



The following page(s) are extracted from multi-page Kuhnke product catalogues or CDROMs and any page number shown is relevant to the original document. The PDF sheets here may have been combined to provide technical information about the specific product(s) you have selected.

Hard copy product catalogues, and CDROMs have been published describing Kuhnke Pneumatics, Solenoids, Relays and Electronics; some divided into different books. A list of current publications is available on this web site or from our sales offices. Some may be available for download, but as substantially larger files.

## Contact Details

Kuhnke sales and service in North America

Ellis/Kuhnke Controls  
132 Lewis Street  
Unit A-2, Eatontown  
NJ 07724  
USA

T: (800) 221 0714  
T: (732) 291 3334  
F: (732) 291 8154

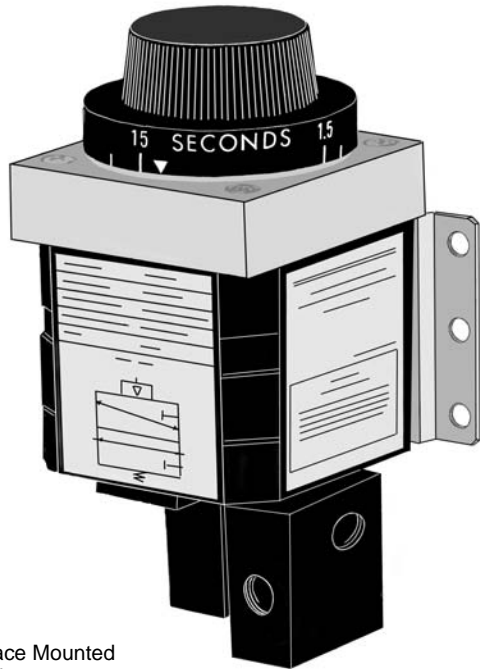
### Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

---

### Panel or Rear Mounted Pneumatic Timer

(Up to 60 Minutes)



Surface Mounted  
PT Timer

The PT timer is an adjustable precise time delay pneumatic device. The timer is available with an on delay (NC), or an off delay (NO) output. The timer has 1/8 inch NPT ports.

The PT series timer combines a pneumatic timing mechanism with a floating spool valve assembly to provide a wide range of adjustable time control for fluid power systems. The timing assembly, which operates independently of the control pressure, is available in nine different ranges from one tenth of a second to 60 minutes, adjustable by means of a time-calibrated dial. Timing action is initiated by a motor diaphragm operated by a control pressure of from 5 to 140 PSIG.

The timer is equipped with a multi purpose 3 way output valve allowing it to be used as normally open, normally closed or as a diverter.

The PT is designed for panel or surface mounting. Panel mounted versions include a 3 13/16 inch square bezel while surface mounted units are equipped with a bracket for vertical mounting. If required, The PT can be specially calibrated for mounting horizontally.

## Technical Specifications

**Op. Pressure**

5 to 140 PSI

**Connections:**

1/8" NPT ports

**Control Pressure:**

5 to 140 PSI

**Media:**

Filtered air or non-aggressive gas, non-lubricated.

**Output Valve:**

Cv - 0.25

Flow @ 100 PSI - 9 CFM

Multi purpose 3 way spool.

**Dial Indicator:**

Displays set time.

**Timing Start:**

On Delay - Application of pilot pressure to control port.

Off Delay - Removal of pilot pressure to control port.

**Reset:**

On Delay - Removal of pilot pressure from control port.

Off Delay - Application of pilot pressure to control port.

**Reset Time:**

60 ms @ 50 PSI

**Repeatability:**

Up to 200 sec. -  $\pm 5\%$ .

Over 200 sec. -  $\pm 10\%$ .

**Time Setting:**

Via dial.

Accuracy  $\pm 10\%$  of full scale.

**Operation:**

Timing cycle uses atmospheric pressure.

**Materials:**

Zamak housing, polycarbonate knob, aluminum valve with stainless spool. Diaphragms - Buna N

**Operating Ambient:**

-30°C to 70°C (-20°F to 165°F)

**Dimensions:**

Height - 5 1/4"

Width - 2 1/2"

Depth - 2 1/2"

**Mounting:**

Surface or panel mounted.

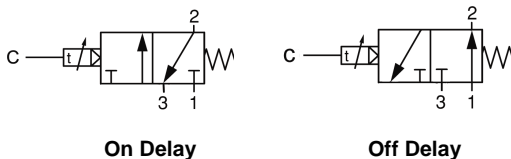
**Drilling Plan (panel mount):**

3 3/16" dia. hole.

### Selection Chart

Timing Range	Catalog Number			
	Standard Vertical Surface Mount		Panel Mounted	
	On Delay	Off Delay	On Delay	Off Delay
0.1 to 1 Second	PT31A	PT41A	PT35A	PT45A
0.5 to 5 Seconds	PT31B	PT41B	PT35B	PT45B
1.5 to 15 Seconds	PT31C	PT41C	PT35C	PT45C
5 to 50 Seconds	PT31D	PT41D	PT35D	PT45D
20 to 200 Seconds	PT31E	PT41E	PT35E	PT45E
1 to 300 Seconds	PT31K	PT41K	PT35K	PT45K
1 to 10 Minutes	PT31F	PT41F	PT35F	PT45F
3 to 30 Minutes	PT31H	PT41H	PT35H	PT45H
6 to 60 Minutes	PT31I	PT41I	PT35I	PT45I

### Diagrams



### Port Identification

- Port C - Control input signal
- 1 - System air supply
- 2 - Valve output
- 3 - Exhaust

### On Delay Timer Operation

Pilot pressure is applied to the control port to start timing. After the timer reaches its set time, the valve switches over. *Removal of the pilot signal at any time resets the timer.*

### Off Delay Timer Operation

Applying pilot pressure of at least 100ms in duration to the control port shifts the valve. *When the pilot pressure is removed, the timing sequence begins.* After the timer reaches its set time, the valve switches off. Re-applying the pilot pressure resets the timer and valve.

### Options

Surface mounted units are calibrated for mounting in the vertical position. If horizontal mounting is required, add suffix "Y1" to the catalog number. For a stainless steel fitting mounted on the pilot port add suffix "SS". To include a Dial Stop set at the factory (which prevents settings above or below a given number) add suffix "DS" and specify setting. For a Tamper Proof Cover add suffix "TP" to the catalog number.

### Power Connections

For installations requiring larger output valves, use the standard timer and connect a pneumatically operated single air piloted 3 way or 4 way valve of the size required to the timer output. Contact factory with size requirements.

### Typical Circuits

See typical timing circuit diagrams at the end of the timer catalog section for help in constructing pneumatic timer circuits.