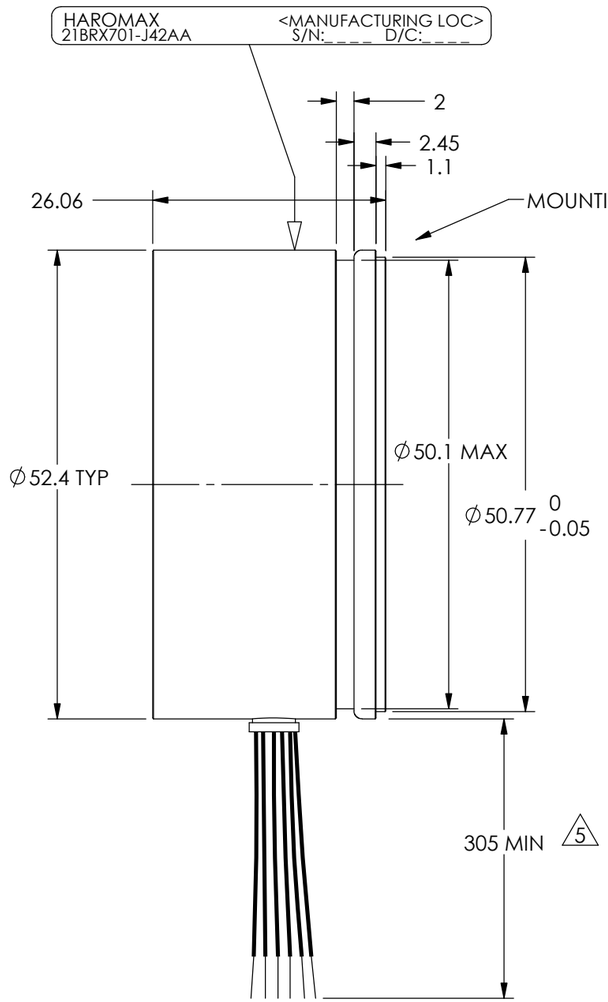
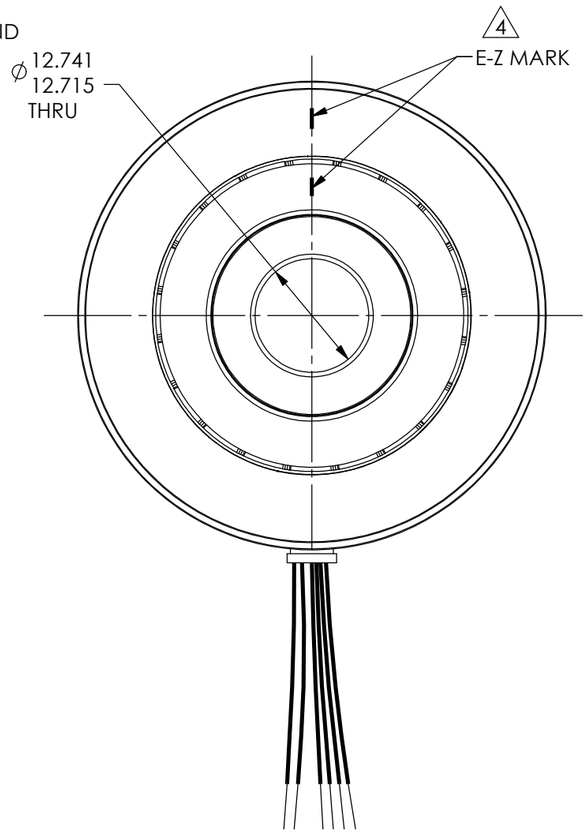
MODEL NUMBER
21BRX701-J42AA

REVISIONS					
ISSUE	ECN	DESCRIPTION	DATE	BY	CHECKED
1	-	NEW DRAWING	3/4/2010	SEW	
2	100070	PROTOTYPE RELEASE	2/8/2012	TSM	MCP





NOTES:

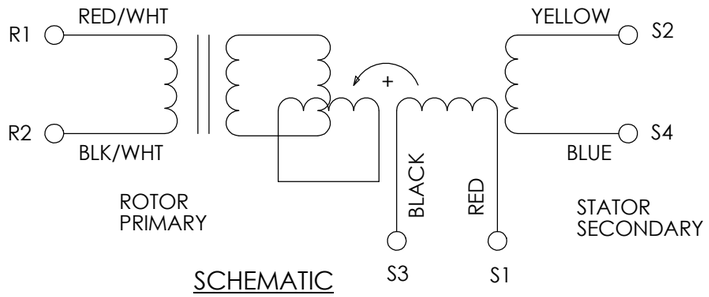
1. ROTOR AND STATOR ARE A MATCHED PAIR. DO NOT INTERCHANGE ROTOR OR STATOR BETWEEN RESOLVERS.
2. CUSTOMER MUST MAINTAIN SHAFT RUNOUT WITH RESPECT TO DATUM 'A' WITHIN .003 T.I.R.
3. ROTOR FACE AND HOUSING FACE TO BE MOUNTED FLUSH ±.005
4. ELECTRICAL ZERO MARKED ON ROTOR & STATOR WITH PAINT. STATOR MARK TO BE LOCATED 180°±10° FROM LEADWIRE EXIT AS SHOWN.
5. LEAD WIRES: #28 AWG (ET) LEADS TO DIMENSION SHOWN AND STRIPPED 4
6. THIS UNIT IS RoHS COMPLIANT.

ELECTRICAL & MECHANICAL DATA AT 25°C		
VALUES ARE REFERENCE UNLESS OTHERWISE TOLERANCED HIPOT TESTING PERFORMED AT 60HZ, 4 SECOND DURATION		
ELEC CYC / MECH CYC	deg/deg	1
EXCITATION FREQUENCY	±1% kHz	10
INPUT VOLTAGE	±5% Vrms	7
INPUT CURRENT	Max. mArms	40
INPUT POWER	Watts	0.2
IMPEDANCE |ZRO|	Ohms	242
IMPEDANCE |ZRS|	Ohms	214
IMPEDANCE |ZSO|	Ohms	638
IMPEDANCE |ZSS|	Ohms	571
TRANSFORMATION RATIO	±10%	0.5
DC RESISTANCE (R1-R2)	Ohms	75
DC RESISTANCE (S1-S3, S2-S4)	Ohms	120
PK-PK POSITION ERROR	Max. arcminutes	20
PK-PK VELOCITY ERROR	Max. %	2.0
PHASE SHIFT, OPEN CIRCUIT	degrees	-5
NULL VOLTAGE	Max. mVrms	30
HIPOT, LEADS TO CASE, 500VAC	Max. mArms	2
HIPOT, INTERPHASE, 250VAC	Max. mArms	2
TEMPERATURE RANGE	°C	-55 TO 155
WEIGHT	g	200
CONTINUOUS SPEED	Max. kRPM	20

PHASING EQUATION

INCREASING ANGLE
FOR CW ROTATION OF ROTOR
FACING MOUNTING END

$E\ (S1\text{-}S3) = KE\ (R1\text{-}R2)\ \sin\phi$
$E\ (S2\text{-}S4) = KE\ (R1\text{-}R2)\ \cos\phi$



SCHEMATIC

METRIC DRAWING

THIRD ANGLE PROJECTION

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF HAROWE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF HAROWE IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SHARP EDGES BROKEN .125/.255
INSIDE CORNERS R .38 MAX

APPROVALS	DATE
DRAWN SEW	03/04/10
CHECKED MCP	02/08/12
DES ENG SEW	03/04/10

INTERPRETATION PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED:
TOLERANCES:
- DIMENSION ±0.1
- ANGLE ±0.5
- CHAMFER ±10°

Harowe

OUTLINE & PERFORMANCE SPECIFICATION

RESOLVER BRUSHLESS FRAMELESS

SIZE B | DWG. NO. 21BRX701-J42AA

SCALE 1.5:1 | SHEET 1 OF 3 | CODE IDENT: 58655