DATA SHEET - HOLLOW SHAFT RESOLVER

PN		8-1419158-3		
Description:		V23401	U2117-E133	
Size	21			
Shaft inner diameter [mm]	12			
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]	5		DC resistance R1R2 [Ω]	36
Frequency nom. [kHz]	4		R1R2 tolerance [±Ω]	3,6
Input current max [mA]	40		DC resistance S1S3 or S2S4 [Ω]	58
Transformation ratio rT [±]	0,5	Based on nominal Input voltage and Frequency	S1S3 or S2S4 tolerance [±Ω]	5,8
Transf. ratio tolerance [%]	10			
Phase shift min [º]	-5			
Phase shift max [º]	5			
Angular Error [±']	4			
Residual voltage max [mV]	18			
Connect. Wire Lenght [mm]		122, 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: $R_{isol.} > 50M\ Ohm$		
"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 componnent 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		
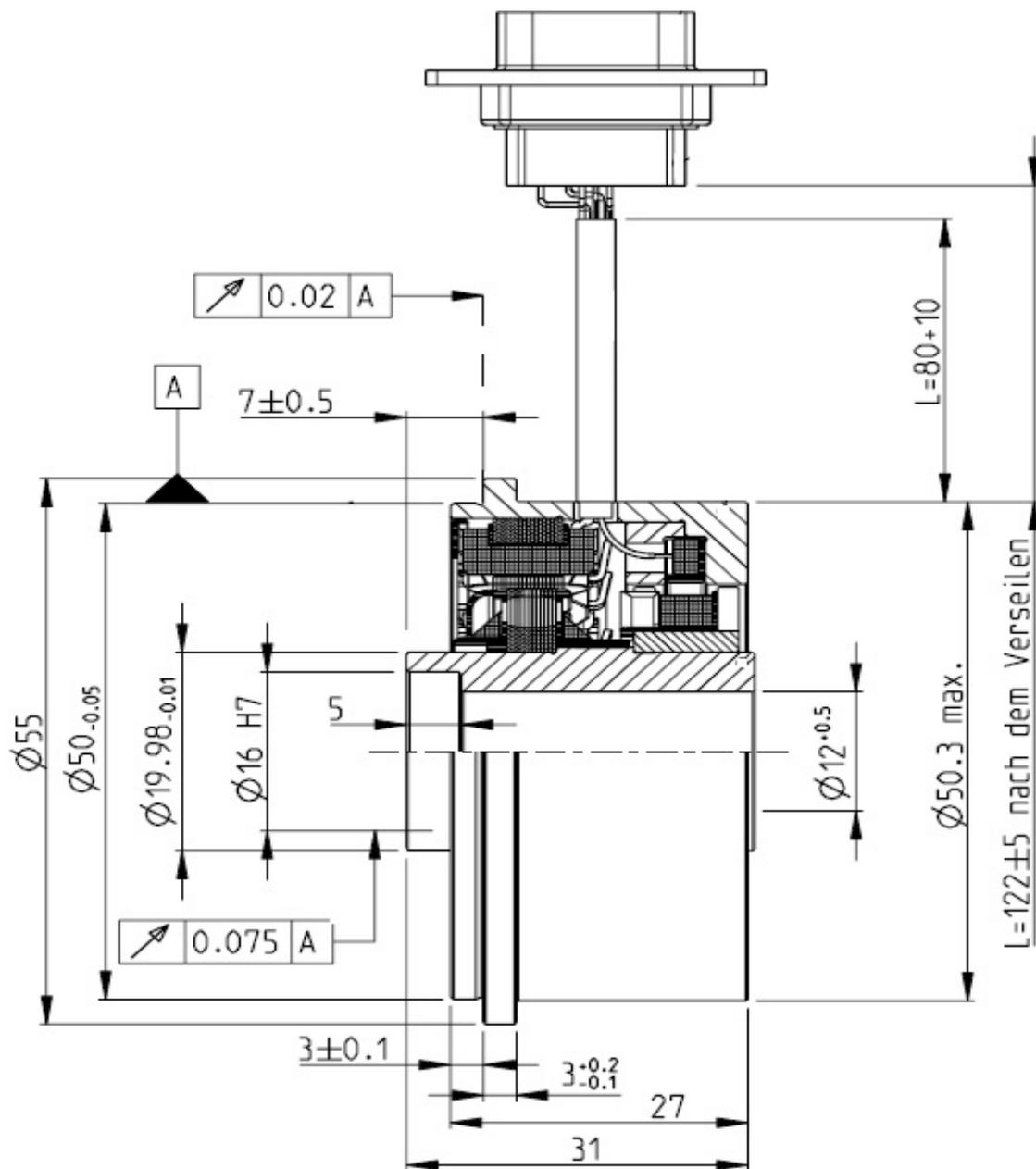
DATE	PN REV.	DWN	APP	DS. REV
2015-06-25	B	P. Lerchenfeld	D. Ondrej	1
2017-04-26	B	P. Lerchenfeld	D. Ondrej	2