

Fully Sealed Container Cermet Trimmers



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.

Models P8PX and P8PY are qualified PC 39 and PC 19 respectively according to CECC 41 101-002 mod. A and B.

FEATURES

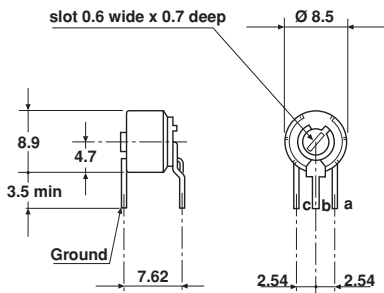
- Military and professional grade
- 1 Watt at 70°C, P8PT
- 0.5 Watt at 70°C, P8PX - P8PY
- CECC 41 101-002 (A, B)
- GAM T1
- Fully sealed

P8P series are available in three mounting configurations:

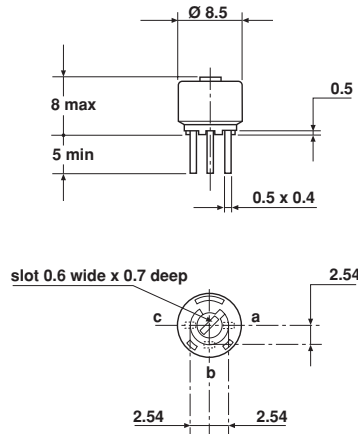
- P8PX, side adjust with pins } outlets PCB mounting
- P8PY, top adjust with pins } mounting
- P8PT, panel mount with solder lugs
- Excellent stability
- Multifinger wiper contact in precious metal

DIMENSIONS in millimeters

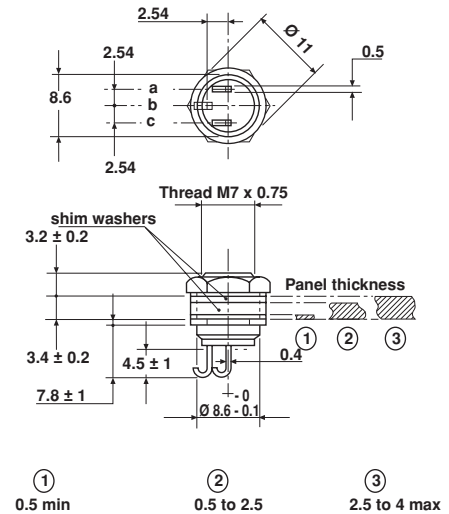
P8PX - (PC 39) B



P8PY - (PC 19) A



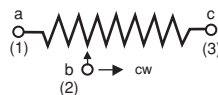
P8PT



Consult Vishay SFERNICE for panel sealed type

• Tolerance unless otherwise specified : ± 0.5

CIRCUIT DIAGRAM





ELECTRICAL SPECIFICATIONS		
Resistive Element		cermet
Electrical Travel		270° ± 15°
Resistance Range		10Ω to 2.2MΩ
Standard series E3		1 - 2.2 - 4.7 and on request 1 - 2 - 5
Tolerance	Standard	± 10%
	On Request	± 5%
Power Rating	Linear	0.5W at 70°C
	P8PT	1W at 70°C
Temperature Coefficient		See Standard Resistance Element Table
Limiting Element Voltage (Linear Law)		250V
Contact Resistance Variation		2% Rn or 1Ω
End Resistance (Typical)		1Ω
Dielectric Strength (RMS)		1000V
Insulation Resistance (500VDC)		10 ⁶ MΩ

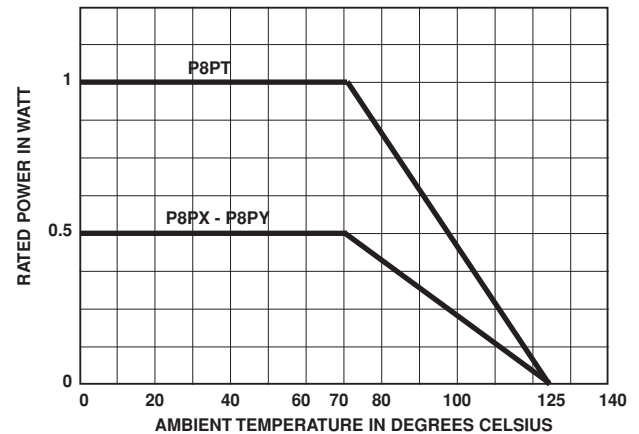
MECHANICAL SPECIFICATIONS

Mechanical Travel 300° ± 5°
 Operating Torque (max. Ncm) 3
 End Stop Torque (max. Ncm) 6
 Unit Weight (max. g) 1... 3.1

ENVIRONMENTAL SPECIFICATIONS

Temperature Range - 55°C + 125°C
 Climatic Category 55/125/56
 Sealing fully sealed container IP67

POWER RATING CHART



PERFORMANCE						
CECC 41100					TYPICAL VALUES AND DRIFTS	
TESTS	CONDITIONS	$\frac{\Delta R_T}{R_T}$ (%) REQUIREMENTS	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	$\frac{\Delta R_T}{R_T}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	
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%	
Long Term Damp Heat	56 days	± 2% Dielectric strength: 700V Insulation resistance: > 100MΩ	± 3%	± 0.5% Dielectric strength: 1000V Insulation resistance: > 10 ⁶ MΩ	± 1%	
Rotational Life	200 cycles	± 2% Contact res. variat.: < 5% Rn		± 1% Contact res. variat.: < 2% Rn		
Load Life	1000h at rated power 90/30' - ambient temp. 70°C	± 2% Contact res. variat.: < 5% Rn	± 3%	± 1% Contact res. variat.: < 1% Rn	± 2%	
Rapid Temperature Change	5 cycles - 55°C to + 125°C	± 1.5%	$\frac{\Delta V_{1-2}}{V_{1-3}} \pm 1\%$	± 0.2%	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 0.5\%$	
Shock	50g 11ms 3 successive shocks in 3 directions	± 1%	± 2%	± 0.1%	± 0.5%	
Vibration	10-55Hz 0.75mm or 10 g during 6 hours	± 1%	$\frac{\Delta V_{1-2}}{V_{1-3}} \pm 2\%$	± 0.2%	$\frac{\Delta V_{1-2}}{V_6} \leq \pm 0.5\%$	



STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. – 55°C + 125°C ppm/°C
	MAX. POWER AT 70°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH ELEMENT	
Ω	W	V	mA	
10	0.5	2.2	224	0 + 200
22		3.3	150	
47		4.8	103	
100	↓	7	70	± 100
220		10.5	47	
470		15.3	32	
1k		22.4	22	
2.2k		33.2	15	
4.7k		48.5	10	
10k		70.7	7	
22k		105	4.8	
47k		153	3.2	
100k		0.5	224	
220k	0.28	250	1.1	
470k	0.13	250	1.53	
1M	0.06	250	0.25	
2.2M	0.028	250	0.11	

MARKING

Printed :

- VISHAY trademark
- NF type if applicable
- series
- style
- ohmic value (in Ω , kΩ, MΩ)
- tolerance (in %)
- manufacturing date
- marking of terminal : 3.

PACKAGING

- Plastic box of 100 pieces for P8PX and P8PY.
- Plastic box of 24 pieces for P8PT.

ORDERING INFORMATION

P8	P	Y	10kΩ	± 10%	BL100
SERIES	GRADE OF QUALITY	STYLE	OHMIC VALUE	TOLERANCE	PACKAGING

P8PX and P8PY: BL100
P8PT: BL24