

DESCRIPTION

- These clocks are intended for use on railway, subway and bus stations platforms, in workshops, etc.
- Waterproof, backlit analogue display clock, suitable for indoor and outdoor use.
- Display includes hour and minute hand or hour, minute and second hands depending on model.
- Dial marking: Arabic figures.
- Versions: quartz (independent), minute 24V HM slave, AFNOR coded time slave or DCF synchronised slave clock.
- Backlighting: neon tube on waterproof models.



STANDARDS

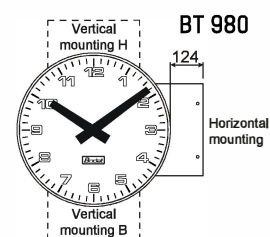
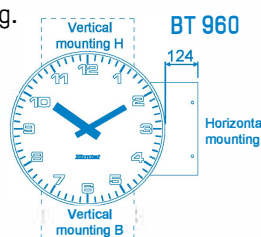
- Directive EMC 2014/30/EU: EN55022 and EN55024
- Directive LVD 2014/35/EU: EN60950
- Directive RED 2014/53/EU: EN301-489-3

TECHNICAL FEATURES

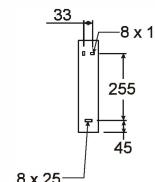
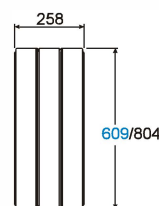
Movement	Power supply	Consumption			Operating temperatures	Display
		Single Sided	Single Sided Backlit	Double Sided Backlit		
Quartz with time setting box.	230 V	10 mA	1.51A	1.51A	- 40 °C to +50°C	HM
24V minute parallel slave	24V	10 mA	1.51A	1.51A	- 40 °C to +50°C	HM
AFNOR + radio DCF slave	230 V	-	1.7A	1.7A	- 25 °C to +70°C	HM/HMS

MECHANICAL FEATURES

- **Construction**..... Light grey lacquered aluminium casing.
- **Double side hanging**..... Bracket for wall or ceiling mounting.
- **Viewing distance**..... 60 m (BT960) - 80 m (BT980).
- **Glass**..... Safety glass crystal.
- **Dial**..... White.
- **Protection Index**..... IP54, IK08.
- **Option**..... Swivel opening.



Models	Weight		
	SF (Single Sided)	SFEE (SS Waterproof and Backlit)	DFEE (Double Sided WB)
960	9 kg	-	22 kg
980	14 kg	18 kg	34 kg



REFERENCES

	Indoor SF	SFEE	DFEE FVH	DFEE FH	
BT 960	931 415	-	-	-	24V minute parallel slave
	931 512	931 532	931 552	931 562	Quartz with time setting box
BT 980	931 515	931 535	931 555	931 565	24V minute parallel slave
	-	931 539	931 559	931 569	AFNOR HM + radio DCF

I SF : Indoor Single Sided,
 SFEE : Single Sided Waterproof and Backlit,
 DFEE FVH : Double Sided Waterproof and Backlit Vertical Mouting H,
 DFEE FH : Double Sided Waterproof and Backlit Horizontal Mouting.



MOVEMENTS AND SYNCHRONISATION

Quartz movement with time setting box

The clock is completely autonomous: the time information is provided by its own time system.

Precision ± 1 minute per year.

Backup in case of power failure: 72 hours.

• Minute series impulses movement (for BT radio system)

The slave clocks are connected to a BT radio synchronisation receiver which sends an electric pulse every minute to the clocks.

Line current: 65 to 100 mA depending on shunt value.

• AFNOR time coded slave movement

The time coded time distribution transmits a complete time message every second. The clocks' time setting is accomplished automatically as soon as the clocks are connected to the network.

The AFNOR code and is not sensitive to and does not emit electric disturbances. A battery keeps the clock operating in case of power failure (1 hour).

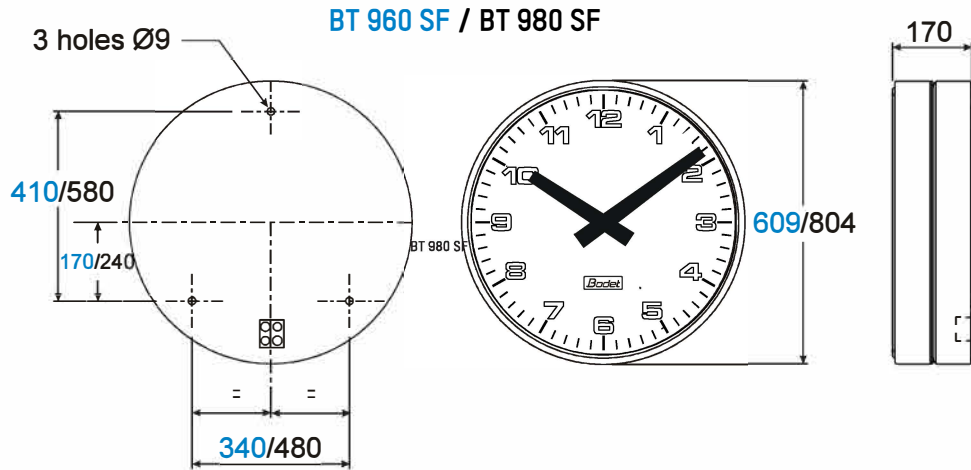
• DCF radio slave movement

DCF radio synchronisation allows for absolute time precision as well as automatic Summer/Winter changeovers.

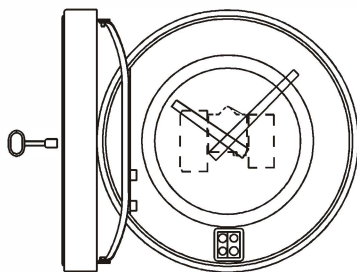
A battery keeps the clock operating in case of power failure (1 hour).

• 24V minute parallel impulses slave movement

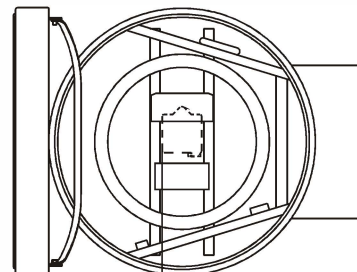
The slave clocks are connected to a distribution line and driven by electric pulses that are sent by the master clock every minute.



Single Sided swivel arm opening



Double Sided swivel arm opening



MOUNTING ACCESSORIES

- 933 007..... Time setting control box
- 933 010..... ALS radio box
- 933 011..... 230V DCF radio box

Dimensions in mm

Ref.: 643001L 12/18

