WARRANTY

_____ production date

_____ warranty card number

Product: **Multifunctional timer**

Model: **CT02N** ☐ **H** ☐ **S**

Range (τ): ☐ 1÷10 sec ☐ 10÷100 sec ☐ 1÷10 min ☐ 10÷100 min

Period (**T**): ☐ 0.5 sec ☐ 1 sec ☐ . . . . . .

Option: ☐ "Mode selection"

Factory-set (fixed) operating mode: . . . . . .

External "Start/Stop": ☐ at power on ☐ from input ☐ from front-panel button

Output: ☐ EMR - 5A/250VAC ☐ SSR - 1A/250VAC
☐ open collector NPN - 40mA/40V ☐ for external SSR - 50mA/12(24)V

Option: ☐ "Auxiliary relay" (starts at each power-on)

Power supply voltage: ☐ 230 VAC ☐ 110 VAC ☐ 24 VDC

Serial No . . . . . Quality Control Passed:. . . . . .
(signature, stamp)

SPECIFICATIONS

Operating mode	selectable via micro switches
Time setting accuracy	± 2 % from span within +20 % ÷ -10 % of span
Input signal (external "Start/Stop")	passive contact
Operating temperature / humidity	-10÷65°C / 0÷85% RH
Storage temperature / humidity	-20÷65°C / 0÷95% RH
Protection: front / terminals	IP40 / IP20
Consumption	Max. 2 VA

Warranty: Comeco warrants this product to be free from defects in materials and workmanship for one year. If your Comeco unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see specifications).

Technical support: In the unlikely event that you encounter a problem with your Comeco unit, please call your local dealer or contact directly our support team at support@comeco.org.

. . . . . .
(date)

Retailer: . . . . . .

Buyer: . . . . . .

QD-8.2.4-WC, version 03-03

v0-10.03

COMECO CONTROL & MEASUREMENT

BS EN ISO 9001 Reg.No FM 40344

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MULTIFUNCTIONAL DIAL-TYPE ANALOG TIMER

CT 02 N

OPERATION MANUAL

CT02N is a timer, designed for time sequence control of various electrical actuators by switching them on and off. The time setting adjustment is done by rotating a dial on the front panel, and the operating mode can be selected by micro switches. The timing can be started at power-on, by external contact, or by front-panel button. The timer can be equipped with up to two relay outputs: a time-operated main relay and an auxiliary relay, which is activated at power-on. CT02N has no indication and is very easy to set and operate. It combines ease of use, low price, and, at the same time, all main functions of a modern electronic timer.

Please read this Operation Manual before mounting and operating!

MOUNTING AND WIRING

CT02N is designed for panel mounting. To mount the device, place it into a 45x45mm (for case type "S") or 93x45mm (for case type "H") cutout and tight it into place using the enclosed mounting bracket. The counters in case type "S" can also be mounted on DIN rail through the enclosed wiring connector.
Fig.1 and Fig.2 show the rear panels of the two case types. Please note the terminals' location and numbering.
Wire CT02N in case type "S" via the exposed screw terminals of the included UNDOCAL connector as illustrated on Fig.1, and the variants in case type "H" through the rear-panel screw terminals as shown on Fig.2.

Note: Do not turn the power supply on while mounting and wiring!

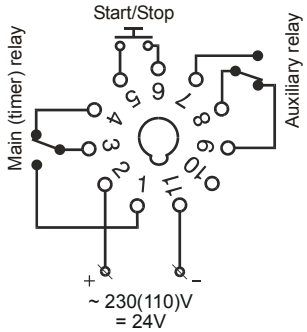


Fig.1

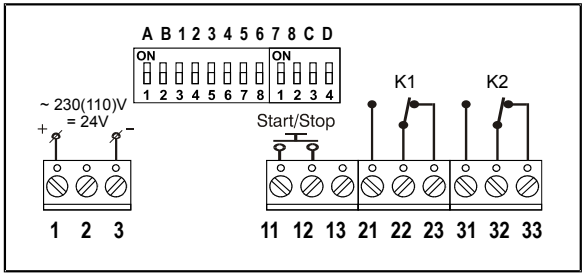


Fig.2

MODE SELECTION

The CT02N timer can run in eight operating modes. If the device is ordered with option for mode selection (see **Warranty**), the mode is user-selectable via micro switches, disclosed on the rear panel of the case type "H" (Fig.2) or accessible at open case type "S" (Fig.3). Otherwise, the mode is factory-set as specified in the order (see **Warranty**) and cannot be altered.
The different types of operating modes as well as their selection, if applicable, through positioning micro switches are illustrated in Table 1.
When adjusting the operating mode of a device in case type "H", strictly observe the numbering of the switches printed above them on the rear panel. The first two and the last two micro switches (A, B, C, and D) are intended only for factory seting-up and should not be used by the user (Fig.4).
The auxiliary relay, if mounted, turns on at power on and stays on as long as the device is power supplied.

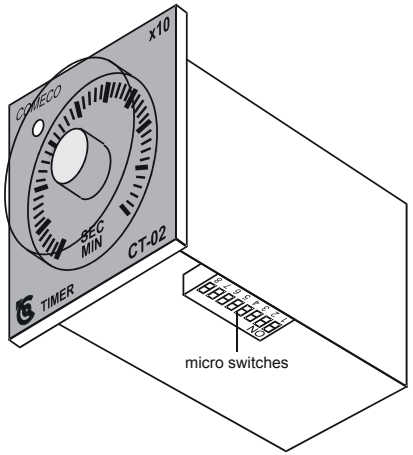


Fig.3

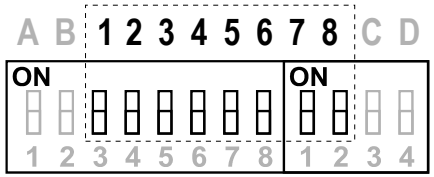
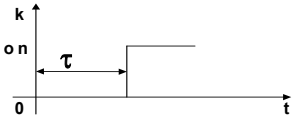
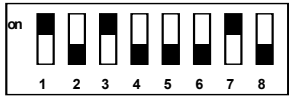
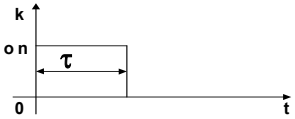
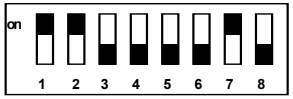
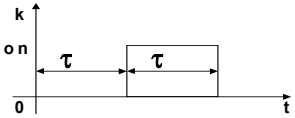
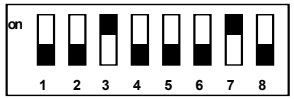
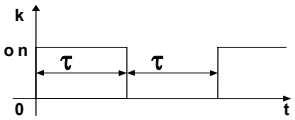
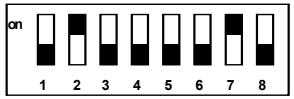
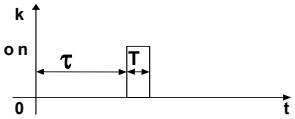
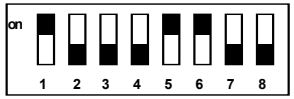
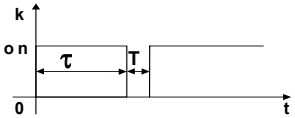
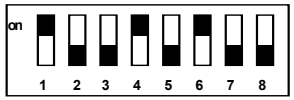
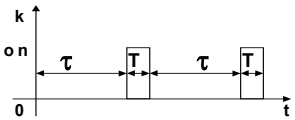
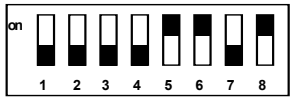
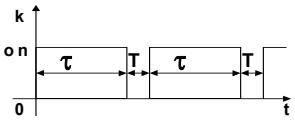
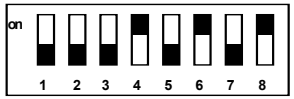


Fig.4

PERIOD ADJUSTMENT

The timer runs in one of four operating ranges, picked out at the time of ordering (see **Warranty**). The period τ is user-selectable within the ordered range at any moment through the rotating dial on the device front panel. The time τ can be read on the dial as it is seen, or, depending on the ordered range, multiplied by 10. The dimension (minutes or seconds) also depends on the ordered range.
The period **T** (see Table 1) is specified at the time of ordering and is usually 0.5 or 1 sec. (see **Warranty**).

Table 1

Operating mode	Diagram	Micro switches
1. Delay ON		
2. Delay OFF		
3. Cyclic mode with delay ON		
4. Cyclic mode with delay OFF		
5. ON output pulse with duration **T**		
6. OFF output pulse with duration **T**		
7. Cyclic ON output pulse with duration **T**		
8. Cyclic OFF output pulse with duration **T**		

INDICATION

The "REL" LED, in case of case type "S", and the "TIMER" LED on the case type "H" indicate the state of the main relay.
The "POWER" LED on the case type "H" shows power supply presence.