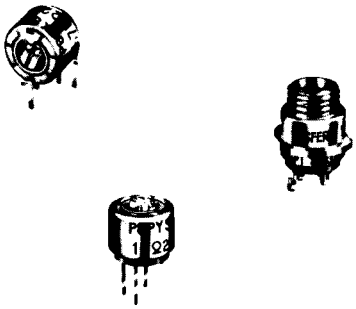
VISHAY SFERNICE

P8P X Y T

fully sealed container cermet trimmer

– military and professional grade

1 W at 70°C
P8PT
0,5 W at 70°C
P8PX - P8PY
NF C/UTE83-251
CECC 41 101-002 (A, B)
GAM-T-1 - LNZ



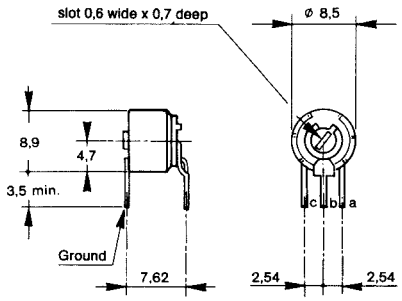
Trimmers of the P8P series are available in three mounting configurations:

- P8PX, side adjust with pins
- P8PY, top adjust with pins
- P8PT, panel mount with solder lugs

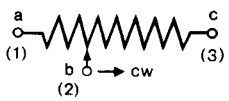
} outlets for PCB mounting

Models P8PX and P8PY feature a TO-5 transistor type, rugged metal case housing.
The cermet track is bonded to an alumina substrate allowing high dissipation and ensuring reliable performances under extreme environmental conditions.
Fully sealed, model P8P meets or exceeds the requirements of NF C 93253 and MIL-R-22097 specifications.
Models P8PX and P8PY are qualified according to NF C styles PC 39 and PC 19 respectively and CECC 41 101-002 mod. A and B.

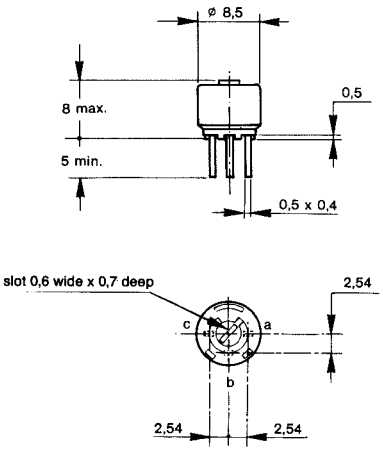
P8PX - (PC39) B



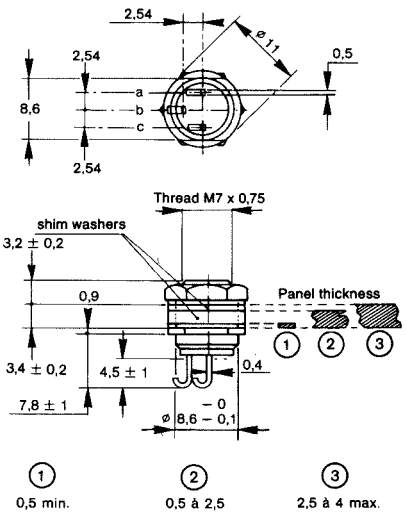
CIRCUIT DIAGRAM



P8PY - (PC19) A



P8PT



Consult Sfernice for panel sealed type

Dimensions in mm.
Tolerance unless otherwise specified : ± 0,5.

SPECIFICATIONS

MECHANICAL

MECHANICAL TRAVEL...	300° ±5°
OPERATING TORQUE (max. Ncm)...	3
END STOP TORQUE (max. Ncm)...	6
UNIT WEIGHT (max. g.)...	1... 3,1

ENVIRONMENTAL

TEMPERATURE RANGE...	–55°C + 125°C
CLIMATIC CATEGORY...	55 / 125 / 56
SEALING...	fully sealed container IP67

ELECTRICAL

RESISTIVE ELEMENT...	cermet
ELECTRICAL TRAVEL...	270° ±15°
RESISTANCE RANGE...	10 Ω... 2,2 MΩ
Standard series E3 (1 - 2,2 - 4,7)	
on request series 1 - 2 - 5	
TOLERANCE standard...	±10 %
on request...	±5%
POWER RATING linear...	0,5 W at 70°C
P8PT...	1 W at 70°C
TYPICAL TEMP. COEFFICIENT (for Rn ≥ 100 Ω)...	50 ppm/°C
LIMITING ELEMENT VOLTAGE (linear law)...	250 V
CONTACT RESISTANCE VARIATION ...	2 % Rn or 1 Ω
END RESISTANCE (typical)...	1 Ω
DIELECTRIC STRENGTH (RMS)...	1000 V
INSULATION RESISTANCE (500 V DC)...	10^6 MΩ

Undergoes European Quality Insurance System CECC

PERFORMANCES

Table 1

NF C 83-251				TYPICAL VALUES AND DRIFTS	
TESTS	CONDITIONS	REQUIREMENTS $\frac{\Delta R_T}{R_T}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	$\frac{\Delta R_T}{R_T}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)
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 : 700 V Insulation resistance : > 100 MΩ	± 3%	± 0,5 % Dielectric strength : 1000 V Insulation resistance : > 10^4 MΩ	± 1%
ROTATIONAL LIFE	200 cycles	± 2 % Contact res. variat. :< ±5% Rn		± 1 % Contact res. variat. :< ±2% Rn	
LOAD LIFE	1000 h 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 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ±1%	± 0,2 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ≤±0,5%
SHOCKS	50 g 11 ms 3 successive shocks in 3 directions	± 1%	± 2%	± 0,1%	± 0,5%
VIBRATIONS	10-55 Hz 0,75 mm or 10 g during 6 hours	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ±2%	± 0,2 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ≤±0,5%

STANDARD RESISTANCE ELEMENT DATA

Table 2

Standard resistance values	LINEAR LAW			T.C. −55°C +125°C
	Max. power at 70°C	Max. working voltage	Max. cur. through element	
Ω	W	V	mA	ppm/°C
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	
1 k		22,4	22	
2,2 k		33,2	15	
4,7 k		48,5	10	
10 k		70,7	7	
22 k		105	4,8	
47 k		153	3,2	
100 k	0,5	224	2,2	
220 k	0,28	250	1,1	
470 k	0,13	250	1,53	
1 M	0,06	250	0,25	
2,2 M	0,028	250	0,11	

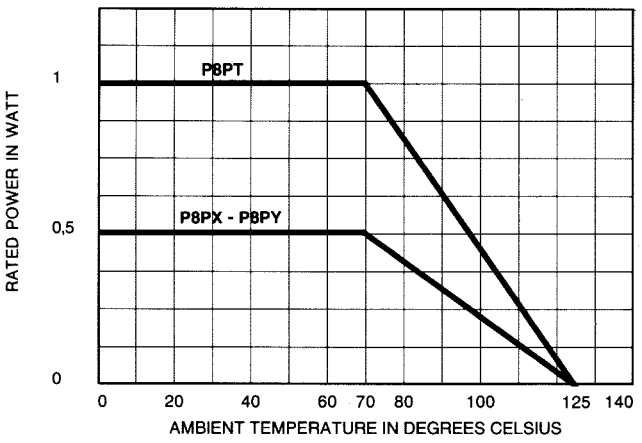
MARKING

Printed :

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

POWER RATING CHART

Fig. 1



PACKAGING

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

ORDERING PROCEDURE

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

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