

# TIME SWITCH WITH TAPPETS AND DISPLAY - 1 DIN

## 24-hour model with $\pm 1h$ automatic daylight saving time adjustment



### 1 - Technical specifications

Supply voltage :	230V~ 50÷60Hz
Type of action, disconnect and device:	1 B U S / Electronic
Type of output:	Relay with changeover contact
	NC/COM/NA 16(2)A / 250V~ $\cos\phi = 1$
	1 mm <sup>2</sup> ÷ 2,5 mm <sup>2</sup>
Maximum wire section at terminals:	Class II <input type="checkbox"/>
Insulation:	IP40
Protection degree:	Normal
Pollution:	15 days
Data saved in the event of power supply failure:	72 hours
Recharge time to needed save data	$\pm 0,5$ sec/day
Time precision::	0 ÷ +50 °C
Operating temperature limits:	-10 ÷ +50 °C
Storing temperature limits:	DIN rail- Wall mount
Installation:	LVD EN60730-1 EN60730-2-7
Reference standard for CE mark:	EMC EN55014-1 EN55014-2
(directives 73/23/CEE - 89/336/CEE).	EN61000-3-2 EN61000-3-3



ENGLISH

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### Dimensions

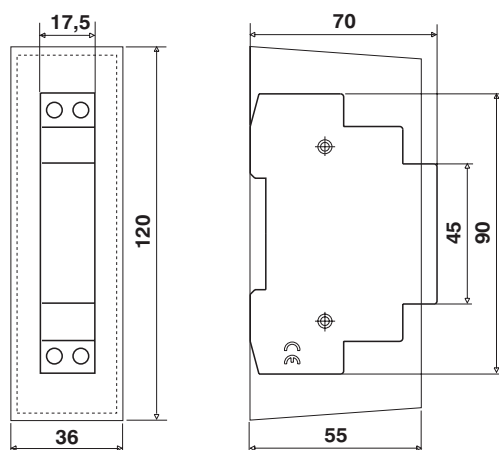


fig. 1

**Important:** installation and electrical connections of devices and appliances must be carried out by skilled people and in compliance with current regulations.  
The manufacturer declines any liability in connection with the use of products subject to special environmental and/or installation standards.

### 2 - INSTALLATION

- wall mounting with back plate and terminal cover (provided separately)
- on DIN rail

### 3 - ELECTRICAL CONNECTIONS

- switch mains supply off
- connect the 230V~ power supply to terminals N and L (fig. 2)
- connect the interlocked device to terminals 1 - 2 - 3 (fig. 2)
  - 1 - normally open contact
  - 2 - common
  - 3 - normally closed contact

### Terminal diagram

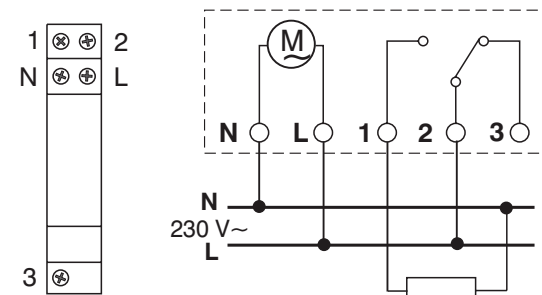


fig. 2

## Legend of display and operating buttons

NOTE: in these instructions the following convention is used:

**88** permanently alight      blinking

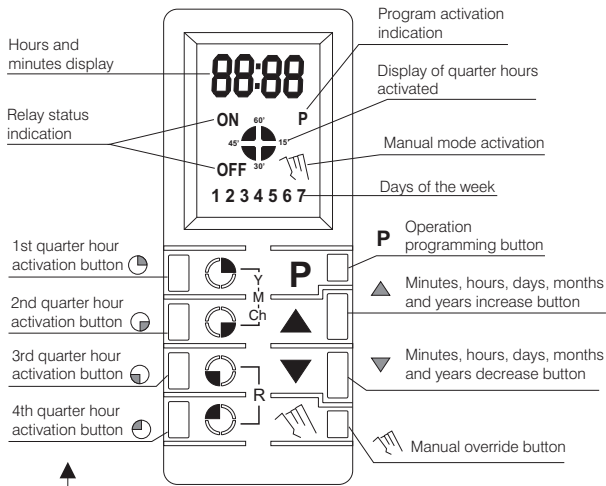


fig. 3

**N.B.** In a set program, the relative quarter hour is **deactivated** by pressing

## Key to button combinations



"FIRST USE" buttons



"RESET" buttons

Not active when the appliance is in manual override status



"CONFIRM" buttons

- programming and confirming :  
YEAR - MONTH - DAY - ±1h - HOUR

### RELAY STATUS DISPLAY

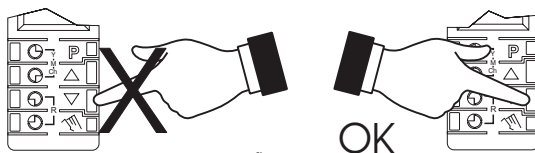
**ON** permanently alight = operation in program mode with relay activated

**OFF** permanently alight = operation in program mode with relay deactivated

**ON** and **OFF** blinking indicates power supply failure

### PRESSING THE BUTTONS

When the switch is mounted to a DIN rail alongside other components, operate the buttons with the finger placed at the centre of the appliance, pressing outwards (fig. 4)



### RESET

Two types of reset are possible:

- Pressing the "RESET" buttons simultaneously, all data in the memory is cleared, both date and time settings and relay activation program data.

- In the event of a power supply failure the accumulator will run down and the appliance resets by clearing day and time settings but maintaining on/off time settings.

### 4 - PUTTING INTO OPERATION

#### a) Powering up (switching on) for the first time

When the clock is powered up for the first time, the display will appear blank; activate by pressing the "FIRST USE" buttons simultaneously. The appliance will run a self-test routine, following which the date can be entered. (fig. 5)

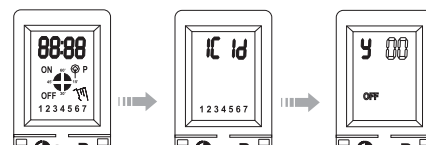
#### b) Powering up subsequent to first use.

The clock will come into operation with the display activated.

To set the clock again, press the "RESET" buttons simultaneously (General reset). The appliance will run a self-test routine following which the date can be entered. (fig. 5)

#### System test

Before starting to enter the date it is possible to select the status of the relay manually, by pressing momentarily. The ON or OFF status will appear in the display. After data has been entered for the first time, the relay returns to normal status automatically.



### 5 - MANUAL FORCING

With the appliance in "operating status", the status of the switching relay can be selected manually (forced) by pressing and holding for 5 seconds (the symbol will appear in the display); thereafter, each time is pressed the relay status will change (from ON to OFF and vice versa). Press and hold for 5 seconds to return to operating status.

## EASY PROGRAM

(operations to be carried out after "PUTTING INTO OPERATION" - chap.4)



"CONFIRM" buttons: pressing these simultaneously will confirm YEAR-MONTH-DAY data entered

### DATE AND TIME

- 1- Press ▲ and ▼ to select the year; press the "CONFIRM" buttons to confirm
- 2- Press ▲ and ▼ to select the month; press the "CONFIRM" buttons to confirm
- 3- Press ▲ and ▼ to select the day; press the "CONFIRM" buttons to confirm
- 4- Select the ±1hour change program (from 0 to 5); press the "CONFIRM" buttons to confirm
- 5- Press ▲ and ▼ to select the current time;
  - to adjust the minutes, press momentarily
  - to adjust the hours, press and hold
 (Wait for 5 seconds, then proceed)

### RELAY OPERATIONS

- 1- To access programming of daily switching operations, press **P**
- 2- To select the time of the switching operation, press ▲ and ▼
- 3- To activate the quarter hours of the hour the switching operation is to take place, press tappets ☉, ☌, ☍ and ☎
- 4- Repeat steps 2 and 3 for each hour of activation
- 5- To quit the programming function, press **P**

### 6 - SETTING CURRENT DATE AND TIME (fig.6)

Pressing the "CONFIRM" buttons simultaneously, the current date and time setting program will be activated.

Press ▲ or ▼ to select the current year (only the last two digits will appear on the display). Press the "CONFIRM" buttons again simultaneously to confirm. Repeat this same procedure above to set the month and then the day.

After confirming the current day with the "CONFIRM" buttons, Ch will appear on the display, followed by a number from 0 to 5, indicating the automatic adjustment program piloting the changeover from standard time to daylight saving time and vice versa (see relative chapter); select the program desired and confirm by pressing the "CONFIRM" buttons again.

Now set the current time by pressing ▲ and ▼; to scroll through the hours press and hold; to scroll through the minutes press momentarily. Once 5 seconds have elapsed after the last button has been pressed, the appliance reverts to operating status.

NOTE: after resetting, the display will appear as in fig.6; if the settings have been changed, then the current year, month, etc. will appear on the display.

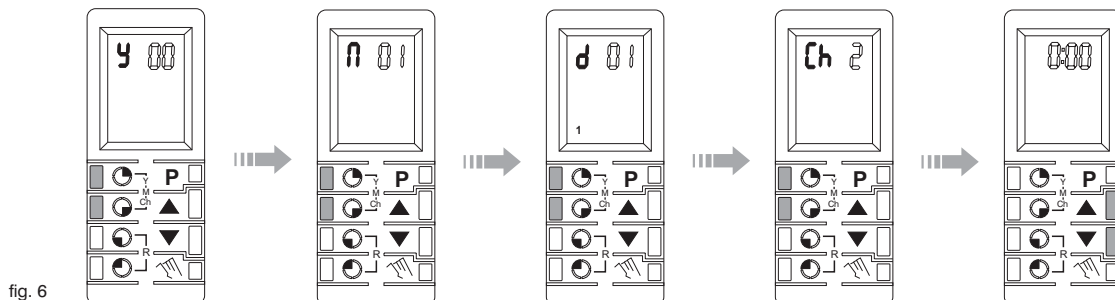


fig. 6

#### Change current time

With the appliance in operating status, press ▲ and ▼ as indicated in step 5 (DATE AND TIME) of EASY PROGRAM (display blinking). Once 5 seconds have elapsed after making the change, the appliance reverts to operating status (display permanently on).

### 7 - STANDARD/DAYLIGHT SAVING TIME ADJUSTMENT SETTING

Press ▲ and ▼ to select one of the automatic adjustment programs available (see following chart) according to the time zone. Selecting Ch5 and pressing the "CONFIRM" buttons simultaneously, the standard/daylight saving time adjustment can be set according to a preferred calendar.

**N.B.** The product is factory set on the Ch2 automatic adjustment program, which, if acceptable, needs only to be confirmed.

Display indication	Summer adjustment + 1 hour (daylight saving)	Winter adjustment - 1 hour	Time zones
Ch0	None	None	
Ch1	Last Sunday of March	Last Sunday of September	European Union
Ch2	Last Sunday of March	Last Sunday of October	European Union
Ch3	Last Sunday of March	Fourth Sunday of October	Great Britain
Ch4	First Sunday of April	Last Sunday of October	North America
Ch5	Free setting	Free setting	

#### Standard/daylight saving time adjustment setting according to preferred calendar

Press ▲ and ▼ to select the month for +1h change to daylight saving time (display: **ni00**). Press the "CONFIRM" buttons simultaneously to confirm, then proceed to set the day for +1h.

Press ▲ and ▼ again to select the day for +1h (display: **di00**), confirm by pressing the "CONFIRM" buttons, then proceed to set the month for -1h change back to standard time (display: **no00**).

Proceed as described above to set the month and day for -1h (display: **do00**); then press the "CONFIRM" buttons to return to operating status.

To be accepted by the appliance, the set adjustment program must include:

month +1h day +1h month -1h day -1h

**Note:** Time-out: in the event that programming operations are interrupted or programs changed, the appliance will revert automatically to "operating status" once 2 minutes have lapsed with no buttons being pressed; only programs completed and confirmed will be stored. After returning to operating status, at least 5 seconds must elapse before the **P** button becomes active.

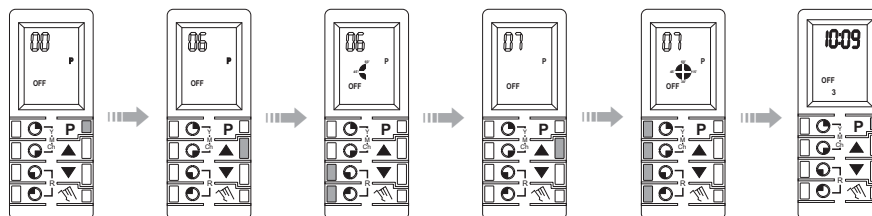
### 8 - RELAY ACTIVATION PROGRAMS

To access the programming function, press **P**; the symbol P will appear on the display (blinking if there are no other programs set). Now press ▼ ▲ and select the relay activation time (e.g. from 6:30 to 8:00): 06 will appear on the display; pressing **0** the relay will be activated from 6:30 to 6:45; pressing **3** the relay will be activated from 6:45 to 7:00.

Pressing ▲, 07 will appear in the display in the hour field; then, pressing **0**, **3**, **0**, **0** in sequence, the relay will be activated from 7:00 to 8:00 (the programmed quarter hours will appear in the display).

To program activation at other times, select the desired time by pressing ▲ ▼ and proceed as described above.

To quit the programming function, press **P**; this will return the appliance to operating status (the product will become active when one further minute has elapsed).



**Relay deactivation:**  
 - Access the program to be changed (see **Reading and changing set programs**)  
 - deselect the active quarter hours by pressing the relative buttons  
 - exit the programming

#### Reading and changing set programs

With the appliance in operating status, press **P** to access the relay programming function. There are two ways of displaying set programs:

- 1 - press ▲ and ▼ to scroll through the hours until a programmed hour is displayed, and the quarter hour settings will appear.
- 2 - pressing and holding **P** for a few seconds, the first program of the day will appear in the display. Pressing **P** again for a few seconds, the successive programs of the day (if any) will appear, otherwise the previous program will appear again. To quit display mode or change the programs proceed as described in chapter 7: RELAY ACTIVATION PROGRAMS.

*The manufacturer reserves the right to make all technical and manufacturing modifications deemed necessary without prior notice.*