

✂ Product Features

- Dielectrics:
Standard PTFE/ High Temp PTFE
Polypropylene
Polycarbonate
- SMD and lead-through-hole mounting
- Bottom and Side Mount models
- Wide capacitance ranges
- Low cost
- Linear capacitance change vs. rotation
- Compact size

✂ Product Applications

Typical Applications:

- Antennas • Transmitters
- RF Equipment • Instruments

Modifications & Variations:

- Special capacitance ranges
- Special terminal sizes & shapes
- Extended Adjust shafts
- High temperature versions for PTFE
- Silver and/or Gold Plating



✂ Specifications

Dielectrics	<ul style="list-style-type: none">• Standard PTFE• Polypropylene (PP)• Polycarbonate (PC)
Voltage Rating/ Test Voltage	150VDC
Other Voltage ratings on request	(to 300 VDC)
Contact Resistance	$\leq 0.010\text{m}\Omega$
Insulation Resistance	$\geq 10,000\text{M}\Omega$
Rotation Torque	0.35...3.5Ncm

✂ Production Qualification

FilmTrim Capacitors are in accordance with DIN IEC 418-1 and 4-former DIN 44261 part 3.

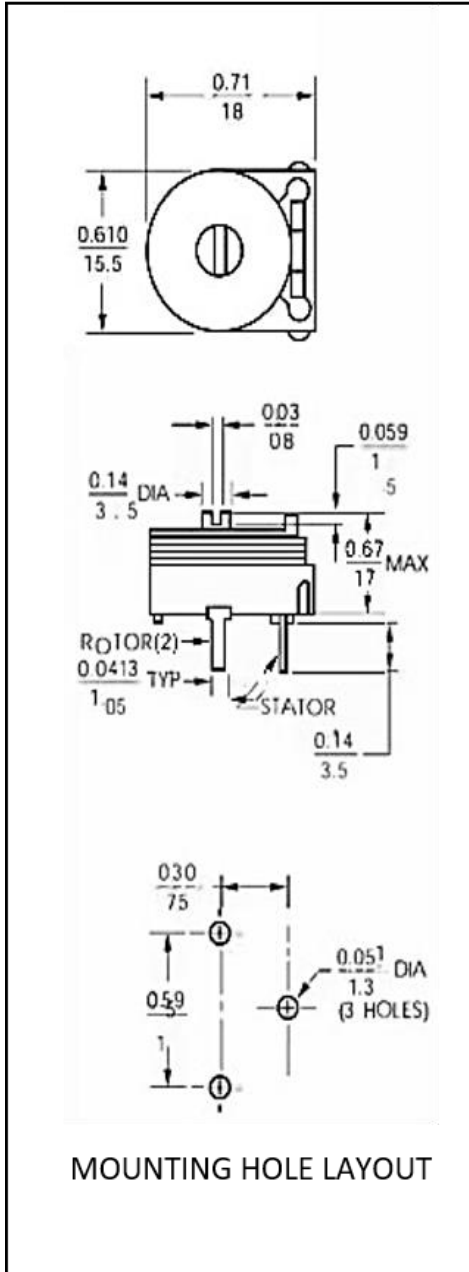
Testing methods for manufacturing quality are in accordance with MIL-STD-105D and IEC410 (former DIN44260).

Solderability or heat resistance for the FilmTrim Capacitors comply with DIN IEC 68-2-20 part 2, Test Ta and Tb.

Each FilmTrim Capacitor is tested for minimum and maximum capacitance value and is also subjected to full test voltage.

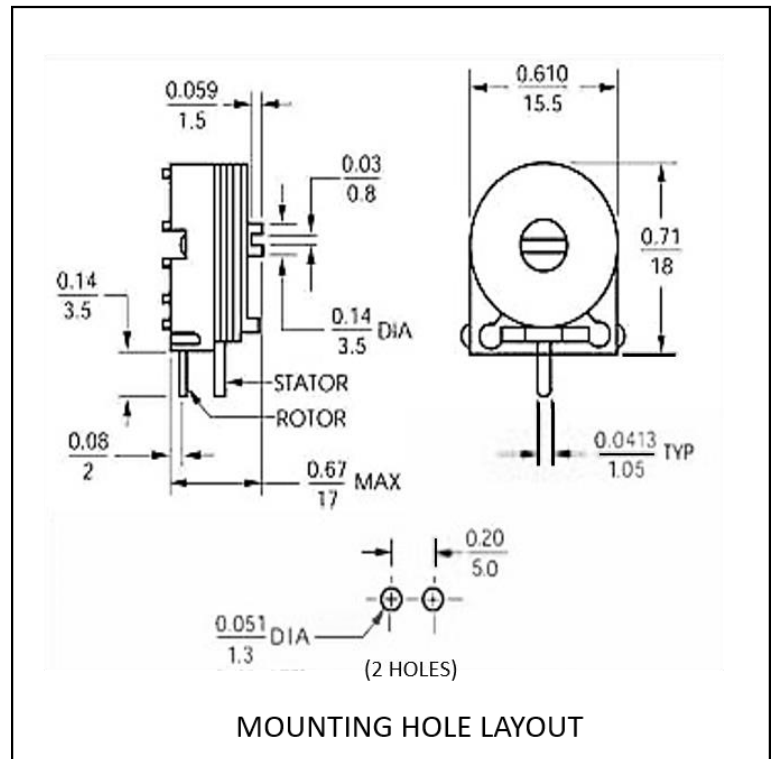


TOP ADJUST



MOUNTING HOLE LAYOUT

SIDE ADJUST



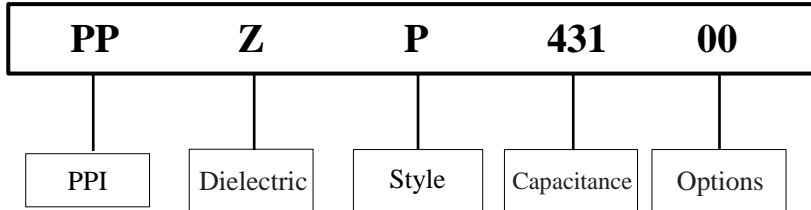
MOUNTING HOLE LAYOUT

All dimensions are in/mm.

For requests for options such as special adjustments, pin configurations, dielectrics, etc., please contact PPI directly.



≠ Part Numbering



≠ Dielectrics

Dielectrics	
Code	Description
X	PTFE (Polytetrafluoroethylene)
Z	PC (Polycarbonate)

≠ Style

Style	
Code	Description
N	16mm Top Adjust
P	16mm Side Adjust

≠ Capacitance

Capacitance Code
8R0 = 8.0pF
400 = 40pF
301 = 300pF

≠ Special Options

Special Options (Top Adjust Models)	
Code	Description
00	Standard

Specifications

Dielectric	Capacitance (pF)		Q min (1MHz)	TCC (ppm/°C)	Operating Temperature (°C)	H max in/mm	Color Code	Model Number
	min	max						3 Lead
Polycarbonate #1	8.0	120.0	200	0±300	-40°C...+85°C	0.54 / 13.8	Red	PPZN12100
	9.0	160.0						PPZN16100
	9.0	200.0						PPZN20100
	18.0	300.0						PPZN30100
PTFE	16.0	250.0	1000	-100±200	-40°C...+85°C	0.66 / 16.8	Green	PPZN25100
Polycarbonate #2	23.0	350.0	100	0±350	-40°C...+85°C	0.66 / 16.8	Red	PPZN35100
	23.0	380.0						PPZN38100
	25.0	430.0						PPZN43100
	26.0	600.0						PPZN60100
	40.0	770.0						PPZN77100
Polycarbonate #1	8.0	120.0	200	0±300	-40°C...+85°C	0.54 / 13.8	Red	PPZP12100
	9.0	160.0						PPZP18100
	9.0	200.0						PPZP20100
	18.0	300.0						PPZP30100
PTFE	16.0	250.0	1000	-100±200	-40°C...+85°C	0.66 / 16.8	Green	PPZP25100
Polycarbonate #2	23.0	350.0	100	0±350	-40°C...+85°C	0.66 / 16.8	Red	PPZP35100
	23.0	380.0						PPZP38100
	25.0	430.0						PPZP43100
	26.0	600.0						PPZP60100
	40.0	770.0						PPZP77100



≠ Specifications Notes

- 1 Parts are 100% tested for capacitance range and dielectric withstanding voltage.
- 2 Capacitance range specified is that which is guaranteed, and is measured at 1 MHz at room temperature.
- 3 Q factor is measured at maximum rated capacitance and at room temperature.
- 4 Dielectric strength is measured at maximum rated capacitance and room temperature, with test voltage (as listed for each model) applied for 60 seconds.
- 5 Insulation resistance is measured at maximum rated capacitance and room temperature and at rated voltage, unless otherwise specified.
- 6 Temperature coefficient of capacitance (TCC) is measured at 1 MHz over the operating temperature range, with capacitor set at maximum rated capacitance.
- 7 Axial load during tuning should not exceed 200 grams force. At maximum axial load, capacitance change is no more than 15%.
- 8 Capacitors should not be operated outside of rated capacitance range and working voltage.

≠ Soldering FilmTrim Capacitors

Dip soldering:

260°C ± 10°C for 7 seconds maximum.

Hand Soldering

(for lead-through-hole models):

Tip temperature 350°C ± 10°C for 3 to 4 seconds



≠ Cleaning FilmTrim Capacitors

- Water soluble fluxes and detergents with a
- 1 water flush after soldering of the boards can be used for all parts.

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- 2 Do not immerse FilmTrim models in chlorinated or fluorinated hydrocarbon solvents as this would adversely affect the plastic dielectrics and base materials. Some customers have successfully used X models in scrubbers or sprayers where only bottom of the printed circuit boards is exposed to solvents.

If the process requires immersion in solvents for cleaning boards, the FilmTrim capacitors should be hand soldered to board after the boards have been cleaned.