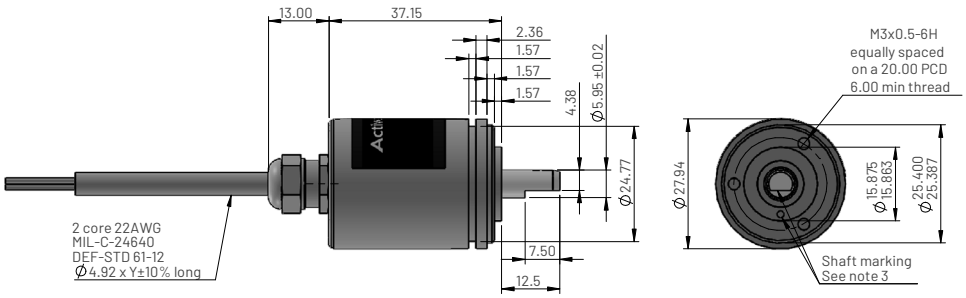
VRP1120 Current Output - Rotary potentiometer
High performance series

Active sensors

Dimensions for VRP1120 - Synchro mounting with rear cable exit



Ordering information

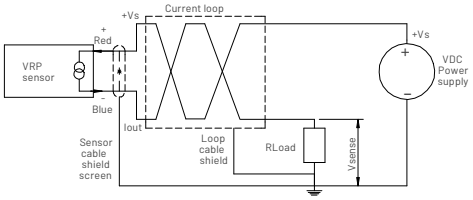
VRP1120-11-XXX-Y-AA1

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

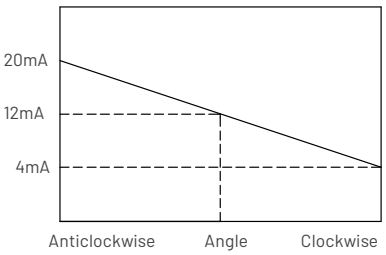
Electrical and mechanical specification

Parameters		Values			Units	Notes
Mechanical specification						
Electrical angle (±2°)		100	130	350	°	
Mechanical travel		360 Continuous			°	
Sensor weight (excluding cable)		60			grams	
Performance specification						
Non-linearity		<±0.50			%FS	2
Resolution		Infinite				
Thermal drift		±0.01 TBD			%FS/°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 <±2%		0.160	0.120	0.046	mA/°	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			°C	
Environmental		IP67				
Materials	Sensor	Case - Anodised aluminium alloy 6063-T5, Shaft - Stainless steel				
	Cable gland	Nickel plated brass				

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°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 ±0.25.

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