# Analogue indoor Time Code Clock - Exclusive design with sweeping seconds hand 



Westerstrand analogue clocks type TIME CODE are operated and controlled by serial time code (containing information about year, month, day, hour and minute) from Westerstrand Master Clock with time code output. The Master Clock provides, in combination with the time code, also 24VDC supply to the analogue clocks. The time code from the Master Clocks charges a capacitor which stores energy in order to power the seconds hand motor. An opto sensor reads the position of the seconds hand when it is in 12-position in order to synchronize with the minutes hand. The seconds hand is sweeping and almost soundless.

Each clock movement has its own microprocessor to receive the time code, detecting the position of the hands and thereafter automatically set the hands to correct time. Each clock of a time code system is connected to a 2 -wire bus, which combines 24 VDC voltage feeding and the serial time code.
This combination of voltage and time code on the same pair of wires makes both cable laying and installation easier. Also exchanging slave clocks in an old system using polarised 24VDC impulses, is easily made as the existing cable can be used.

## General

- Sizes $\varnothing 230,300$ and 400 mm
- Housing i ABS-plastic, white (NCS 0502-B)
- White dial with black numerals 1-12 (A-dial), black hour marks (H-dial) or office version
- Black hour- and minute hand and red sweeping seconds hand
- Flat front cover of glass
- Single sided for surface wall mounting or double sided with mounting bracket for either wall mounting or ceiling/standing installation
- Double sided clocks consist of two single sided clocks and one bracket


## Options

- Front cover in acrylic or polycarbonate
- Protection cover in acrylic or polycarbonate
- Eloxed aluminum ring/housing (see leaflet E9070)
- Console for single sided mounting
- Back in white painted aluminium for single sided mounting with console
- Mounting ring


## Technical information

The baudrate of the time code is low, only 1 bit/second. This ensures that no high demands are set to the cable used at installation. Automatic control of the hands position at 12.00. The 12-position is detected by magnets and hall sensors. In the event of a power failure, the clock is temporarily stopped. When power returns the hands will automatically and rapidly, be set to 12 -position and thereafter to correct present time.

## Installation

The clock is connected to the 2 -wire bus. The hour- and minute hands are automatically, and rapidly, set to 12 position and remain there while waiting for correct time information to be received through the time code. When the movement has received, and accepted, a time code, the hands are automatically, and rapidly, forwarded to correct time. The speed at automatic rapid settina is one minute per second.

Technical Specifications

| Clocks HH:MM:SS - Single sided |  |  |  |
| :--- | :---: | :---: | :---: |
| Article No | Size | Dial | Weight |
| TS4021528-90 | $\varnothing 230$ | A | $0,9 \mathrm{Kgs}$ |
| TS4023528-90 | $\varnothing 230$ | H | $0,9 \mathrm{Kgs}$ |
|  |  |  |  |
| TS4031528-90 | $\varnothing 300$ | A | $1,2 \mathrm{Kgs}$ |
| TS4033528-90 | $\varnothing 300$ | H | $1,2 \mathrm{Kgs}$ |
|  |  |  |  |
| TS4041528-90 | $\varnothing 400$ | A | $2,0 \mathrm{Kgs}$ |
| TS4043528-90 | $\varnothing 400$ | H | $2,0 \mathrm{Kgs}$ |


| Bracket / Back cover |  |  |  |
| :--- | :---: | :---: | :---: |
| Article No | Type | Version | Weight |
| B161375-00 | Bracket | $\varnothing 230$ | $0,3 \mathrm{Kgs}$ |
| B161372-00 | Bracket | $\varnothing 300$ | $0,4 \mathrm{Kgs}$ |
| B161373-00 | Bracket | $\varnothing 400$ | $0,5 \mathrm{Kgs}$ |
|  |  |  |  |
| BC161595-00 | Back cover | - | $0,1 \mathrm{Kgs}$ |

Bracket arm in aluminium profile, back cover in white painted aluminium

## Dimensions



| Slave Clocks | A | B | C |
| :--- | :---: | :---: | :---: |
| $\varnothing 230$ | 236 | 120 | 356 |
| $\varnothing 300$ | 309 | 135 | 444 |
| $\varnothing 400$ | 410 | 145 | 555 |

All measurements in mm.


