

## **Excellent Integrated System Limited**

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Apem Inc.](#)  
[PI06090](#)

For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

## PI & PM SERIES SPST SEALED PIANO DIP SWITCHES

### FEATURES

Built-in seal for process compatibility.  
 High reliability.  
 Splayed thru-hole or SMT terminals.  
 2, 4, 6, 8 & 10 positions.  
 Piano style actuators.  
 Dual in-line .100" x .300" term. spacing.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

### GENERAL SPECIFICATIONS

#### ELECTRICALS

Electrical life	200 cycles min. per switch @ 24 VDC, 25 mA
Contact rating, non-switching	100 mA at 50 VDC
Contact rating, switching	25 mA at 24 VDC
Contact resistance at current 100 mA	50 m $\Omega$ max. initial - 100 m $\Omega$ max. after life test
Insulation resistance at 500 VDC	100 M $\Omega$ minimum
Dielectric strength	300 VAC for 1 minute
Capacitance	5 pf. max. between adjacent terminals

#### MECHANICALS, THERMALS

Mechanical life	500 cycles min. per switch
Operating force	800 grams max.
Vibration	10-55 Hz.per MIL-STD-202F METHOD 201A
Shock	50 G (peak value) for 11 msec. per MIL-STD-202F, METHOD 213B
Operating temperature range	-40°C to 85°C

#### SOLDERING & CLEANING RECOMMENDATIONS\*

Hand soldering	320°C max. for 2 seconds max.(30 watt iron max.)
Wave soldering	260°C max. for 5 seconds max. Note PM Series is vapor phase or IR reflow solderable.
Force rinse, high agitation or triple bath cleaning method	Sealed construction permits washing with freons, alcohol, water and steam. When vapor methods are used, do not subject switch to solvents above 51°C.

\* Note: keep switches in "ON" position during soldering and cleaning for best results

### MATERIALS

Base & Cover	UL94V-O, high temperature thermoplastic, color black
Actuators	UL94V-O, high temperature thermoplastic, color .01*white
Contacts	Gold over nickel plated copper alloy or brass
Terminals	Tin/lead (90/10 solder) plated copper alloy or brass
Term. Sealing	Molded-in
Tape seal	High temperature modulus Teflon internal seal

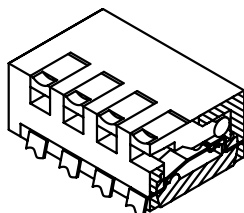
*PI and PM models feature a uniquely designed internal seal!*

### PACKAGING

DIP switches are shipped in standard IC tubes with all actuators in the "ON" position.  
 Tape & reel packaging per EIA available for PM models - consult factory.

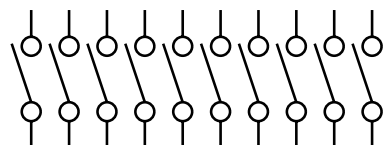
### SWITCH CROSS SECTION

Double contact system



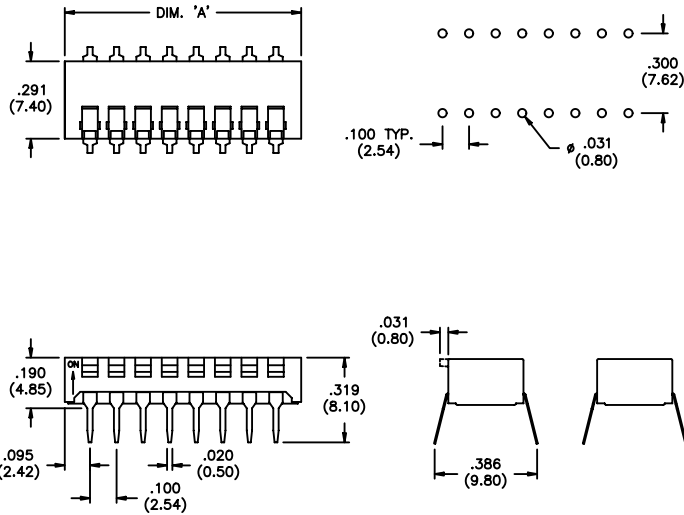
PI & PM

### SCHEMATIC (TYPICAL)



See tabulations on following page for number of positions available (10 shown)

**PI Series Piano**



Actuator Style	MODEL NO. (internally sealed)	No. of Pos.	'A' Dimension ±.012 (0,30mm)
Flush	PI02090	2	.290 (7,37)
	PI04090	4	.490 (12,45)
	PI06090	6	.690 (17,53)
	PI08090	8	.890 (22,61)
Extended	PI10090	10	1.090 (27,69)
	PI02190	2	.290 (7,37)
	PI04190	4	.490 (12,45)
	PI06190	6	.690 (17,53)
	PI08190	8	.890 (22,61)
	PI10190	10	1.090 (27,69)

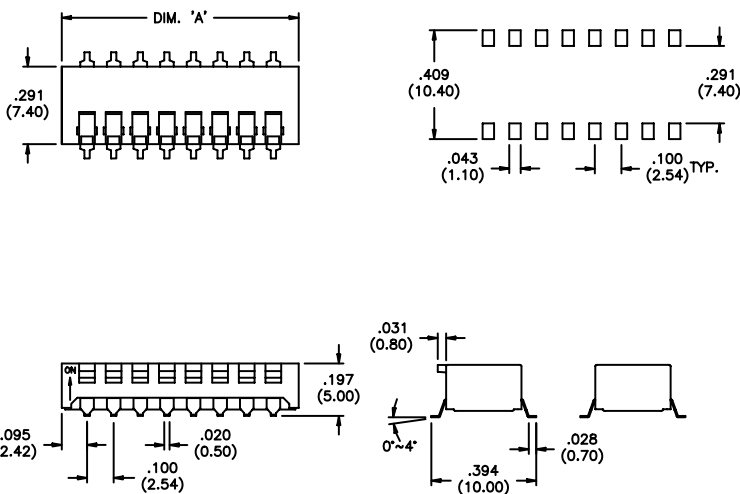
† Auto-insertable using equipment from Amistar, Dynapert, Panasert, Northeastern Tool, Universal and others.

**PI and PM models listed feature a uniquely designed internal seal!**

Non-sealed versions are also available. To order the non-sealed model, replace the '0' at the end of the model number with '1'.

**P**

**PM Series Piano**



Actuator Style	MODEL NO. (internally sealed)	No. of Pos.	'A' Dimension ±.012 (0,30mm)
Flush	PM02090	2	.290 (7,37)
	PM04090	4	.490 (12,45)
	PM06090	6	.690 (17,53)
	PM08090	8	.890 (22,61)
Extended	PM10090	10	1.090 (27,69)
	PM02190	2	.290 (7,37)
	PM04190	4	.490 (12,45)
	PM06190	6	.690 (17,53)
	PM08190	8	.890 (22,61)
	PM10190	10	1.090 (27,69)

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