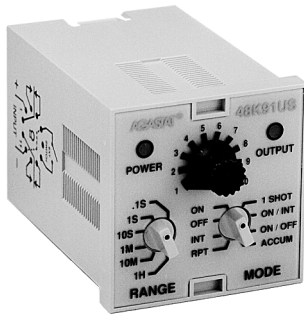


NOTE: This product has recently been discontinued. Suggested alternatives are the P&B CNT, CNS and CNM5 series time delay relays.



48K series

Programmable Time Delay Relay

- Up to 8 user-programmable timing modes
- 0.1 sec. to 10 hr. programmable timing range
- Socket or panel mount (1/16 DIN enclosure)
- Universal (24-240VAC/24-125VDC) and fixed input types
- 10A output relay with DPDT contacts
- Two LED indicators on universal input types
- ANSI C37.90 transient protection on universal input types

File E60363

File LR29186

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Timing Modes

Modes are user selectable via rotary selector switch (shown above) or screwdriver adjustment on optional recessed knob equipped models that are available on a special order basis for tamper-resistant requirements. Modes offered on specific models are:

- 48K91U:** On-Delay, Off-Delay, Interval, On/Interval, One Shot, Repeat Cycle, On-Delay/Off-Delay, Accumulating On.
48K90U: On-Delay, Interval, On/Interval, Repeat Cycle.
48K01A: On-Delay.

Timing Specifications

Timing Ranges: 0.1 to 1 / 1 to 10 / 10 to 100 sec.; 1 to 10 / 10 to 100 min.; 1 to 10 hr.

Timing Adjustment: Potentiometer adjustment with linear reference calibrations. Recessed dial option is available on a special order basis for tamper-resistant requirements.

Accuracy: Repeat Accuracy: $\pm 0.5\% \pm 0.02$ sec.
 Overall Accuracy: $\pm 1\% \pm 0.02$ sec.

Reset Time: 25 ms.

Relay Operate Time: 50 ms.

Relay Release Time: 50 ms.

Contact Data @ 25°C

Arrangements: 2 Form C (DPDT).

Rating: 10A @ 30VDC or 120/240VAC, resistive.

Expected Mechanical Life: 10 million operations.

Expected Electrical Life: 100,000 operations, min., at rated load.

Initial Dielectric Strength

Between Coil, Contacts and Case: 1,500VAC.

Input Data @ 25°C

Voltage: **48K90U & 48K91U:** 24 - 240VAC, 50/60 Hz. and 24-125VDC.
48K01A: 120VAC, 50/60 Hz.

Power Requirement: 2W, max.

Transient Protection: **48K90U & 48K91U:** Meets ANSI C37.90 Transient Specification.
48K01A: 2,500V for 1ms.

Environmental Data

Temperature Range: Storage: -25°C to +85°C.
 Operating: -25°C to +60°C.

Mechanical Data

Termination: 8 or 11-pin octal style plug.

Enclosure: Grey plastic 1/16 DIN case for socket or panel mounting.

Indicating LEDs:

48K90U & 48K91U: Power On LED & Output Contacts LED (Typically flashes when timing, stays on when output relay is energized.)

48K01A: Output Contacts LED

Sockets: Fits either 27E123 or 27E892 (snap-on) screw terminal sockets.

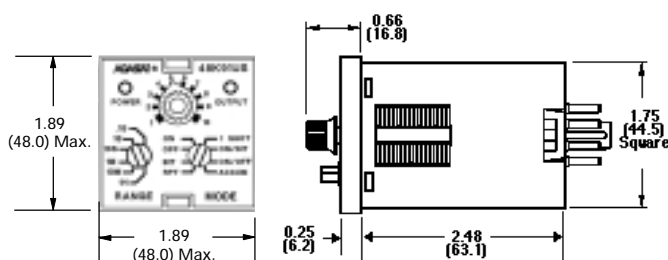
Weight: 5 oz. (142g) approximately.

Ordering Information – Authorized distributors are likely to stock boldface part numbers listed below.

Part Number	Timing Modes	Operating Voltage	Termination Pins
48K01AS	One - On-Delay	120VAC 50/60 Hz.	8
48K90US	Four - On-Delay, Interval, On/Interval, Repeat Cycle	Universal (24-240VAC, 50/60 Hz. or 24-125VDC)	8
48K91US	Eight - On-Delay, Off-Delay, Interval, On/Interval, One Shot, Repeat Cycle, On-Delay/Off-Delay, Accumulating On	Universal (24-240VAC, 50/60 Hz. or 24-125VDC)	11

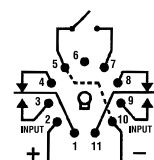
Ordering Note: The part numbers listed above are standard products with knobs for adjustment of mode, range and timing. On a special order basis other models are available with recessed dials requiring a screwdriver for adjustment. On the special order versions, the "S" part number suffix is replaced by an "R" suffix. Consult factory for availability of special order models.

Outline Dimensions

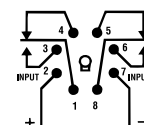


Wiring Diagrams (Bottom Views)

(pins numbered clockwise from keyway)



48K91US
(dotted line represents internal connection)



48K90US
48K01AS