

# ROTATIONAL VOLTAGE DIFFERENTIAL TRANSFORMER

PULSE TECHNOLOGY BASED

MICROCONTROLLER BASED

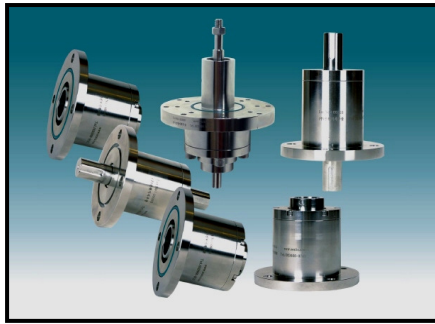
## Introduction:

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...

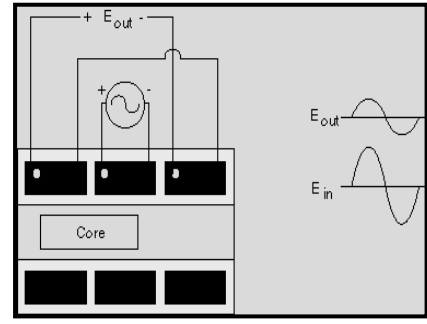
**Operating Principle:** The Pulse RVDT is based on two secondary coils, symmetrically wound moving under a primary coil. movement of the push rod displaces the position of the high permeability armature, which determines the voltage induced from the primary to each secondary. This voltage is linear 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

## Models & Technical data:

### RVDT [A.C.]

Stroke length &lt; 99.99 m.m

### RVDT [D.C.]

Stroke length &lt; 99.99 mm

Model	Useable/un-usable angular displacement	Guided/UnGuided/Weight(gms)	KHz	Vout/deg/Vin 10 <sup>-3</sup>	Body O.D./Shaft dia. m.m.	Model	Useable/un-usable angular displacement	Guided/Un-ded/weight(g ms)	KHz X10	Vout/deg/Vin 10 <sup>-3</sup>	Body O.D./Shaft dia. m.m.
MRVDT-01001	0001.0/0010.0	Option/060	1.0	2.60	option	MRVDT-01002	0001.0/0010.0	Option/068	13	2.60	option
MRVDT-02001	0002.0/0016.5	Option/075	5.0	3.90	option	MRVDT-02002	0002.0/0016.5	Option/085	12	3.90	option
MRVDT-02501	0002.5/0025.0	Option/100	2.40	1.60	option	MRVDT-02502	0002.5/0025.0	Option/120	8.0	1.60	option
MRVDT-03001	0003.0/0036.0	Option/140	2.4	0.75	option	MRVDT-03002	0003.0/0036.0	Option/160	6.0	0.75	option
MRVDT-05001	0005.0/0040.0	Option/155	2.0	0.61	option	MRVDT-05002	0005.0/0040.0	Option/180	5.0	0.61	option
MRVDT-07501	0007.5/0050.0	Option/170	2.0	0.41	option	MRVDT-07502	0007.5/0050.0	Option/190	4.5	0.41	option
MRVDT-10001	0010.0/0100.0	Option/170	2.0	0.23	option	MRVDT-10002	0010.0/0100.0	Option/210	3.0	0.23	option
MRVDT-20001	0020.0/0150.0	Option/190	1.5	0.19	option	MRVDT-20002	0020.0/0150.0	Option/220	2.5	0.19	option
MRVDT-30001	0030.0/0150.0	Option/210	1.5	0.12	option	MRVDT-30002	0030.0/0150.0	Option/245	2.0	0.12	option
MRVDT-40001	0040.0/0200.0	Option/220	1.5	0.09	option	MRVDT-40002	0040.0/0200.0	Option/255	1.5	0.09	option
MRVDT-50001	0050.0/0300.0	Option/260	1.0	0.02	option	MRVDT-50002	0050.0/0300.0	Option/265	1.0	0.02	option
MRVDT-60001	0060.0/0300.0	Option/290	1.0	0.009	option	MRVDT-60002	0060.0/0300.0	Option/285	1.0	0.009	option
MRVDT-99001	00100.0/300.0	Option/310	1.0	0.002	option	MRVDT-99002	00100.0/300.0	Option/340	1.0	0.002	option

## General electrical/mechanical specifications:

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: 60/100/200 Degree cel  
 Temperature coefficients of measurement: 10x10<sup>-6</sup> 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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