

# Westerstrand Time System



## Silent Clock

- Analogue indoor Time Code Clock, exclusive design
- Available with or without sweeping seconds hand



Westerstrand silent analogue clocks type-C **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.

**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 24VDC 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 Ø230, 300 and 400mm
- Housing in ABS-plastic, white (NCS 0502-B) or graphite grey (RAL 7016)
- White dial with black numerals 1-12 (A-dial), black hour marks (H-dial).
- Black hour- and minute 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 polycarbonate or acrylic
- Protection cupola in acrylic or protection cover in polycarbonate
- Running reserve
- Back cover in white painted aluminium for single sided mounting with bracket
- Aluminumring
- 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 setting is one minute per second.

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## Technical Specifications

### Silent Time Code Clocks HH:MM – Type C

| Article No   | Size | Colour | Dial | Weight  |
|--------------|------|--------|------|---------|
| TM4021529-00 | Ø230 | Grey   | A    | 0,8 Kgs |
| TM4021529-90 | Ø230 | White  | A    | 0,8 Kgs |
| TM4023529-00 | Ø230 | Grey   | H    | 0,8 Kgs |
| TM4023529-90 | Ø230 | White  | H    | 0,8 Kgs |
| TM4031529-00 | Ø300 | Grey   | A    | 1,1 Kgs |
| TM4031529-90 | Ø300 | White  | A    | 1,1 Kgs |
| TM4033529-00 | Ø300 | Grey   | H    | 1,1 Kgs |
| TM4033529-90 | Ø300 | White  | H    | 1,1 Kgs |
| TM4041529-00 | Ø400 | Grey   | A    | 1,8 Kgs |
| TM4041529-90 | Ø400 | White  | A    | 1,8 Kgs |
| TM4043529-00 | Ø400 | Grey   | H    | 1,8 Kgs |
| TM4043529-90 | Ø400 | White  | H    | 1,8 Kgs |

### Silent Time Code Clocks HH:MM:SS - Sweeping seconds hand

| Article No   | Size | Colour | Dial | Weight  |
|--------------|------|--------|------|---------|
| TS4021528-90 | Ø230 | White  | A    | 0,9 Kgs |
| TS4023528-90 | Ø230 | White  | H    | 0,9 Kgs |
| TS4031528-90 | Ø300 | White  | A    | 1,2 Kgs |
| TS4033528-90 | Ø300 | White  | H    | 1,2 Kgs |
| TS4041528-90 | Ø400 | White  | A    | 2,0 Kgs |
| TS4043528-90 | Ø400 | White  | H    | 2,0 Kgs |

### Bracket / Back cover

| Article No  | Type       | Version | Weight  |
|-------------|------------|---------|---------|
| B161375-00  | Bracket    | Ø230    | 0,3 Kgs |
| B161372-00  | Bracket    | Ø300    | 0,4 Kgs |
| B161373-00  | Bracket    | Ø400    | 0,5 Kgs |
| BC161595-00 | Back cover | -       | 0,1 Kgs |

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

### Technical Data

Silent movement with a volume of LAeq < 6 dB

Power Consumption: 12mA/side

Operating Temp: 0 to +40°C

Relative Humidity: max 95%

IP rating: IP20

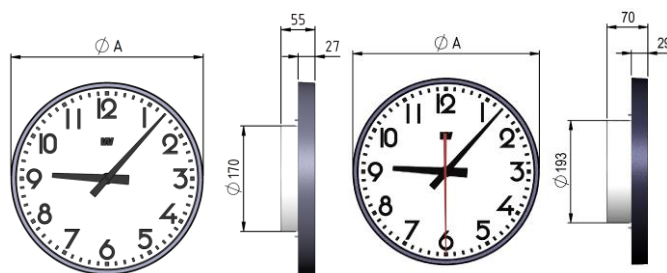
Reading distance:

Ø230: 10m

Ø300: 20m

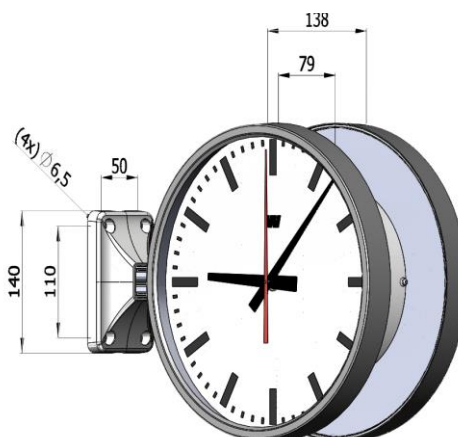
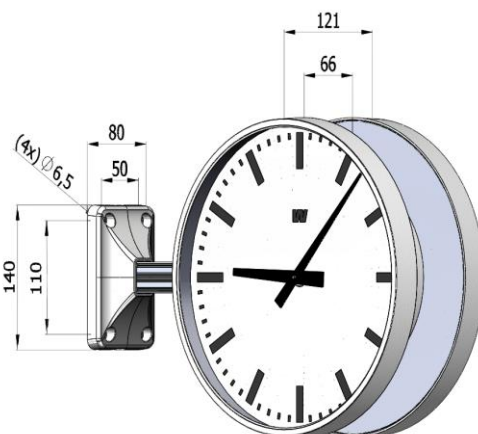
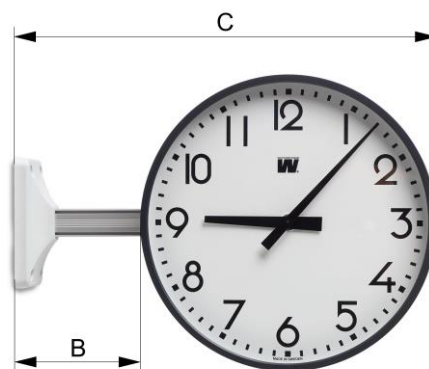
Ø400: 25m

## Dimensions



| Slave Clocks | A   | B   | C   |
|--------------|-----|-----|-----|
| Ø230         | 236 | 120 | 356 |
| Ø300         | 309 | 135 | 444 |
| Ø400         | 410 | 145 | 555 |

All measurements in mm.



We reserve the right to make changes at any time.