

MR-3408

Pancake Resolver

The **MR-3408** 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 measured.



Specifications

Parameters	Units	Values	Tolerances
Input voltage (Stator primary)	V	4.4	± 5%
Frequency	kHz	2.5	± 10%
Angular range	deg.	360°	-
Transformation ratio	-	0.454	±6%
Phase shift	deg.	30	max
Null voltage	mV	15	max
Accuracy	arc-min	±3	-
Primary current	mA	70	max
Resolver speed	-	x1	-
Weight	gr.	25	max

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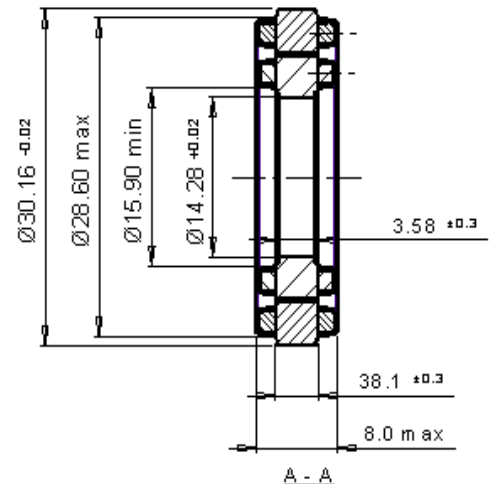
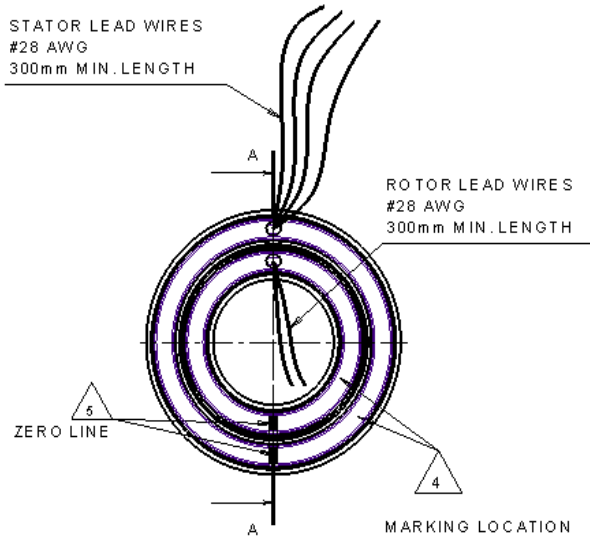
PO Box 232, Karmiel 2161102, Israel

Tel: +972 4 998 7772

www.mtcind.com

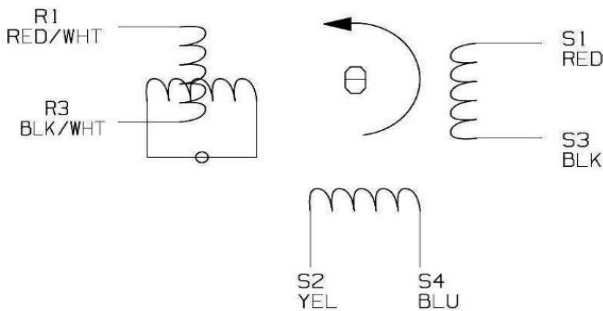
MR-3408 (continued)

Drawing



All dimensions are in mm

Wiring Diagram



Phase Equation

PHASE EQUATION

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

$$E_{S2-S4} = K E_{R1-R3} \sin \theta$$

Where K – transformation ratio, θ measured angle, deg.

Direction of Rotation

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

For Additional Information

To learn more about the MR-3408 Pancake Resolver or other MTC products, contact MTC on +972 4 998 7772 or email marketing@mtcind.com