EMR-2509

Pancake Resolver

EMR-2509 high accuracy multispeed pancake resolver. Designed, developed and produced for military as well as special industrial applications. Made smaller than optical encoder, yet, exhibits much higher signal-to-noise ratio than an inductosyn. Transformation ratio can vary according to customer preferences.

Features:

- More compact than an optical encoder; exhibits much Higher signal-to-noise ratio than an inductosyn.

Applications:

- Radars, Missile guidance, night vision pods, stabilized plat -forms, ball-screw / robotics positioning, remote video control, optical measurement, medical equipment (MRI, CT scanners) and wherever angle is measured.

Specifications

Parameter	*Unit*	*Value*	*Tolerance*
Input Voltage	V	5	± 5%
Frequency	kHz	2.4	± 1.5%
Input Frequency			
DC resistance: Rotor Stator	 Ohm Ohm	 180 255	 ± 10% ± 10%
Rotor Impedance Zro- with stator open circuited	Ohm	135 + j150	R± 35%
Stator Impedance Zss- with rotor short circuited	Ohm	220 +j200	X ±25%
Transformation ratio at RT and 10MΩ/ 20pF output load	-	0.5	± 5%
Phase shift	deg	0-45	-
Null Voltage:	mV	5	max
Accuracy	arc sec	± 40	-
Primary current	mA	36	Max
Resolver Speed	-	X8	-
Weight	Gr.	27	± 5%

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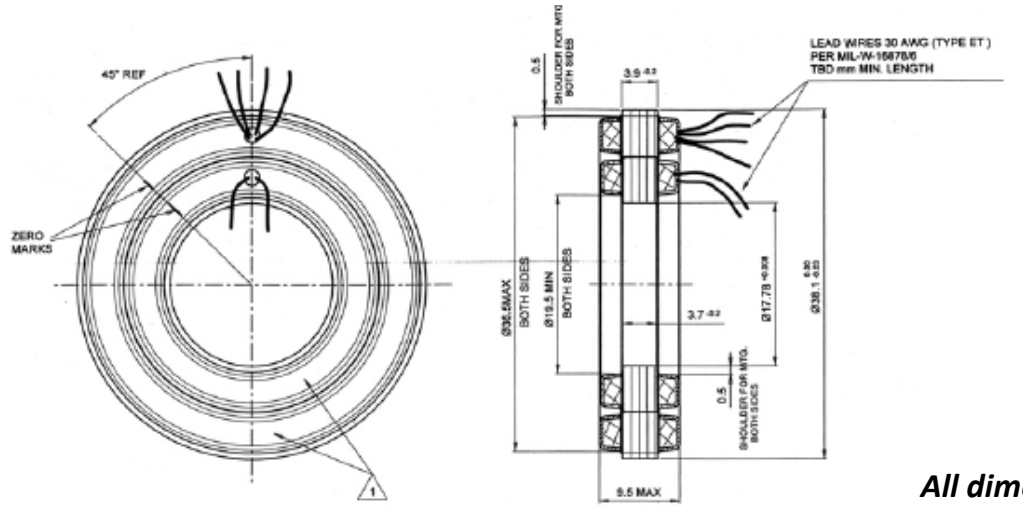
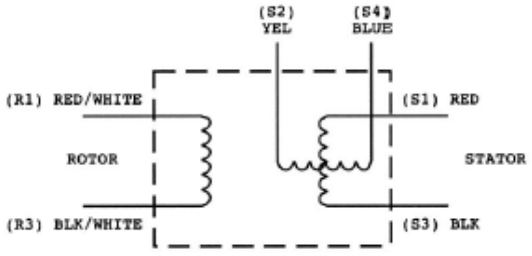
EMR-9814 *(continued)*

Drawing



All dimensions are in mm

Wiring Diagram



Phase Equation

$E(S1S3) = TR \cdot [\, E(R1R3) \cdot \cos(8 \cdot \theta) \,]$
$E(S2S4) = TR \cdot [\, E(R1R3) \cdot \sin(8 \cdot \theta) \,]$
where:
TR – transformation ratio
θ – measured angle, deg.

Direction of Rotation

θ is positive for a CWW rotation of the rotor as viewed from the rotor lead wires exit side.

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For Additional Information

To learn more about the MR-9814 Pancake Resolver or other MTC products, contact MTC on **+972 4 998 7772** or email **marketing@mtcind.com**