

The **VLT0954** and **VLT0955** are compact, short stroke contactless high temperature position sensors, designed for actuator and solenoid positional feedback applications.

Manufactured to quality standards required for high performance, high cyclic control and measurement systems, there are three specific stroke lengths 1mm, 2mm and 4mm.

Produced from a robust stainless steel case for total sensor integrity, the LVDT sensor is designed to convert linear movement from a separate non-contacting core or shaft into a proportional voltage output.

A number of customer specific options are available when ordering, including the choice of either metric or imperial thread mounting, shaft or free core for customer integration, voltage output and different cable lengths up to 9m.

Depending on the model selected, the sensor is supplied with either a gasket or a nitrile O ring to seal the front face; the fully welded pressure area of the VLT0955 sensor will operate up to 300 bar. The rear of the sensor and cable exit are designed to be environmentally protected against the ingress of dust and water to IP68/IP69K.

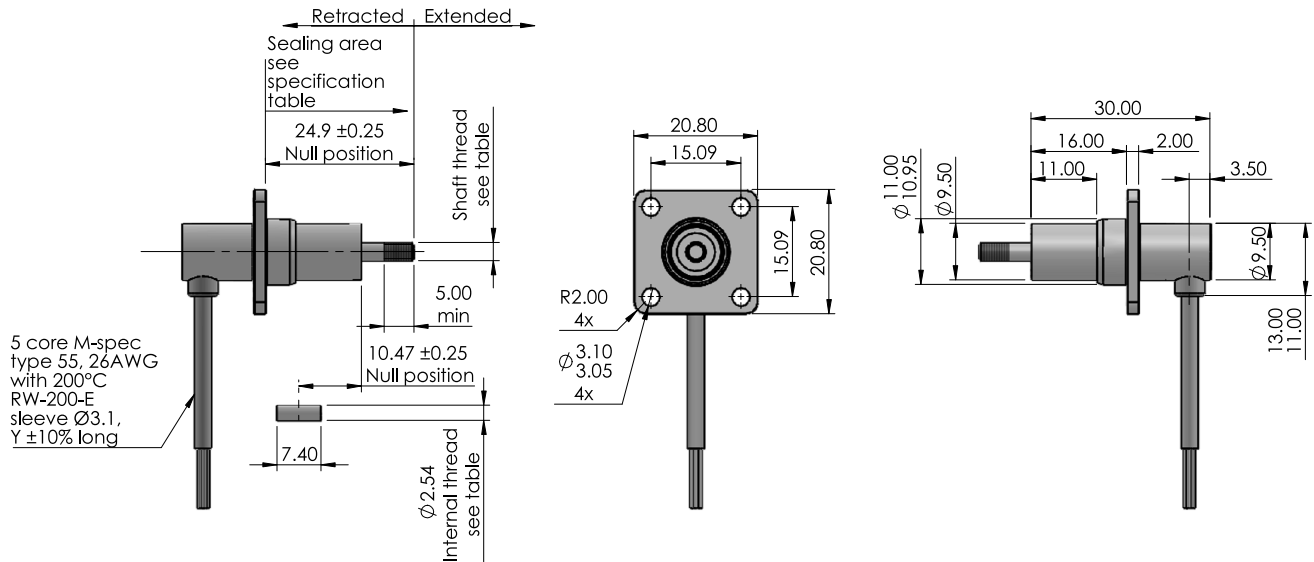
A 5-wire device, they are fitted with Raychem fire and chemical resistant, high temperature RW-200-E sleeved type 55 26AWG signal cabling.

Key features and benefits

- Measurement ranges 1mm, 2mm and 4mm
- Contactless technology
- Choice of metric or imperial thread mounting
- Maximum operating temperature 200°C (400°F)
- Pressure area operates to a maximum working pressure of 300 bar
- Sealed to IP66
- Robust design
- Choice of cable length between 0.5 to 9m
- Custom designs available on request
- [Electronic signal conditioning available](#)



VLT0954-AB-XX-Y – Square flange case with side cable exit



Ordering information:

VLT0954-AB-XX-Y

Thread type
1. Metric
2. Imperial

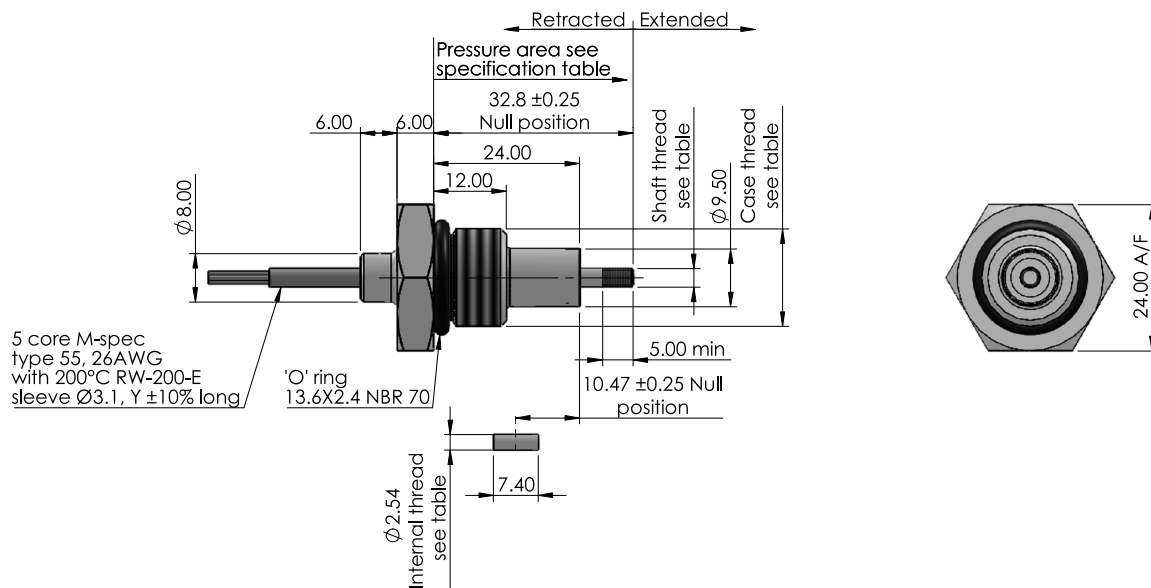
1. Shaft
2. Free core

Stroke length
01 - 1mm, 02 - 2mm, 04 - 4mm

Cable length 0 to 9
0 - 0.5m, 1 - 1m, ..., 9 - 9m

Sensor	Shaft/Core thread
VLT0954-11-	M3x0.5-6g
VLT0954-12-	M2x0.4-6H both ends
VLT0954-21-	4-48UNF-2B
VLT0954-22-	1-72UNF-2B both ends

VLT0955-AB-XX-Y – Hexagon case with rear cable exit



Ordering information:

VLT0955-AB-XX-Y

Thread type
1. Metric
2. Imperial

1. Shaft
2. Free core

Stroke length
01 - 1mm, 02 - 2mm, 04 - 4mm

Cable length 0 to 9
0 - 0.5m, 1 - 1m, ..., 9 - 9m

Sensor	Case thread	Shaft/Core thread
VLT0955-11-	M16x1.5-6g	M3x0.5-6g
VLT0955-12-	M16x1.5-6g	M2x0.4-6H both ends
VLT0955-21-	5/8-18UNF-2A	4-48UNF-2B
VLT0955-22-	5/8-18UNF-2A	1-72UNF-2B both ends

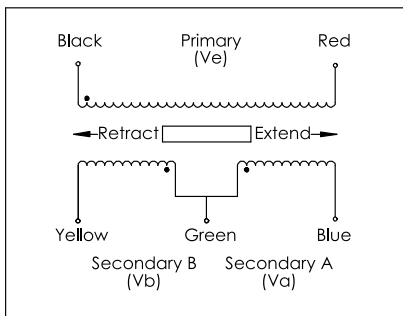
Electrical and mechanical specification for VLT0954 and VLT0955

Specification				
Ordering code	01	02	04	
Electrical stroke	1.0 (± 0.50)	2.0 (± 1.00)	4.0 (± 2.00)	mm
Mechanical stroke	Electrical stroke +1mm each end minimum			
Input conditions	(Ve) 3.0V $\pm 5\%$ RMS @ 10KHz $\pm 5\%$			
Non-linearity	(see notes 1,2) < ± 0.30	< ± 0.50	< ± 0.75	%FS
Ratiometric sensitivity ($\pm 5\%$)	(see notes 1,3) 0.272			/mm
Summed O/P voltage	(±20%) 1.15			V/Ve
Output voltage range	(nominal) 1.490 - 1.960	1.236 - 2.194	0.788 - 2.663	V RMS
Input impedance	>150			Ohms
Thermal drift	(see note 4) < ± 0.020			%FS/°C
Insulation resistance @500Vdc	(primary-sec. coils-case) >100			Mohms
Operating temperature	-55 to +200			°C
Environmental (cable exit)	IP66			
Pressure rating (VLT0955)	300			bar
Weight VLT0954 (approx excludng cable)	25			grams
Weight VLT0955 (approx excludng cable)	45			grams
Materials	Case - Stainless steel 316L Core - Nickel iron alloy Shaft - Stainless steel 316			

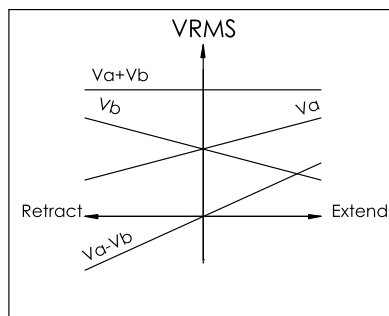
Notes:

1. Non-linearity error and sensitivity is calculated from least squares best fit method.
2. Full scale (FS) is total stroke x ratiometric sensitivity.
3. Ratiometric sensitivity is calculated using $(V_a - V_b) / (V_a + V_b)$.
4. Thermal drift is defined as:- Maximum ratiometric change from reading at ambient (+20°C) to ratiometric reading over operating temperature range.
5. General dimension tolerance ± 0.25

Electrical connections



LVDT AC output schematic



VLT0954 gasket JN011-011

