $\leq \pm 0.25\%$ FS<br>50= $\leq \pm 0.50\%$ FS | Cable length<br>01M = 1m<br>02M = 2m<br>05M = 5m<br>10M = 10m | Specific requirements<br>Blank for standard<br>020=PTFE liner<br>005=Inch threaded shaft<br>080=Radiation resistant |

## ● Contact Us

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