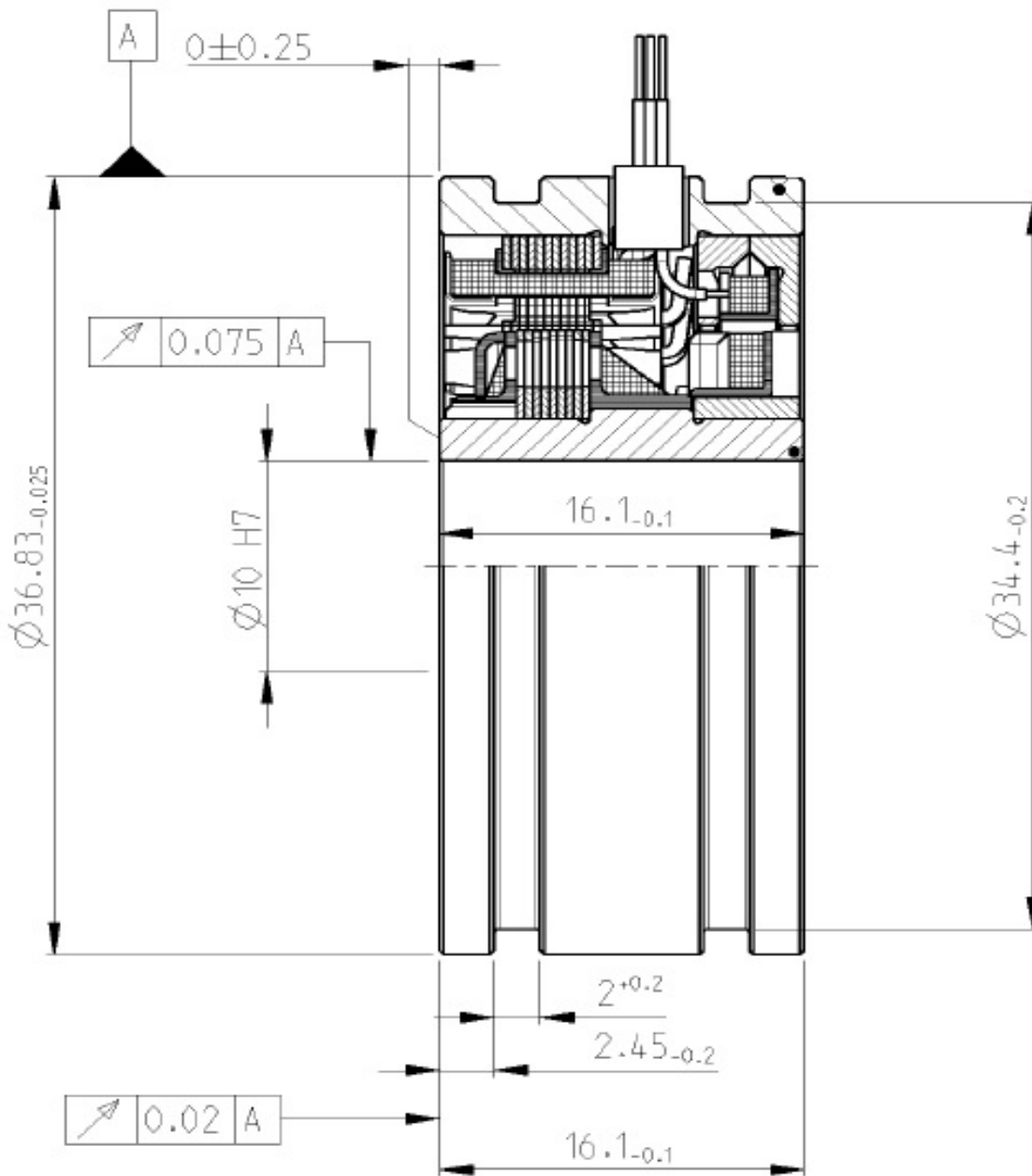




DATA SHEET - HOLLOW SHAFT RESOLVER

| | | | | |
|---|---|--|--------------------------------|-----|
| PN | 1-1414371-0 | | | |
| Description: | V23401 | | D1001-B901 | |
| Size | 15 | | | |
| Shaft inner diameter [mm] | 10 H7 | | | |
| 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. [V _{rms}] | 7 | possible 2V...10V | DC resistance R1R2 [Ω] | 48 |
| Frequency nom. [kHz] | 10 | pos, 4kHz...20kHz | R1R2 tolerance [±Ω] | 4,8 |
| Input current max [mA] | 40 | Based on nominal Input voltage and Frequency | DC resistance S1S3 or S2S4 [Ω] | 68 |
| Transformation ratio rT [±] | 0,5 | | S1S3 or S2S4 tolerance [±Ω] | 6,8 |
| Transf. ratio tolerance [%] | 5 | | | |
| Phase shift min [°] | -5 | | | |
| Phase shift max [°] | 5 | | | |
| Angular Error [±] | 10 | | | |
| Residual voltage max [mV] | 25 | | | |
| Connect. Wire Length [mm] | 300, AWG 26 Teflon Isolated | | | |
| High Voltage test | Voltage: 500 | $V_{AC} \pm 3\%$ (A) | Measured between: | |
| | 250 | $V_{AC} \pm 3\%$ (B) | A: Winding R1-R2 and housing | |
| | Time: 1s | | Winding S1-S3 and housing | |
| Isolation test | Voltage: 500 | $V_{DC} \pm 5\%$ (A, B) | B: Windings S1-S3 and S2-S4 | |
| | Criterion: | $R_{isol.} > 50M\ Ohm$ | | |
| "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 component from the top | | | |
| | $U_{S1-S3} = +rT * U_{R1-R2} * \cos(pp * \varphi)$ | | | |
| | $U_{S2-S4} = +rT * U_{R1-R2} * \sin(pp * \varphi)$ | | | |
| Rotor Inertia | approx. $20\ g/cm^2$ | | | |
| Max. Rotational Speed | 20.000 rpm | | | |
| Shock resistance (11ms sine) | 1.000 m/s ² | | | |
| Vibration (0 ... 2 kHz) | 200 m/s ² | | | |
| Operating temp. | -55°C...+150°C | | | |



| DATE | PN REV. | DWN | APP | DS. REV |
|------------|---------|----------------|-----------|---------|
| 2015-06-25 | B | P. Lerchenfeld | D. Ondrej | 1 |
| 2017-04-26 | B | P. Lerchenfeld | D. Ondrej | 2 |