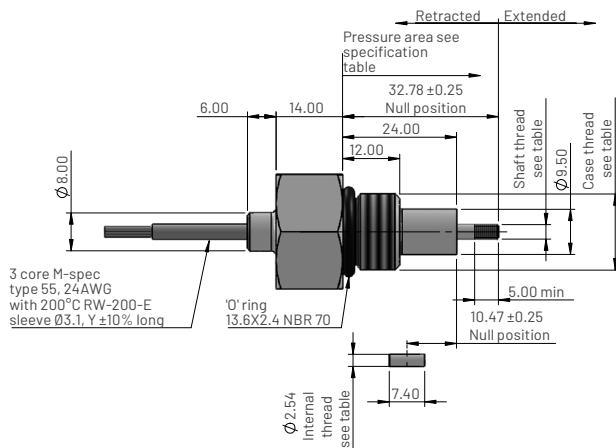


# VLT0953 Series - Valve position sensor

Thread mounted. Shaft operated.

## Dimensions for VLT0953 - Hexagon case with rear cable exit



## Ordering information

### VLT0953-AB-XX-Y-ZZZ

- Thread type
  - 1. Metric
  - 2. Imperial
- 1 = Shaft, 2 = Free core
- Measurement range
  - 01 - 1mm, 02 - 2mm, 04 - 4mm
- Cable length 0 to 9
  - 0 - 0.5m, 1 - 1m ... 9 - 9m
- Output increasing
  - See graph
- Output signal
  - V1 - 0.0 - +5.0V
  - V2 - +0.25 - +4.75V
  - V3 - +0.5 - +4.5V

Sensor	Case thread	Shaft/Core thread
VLT0953-11-	M16x1.5-6g	M3x0.5-6g
VLT0953-12-	M16x1.5-6g	M2x0.4-6H both ends
VLT0953-21-	5/8-18UNF-2A	4-48UNF-2B
VLT0953-22-	5/8-18UNF-2A	1-72UNF-2B both ends

## Electrical and mechanical specification for VLT0953

Ordering code	01	02	04	01	02	04		
Measurement range	1(±0.5)	2(±1)	4(±2)	1(±0.5)	2(±1)	4(±2)	mm	
Mechanical specification								
Mechanical range							±2.5	mm
Performance specification								
Non-linearity (Note 1)							<±0.70	%FS
Resolution	TBD			TBD				
Thermal drift	<±0.030±0.010	<±0.010±0.010	<±0.005±0.005	<±0.030±0.010	<0.010±0.010	<±0.005±0.005	%FS/°C	
Update time							TBD	ms
Stability (Note 3)							TBD	%FS
Repeatability							TBD	%FS
Hysteresis							TBD	%FS
Electrical specification								
Input voltage (+Vs)	+5.0 ±5% regulated			+8 to +30 unregulated			VDC	
Line regulation (Note 4)	Ratiometric with supply			<0.1			%FS/V	
Reverse polarity (VR)(max)							-30V	VDC
Output voltage (Vout)							0 - 5V max	VDC
Sensitivity <±2% (Note 1)							Vout (span) / measurement range	mV/mm
Output load							>2	Kohms
Output noise and ripple							TBD	%FS RMS
Electrical connections							3 core Type 55M-26AWG with FDR25 sleeve	
Cable length							0.5 to 9.0	m
Environmental specification								
Operation temperature							-40 to +125	°C
Shaft velocity (Note 5)							<1000	mm/s
IP rating (cable exit)							IP66	
Torque setting							40	Nm
Pressure rating (Note 6)							300	bar
Sensor weight (excluding cable)							56	grams
Materials							Shaft and Body - 316 stainless steel Core - Nickel iron alloy	

# VLT0953 Series - Valve position sensor

Thread mounted. Shaft operated.

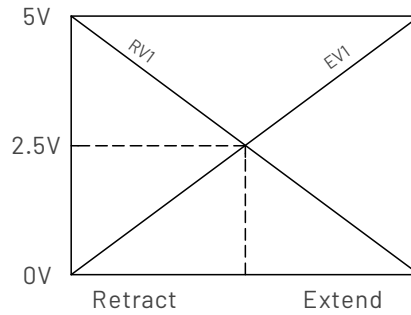
## Notes

1. Incorrect wiring may cause internal damage.
2. When the sensor is positioned as shown the instrument is mid-travel (2.5V output).
3. Ideal sensitivity (mV/mm) is calculated from the ideal span of 4000mV (4.5-0.5VDC) divided by the measurement range in mm.
4. Do not operate between 5.5V and 8V.
5. Sensitivity and non-linearity are calculated from least squares best fit method.
6. Due to the Hall effect technology used in this device, close proximity of ferrous materials and magnetic fields may influence output.
7. General dimension tolerance is  $\pm 0.25\text{mm}$ .

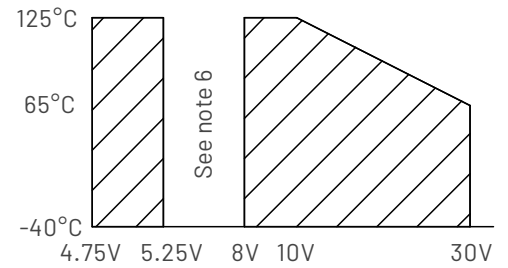
## Electrical connections (see note 1)

Wire Colour	Function
Red	Supply Voltage (Vs)
White	Output Voltage (Vout)
Black	Ground

## Output characteristics



## Temperature de-rating



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