

## MR-9814

### Pancake Resolver

The **MR-9814** is a high accuracy Pancake Resolver, which was designed, developed and produced for military as well as high-end industrial applications (see examples below). The Pancake Resolver converts mechanical position into an electrical signal. It can also, if combined with a servo-amplifier and an electro-mechanical or hydraulic drive, translate electrical signals into angular position.

#### 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



## Specifications

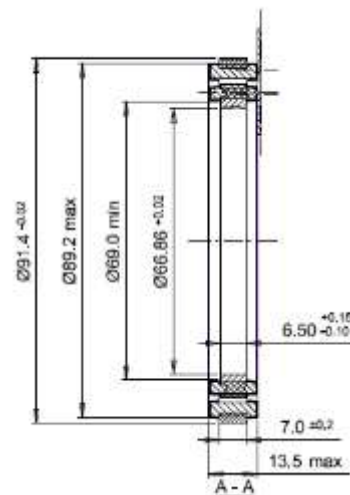
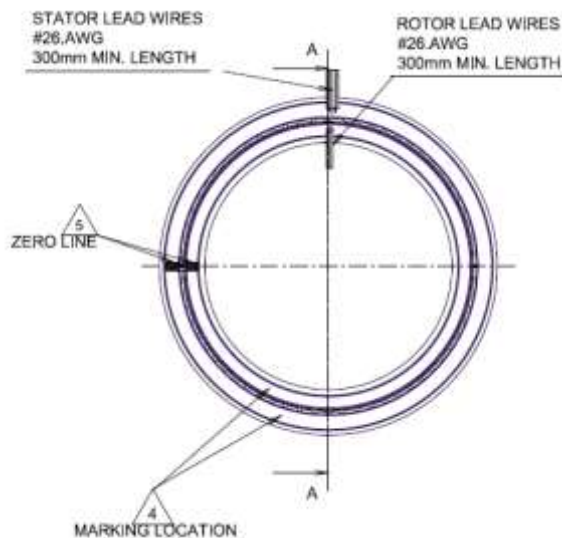
Parameters	Units	Values	Tolerances
Input voltage (Rotor primary)	V	4.4	± 5%
Frequency	kHz	2.5	± 1.5%
Angular range	deg.	360°	-
Transformation ratio	-	0.55	±6%
Phase shift	deg.	30	max
Null voltage	mV	15	max
Accuracy	arc·min	12	Peak to Peak
Primary current	mA	70	max
Resolver speed	-	x1	-
Weight	gr.	185	max
Temperature Range	C°	-60 to 120	-



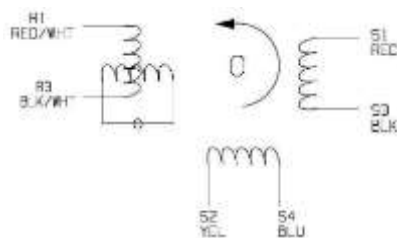
## MR-9814 (continued)

## Resolvers - Pancake Type

### Drawing



All dimensions are in mm



### Wiring Diagram

$$E_{S1-S3} = K E_{R1-R3} \cos \theta$$

$$E_{S2-S4} = K E_{R1-R4} \sin \theta$$

### Phase Equation

Where K – transformation ratio,  $\theta$  – measured angle, deg.

### Direction of Rotation

$\theta$  is positive for a CW rotation of the rotor as viewed from the rotor lead wires exit side.

### 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](mailto:marketing@mtcind.com)

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