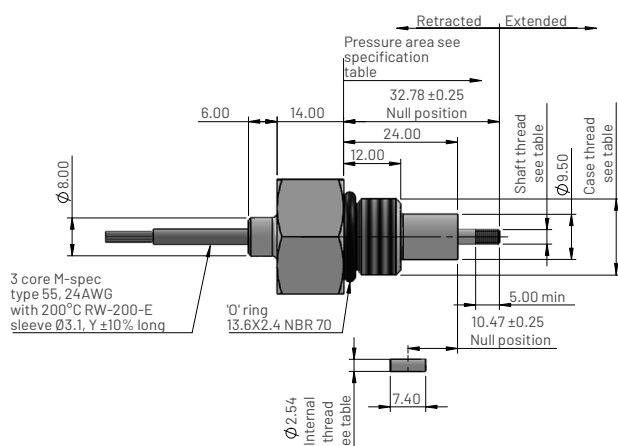


VLT0953 Series - Valve position sensor

Thread mounted. Shaft operated.

Active
sensors

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.

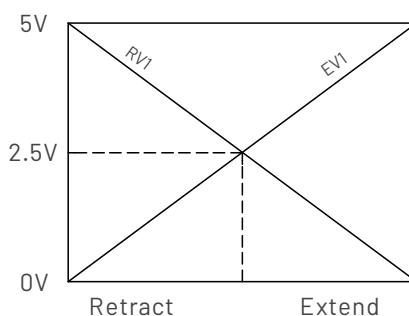
Notes

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

