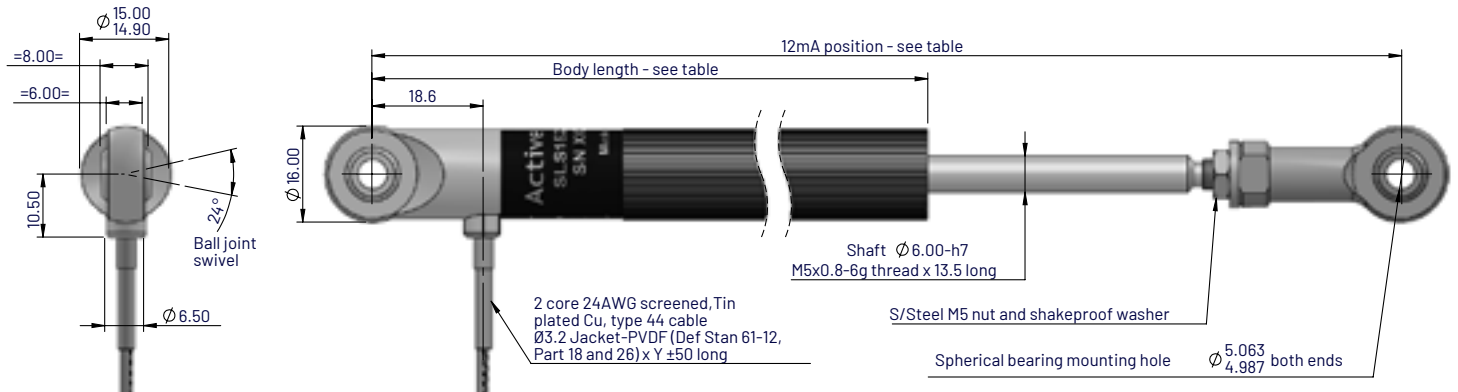


# SLS1500AS Series - Linear potentiometer

2-wire, Current Output 4 - 20mA

## Dimensions



## Ordering information

SLS1522AS-XXX-Y

Measurement range in mm

Cable length 0 to 9

0 = 0.5m, 1 = 1m ... 9 = 9m

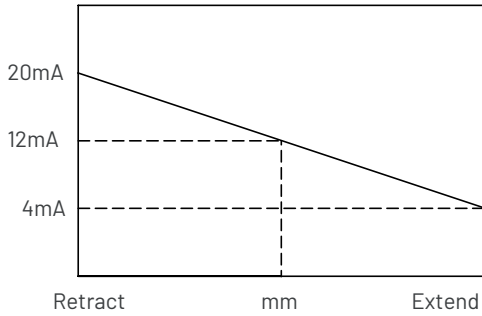
## Electrical and mechanical specification

Parameters													Units	Notes
Mechanical specification														
Mechanical range	75	100	125	150	175	200	225	250	275	300	325	350	mm	
12mA position (mid-position)	261.5	299.0	336.5	374.0	411.5	449.0	486.5	524.0	561.5	599.0	636.5	674.0	mm	
Body length	182.4	207.4	232.4	257.4	282.5	307.4	332.4	357.4	382.4	407.4	432.4	457.4	mm	
Mechanical range ( $\pm 0.5$ mm)	Measurement range +1												mm	
Sensor weight (excluding cable)	106	116	126	136	146	156	166	176	186	196	206	216	grams	
Materials	Case - Anodised aluminium alloy; Shaft - Stainless steel 303; Rod ends - Body: GF Polymer, Spherical Ball: Nickel plated steel													
Performance specification														
Non-linearity	$< \pm 0.15$												%FS	2, 3
Micro non-linearity (Nominal)	$< 0.05$												%FS	3
Thermal error	$< \pm 0.33$												%FS/ $^\circ$ C	3, 4
Maximum operating speed	$< 10$												m/s	
Hysteresis	$< 10$												%FS	3
Operating life (25mm at 3Hz)	$> 20$ million													
Shaft starting / running force	$< 300 / < 150$												grams	
Electrical specification														
Input (+Vs) Red lead	9 to 40												VDC	
Line regulation	$< 0.10$												%FS/V	3
Reverse polarity (max)(+Vs)	-100												VDC	
Output (Iout) Blue lead	+4 to +20												mA DC	
Sensitivity (Iout/mm)(2% to 98%) $\pm 1\%$	213	160	128	107	91.4	80	71.1	64	58.2	53.3	49.2	45.7	$\mu$ A/mm	2
Loop resistance (max)	(+Vs-7V)/0.02A												Ohms	6
Output noise and ripple	10												$\mu$ A RMS	
Electrical connections	2 core 24AWG screened, Tin plated Cu, type 44 cable $\varnothing 3.2$ Jacket-PVDF													
Cable length (max)	200												m	
Shaft velocity	$< 10$												m/s	
Environmental specification														
Operation temperature	-30 to +125												$^\circ$ C	
Environmental	IP65													

**Notes**

1. Incorrect wiring may cause internal damage.
2. Non-linearity error and sensitivity is calculated from least squares best fit method at  $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ .
3. FS is defined as sensitivity x measurement range (MR).
4. Average thermal drift over operating temperature range when mounted by R5 rod ends or by a body clamp (BC), at 50% of the sensor body length, on a stainless steel plate.
5. When  $+V_s = +24\text{VDC} \pm 0.50\text{V}$  and  $R_{\text{Load}} = 250\Omega$ .
6. Includes all wiring between sensor +  $R_{\text{Load}}$  resistance.

**VLP mA output schematic**



**Electrical connections (see note 1)**

