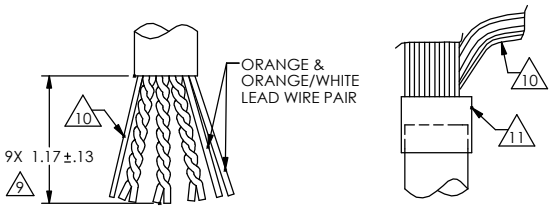
| REVISIONS | | | | | |
|---|---|---|---|---|---|
| REV | ECN | DESCRIPTION | DATE | BY | CHECKED |
| - | - | NEW DRAWING | 8/11/2010 | SEW | |
| A | 30679 | CHANGE APPEARANCE OF CABLE SHEILDING | 8/24/2010 | SEW | |
| B | 100152 | SEE ECO | 10/17/2013 | DRW | MCP |

NOTES:

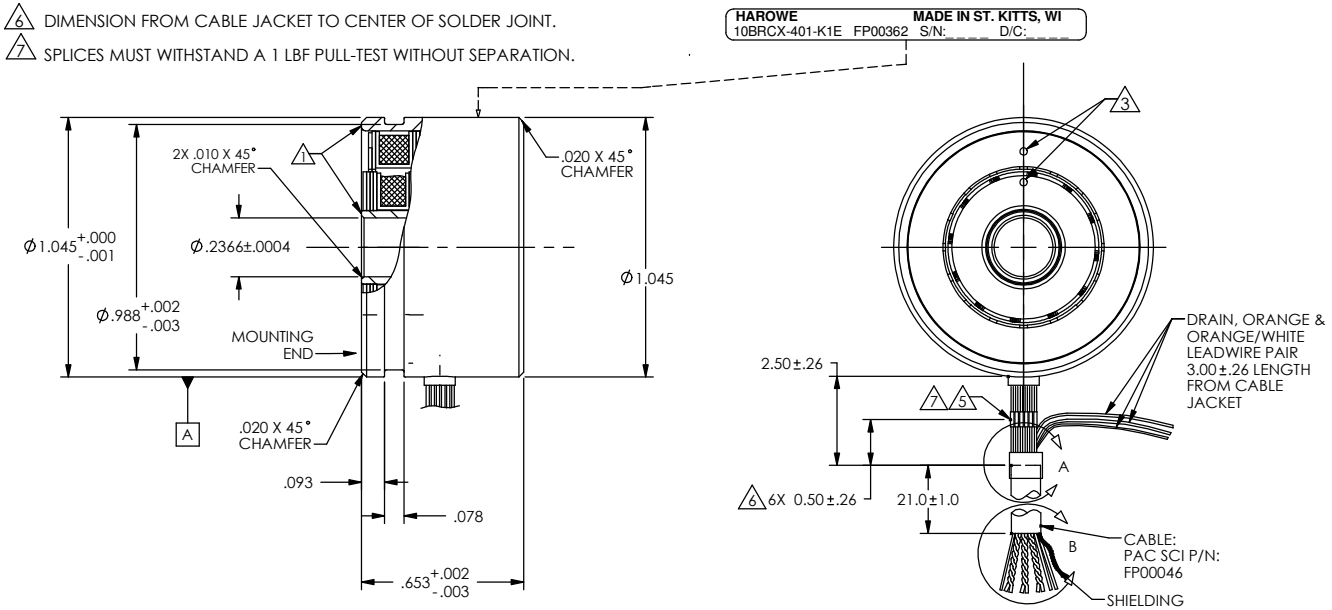
1. NOTED SURFACES MUST BE MOUNTED FLUSH ±.005.
2. CUSTOMER MUST MAINTAIN SHAFT RUNOUT WITH RESPECT TO DATUM A WITHIN .003 T.I.R.
3. ELECTRICAL ZERO TO BE MARKED ON ROTOR & STATOR. STATOR MARK TO BE LOCATED 180±10° FROM LEADWIRE EXIT AS SHOWN.
4. ROTOR & STATOR ARE A MATCHED PAIR. DO NOT INTERCHANGE ROTOR OR STATOR BETWEEN RESOLVERS.
5. SPLICE BETWEEN RESOLVER LEADS TO CABLE LEADS COMPLETELY INSULATED WITH SHRINK TUBING. TUBING .59 MAX.LENGTH. TUBING MUST BE RATED FOR 130°C MINIMUM.
6. DIMENSION FROM CABLE JACKET TO CENTER OF SOLDER JOINT.
7. SPLICES MUST WITHSTAND A 1 LBF PULL-TEST WITHOUT SEPARATION.
9. OUTER JACKET TO BE REMOVED TO DIMENSION SHOWN.
10. DRAIN WIRE INSULATED WITH BLACK SHRINK TUBING RATED AT 85°C MINIMUM.
11. .19 ±.10 SHRINK TUBING WITH A WALL THICKNESS OF .010 RATED AT 130°C MINIMUM CENTERED OVER END OF JACKET.




DETAIL 'B'
SCALE: NONE

DETAIL 'A'
SCALE: NONE

SHIELDING OMITTED FOR CLARITY

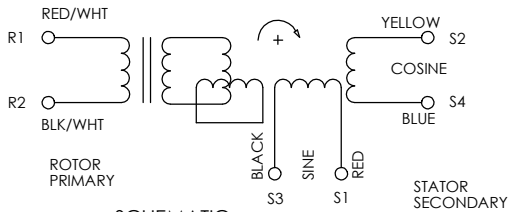



| ELECTRICAL & MECHANICAL DATA AT 25°C | | |
|---|---|---|
| VALUES ARE REFERENCE UNLESS OTHERWISE TOLERANCED<br>HIPOT TESTING PERFORMED AT 60HZ, 4 SECOND DURATION | | |
| ELEC CYC / MECH CYC | deg/deg | 1 |
| EXCITATION FREQUENCY | ±5% kHz | 10 |
| INPUT VOLTAGE | ±10% Vrms | 7.0 |
| INPUT CURRENT | Max. mArms | 30 |
| INPUT POWER | Watts | .07 |
| IMPEDANCE ZRO | Ohms | 276 |
| IMPEDANCE ZRS | Ohms | 251 |
| IMPEDANCE ZSO | Ohms | 687 |
| IMPEDANCE ZSS | Ohms | 625 |
| TRANSFORMATION RATIO | ±10% | 0.5 |
| DC RESISTANCE (R1-R2) | ±15% Ohms | 28 |
| DC RESISTANCE (S1-S3, S2-S4) | ±15% Ohms | 91 |
| STATOR RESISTANCE BALANCE | Max. Ohms | 3 |
| PK-PK POSITION ERROR | Max. arcminutes | 30 |
| PK-PK VELOCITY ERROR | Max. % | - |
| PHASE SHIFT, OPEN CIRCUIT | degrees | -9 |
| NULL VOLTAGE | Max. mVrms | 50 |
| HIPOT, LEADS TO CASE, 500VAC | Max. mArms | 10 |
| HIPOT, INTERPHASE, 250VAC | Max. mArms | 10 |
| TEMPERATURE RANGE | °C | -55 TO 155 |
| ROTOR MOMENT OF INERTIA | lbf-in-sec$^2$ | 2.16 X 10$^{-6}$ |
| WEIGHT | oz | 1.8 |
| 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

THIRD ANGLE PROJECTION



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIAMETERS CONCENTRIC .003 TIR FACES PERPENDICULAR - .003 INTERPRETATION PER ASME Y14.5M-1994
63 MACHINE SURFACES
FRACTIONS ±1/64 DECIMALS .00 ±.01 .000 ±.005 ANGLES ±30'
HEAT TREAT -
FINISH -

REMOVE ALL BURRS AND BREAK SHARP EDGES - .005/.010 ALL INSIDE CORNERS TO BE .015 R MAX UNLESS OTHERWISE SPECIFIED

| APPROVALS | DATE |
|---|---|
| DRAWN SEW | 8/11/10 |
| CHECKED | |
| DES ENG SEW | 8/11/10 |
| MFG ENG - | - |
| QUAL ENG - | - |

Harowe

OUTLINE & PERFORMANCE SPECIFICATION

RESOLVER BRUSHLESS FRAMELESS

SIZE B | DWG. NO. 10BRCX-401-K1E

SCALE 2 : 1 | SHEET 1 OF 2 | CODE IDENT: 58655

# Mouser Electronics

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