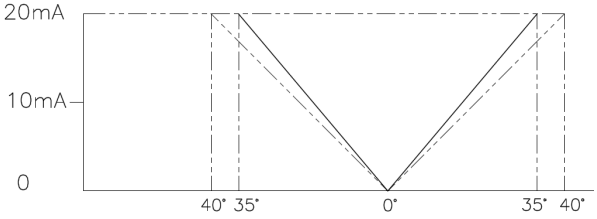
Product: 3-Wire Position Feedback Transmitter

Revision Record:

Rev. No	Date	Details of Revision
00	26 April 2018	Initial Release

1. Scope		**Supply of 3-wire Non-Contact Type Angular position Transmitter**
		Angle of rotation required: to a span of 40˚ in both clockwise and anticlockwise direction. This span shall be adjustable between 35 to 40 at site. Position transmitter to be factory set to 35˚ span corresponding to 4 to 20mA current output. Transmitter should be suitable for both sense of rotation (CW and CCW).
2. Input	Supply voltage	24 V DC (24V to 30V including residual ripple)
3. Output		4-20mA DC, 3 Wire Protected against reverse polarity.
4. Feature	Permissible Burden	0-1K ohm (24-30VDC)
	Ripple content in output with 13% ripple content in input voltage	≤ 1%
	Adjustment	Separate & independent adjustment 4 mA and 20mA
	Max. Linearity error	± 0.5%
	Accuracy (reproducibility)	0.2% or better
	Effect of input supply Voltage	≤ 0.1% / 10 volts
	Temperature effect	≤ 0.5% / 10K
	Burden effect	≤ 0.1% / 500 ohms
	Operating Current	50mA typ / 70mA (max)
5. Indication		There should be marking indicating the linear portion of the measuring range in both the direction of rotations
6. Characteristic	Output characteristics to be as per the figure shown below. However, if the forward and reverse characteristics, are not starting from the same point, then the same shall be embossed or clearly marked in the position transmitter 	

7. Connector	Round type plug-in connector with male and female connectors required to be supplied along with position transmitter. The connector shall be as per MIL-DTL-5015 standard, solderable type, Allied "MG" type or equivalent. Male type connector to be fixed to transmitter and female connector for external connection with 5mtr cable with pin/flat type lug with indicating ferrule (-ve, +24VDC, 4-20mA) for core identification and termination to JB. Shell Size and Style shall be decided by vendor.	
8. Cable specification	2Pair x 0.5sqmm HR PVC, Type C, FRLS ST-2 inner and outer sheath, Aluminium-mylar shielded, Armoured instrumentation cable suitable for voltage grade 650V. Colour code for identification shall be 1st pair: Blue & Red, 2nd pair: Grey & Yellow.	
9. General	Protection Class	: IP66
	Test Voltage to earth	: 500 V rms, 50 Hz
	Permissible ambient temp.	: Up to 80•C
	Permissible relative humidity	: Up to 90 %
	Time constant of the transmitter along with mechanical linkages shall be so small that even for an operating time of 0.4 Secs for full range, the transmitter output shall represent the angle within the limits of error specified above.	
10. Mounting	Mounting Dimensions of position transmitter shall be as per the attached Drawing.	
11. Actuating Torque	Frictional torque required to drive the position transmitter shaft shall not be more than 0.5 Nm	

Test Certificates required:

Routine test:

I. Check on linearity accuracy on minimum 5 points.
II. Voltage withstand test (high voltage test)
III. Insulation resistance measurement
IV. Dimensional report.
V. Functional test for 4 to 20 mA output corresponding to 0˚ to 35˚ rotation.

Type Test:

1. Certificate on Effect of input supply Voltage
2. Certificate on Temperature effect
3. Certificate on Burden effect

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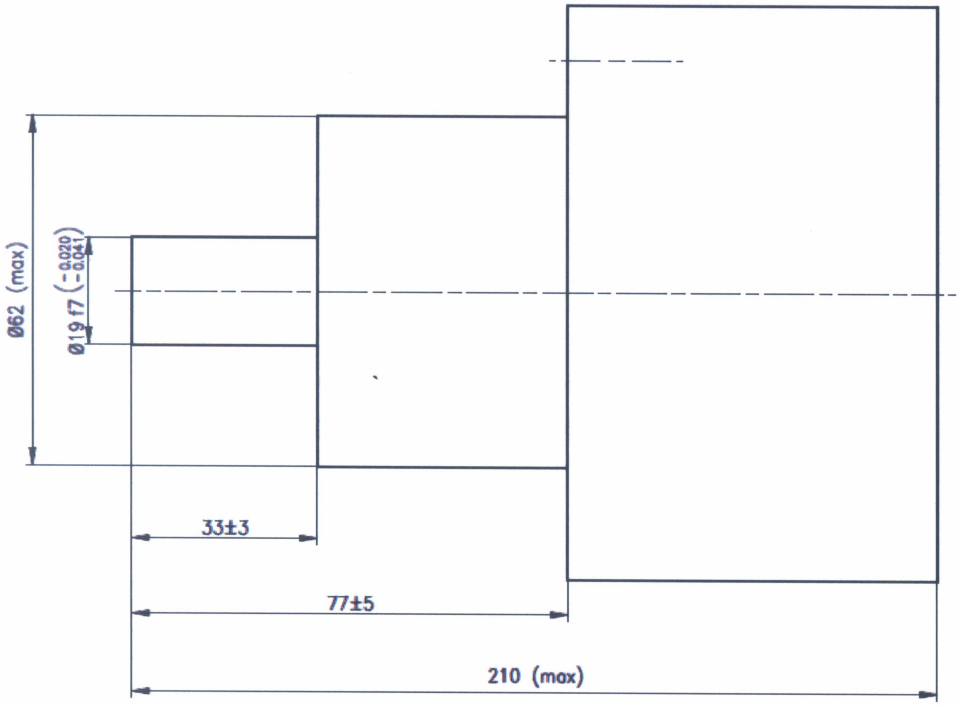

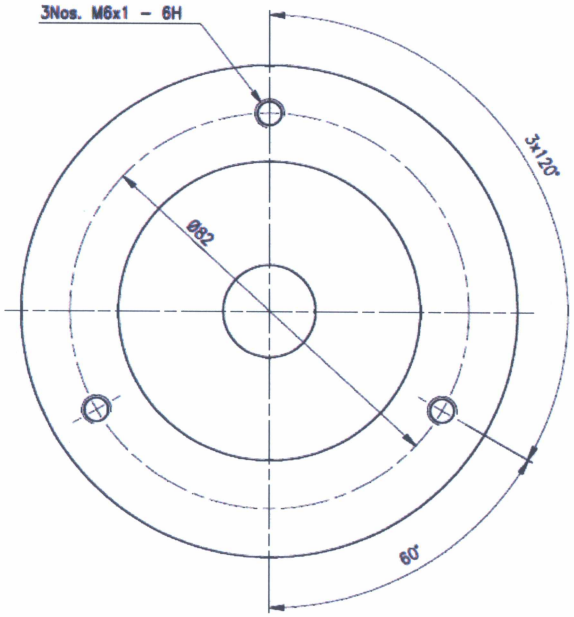

Signature			
Name	Jalaludeen K	Jalaludeen K	Kavitha D
Designation	Senior Engineer	Senior Engineer	DGM
Date	26 April 2018	26 April 2018	26 April 2018
Action	**Prepared By**	**Checked & Reviewed By**	**Approved By**