

FCNA20 Series

General-Purpose LVDT position sensors

Features:

Diameter: 20 mm

Range: ± 1.27 mm ~ ± 250 mm

Operating Temp.: -55°C to $+105^{\circ}\text{C}$

Housing material: Stainless steel

Ingress Protection: IP61

Applications:

Machine & tool positioning

Packaging machinery

Material extensometer

Valve position measurement

Industrial manipulator positioning

Hydraulic shaft positioning

Automatic production line



The FCNA20 General-Purpose Series Position Sensor is a cost-effective LVDT that can be used as an in-situ replacement for Macro sensors' PR812 series and TE-HR series.

This series of LVDT sensors has the technical advantages of high resolution, good repeatability, low impedance, high sensitivity, good linearity, environmental adaptability and high reliability. The maximum linearity error is not more than $\pm 0.25\%$.

The FCNA20 Series offers multiple technical specifications for customer selection. In addition to the standard options provided in the selection guide, customized solutions are available based on specific requirements, including but not limited to: Teflon (PTFE)-lined core bushings, thread specifications, Cable exit configurations and Connector types, as well as the special environmental adaptations i.e., high-pressure resistance, high-temperature operation, and radiation hardening.

In order to facilitate the actual application of the customer, we also supply a variety of accessories to match the sensor, the series of related mounting fixtures, signal processing equipment, cables and other accessories, please contact us for information.

Standards and Documentation

GJB 150A-2009

JF 1305-2011

GJB 8350-2015

Laboratory enviro methods for military material

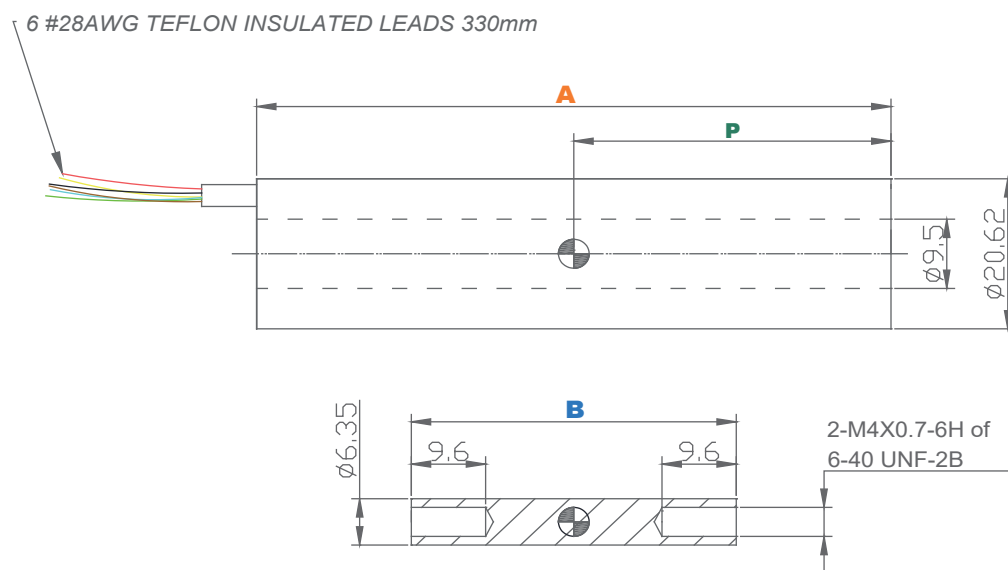
Calibration specification for linear displacement sensors

General specification for linear displacement sensors

General Specifications

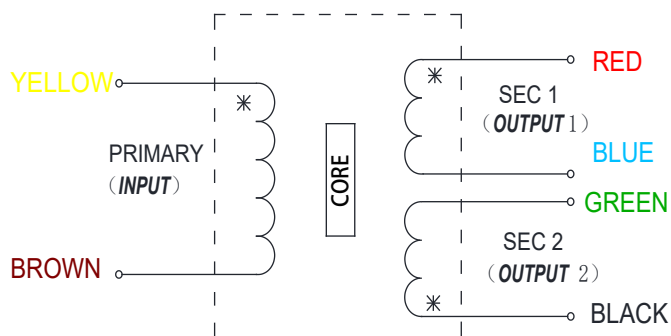
Parameters	Specifications
Input voltage:	1-9V AC, 3V rms (rated)
Input frequency:	2.5 kHz (rated)
Linearity error:	<±0.25% (full range stroke)
Repeatability Error:	<0.01% (full range stroke)
Hysteresis error:	<0.01% (full range stroke)
Operating temperature:	-55°C to +105°C
Thermal coefficient	-0.02%/°C (rated)
Frequency response:	20g, 2 kHz

Dimensions:



	Model →	FCNA20 -000325	FCNA20 -000525	FCNA20 -001025	FCNA20 -001525	FCNA20 -002525	FCNA20 -005025	FCNA20 -010025	FCNA20 -015025	FCNA20 -020025	FCNA20 -025025	FCNA20 -040025	FCNA20- 050025
range	mm	±1.27	±2.50	±5.00	±7.50	±12.50	±25	±50	±75	±100	±125	±200	±250
Body length "A"	mm	28.7	46	63.5	81.8	139.7	168.4	254	325.6	397.3	454.2	611.9	793.6
Core length "B"	mm	20.3	33	41.9	49.5	87.6	101.6	134.6	142.2	177.8	177.8	177.8	215.9
Core position "P"	mm	14.3	23	31.7	40.9	69.8	84.2	127	162.8	198.6	227.1	305.9	396.8
Sensitivity	mV/V/mm	228	165	98.4	51.2	27.6	15.4	9.1	9.8	7.9	5.5	5.1	2.8
Primary impedance	Ω	≥400	≥1000	≥1100	≥1100	≥460	≥460	≥330	≥315	≥275	≥310	≥260	≥550

● Wiring Information



****CONNECT BLUE AND GREEN FOR DIFFERENTIAL OUTPUT**

● Selection Guide

Range	Model	P/N	Range	Model	P/N
±1.27mm LVDT	FCNA20-000325	0356-0043	± 50mm LVDT	FCNA20-010025	0356-0049
±2.5mm LVDT	FCNA20-000525	0356-0044	± 75mm LVDT	FCNA20-015025	0356-0050
± 5mm LVDT	FCNA20-001025	0356-0045	± 100mm LVDT	FCNA20-020025	0356-0051
±7.5mm LVDT	FCNA20-001525	0356-0046	±125mm LVDT	FCNA20-025025	0356-0052
±12.5mm LVDT	FCNA20-002525	0356-0047	±200mm LVDT	FCNA20-040025	0356-0053
±25mm LVDT	FCNA20-005025	0356-0048	±250mm LVDT	FCNA20-050025	0356-0529

Options

Options		
#4-40 UNC-2B threaded Core	All models	XXXX-XXXX-005
Teflon bore liner	All models	XXXX-XXXX-020
Mild Radiation resistant	All models	XXXX-XXXX-080
Mounting bracket	MTD-20	0355-003

● Contact us

Tel: 400-013-6886
 Tel: 010-51660768
 Fax: 010-80766992
 Email: info@abeksensors.com
www.bjabek.com