

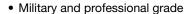
8.5 mm Diameter Single-Turn Fully Sealed Container Cermet Trimmer

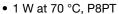


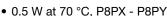
Models P8PX and P8PY feature a TO-5 transistor type, rugged metal case housing.

The cermet track is printed to an alumina substrate allowing high dissipation and ensuring reliable performance under extreme environmental conditions.

FEATURES

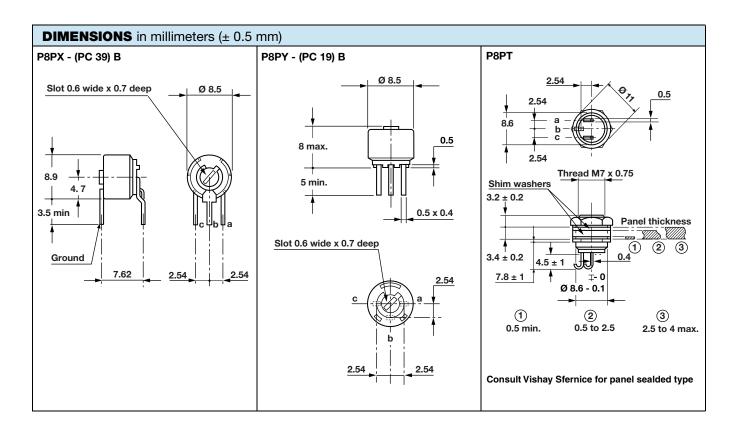








- 0.5 W at 70 C, POPX POPY
- Product qualification according to CECC 41101-002 (A, B)
- Fully sealed
- Multi-finger wiper contact in precious metal
- Tests according to CECC 41000 or IEC 60393-1
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>





Vishay Sfernice

Resistive element		Cermet		
Electrical travel		270° ± 15°		
Resistance range		10 Ω to 2.2 MΩ		
		1 - 2.2 - 4.7 and on request 1 - 2 - 5		
- .	standard	± 10 %		
Tolerance	on request	± 5 %		
	P8PX - P8PY	0.5 W at +70 °C		
	P8PT	1 W at 70 °C		
Power rating		P8PT P8PY 0.5 P8PY - P8PY 0.5 P8PX - P8PY		
Circuit diagram		$ \overset{a}{\circ} - \bigvee \bigvee \bigvee - \overset{c}{\circ} \\ \overset{b}{\circ} \stackrel{\circ}{\circ} \longrightarrow cw $		
Temperature coefficient		See standard resistive element table		
Limiting element voltage (linear law)		250 V		
Contact resistance variation		2 % Rn or 1 Ω		
End resistance (typical)		1 Ω		
Dielectric strength		1000 V		
Insulation resistance (500 V _{DC})		1 GΩ		

MECHANICAL SPECIFICATIONS				
Mechanical travel		300° ± 5°		
Operating torque (max. Ncm)		3		
End stop torque (max. Ncm)		6		
Unit weight (max. g) P8PX - P8PY P8PT		1.1 3.6		
Terminals		SnAg alloy (code e2)		

ENVIRONMENTAL SPECIFICATIONS		
Temperature range	-55 °C to +125 °C	
Climatic category	55/125/56	
Sealing	Fully sealed - IP67	





STANDARD RESISTANCE ELEMENT DATA							
P8PX - P8PY		P8PT			TYPICAL		
STANDARD RESISTANCE VALUES	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. CURRENT THROUGH WIPER	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. CURRENT THROUGH WIPER	TYPICAL TCR -55 °C +125 °C
Ω	W	V	mA	W	V	mA	ppm/°C
10	0.50	2.24	224	1.0	3.16	316	
22	0.50	3.32	150	1.0	4.69	213	
47	0.50	4.85	103	1.0	6.86	146	
100	0.50	7.07	70	1.0	10.0	100	
220	0.50	10.5	47	1.0	14.8	67	
470	0.50	15.3	32	1.0	21.7	46	
1K	0.50	22.4	22	1.0	31.6	32	
2.2K	0.50	33.2	15	1.0	46.9	21	
4.7K	0.50	48.5	10	1.0	68.6	15	± 100
10K	0.50	70.7	7.0	1.0	100.0	10.0	
22K	0.50	105	4.8	1.0	148	6.7	
47K	0.50	153	3.2	1.0	217	4.6	
100K	0.50	224	2.2	0.63	250	2.5	
220K	0.28	250	1.1	0.28	250	1.1	
470K	0.13	250	0.53	0.13	250	0.53	
1M	0.06	250	0.25	0.06	250	0.25	
2.2M	0.028	250	0.11	0.03	250	0.11	

PERFORMANCE						
CECC 41100				TYPICAL VALUES AND DRIFTS		
TESTS	CONDITIONS	ΔRT (%) REQUIREMENTS	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	∆RT RT (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	
Climatic sequence	Phase A dry heat 125 °C Phase B damp heat Phase C cold -55 °C Phase D damp heat 5 cycles	± 2 %	± 3 %	± 0.5 %	± 1 %	
	50 de .	± 2 %	± 3 %	± 0.5 %	± 1 %	
Long term damp heat	56 days 40 °C, 93 % RH	Dielectric strength: 700 V Insulation resistance: $>$ 100 M Ω		Dielectric strength: 1000 V Insulation resistance: $>$ 104 M Ω		
Rotational life	D. I. II. 1115		± 2 %		± 1 %	
Rotational life	200 cycles	Contact res. variat.: < 5 % Rr	Contact res. variat.: < 2 % Rn			
L and life	1000 h at rated power	± 2 %	± 3 %	± 1 %	± 2 %	
Load life	Load life 90'/30' - ambient temp. 70 °C		Contact res. variat.: < 5 % Rn		Contact res. variat.: < 1 % Rn	
Rapid temperature Change	5 cycles -55 °C to +125 °C	± 1.5 % ΔV ₁₋₂ V ₁₋₃	≤ ± 1 %	± 0.2 %	$V_{1-3}^{\Delta V_{1-2}} \le \pm 0.5 \%$	
Shock	50 g at 11 m s 3 successive shocks in 3 directions	± 1 %	± 2 %	± 0.1 %	± 0.5 %	
Vibration	10 Hz to 55 Hz 0.75 mm or 10 <i>g</i> during 6 h	±1 % ΔV ₁₋₂ V ₁₋₃	≤ ± 2 %	± 0.2 %	$\begin{array}{cc} \Delta V_{1\text{-}2} & \leq \pm \ 0.5 \ \% & \end{array}$	

Note

• Nothing stated herein shall be construed as a guarantee of quality or durability



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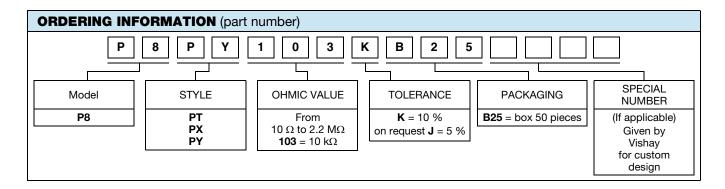
Vishay Sfernice

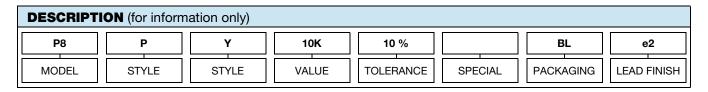
MARKING

- · Vishay trademark
- Model
- Style
- Ohmic value (in Ω , $k\Omega$, $M\Omega$)
- Manufacturing date
- Tolerance (in %)
- Marking of terminal: 3

PACKAGING

• Box of 50 pieces code B25 (BL50)





RELATED DOCUMENTS				
APPLICATION NOTES				
Potentiometers and Trimmers	www.vishay.com/doc?51001			
Guidelines for Vishay Sfernice Resistive and Inductive Components	www.vishay.com/doc?52029			



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