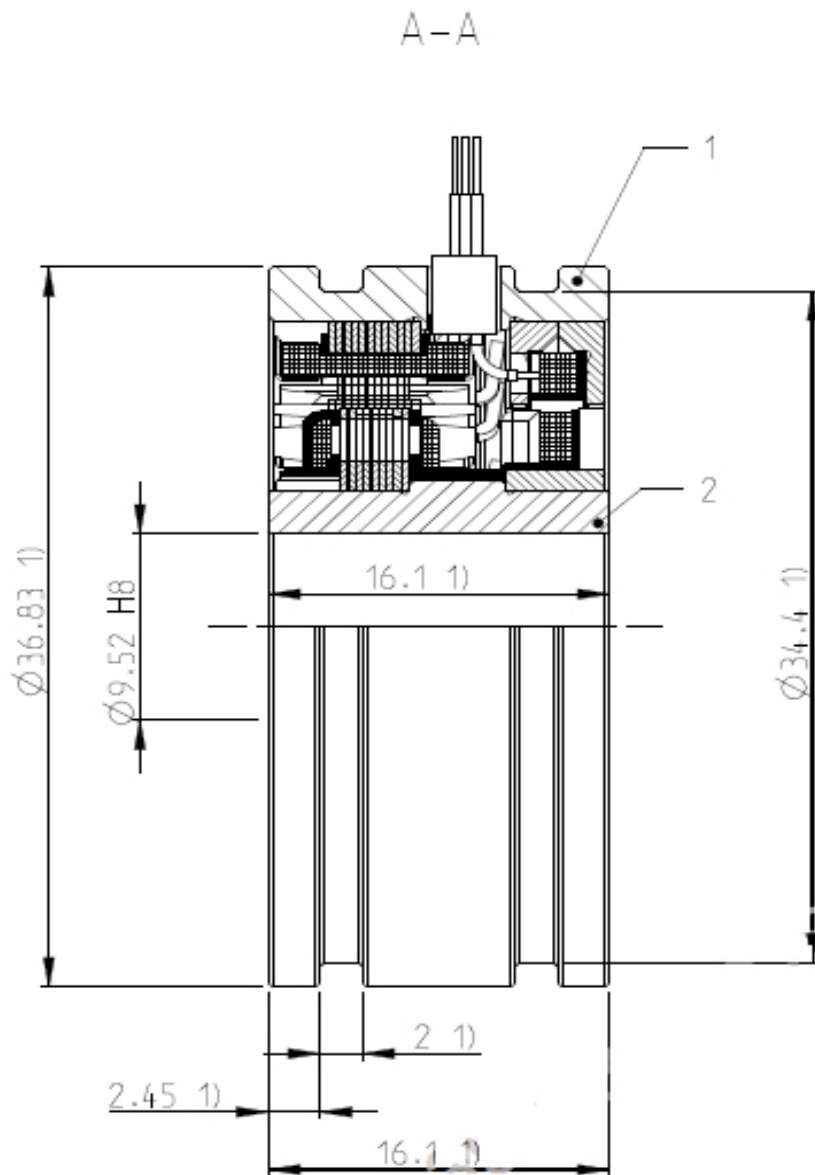




## DATA SHEET - HOLLOW SHAFT RESOLVER

<b>PN</b>	1-1414631-0			
<b>Description:</b>	V23401-	S1001-B101		
<b>Size</b>	15			
<b>Shaft</b>	B1			
<b>Speed (pair of poles) [p]</b>	1			
<b>Number of poles</b>	2			
<b>Application Spec</b>				
<b>Test protocol</b>	Results saved to manufacturing site archives. Available by request			
<b>Electrical parameters:</b>				
Input voltage [V]	7.0	Based on specified Input voltage and Frequency	Input resistance R1R2 [ $\Omega$ ]	82
Frequency Typical [kHz]	10.0		R1R2 tolerance [%]	$\pm 10$
Input current max [mA]	40		Input resistance S1S3 or S2S4 [ $\Omega$ ]	68
Transformation ratio (rT)	0.50		S1S3 or S2S4 tolerance [%]	$\pm 10$
Transf. ratio tolerance [%]	$\pm 5$			
Phase shift min [ $^\circ$ ]	-2			
Phase shift max [ $^\circ$ ]	8			
Electrical Angular Error max [ $^\circ$ ]	20			
Residual voltage max [mV]	25			
<b>High Voltage test</b>				
	Voltage: 500V <sub>AC</sub> (A)		Measured between: A: Winding R1-R2 and housing Winding S1-S3 and housing Winding S2-S4 and housing	
	250V <sub>AC</sub> (B)			
	Time: 1s			
<b>Isolation test</b>				
	Voltage: 500V <sub>DC</sub> (A, B)		B: Windings S1-S3 and S2-S4	
	Criterion: R <sub>isol.</sub> > 50M $\Omega$			
<b>"Zero" setting:</b>				
	Electrical "0" is when Coils V <sub>S2-S4</sub> = 0 and V <sub>S1-S3</sub> are in phase with V <sub>R1-R2</sub>			
<b>Transfer function</b>				
	Looking at Transformation part and turning Rotor clockwise			
	$V_{S1-S3} = +rT * V_{R1-R2} * \cos(p*\alpha)$			
	$V_{S2-S4} = +rT * V_{R1-R2} * \sin(p*\alpha)$			
<b>Rotor Inertia</b>	approx. 20g.cm <sup>2</sup>			
<b>Max. Rotational Speed</b>	20,000 rpm			
<b>Shock resistance (11ms sine)</b>	1000 m/s <sup>2</sup>			
<b>Vibration</b>	200 m/s <sup>2</sup>			
<b>Operating temp.</b>	-55°C...+150°C			



<u>DATE</u>	<u>PN.</u> <u>REV.</u>	<u>DWN</u>	<u>APP</u>	<u>DS.</u> <u>REV.</u>
05/06/2018	D	H.Bernardo	D.Ondrej	A