

ROTATIONAL VOLTAGE DIFFERENTIAL TRANSFORMER

(R.V.D.T.)**MICROCONTROLLER BASED**

Introduction:

MRVDT range of Pulse base RVDT [DC/AC] is available in 10 different regular models apart from tailor made solutions. Virtually covering all industrial and research applications requirement like electrical, thermal, mechanical, and environmental specifications. These Sensors/controllers are used in generation, transmission/distribution/heavy electrical engineering industries, defense, electrical/mechanical m/c testing, industrial electronics, railway, and avionics and many research and development activities. These RVDTs are compatible to any standard makes very high degree of accuracy(upto one micron meter)/repeatability/reliability. These indicators are available in different constructional material like ceramic-coated ms/poly carbonate/Al/SS...

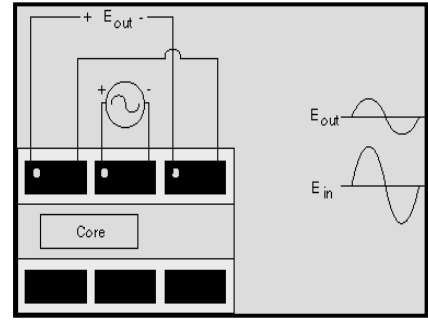
Operating Principle: The Pulse RVDT is based on two secondary coils, symmetrically wound moving under a primary coil. movement of the push rod displaces the position of the high permeability armature, which determines the voltage induced from the primary to each secondary. This voltage is linear proportional to a angular displacement and is conditioned by the hybrid circuit. In 'free armature' unguided versions there is no physical contact between, the armature and coils making it inherently a friction free device providing infinite resolution with least hysteresis. This means the RVDT can respond to the most minute movement of the high permeability armature.



Pictorial presentation of product



Pictorial presentation of product



pictorial presentation of working (similar to LVDT)

Models & Technical data:

RVDT [A.C.]

Stroke length < 360 Deg

RVDT [D.C.]

Stroke length < 360 deg

Model	angular displacement (degree)	KHz	Vout volts	Body O.D./Shaft dia. m.m.	Model	angular displacement (degree)	Guided/Un-guided/weight (gms)	KHz X10	Vout volts	Body O.D./Shaft dia. m.m.
MRVDT-01001	0-360	1.0	0-5.0 volt	option	MRVDT-01002	0001.0/0010.0	Option/068	13	0-5.0 volt	option
MRVDT-02001	0-360	5.0	0-5.0 volt	option	MRVDT-02002	0002.0/0016.5	Option/085	12	0-5.0 volt	option
MRVDT-02501	0-360	2.40	0-5.0 volt	option	MRVDT-02502	0002.5/0025.0	Option/120	8.0	0-5.0 volt	option
MRVDT-03001	0-360	2.4	0-5.0 volt	option	MRVDT-03002	0003.0/0036.0	Option/160	6.0	0-5.0 volt	option
MRVDT-05001	0-360	2.0	0-5.0 volt	option	MRVDT-05002	0005.0/0040.0	Option/180	5.0	0-5.0 volt	option
MRVDT-07501	0-360	2.0	0-5.0 volt	option	MRVDT-07502	0007.5/0050.0	Option/190	4.5	0-5.0 volt	option
MRVDT-10001	0-360	2.0	0-5.0 volt	option	MRVDT-10002	0010.0/0100.0	Option/210	3.0	0-5.0 volt	option
MRVDT-20001	0-360	1.5	0-5.0 volt	option	MRVDT-20002	0020.0/0150.0	Option/220	2.5	0-5.0 volt	option
MRVDT-30001	0-360	1.5	0-5.0 volt	option	MRVDT-30002	0030.0/0150.0	Option/245	2.0	0-5.0 volt	option
MRVDT-40001	0-360	1.5	0-5.0 volt	option	MRVDT-40002	0040.0/0200.0	Option/255	1.5	0-5.0 volt	option
MRVDT-50001	0-360	1.0	0-5.0 volt	option	MRVDT-50002	0050.0/0300.0	Option/265	1.0	0-5.0 volt	option
MRVDT-60001	0-360	1.0	0-5.0 volt	option	MRVDT-60002	0060.0/0300.0	Option/285	1.0	0-5.0 volt	option
MRVDT-99001	0-360	1.0	0-5.0 volt	option	MRVDT-99002	00100.0/300.0	Option/340	1.0	0-5.0 volt	option

General electrical/mechanical specifications of R.V.D.T:

Operating voltage: 12 volts D.C. /220 Volts A.C./option

Frequency: 5000-20,000 Hz

Linearity: 0.1/0.2/0.3% of F.S.

Null voltage: 0.5/1/1.5% of F.S.V.

Position offset/Gain: programmable

Operating Temperature range: 60/1180/360 Degree cel

Temperature coefficients of measurement: 10×10^{-6} ppm/degree cel

Temperature range: 0-70 degree cel

Permissible harmonic: upto 3.0% of principle harmonic

Power consumption: 5.0 V.A [max]

Accuracy: 0.5/1.0/2.0 % reading

Repeatability: 100 of reading Size: 6x8x8

Resolution: 1/10 of least significant bit(1/10 degree)

Switching operation life: 10000

Control: control against three different set point

Interface: RS-232/0-5 volt D.C/ proportional to angular rotation

Additional: linearity control in six steps. /

R.V.D.T. Shaft: SS-304/ SS-316/Al.N/Si.C

NOTES:

The Four numeral after product code indicates the (displacement in degree), and last digit corresponds AC/DC excitation (1-A.C., 2-D.C., 3-PULSE)



MRVDT-50001

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