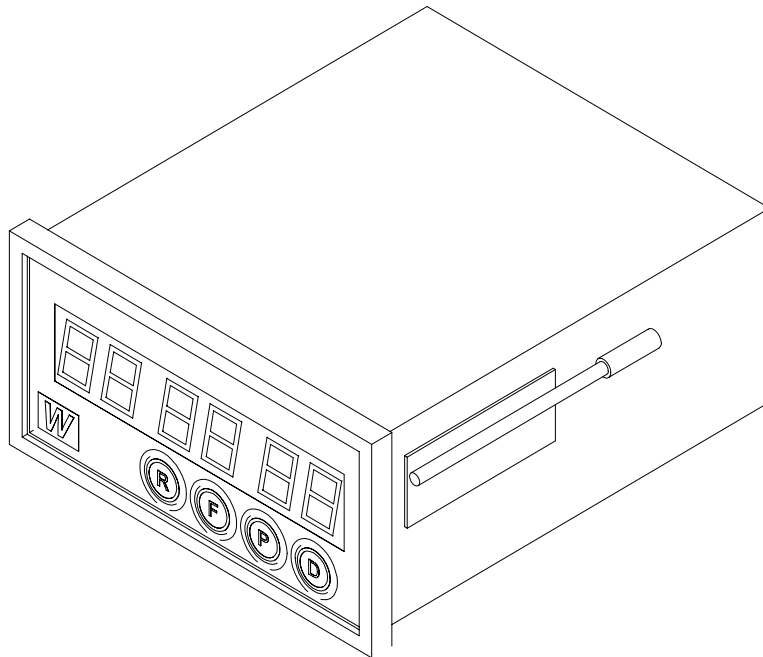




# Instructions

## Digital panel clock



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## General

Digital panel clock for indoor application has 6 digits with digit numeric display (LED) that are of high intensity type with long lifetime.

The Digital panel clock can be programmed for alternating time/date/temperature display in 0-25 sec intervals.

Temperature sensor is not included. It is an option.

The programming of time, Synchronisation and light intensity are made by push buttons, situated at the front.

The digital clock can operate stand alone with a built in quartz crystal as time reference, as a slave clock to a master clock transmitting 24 V polarised 1/1 minute impulses or synchronised by TC, DCF. If the DLS-function is set, the clock is changing, summer and winter time, the last Sunday in March and the last Sunday in October automatically.

The clock has adjustable light intensity. When pushing the D-button at the front the light intensity is changed. There are 9 levels. The lowest level the display is blanked.

If power failure occurs the display is turned off. The internal clock continues to keep the correct time for 48 hours. After power failure the display is turned on and correct time is shown.

If not specified in order the clocks are preset from factory in impulse Synchronisation mode.

## Installation

- If operated by synchronisation, check the strapping according to the drawing page 4. Connect the cables according the schema page 3.
- Connect the mains, market live, neutral and protective earth to the power terminal at rear. Required supply is 100-240VAC 50/60Hz. Use installation fuse max 10A. The socket outlet shall be installed near the clock and shall be easily accessible. When the clock is installed permanently, a readily accessible disconnect device (2-polar, 3mm contact gap) shall be incorporated in the fixed wiring.
- Assemble the front.
- Set the digital clock. See Programming.

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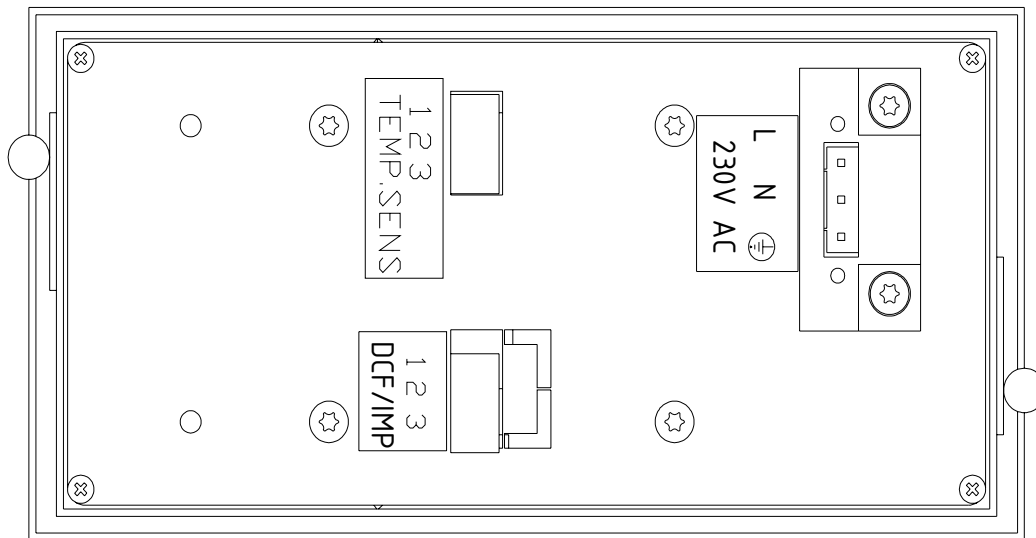
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## Connection

The connections are made at the back plate (see below.)



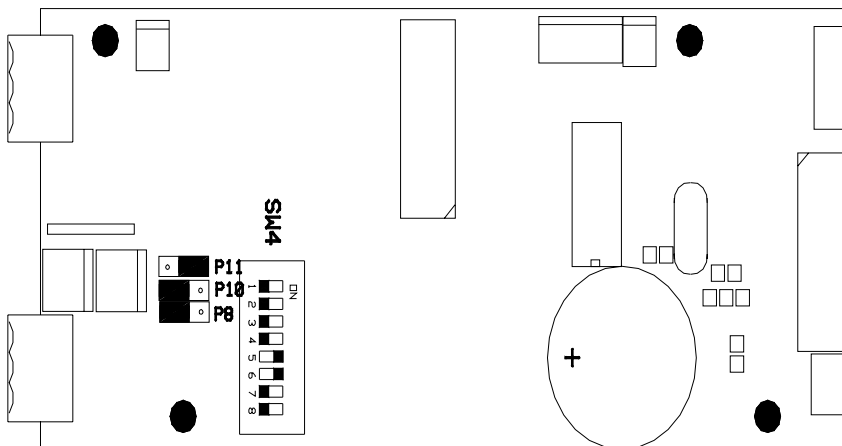
### Connection Synchronisation wire

TC/MIN-imp 1,2

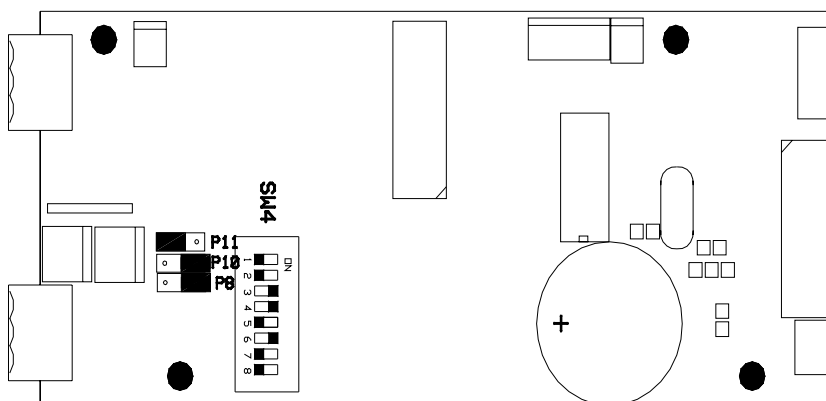
DCF 2-line 1 – V+, 3 – GND

DCF 3-line 1 – V+, 2- DCF, 3 – GND

**Strapping/DIP switch setting for TC / MIN-impulse (default)**

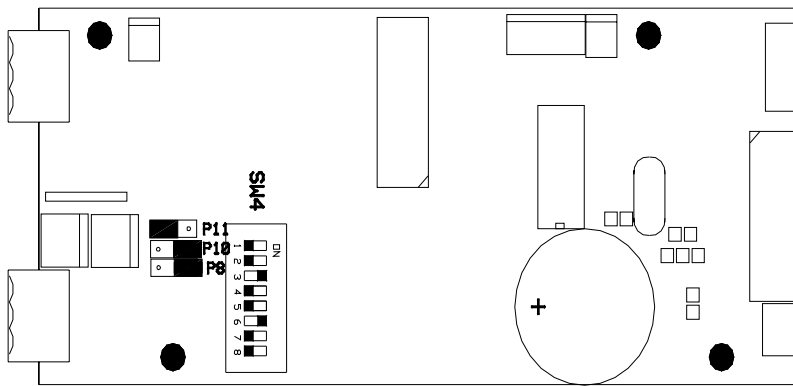


**Strapping/DIP switch setting for DCF-radio (2-wire) computer board**





**Strapping/DIP switch setting for DCF-radio (3 –wire) computer board**





## Synchronisation

### Stand alone

If the clock does not have an external synchronisation, it operates Stand alone.

### Minute impulse

Make the strapping according to the drawing for strapping page 4.

Connect the minute impulse wire according to the schema page 3.

The clock can be set in synchronisation or slave mode.

#### Synchronisation mode:

Set the clock for synchronisation, mode InSy See programming page 8.

Set time and wait for next minute impulse. The clock will be synchronised

#### Slave mode:

Set the clock for slave, mode InSL See programming page 8.

Set time and wait for next minute impulse. The clock operates as a slave clock.

### TC

Check the strapping according to the drawing for strapping page 4.

Connect the TC wire according to the schema page 3.

Set the clock for synchronisation, function DCF See programming page 8.

When a correct time message appears the clock sets the time.

The clock will blink colon when it is in sync and accepts transmitted code.

### DCF

Check the strapping according to the drawing for strapping page 5.

Connect the DCF wire according to the schema page 3.

Set the clock for synchronisation, function DCF See programming page 8.

When a correct time message appears, the clock sets the time.

The clock will blink colon when it is in sync and accepts transmitted code.

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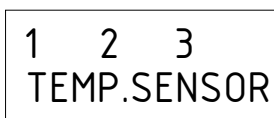
Internet: <http://www.westerstrand.se>  
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## Connection temperature sensor at backplate(this is an option).

Temperature sensor connection

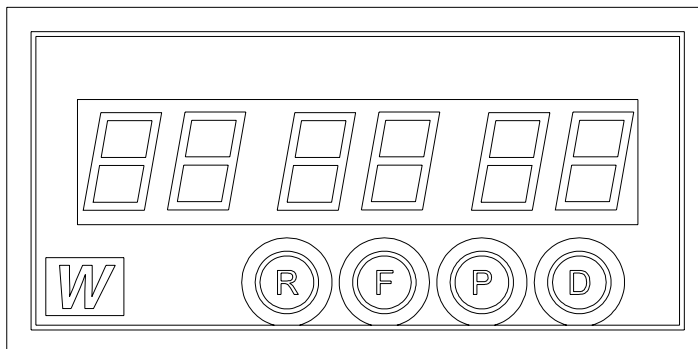
- 1 red.
- 2 black
- 3 Screen





## Programming

The programming is made by push buttons (see below).



- R (Return)** Enter the base mode (display time)
- F (Function)** Next function / Accept displayed value
- P (Program)** Enter the displayed function / Increase displayed value.
- D (Dimmer)** Set the light intensity for the display.





## Programming time

Push [F] until display shows

Push [P] display shows  year.

Push [P] until desired year (00-99)  
Accept with [F].

Display shows  month.

Push [P] until desired month (1-12).  
Accept with [F].

Display shows  day.

Push [P] until desired date (1-31).  
Accept with [F].

Display shows  hour.

Push [P] until desired hour (0-23). Accept with [F].

Display shows  minutes.

Push [P] until desired minute (00-59). Push [F] for synchronisation and the clock starts

Display shows:

Push [R]. The Programming is finished.

Display shows:

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## Setting light intensity

When pushing the D-button at the front the light intensity is changed. There are 9 levels. The lowest level the display is blanked.

## Setting synchronisation

Synchronisation for this model are minute impulse, TC, DCF (or stand alone).

Push [F] until display shows.

Sy nc

Push [P] until desired synchronisation.

no sy

No synchronisation, stand alone.

dcf

TC or DCF.

InSy

Impulse synchronisation.

InSL

Impulse slave.

Push [R] for entering base mode or push [F] for next function.



### Setting alternating time, Loop time

Push [F] until display shows.

Loop

Push [P].

Display shows

L1 4

Alternating time for display time is 4 seconds.

Push [P] for desired alternating time (0-25). Accept with [F].

Display shows  
seconds.

L2 0

Alternating time for display temperature is 0

Push [P] for desired alternating temperature (0-25). Accept with [F].

Display shows

L3 4

Alternating time for display date is 4 seconds.

Push [P] for desired alternating time (0-25). Accept with [F].

Push [R] for entering base mode or push [F] for next function.

### Setting Correction value for the temperature sensors.

With this function the temperature sensors can be adjusted  $\pm 9$  °C.

Push [F] until display shows.

Corr

Push [P].

Display shows

C1 0

Push [P] for desired correction value ( $\pm 9$  °C). Accept with [F].

Push [R] for entering base mode or push [F] for next function.

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## Setting DLS-function.

With this function the DLS can be activated.

Push [F] until display shows.

Push [P].

Display shows

or

Push [P] for DLS or not.

Push [R] for entering base mode or push [F] for next function.



## Technical specification

|                      |  |
|----------------------|--|
| <b>General</b>       |  |
| Synchronisation      | Polarised 24V impulse 1/1, TC, DCF   |
| Digit height         | 20 mm  |
| Diodes colour        | Red  |
| <b>Power supply</b>  |  |
| Connection voltage   | 100- 240 V AC 50-60 Hz.  |
| Power consumption    | 0.35A  |
| <b>Environmental</b> |  |
| Temperature range    | 0 °C till +40 °C   |
| Standards compliance | EN 61000-6-3:2001                      Emission<br>EN 61000-6-2:2005                      Immunity |
| Weight               | 1,0kg  |
| Dimensions           | 144x72x200 mm  |

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