Kuhnke Technical Data

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

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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.
The Series 51 timer is an adjustable precise time delay control device. The timer is available with either an on delay- (NC) or off delay- (NO) 3 way built-in valve. It is designed for mounting along with valves or other logic devices and is available with 10-32 (M5) bottom ports, or 1/8" NPT side ports. Bottom ported timers can also be panel mounted using (2) threaded M3 inserts on the top cover.

Timing operation can be set up in 2 ways; either via direct connection of the pressure line to be timed (1/8" NPT ported only) or via a separate pilot signal. When pressure is applied to the input (or pilot port) the timing sequence begins by setting a vacuum within the timer. Using atmospheric pressure (independent of line pressure), the timer begins the preset timing cycle. At the end of the cycle an internal 3 way valve is switched providing an output. The timer resets automatically after removal of the control signal.

**Technical Specifications**

**Op. Pressure:**
25-145 PSI

**Connections:**
10-32 (M5) or 1/8" NPT ports

**Media:**
Filtered air, non lubricated.

**Operating Valve:**
3 way - internal exhaust
Orifice size - 2mm, Cv - 13.
Flow @ 100 PSI - 7 CFM

**Timing Start:**
Application of pilot (or Line) pressure to control port.

**Reset:**
By removal of pilot (or Line) signal –independent of whether the time interval has elapsed or not.

**Reset Time:**
200 ms

**Repeatability:**
± 2% of selected time.

**Time Setting:**
Via adjustment knob.

**Operation:**
Timing cycle uses atmospheric pressure drawn into vacuum.

**Air Consumption:**
During timing cycle only -.01 CFM

**Materials:**
Polyamide housing, aluminum base, Buna N seals.

**Operating Ambient:**
-10°C to 60°C (14°F to 140°F)

**Dimensions (inches):**

<table>
<thead>
<tr>
<th></th>
<th>10-32 port</th>
<th>1/8 port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>3 3/8</td>
<td>4 1/8</td>
</tr>
<tr>
<td>Width</td>
<td>1 1/2</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Length</td>
<td>2 3/4</td>
<td>2 3/4</td>
</tr>
<tr>
<td>Weight</td>
<td>12 oz.</td>
<td>15 oz.</td>
</tr>
</tbody>
</table>

**Mounting:**
Via 4 holes in base.
Counters and Timers  
Kuhnke System Logic Devices  
Series 51 Timers  

Selection Chart

<table>
<thead>
<tr>
<th>Timing Range</th>
<th>1/8 Side Ported</th>
<th>10-32 Bottom Ported</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Delay (NC) .5 to 60 Seconds</td>
<td>51006-00US</td>
<td>51006-00</td>
</tr>
<tr>
<td>1 to 120 Seconds</td>
<td>51012-00US</td>
<td>51012-00</td>
</tr>
<tr>
<td>1 to 180 Seconds</td>
<td>51018-00US</td>
<td>51018-00</td>
</tr>
<tr>
<td>Off Delay (NO) .5 to 60 Seconds</td>
<td>51006-01US</td>
<td>51006-01</td>
</tr>
<tr>
<td>1 to 120 Seconds</td>
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</tr>
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</tr>
</tbody>
</table>

Port Identification

12 - Control input signal (NC version).  
10 - Control input signal (NO version).  
1 – Air supply.  
2 – Valve output.  

Power Connections

For installations requiring larger output valves, use the standard timer and connect a pneumatically operated single air piloted 3 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.  

Control input signal must be at the same pressure as system line pressure.