

## 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.

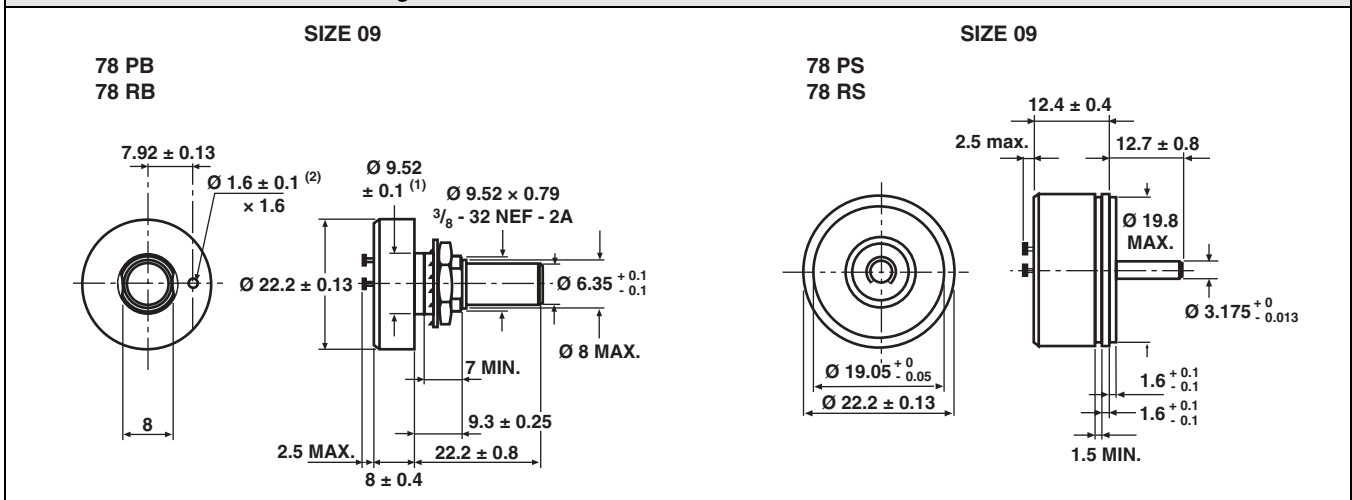
SIZE	09			
MODEL	78 RS	78 RB	78 PS	78 PB

ELECTRICAL SPECIFICATIONS	
Theoretical Electrical Angle (TEA)	(AEA) - 3°
Independent Linearity (over TEA)	A ≤ ± 1 %, on request: B ≤ ± 0.5 % C ≤ ± 0.35 %      A ≤ ± 2 %
Actual Electrical Angle (AEA)	340° ± 5°
Ohmic Values (R <sub>T</sub> )	1 - 2 - 5 - 10 kΩ (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° ± 5°
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

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

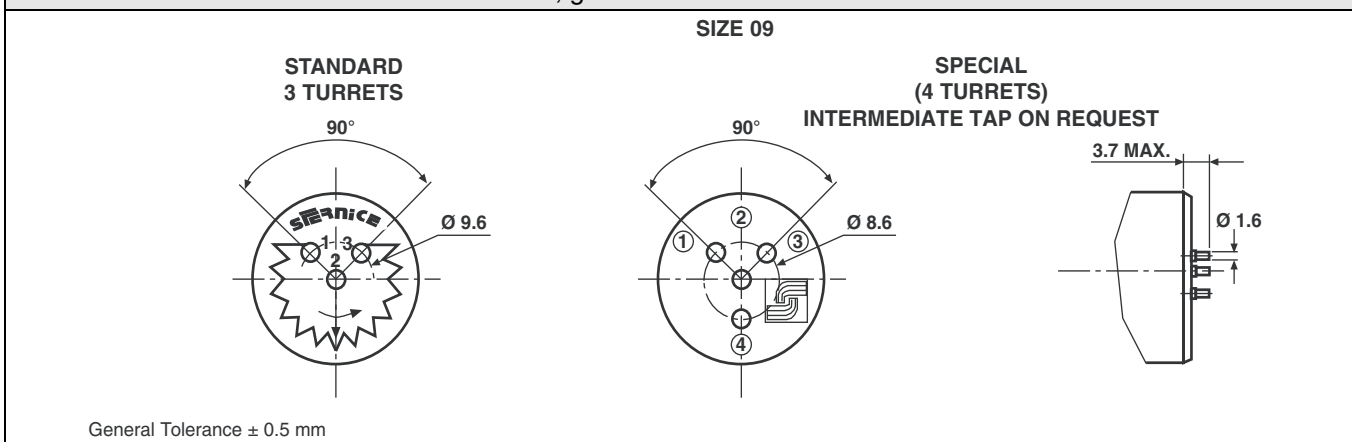
#### DIMENSIONS in millimeters, general tolerance $\pm 0.5$ mm



**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 $\Omega$	Finish
		R	B: Bushing	M	B: $\pm 0.5\%$	T: Voltage	202: 2 k $\Omega$	
					C: $\pm 0.35\%$	U: Current	502: 5 k $\Omega$	
						position to be specified	103: 10 k $\Omega$	

#### SAP PART NUMBERING GUIDELINES

ECS	78RB	B	102
SERIES	MODEL	LINEARITY	OHMIC VALUE



## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.