# **Series ECS**

**Vishay Sfernice** 



COMPLIANT

### Precision Rotative Transducers, Conductive Plastic, Economic Series (ECS)



### FEATURES

- Size 09: (7/8") 22,2 mm
- Long life: 5 million cycles
- Bush or servo mounting types available
- Rear comolded terminals
- Cost effective solution for any industrial applications

Low cost industrial motion transducers, conductive plastic track.

SIZE	09				
MODEL	78 RS	78 RB	78 PS	78 PB	

ELECTRICAL SPECIFICATIONS						
Theoretical Electrical Angle (TEA)	(AEA) - 3°					
Independent Linearity (over TEA)	A $\leq$ ± 1 %, on request: B $\leq$ ± 0.5 % C $\leq$ ± 0.35 %	$A \le \pm 2 \%$				
Actual Electrical Angle (AEA)	340° ± 5°					
Ohmic Values (R <sub>T</sub> )	1 - 2 - 5 - 10 k $\Omega$ (on request other values)	1 - 2 - 5 - 10 kΩ				
Ohmic Value Tolerances at 20 °C	Standard: ± 20 %/special: ± 10 %	± 20 %				
Output Smoothness	0.1 %					
Maximum Power Rating at 70 °C	0.3 W					
Wiper Current	Recommended: a few µA - 1 mA max. (continuous)					
Tap (Current or Voltage)	1: On request	NA				
Resistance Load on Wiper	≥ 1000 x R <sub>T</sub>					
End Voltage	≤ 0.5 %DC					
Insulation Resistance	≥ 1000 MΩ, 500 V <sub>DC</sub>					
Dielectric Strength	≥ 500 V <sub>RMS</sub> , 50 Hz					

MECHANICAL SPECIFICATIONS							
Mechanical Angle (MA)	360° continuous						
On Request: Stops	$342^\circ \pm 5^\circ$						
Mounting Type	Servo	Bushing	Servo	Bushing			
Shaft Guiding	Sleeve bearings						
Shaft	Stainless steel						
Option: Flat or Screw Driver Slot On Shaft	On request		NA				
Termination	Turrets						
Wiper	Precious metal multi-finger contact						
Starting Torque (N.cm)	≤ 0.5						
Torque on Stops (N.cm)	≥20						
Weight (g)	Bushing 17 g ± 3 g Servo 12 g ± 3 g		2 g ± 3 g				

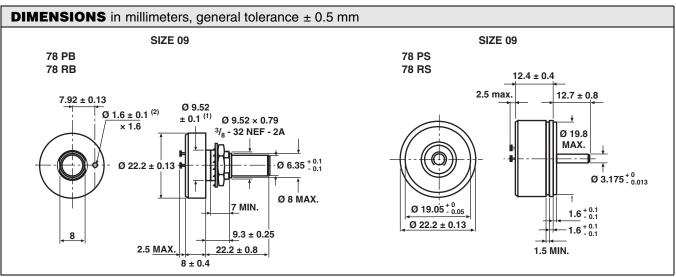
PERFORMANCE					
Life (10 <sup>6</sup> Cycles)	5				
Temperature Range	- 55 °C to + 125 °C				
Climatic Category	55/125/04				
Speed Rotation (RPM)	150				
Sine Vibration on 3 Axes	15 g from 10 Hz to 2000 Hz				
Mechanical Shocks on 3 Axes	50 g - 11 ms - half sine				



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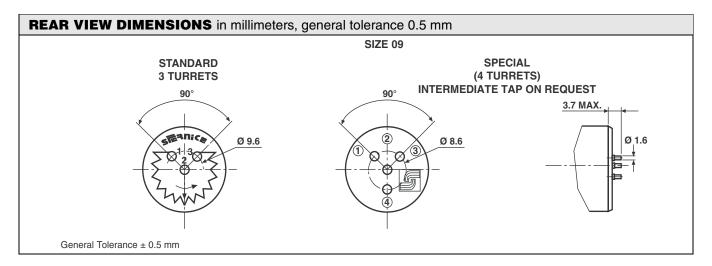
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#### Notes:

<sup>(1)</sup> On request: Ø 10.3 mm or 12.3 mm

<sup>(2)</sup> On request: without antirotation pin



ORDERING INFORMATION/DESCRIPTION								
ECS	78	Р	S	М	Α	т	103	e4
SERIES	MODEL	TYPE	FIXATION	MECHANICAL STOPS	LINEARITY	TAP	OHMIC VALUE	LEAD
		Р	S: Servo	On request	A: ± 1% or ± 2 %	On request	102: 1 kΩ	Finish
		R	B: Bushing	М	B: ± 0.5 %	T: Voltage	202: 2 kΩ	
					C: ± 0.35 %	U: Current	502: 5 kΩ	
						position to	103: 10 kΩ	
						be specified		

SAP PART NUMBERING GUIDELINES						
ECS	78RB	В	102			
SERIES	MODEL	LINEARITY	OHMIC VALUE			



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