1-1414305-0
Rev. A
25 June 2015

# DATA SHEET - HOLLOW SHAFT RESOLVER

| | | | | |
|---|---|---|---|---|
| **PN** | 1-1414305-0 | | | |
| **Description:** | V23401 | | S1401-C610 | |
| **Size** | 15 | | | |
| **Shaft** | C6 | | | |
| **Speed - pair of poles - [pp]** | 1 | | | |
| **Application Spec** | | | | |
| **Test protocol** | 100% EOL testing, stored. Available up on request | | | |
| **Electrical parameters (at 22°C):** | | | | |
| Input voltage nom. [Vrms] | 7.0 | | DC resistance R1R2 [Ω] | 82 |
| Frequency nom. [kHz] | 10.0 | | R1R2 tolerance [±%] | 10 |
| Input current max [mA] | 40 | Based on nominal Input voltage and Frequency | DC resistance S1S3 or S2S4 [Ω] | 68 |
| Transformation ratio rT [±] | 0.50 | | S1S3 or S2S4 tolerance [±%] | 10 |
| Transf. ratio tolerance [%] | 4 | | | |
| Phase shift min [º] | -2 | | | |
| Phase shift max [º] | 8 | | | |
| Angular Error max ['] | 12 | | | |
| Residual voltage max [mV] | 25 | | | |
| Connect. Wire Lenght [mm] | 255, AWG 26 Teflon Isolated | | | |

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| **High Voltage test** | Voltage: 500 $V_{AC}$ ± 3% (A) | Measured between: |
| | 250 $V_{AC}$ ± 3% (B) | A: Winding R1-R2 and housing |
| | Time: 1s | Winding S1-S3 and housing |
| | | Winding S2-S4 and housing |
| **Isolation test** | Voltage: 500 $V_{DC}$ ± 5% (A, B) | B: Windings S1-S3 and S2-S4 |
| | Criterium: $R_{isol.} > 50M\ Ohm$ | |

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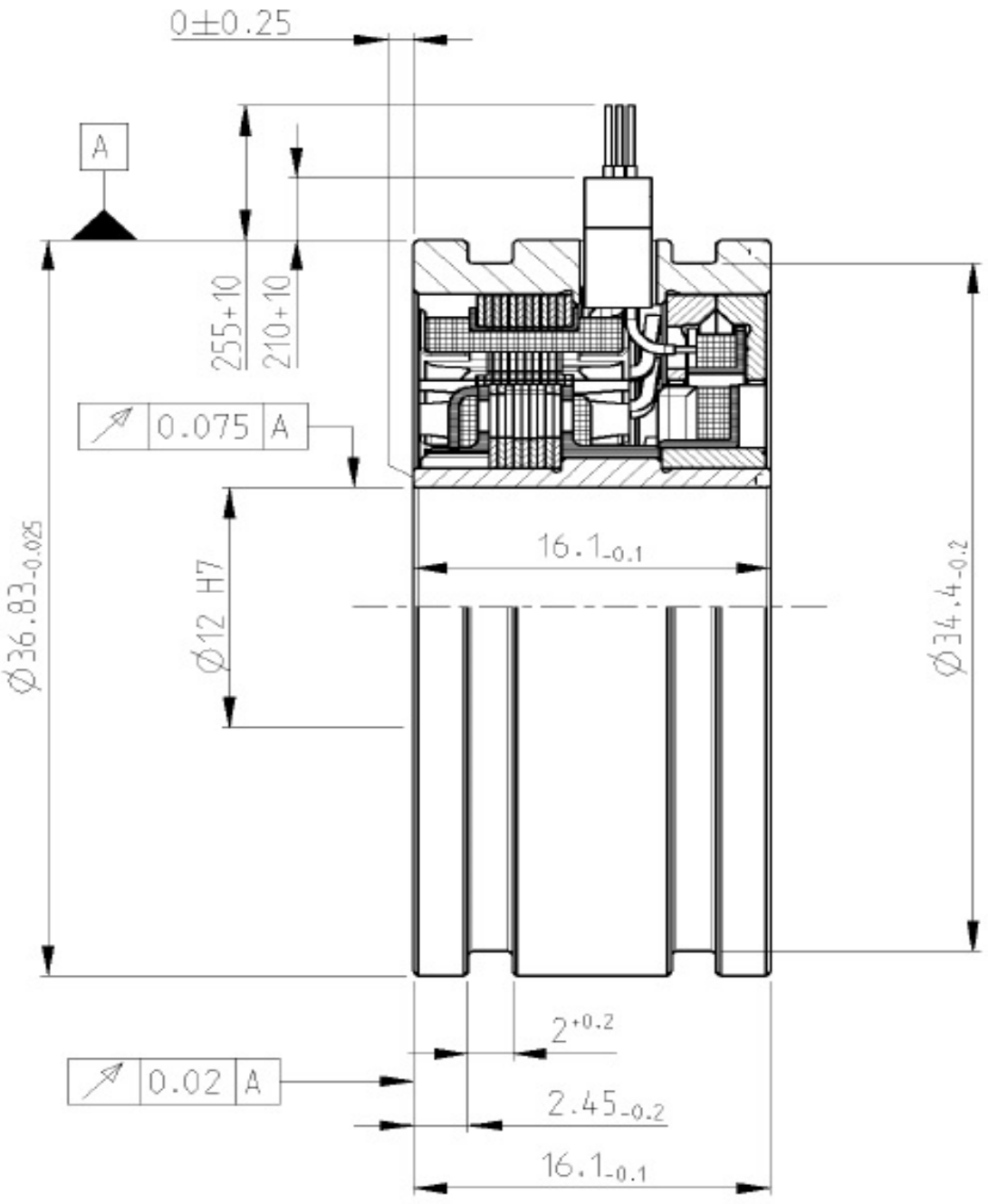
| **"Zero" setting:** | Ele. "0" is when Winding Us2-s4 = 0 and Us1-s3 are in phase with Ur1-r2 |
| **Transformation function** | Function applies to the clockwise rotation of the rotor when looking at the (grooveless) transformer componnent from the top |
| | $U_{S1-S3} = +\mathrm{rT} * U_{R1-R2} * \cos(pp * \varphi)$ |
| | $U_{S2-S4} = +\mathrm{rT} * U_{R1-R2} * sin(pp * \varphi)$ |
| **Rotor Inertia** | approx. $20\ g/cm^2$ |
| **Max. Rotational Speed** | 20.000 rpm |
| **Shock resistance (11ms sine)** | 1000 m/s2 |
| **Vibration (0 … 2 kHz)** | 200 m/s2 |
| **Operating temp.** | -55°C…+150°C |
| | |



| Indicates Change

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| 2015-06-25 | A | P. Lerchenfeld | D. Ondrej | 1 |