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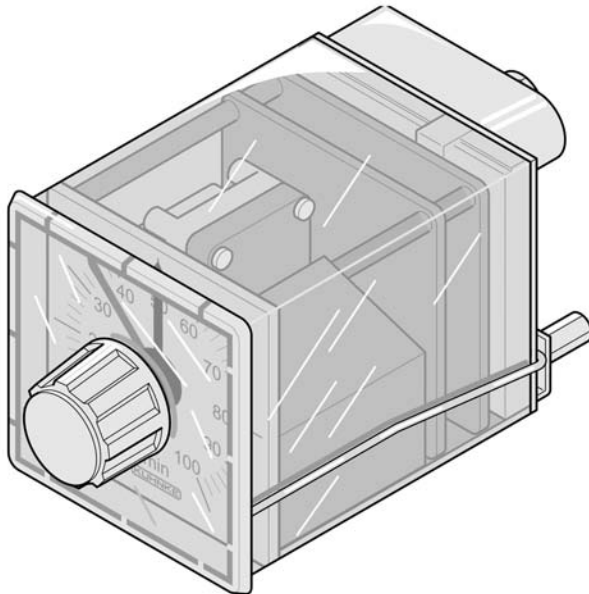
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Important Note

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.

Panel Mounted Pneumatic Timer

(Up to 100 Hours)



The 54 Series timer is a totally pneumatic device with +/- 1% repeatability. Timing is fully adjustable throughout the timing range by a knob on the front dial face. The standard timer is equipped with a special 4 way valve which provides for on or off delay timing (depending on plumbing connections). The front dial displays set time and the time remaining in the cycle.

The operation of the timer depends on the input of a separate control signal. The control signal drives a regulated air motor and gear chain to provide accurate timing regardless of control air pressure fluctuation. The timer resets automatically (approx. 200ms) after removal of control pressure signal.

A special version of the timer includes a rotor stop option which allows for an external valve to be added to permit a "count down on hold" function.

The 54 Series timer is self-contained in a panel mounted lexan case with a front timing adjustment knob. Connections are made at the rear of the timer. Spring clips are used to panel mount the unit.

Technical Specifications

Op. Pressure:

0-145 PSI

Control Pressure:

20-145 PSI
non-lubricated air

Output Valve:

4 way (5 ported)
Cv - .13
Flow - 7 CFM@ 100 PSI
Orifice size - 2mm

Connection:

10-32 (M5) ports

Media:

Filtered air or gas.
Non-lubricated.

Indicators:

Displays set time and time remaining before valve actuation.

Time Setting:

Via front dial knob. Adjustable throughout timing range

Accuracy of Setting:

± 2%

Repeatability:

± 1% of end scale value.

Operation:

Independent regulated air motor. Air consumption 0.35 CFM. Output air piloted 4 way valve.

Reset:

Automatic - by removal of control pressure.

Reset Time:

200 ms.

Timing Sequence:

On delay or off delay depending on valve connections.

Operating Ambient:

0°C to 60°C (32°F to 140°F)

Materials:

Lexan case, cast aluminum rear housing, nylon, brass, and stainless alloy mechanism.

Dimensions (inches):

Faceplate – 2 13/16" square
Behind panel – 4 3/8" deep x 2 5/8" H x 2 5/8" W.

Panel Cutout:

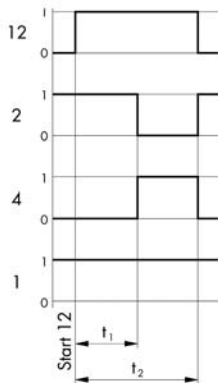
2 5/8" square

Mounting:

Spring clips.

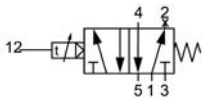
Selection Chart

Timing Sequence

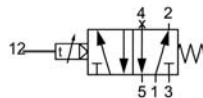


t₁ = Selected time delay. t₂ = Total duration of cycle.

Diagrams



On Delay
Blocked Port 2



Off Delay
Blocked Port 4

Timer output valve is 4 way, 5 ported with 10-32 (M5) connections. Valves are supplied from factory blocked with a cap nut (port 4) for 3 way *off delay*. For *on delay*, move cap nut to port 2. For full 4 way operation remove nut.

Port Identification

Port 12 - Control input signal (on timer body).

Valve -

- 1 - System air supply
- 2 - Valve output "off delay connection"
- 3 - Exhaust for port 2
- 4 - Valve output "on delay connection"
- 5 - Exhaust for port 4

Replacement Parts

Control port input filter **72754500-00**
Output valve **54530**

Timing Range	Catalog Number	
	Standard Timer	With Rotor Stop Option
0.3 to 10 Seconds	54021	54050
3 to 100 Seconds	54022	54051
0.3 to 10 Minutes	54023	54052
3 to 100 Minutes	54024	54053
0.3 to 10 Hours	54025	54054
3 to 100 Hours	54026	54055

Rotor Stop Option (Countdown on Hold)

A rotor stop option is available to override the timing action or to hold the timer valve in its switched position after the timer has completed its cycle, and signal pressure is removed. Option provides 2 additional rear ports connected via tube, which allows valves or other logic devices to be spliced into the internal circuit between the pilot signal regulator and rotor assembly.

For holding timer valve in its switched position or to place "timing on hold", an external 3 way valve (NO) can be used to block the flow to the air motor (connected between rotor stop ports 1-2). If timing on hold is desired, the pilot signal must remain on throughout the entire cycle.

Power Connections

For installations requiring larger 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.