



6-1393048-1

Rev. A

26 April 2017

DATA SHEET - HOLLOW SHAFT RESOLVER

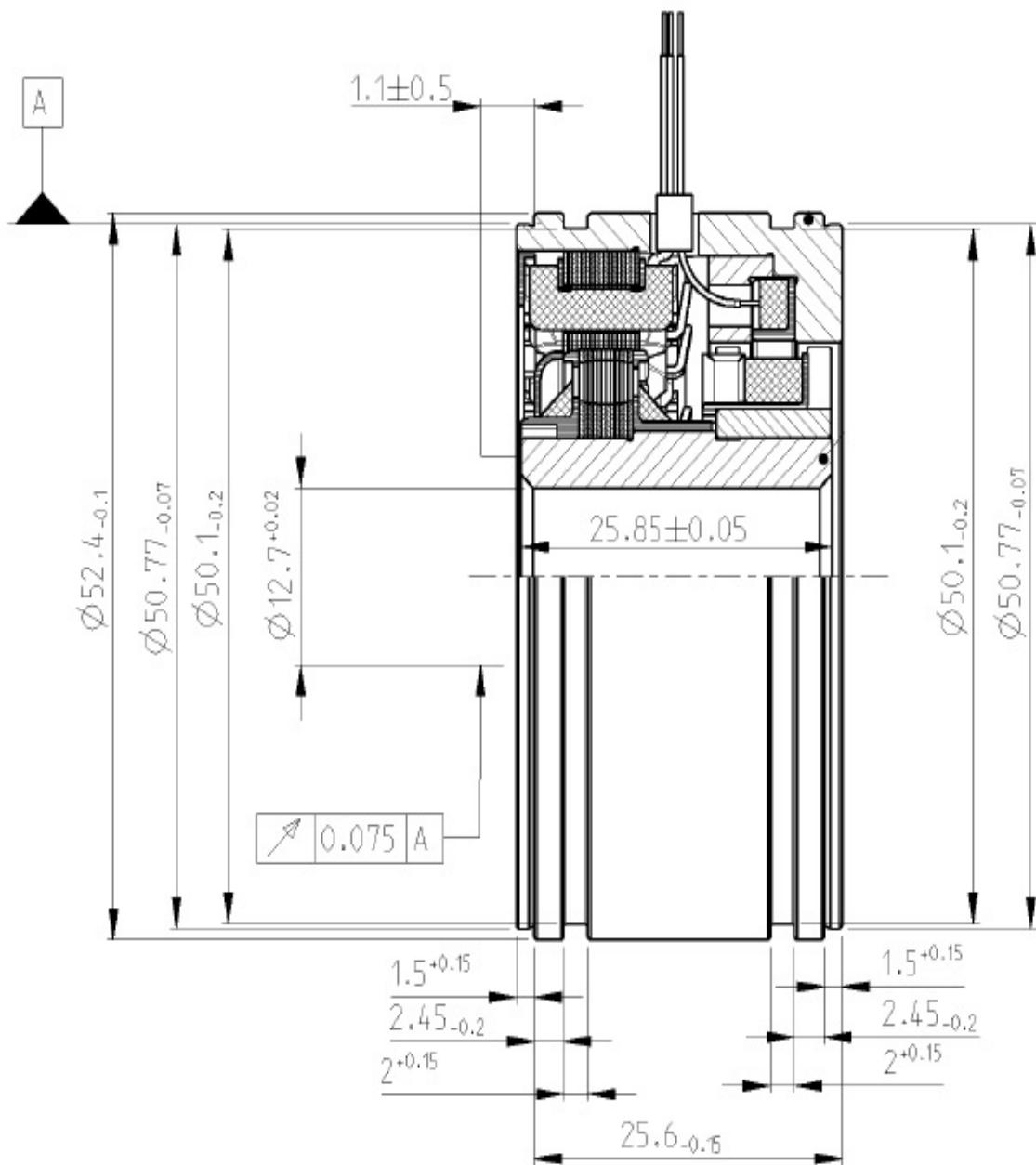
PN	6-1393048-1				
Description:	V23401	U1016-B110			
Size	21				
Shaft inner diameter [mm]	12,7				
Speed - pair of poles - [pp]	1				
Application Spec					
Test protocol	100% EOL testing, stored. Available up on request				
Electrical parameters (at 22°C):					
Input voltage nom. [Vrms]	4	possible 2V...20V	DC resistance R1R2 [Ω]		
Frequency nom. [kHz]	5	pos, 2kHz...10kHz	R1R2 tolerance [±Ω]		
Input current max [mA]	20	Based on nominal Input voltage and Frequency	DC resistance S1S3 or S2S4 [Ω]		
Transformation ratio rT [±]	0,5		S1S3 or S2S4 tolerance [±Ω]		
Transf. ratio tolerance [%]	5				
Phase shift min [°]	-7				
Phase shift max [°]	3				
Angular Error [±']	6				
Residual voltage max [mV]	15				
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 Winding S2-S4 and housing		
Isolation test	Voltage: 500	$V_{DC} \pm 5\%$ (A, B)	B: Windings S1-S3 and S2-S4		
	Criterium:	$R_{isol.} > 50M\text{ Ohm}$			
"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/s2				
Vibration (0 ... 2 kHz)	200 m/s2				
Operating temp.	-55°C...+150°C				

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<u>DATE</u>	<u>PN REV.</u>	<u>DWN</u>	<u>APP</u>	<u>DS. REV</u>
2015-06-25	A	P. Lerchenfeld	D. Ondrej	1
2017-04-26	A	P. Lerchenfeld	D. Ondrej	2