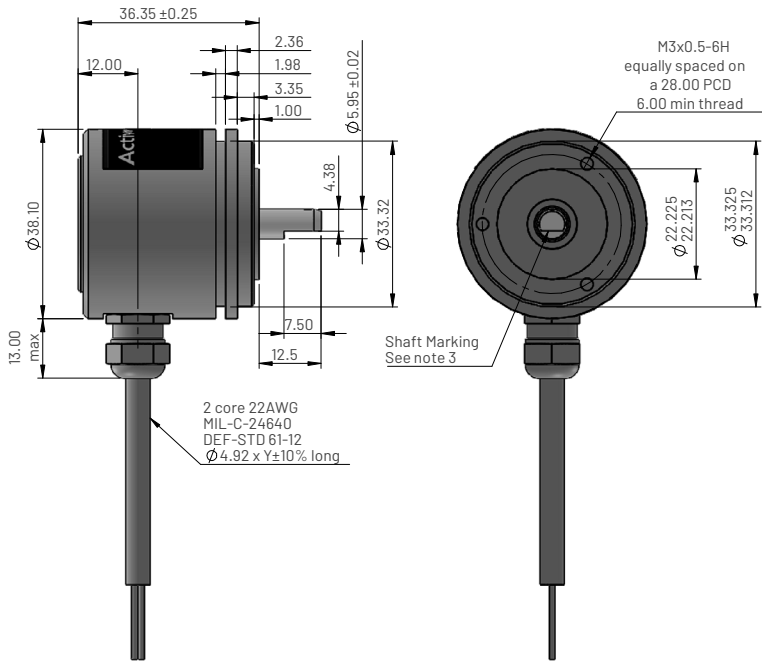


# VRP1520 Current Output - Rotary potentiometer

High performance series

## Dimensions for VRP1520 - Synchro mounting with rear cable exit



## Electrical and mechanical specification

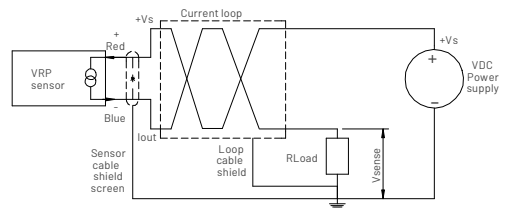
Parameters	Values			Units	Notes
Electrical angle ( $\pm 2^\circ$ )	100	130	350	$^\circ$	
Mechanical travel	360 Continuous			$^\circ$	
Sensor weight (excluding cable)	106			grams	
Performance specification					
Non-linearity	$< \pm 0.50$			%FS	2
Resolution	Infinite				
Thermal drift	$\pm 0.01$ TBD			%FS/ $^\circ$ C	
Electrical specification					
Input voltage (+Vs)	12 to 40			VDC	
Line regulation	$< 0.002$			%FS/V	7
Reverse polarity (+Vs)	-60			VDC	
Output current (Iout)	2 wire 4-20			mA	
Sensitivity $< \pm 2\%$	0.160	0.120	0.046	mA/ $^\circ$	2
Loop resistance (max)	$(+Vs - 8V) / 0.02A$			ohms	8
Output noise and ripple	$< 0.05$			%FS RMS	
Electrical connections	2 core x 22AWG (screened) Zerohal jacket				
Cable length (max)	0.5 to 9.0			m	9
Environmental specification					
Operating temperature range	-30 to +105			$^\circ$ C	
Environmental	IP67				
Materials	Sensor	Case - Anodised aluminium alloy 6063-T5, Shaft - Stainless steel			
	Cable gland	Nickel plated brass			

## Ordering information

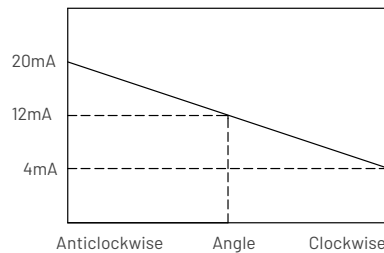
VRP1520-11-XXX-Y-AA1

Electrical angle in degrees  $\rightarrow$   
 Cable length 0 to 9  $\rightarrow$   
 0 - 0.5m, 1 - 1m ... 9 - 9m  
 Output direction (viewed on shaft)  
 A = anticlockwise  
 Output signal  $\rightarrow$   
 A1 = 4-20mA

## Electrical connections (see note 1)



## VRP mA output schematic



## Notes

1. Incorrect wiring may cause internal damage.
2. Non-linearity error and sensitivity is calculated from least squares best fit method.
3. When shaft flat is facing case shaft mark the instrument is mid-travel.
4. Average thermal drift over operating temperature range.
5. Nominal bandwidth (-3dB) with a 1st order (-20dB/decade) roll-off.
6. Within 20 seconds of power on condition and over 30 minutes period. (Whilst delta temperature sensor  $< 2^\circ$ C)
7. When +Vs = +12VDC to +30VDC.
8. Includes all wiring resistance and RLoad resistance.
9. Includes all wiring between sensor and RLoad.
10. General dimension tolerance is  $\pm 0.10$ .