

DATA SHEET - HOLLOW SHAFT RESOLVER

PN		6-	-1393048-5		
Description:	V23401		U7018-B709		
Size	21		•		
Shaft inner diameter [mm]	17 F7				
Speed - pair of poles - [pp]	1				
Application Spec					
Test protocol		100% EOL testing, st	ored. Available up on request		
Electrical parameters (at 22°C)	:				
Input voltage nom. [Vrms]	3,6		DC resistance R1R2 [Ω]	53	
Frequency nom. [kHz]	7,8		R1R2 tolerance [±Ω]	7,95	
Input current max [mA]	28		DC resistance S1S3 or S2S4 [Ω]	58	
Transformation ratio rT [±]	0,5		S1S3 or S2S4 tolerance $[\pm \Omega]$	5,8	
Transf. ratio tolerance [%]	5	Based on nominal			
Phase shift min [º]	-13	Input voltage and			
Phase shift max [º]	-3	Frequency			
Angular Error [±']	8				
Residual voltage max [mV]	15				
Connect. Wire Lenght [mm]		300, AWG	6 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				
	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	1.000 m/s2				
(11ms sine)					
Vibration (0 2 kHz)	200 m/s2				
Operating temp.	-55°C+150°C				

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