

FCXA10 series

High- temperature high-pressure (HTHP) mini LVDT

ABEK FCXA10 series of high-temperature and high-pressure resistant miniature LVDT position sensors are suitable for installation in a variety of confined spaces, and have been enhanced to cope with complex and harsh environments, allowing them to be used in high-temperature and high-pressure environments.

The lightweight core makes these miniature LVDTs ideal for high response dynamic measurement.

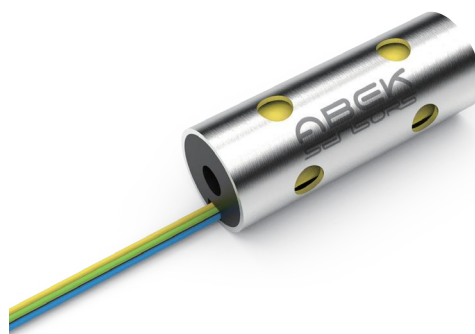
FCXA10 position sensors have excellent performance such as high resolution, good repeatability, low impedance, high sensitivity, good linearity, environmental adaptability and reliability. The linearity error does not exceed $\pm 0.25\%$ of FS.

The FCXA10 series is available in device of specifications, and in addition to the options already provided in the selection guide, can be customized to meet customer requirements, which including thread size, spring-loaded, wire outlet or other mechanical construction needs, and high-pressure resistant, high-temperature resistant, radiation resistant or other adaptive designs for special applications.

In order to facilitate the actual application of the customer, we also supply accessories to match the sensor, ie. the related mounting fixture, signal conditioning equipment, cables and other accessories. Please contact us for technical consultation or customization requests.

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



Applications

Machine&tool positioning
Testing machine
Valve position measurement
Oil/gas well monitoring
Manipulator positioning
UAV

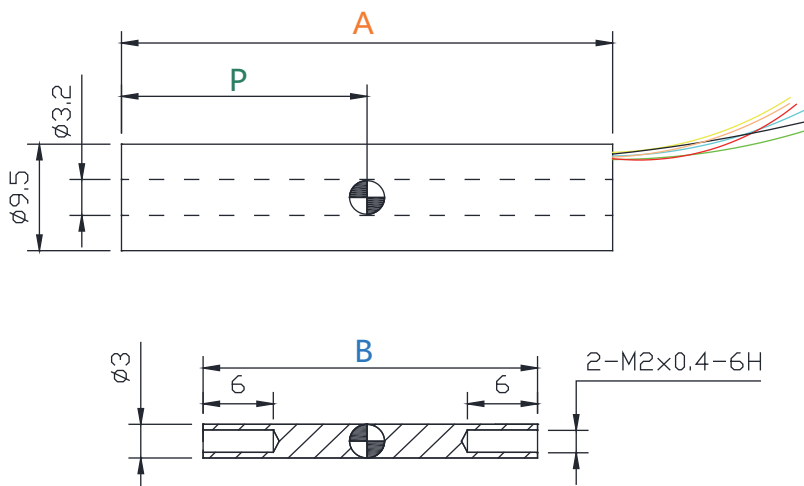
Features

Diameter: 9.5mm
Range: $\pm 0.6\text{mm}$ to $\pm 50\text{mm}$
Linearity: $\leq \pm 0.25\%$
Operating temp.: -55°C to $+200^{\circ}\text{C}$
Working pressure: 140MPa

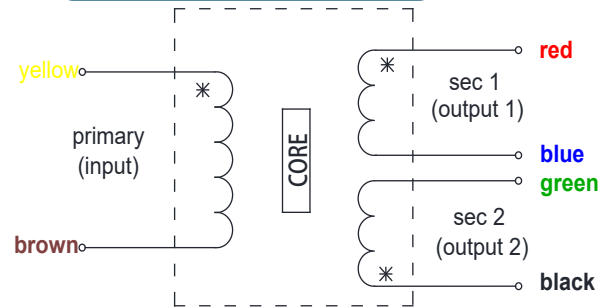
General Specifications

Parameters	Descriptions
Input voltage	1-12V AC, 3V (nominal)
Input frequency	2.5 to 3.0 kHz
Linearity error	$<\pm 0.25\%$ of FSO
Repeatability error	$<0.01\%$ of FSO
Hysteresis error	$<0.01\%$ of FSO
Operating temperature	-55°C to +200°C
Working pressure	140MPa (Non-Conductive Media)
Thermal coefficient	-0.02%/°C (nominal)
Vibration resistance	20g, 2 kHz

Dimensions



Wiring Information



Model		FCXA10 - 00125	FCXA10 - 00325	FCXA10 - 00525	FCXA10 - 01325	FCXA10 - 02525	FCXA10 - 05025	FCXA10 - 10025
Ranges	mm	± 0.63	± 1.25	± 2.5	± 6.3	± 12.5	± 25	± 50
	mm	0~1.26	0~2.5	0~5	0~12.6	0~25	0~50	0~100
Body Length "A"	mm	12.7	19.1	25.4	44.5	84	142.2	252.5
Core Length "B"	mm	10	10.2	16	28.6	50	76.2	134.6
Null Position "P"	mm	6.35	9.55	12.7	22.5	42	71.1	126.25
Sensitivity	mV/V/mm	130	63	63	87	67	26	20
Primary impedance	Ω	≥ 90	≥ 340	≥ 340	≥ 500	≥ 435	≥ 780	≥ 540

● Selection Guide

Range	Part No.	Model
±0.63mm LVDT	0356-0227	FCXA10-000125
±1.5mm LVDT	0356-0125	FCXA10-000325
±2.5mm LVDT	0356-0001	FCXA10-000525
±6.5mm LVDT	0356-0002	FCXA10-001325

Range	Part No.	Model
±12.5mm LVDT	0356-0003	FCXA10-002525
±25mm LVDT	0356-0004	FCXA10-005025
±50mm LVDT	0356-0156	FCXA10-010025

● Contact us

Contact us for technical consultation or customization requests.

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