

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)	$A \leq \pm 1 \%$, on request: $B \leq \pm 0.5 \%$ $C \leq \pm 0.35 \%$	$A \leq \pm 2 \%$
Actual Electrical Angle (AEA)	$340^\circ \pm 5^\circ$	
Ohmic Values (R_T)	1 - 2 - 5 - 10 k Ω (on request other values)	1 - 2 - 5 - 10 k Ω
Ohmic Value Tolerances at 20 °C	Standard: $\pm 20 \%$ /special: $\pm 10 \%$	$\pm 20 \%$
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	$\geq 1000 \times R_T$	
End Voltage	$\leq 0.5 \% DC$	
Insulation Resistance	$\geq 1000 M\Omega$, 500 V _{DC}	
Dielectric Strength	$\geq 500 V_{RMS}$, 50 Hz	

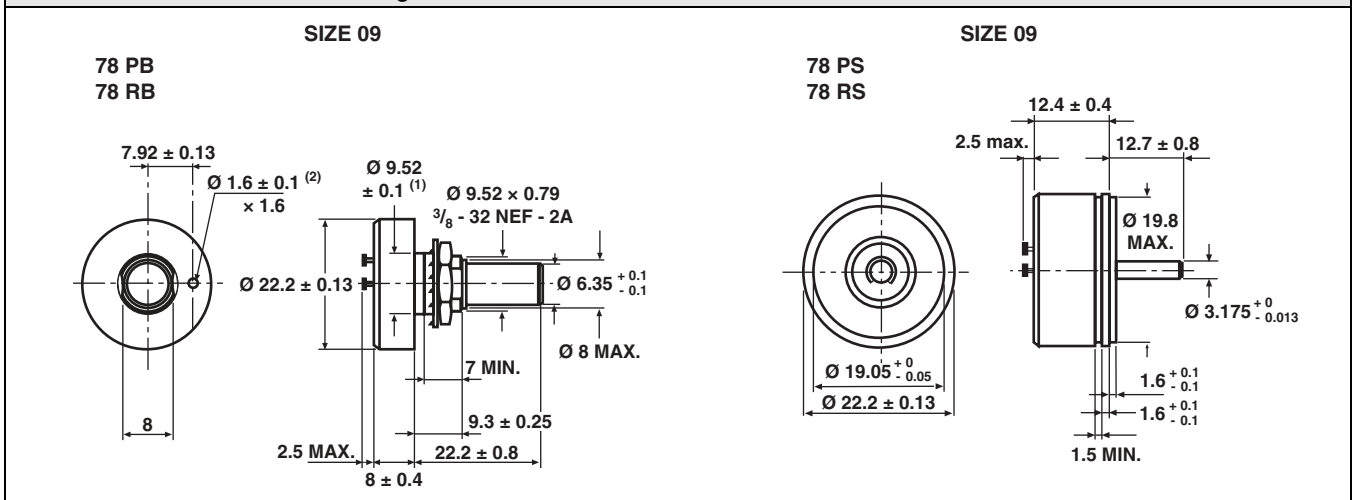
MECHANICAL SPECIFICATIONS

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 $\pm$ 3 g		Servo 12 g $\pm$ 3 g	

PERFORMANCE

Life (10 ⁶ 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

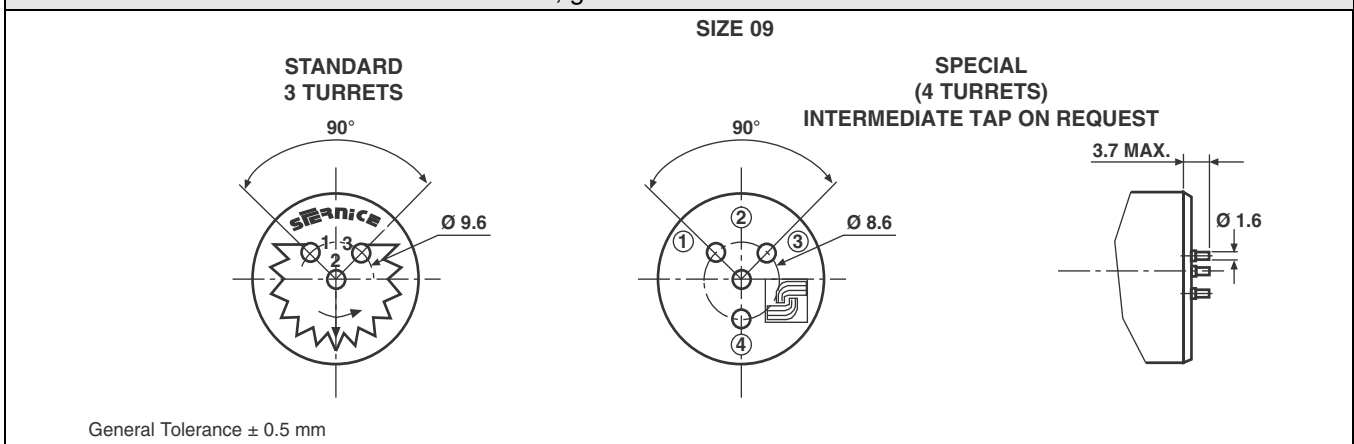
DIMENSIONS in millimeters, general tolerance ± 0.5 mm



Notes:

- (1) On request: $\varnothing 10.3$ mm or 12.3 mm
 (2) On request: without antirotation pin

REAR VIEW DIMENSIONS in millimeters, general tolerance 0.5 mm



ORDERING INFORMATION/DESCRIPTION

ECS	78	P	S	M	A	T	103	e4
SERIES	MODEL	TYPE	FIXATION	MECHANICAL STOPS	LINEARITY	TAP	OHMIC VALUE	LEAD
		P	S: Servo	On request	A: $\pm 1\%$ or $\pm 2\%$	On request	102: 1 k Ω	Finish
		R	B: Bushing	M	B: $\pm 0.5\%$	T: Voltage	202: 2 k Ω	
					C: $\pm 0.35\%$	U: Current	502: 5 k Ω	
						position to be specified	103: 10 k Ω	

SAP PART NUMBERING GUIDELINES

ECS	78RB	B	102
SERIES	MODEL	LINEARITY	OHMIC VALUE

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