



1/8 DIN Panel-Mount Programmable Timer

PTC900/PTC901 Series
Starts at
\$169



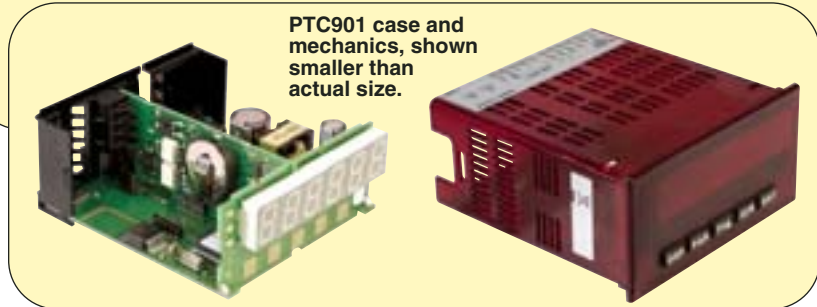
- ✓ 1/8 DIN (50 x 97 mm)
- ✓ 6-Digit, 14.2 mm (0.56") LED Display
- ✓ Green Display or Red, Sunlight-Readable Display
- ✓ Elapsed Timer with Preset Capability
- ✓ Counter with Preset Capability
- ✓ Cycle Counting Capability
- ✓ Programmable Function Keys and User Inputs
- ✓ 4 Setpoint Alarm Outputs
- ✓ Communications and Bus Capabilities
- ✓ PC Software Available for Meter Configuration
- ✓ NEMA 4X (IP65)

The PTC900 timer and PTC901 clock/timer offer many features and performance capabilities that suit a wide range of industrial applications. Both can function as an elapsed timer or preset timer, while the PTC901 also offers real-time clock with date capability. The plug-in option cards allow the user to configure the meter for the present application, while providing easy upgrades for future needs. Both models can function as an elapsed-time indicator. By using 2 separate signal inputs and 23 selectable timer ranges, the meters can be programmed to meet most any timing application. With the addition of a plug-in setpoint output card, they can easily become a dual or quad output preset timer. The PTC901 can also operate as a real-time clock with the real-time clock card already installed.



PTC901, \$211, shown smaller than actual size.

Panel punches available, visit omega.com/panelpunches



PTC901 case and mechanics, shown smaller than actual size.

The meters are capable of displaying time in 12- or 24-hour time formats. The 12-hour format can be displayed in hours and minutes, with or without an am/pm indication or in hours, minutes, and seconds. The 24-hour format can be displayed in hours and minutes or in hours, minutes, and seconds.

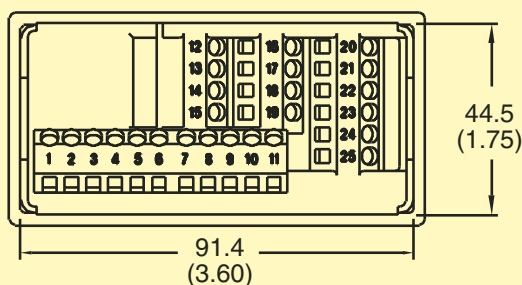
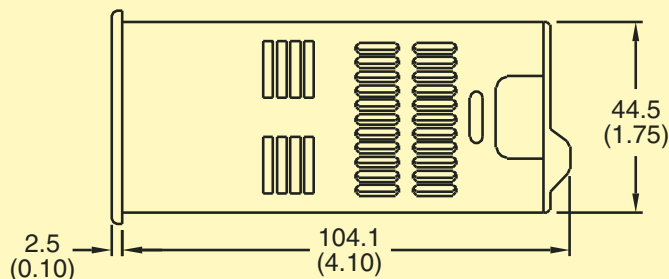
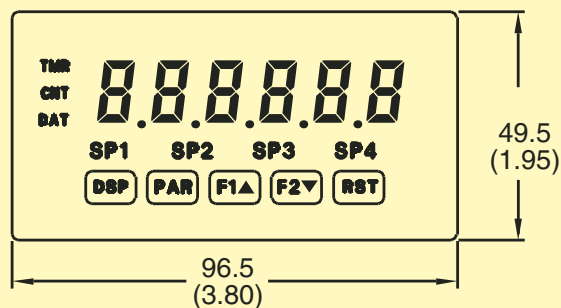
The PTC901 also has a calendar display in which the day, month and/or year can be displayed. The meter will recognize leap years, and can automatically adjust for Daylight Savings time. If the application calls simultaneously for a preset timer and a real-time clock, the PTC901 can handle this requirement as well. A battery-backed real-time clock plug-in card is provided with the PTC901. This card, which includes a lithium coin-cell battery, will maintain the time and date when main power is removed.

The meters accept inputs from a variety of sources, including switch contacts and outputs from CMOS or TTL circuits. The input can be configured to trigger on the edge or level of the incoming pulse. Internal jumpers are available for selecting sinking inputs (active-low) or

sourcing inputs (active-high). The front panel keys and three user inputs are programmable to perform various meter functions. The meters can have up to 4 setpoint outputs, determined by the optional plug-in cards. The setpoint plug-in cards provide dual form "C" relays (5A), quad form "A" relays (3A) or either quad-sinking or quad-sourcing open collector logic outputs. The outputs can be assigned to the timer, counter, RTC date, and RTC time. The outputs can also be independently configured to suit a variety of control and alarm requirements.

Plug-in cards can also provide serial communications. These include RS232, RS485 and MODBUS®. Display values, setpoint alarm values and setpoint states can be controlled through serial communications. Once the meters have been initially configured, the parameter list may be locked out from further modification entirely, or the setpoint, timer start/stop values, counter start/stop values, RTC time "set", and display intensity can be made accessible. Lockouts are activated through a security code or user input.

Dimensions: mm (in)



Specifications

Display: 6-digit, 14.2 mm (0.56") red sunlight-readable or standard green LED

Power:

AC Versions:

AC Power: 85 to 250 Vac, 50/60 Hz, 18 VA

Isolation: 2300 Vrms for 1 min to all inputs and outputs; 300V working

DC Versions:

DC Power: 11 to 36 Vdc, 14 W (derate operating temperature to 40°C (104°F) if operating <15 Vdc and 3 plug-in cards are installed)

AC Power: 24 Vac, ± 10%, 50/60 Hz, 15 VA

Isolation: 500 Vrms for 1 min to all inputs and outputs (50V working)

Sensor Power: 12 Vdc, ±10%, 100 mA max; short circuit protected

Keypad: 3 programmable function keys, 5 keys total

Timer Display

Timer Range: 23 selectable ranges

Timing Accuracy: ± 0.01%

Minimum Digit Resolution: 0.001 s

Maximum Least Significant Digit Resolution: 1 hr

Maximum Display: 999999

Cycle Counter Display:

Counter Range: 0 to 999999

Digit Resolution: 1 cycle

Maximum Count Rate: 50 Hz

Real-Time/Date Display (PTC901):

Real-Time Display: 5 display formats—hr/min/second (12 or 24 hr format), hr/min (24 hr), hr/min (12 hr with or without AM/PM indication)

Date Display: 7 display formats—month/day or day/month (numeric or 3-letter month format), month/day/year or day/month/year (all numeric), day of week/day (3-letter day of week format)

Real-Time Clock Card:

Field-replaceable plug-in card

Time Accuracy: ± 5 s/month (1 min/year) with end-user calibration

Battery: Lithium 2025 coin cell

Battery Life Expectancy: 10 years, typical

Synchronization Interface: 2-wire multi-drop network (RS485 hardware), 32 units max, operates up to 4000'

Isolation To Timer and User Input Commons: 500 Vrms for 1 min

Working Voltage: 50V, not isolated from all other commons.

Timer Inputs A and B

Type: Logic inputs configurable as current-sinking (active-low) or current-sourcing (active-high) via a single plug jumper

Current Sinking (Active-Low): $V_{il} = 0.9$ V max, 22 KW pull-up to 12 Vdc

Current-Sourcing (Active-High): $V_{ih} = 3.6$ V min, 22 KW pull-down, max

Continuous Input: 30 Vdc

Timer Input Pulse Width: 1 ms minimum

Timer Start/Stop Response Time: 1 ms max

Filter: Software filtering provided for switch contact debounce; filter enabled or disabled through programming; if enabled, filter results in 50 ms start/stop response time for successive pulses on the same input terminal

User Inputs

Type: 3 programmable user inputs; logic inputs configurable as current-sinking (active-low) or current-sourcing (active-high) through a single plug jumper

Current Sinking (Active-Low): $V_{il} = 0.9$ V max, 22 K Ω pull-up to 12 Vdc

Current-Sourcing (Active-High): $V_{ih} = 3.6$ V min, 22 K Ω pull-down, max

Continuous Input: 30 Vdc

Isolation To Timer Input Common: Not isolated

Response Time: 10 ms

Memory: Non-volatile E²PROM retains all programming parameters and display values



PTC900,
\$169.

All models shown
smaller than
actual size.



Environmental Conditions:

Operating Temperature Range: 0 to 50°C (32 to 122°F) [0 to 45°C (32 to 113°F) with all 3 plug-in cards installed]

Storage Temperature Range: -40 to 60°C (-40 to 140°F)

Operating and Storage Humidity: 0 to 85% max RH non-condensing

Altitude: Up to 2000 meters

Connections: High-compression, cage-clamp terminal block



PTC901,
\$211.

Construction: This unit is rated for NEMA 4X (IP65) outdoor use, IP20 touch-safe, Installation Category II, Pollution Degree 2, 1-piece bezel/case, flame-resistant, synthetic rubber keypad—panel gasket and mounting clip included

PTC901-LV,
\$239.



Weight: 286 g (10.1 oz)

Output Modules: For complete specifications, see LDP63100 Series, page M-100

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Model No.	Price	Description (Display Meter Only, No Outputs)
PTC900	\$169	Timer, red display, 85 to 250 Vac, 50/60 Hz
PTC900-LV	197	Timer, red display, 11 to 36 Vdc, 24 Vac
PTC900-GN	186	Timer, green display, 85 to 250 Vac, 50/60 Hz
PTC900-GN-LV	213	Timer, green display, 11 to 36 Vdc, 24 Vac
PTC901	211	Timer/real-time clock, red display, 85 to 250 Vac, 50/60 Hz
PTC901-LV	239	Timer/real-time clock, red display, 11 to 36 Vdc, 24 Vac
PTC901-GN	227	Timer/real-time clock, green display, 85 to 250 Vac, 50/60 Hz
PTC901-GN-LV	255	Timer/real-time clock, green display, 11 to 36 Vdc, 24 Vac

Optional Plug-in Output Cards (Field Installable)

Model No.	Price	Description
Setpoint Alarms (Only 1 Alarm Card Can Be Installed Into Base Meter)		
LDP6-CDS10	\$37	Dual setpoint relay output card
LDP6-CDS20	37	Quad setpoint relay output card
LDP6-CDS30	37	Quad setpoint sinking open collector output card
LDP6-CDS40	37	Quad setpoint sourcing open collector output card
Communications (Only 1 Communications Card Can Be Installed Into Base Meter)*		
LDP6-CDC10	\$48	RS485 serial communications output card with terminal block
LDP6-CDC1C	48	Extended RS485 serial communications output card with dual RJ11 connector
LDP6-CDC20	48	RS232 serial communications output card with terminal block
LDP6-CDC2C	48	Extended RS232 serial communications output card with 9-pin D connector
LDP6-CDC40	58	MODBUS communications card
LDP6-CDC4C	58	Extended MODBUS communications card with dual RJ11 connector

Accessories (Field Installable)

Model No.	Price	Description
PTC9-RTC00	\$42	Real-Time clock card (replacement)
DPP-5	525	1/8 DIN panel punch
CS-3785	150	Reference Book: McGraw-Hill Dictionary of Science

* Free DP6-SOFT software download available at omega.com/ptc901

Comes complete with operator's manual.

Note: Adding option cards—meters can be fitted with up to 2 optional plug-in cards, however, only 1 card from each function type can be installed at a time. The function types include setpoint alarms and communications. The cards can be installed initially or at a later date. Each optional plug-in card is shipped with installation and programming instructions.

Ordering Examples: PTC901-GN-LV, timer/real-time clock, green display, 11 to 36 Vdc, 24 Vac, LDP6-CDS10, dual setpoint, relay output card, \$255 + 37 = \$292.

PTC900, timer, red display, 85 to 250 Vac, 50/60 Hz, \$169.



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