SDVB20M-5A Spring Loaded DC LVDT Position Sensors

Introduction

The linear variable differential transformer (LVDT) has been widely used in applications such as power turbines, hydraulics, automation, aircraft, satellites, nuclear reactors, and many others.These transducers have low hysteresis and excellent repeatability.

DC-operated LVDTs are rugged in hermetically sealed sensors, constructed entirely of stainless steel 304 intended for environments with high humidity, dust and other harsh ones.They are designed to operate in conjunction with computer-based data processors(standard) or PLCs(option).

Benefits

- SS304 construction, Spring loaded.
- Better measurement repeatability with the use of a precision sleeve bearing.
- Quenched probe with a great abrasion resistance.
- An internal signal conditioner.
- 2-wire and 3-wire available.

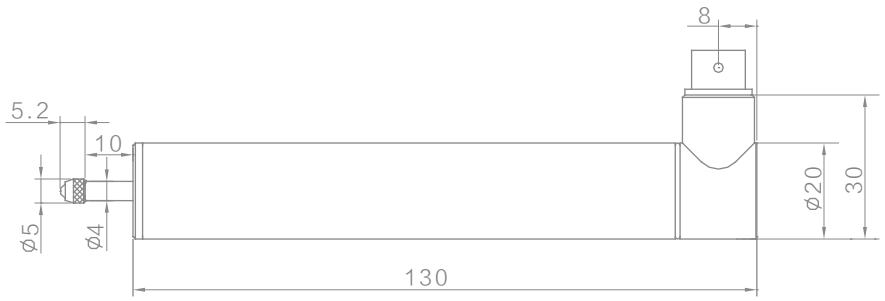
Applications

- TIR measurements
- Fabricated metal products gaging
- Safety valve seating verification
- Roller gap alignment
- Brake system inspections

Parameter

	SDVB20M-5A
Input Power	15 ~28V DC
Operating Current	Current of Voltage output≤12mA；2-wire current output of 4~20mA，Output of 4~20mA
Nominal range	0-5mm
Output	0 ~10V，4 ~20mA
Linearity Error	±0.25%FS
Repeatability Error	≤10μm
Resolution	≤1μm
Operating Temprature	-25℃ ~ +85℃
Thermal Coefficient	Null position ≤ 0.01%F.S /℃
	Sensitivity≤ 0.025%F.S /℃

Dimension



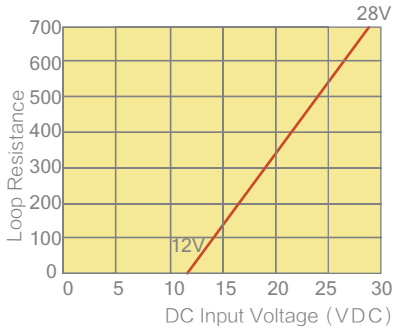
Caution

The output increses when the connceting rod moves axially.

Output

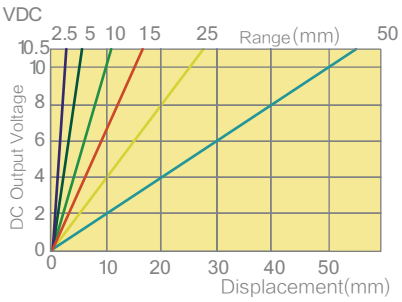
LVDT of Current Output
Loop Resistance (Max.) vs Loop Supply Voltage

Input Voltage 15~28V DC,
Input Voltage 24V DC(Recommended), Load Resistance500Ω



SDVB20M-5A-V1-CFD
Output voltage vs Displacement:

(Output Voltage15~28V DC,15V DC recommended)



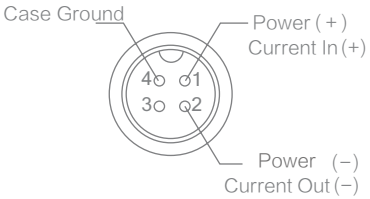
Connection

The voltage output of linear power supply needs to be used within range.
Please connect the pins accordion to the illustrations below, Available for cable type and plug type

Colors of the Cables

Red Power (+) Current Input (+)
Black Power (−) Current Output (−)

Pins

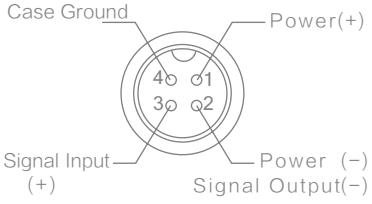


Analog Current Output

Colors of the Cables

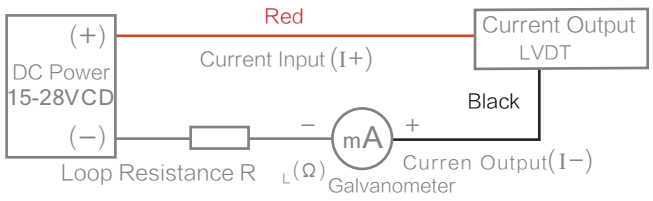
Red Power (+)
Black Power (−) Signal Output (−)
Blue Signal Output (+)

Pins

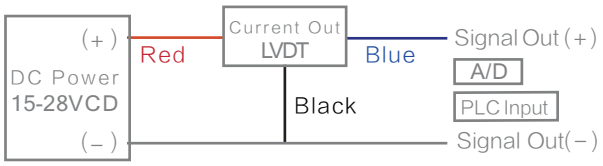


Analog Voltage Output

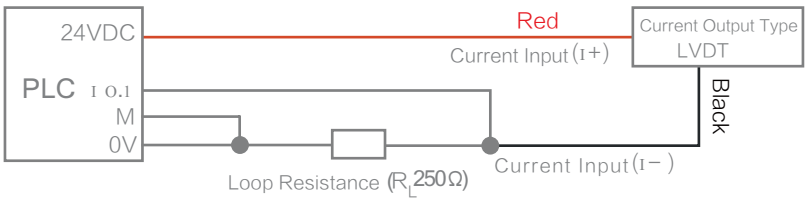
◆ Circuit of 2-wire current output type



◆ Circuit of current output type



◆ Circuit of PLC type



Installation

⚠ Mounting blocks must be low-CTE and non-magnetic. Magnetic mounting blocks such as iron ones are not allowed.

Mounting blocks can be customized.

Dimensions Of Mounting Blocks