

# Time distribution

## Wireless time distribution

## DHF

The wireless time distribution synchronises a network of clocks located in different buildings without any need of cables. The master clock transmits a time code via a radio transmitter. The slave clocks are automatically synchronised when receiving the time signal. In the event of interference, the clocks can still run on their own time basis. The radio waves (869 MHz) can be received through building walls. Covered area: 100 to 200 meters depending on number, structure and thickness of the walls. The 869 MHz radio frequency is part of the licence free ISM band (Industrial Scientific and Medical) according to ETS 300-220 European standard. The wireless time distribution uses secured digital transmission preventing from interference with other systems. Software analysis of the time messages received ensures reliability comparable to wired time distribution.



### Applications:

- New buildings: a wireless system ensures an important cost saving during installation and a wider choice in selecting the clocks final location.
- Industrial or public premise renovation, expanding existing installation: a wireless system enables installation of the clocks without considering the existence or the location of specific cables for the time distribution.
- Several building installations i.e. university campus, major production sites or location separated by roads or highways: a wireless system offers a simple solution to unify time distribution.

### Transmission power:

The transmission power of the DHF transmitter can be adjusted depending on the installation.

Small installation and sensitive environment.

Power: 25mW

Standard installation.

Power: 125mW (Default setting).

Covered area: Zone 1.

Large installation.

Power: 500mW

Covered area: Zones 1 + 2.

Complex installation or heavy industrial environment

Power: 500mW + DHF repeater.

Covered area: Zones 1 + 2 + 3

### Technical data:

Range: 1km in open space; 100 to 200m in buildings.

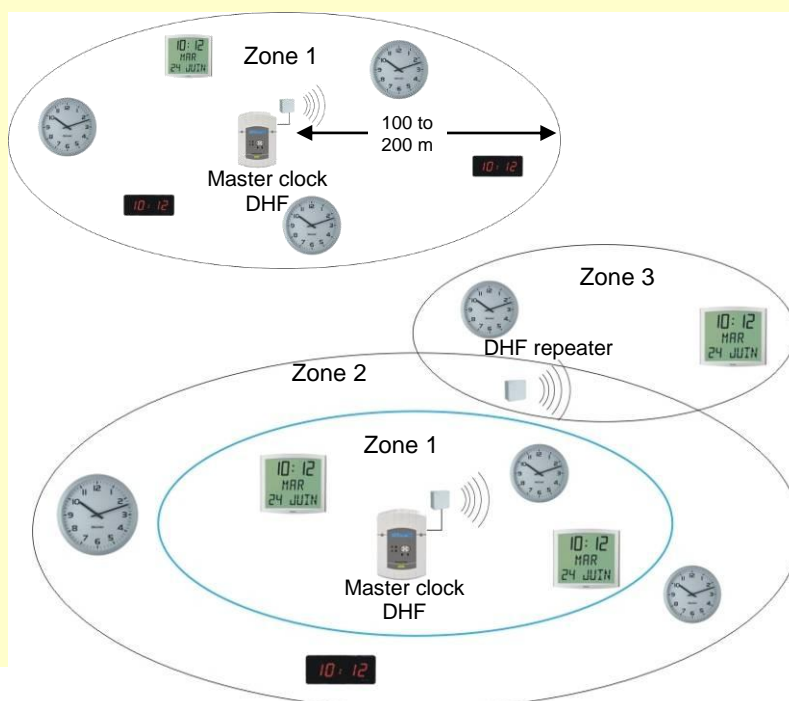
Transmission power: 25, 125 or 500 mW.

Operating temperature: -10 to +50°C

Rel. humidity: up to 80% at 40°C (non-condensing)

ABS casing IP54 for indoor.

Dimensions: 100 x 100 x 54 mm.



### Norms:

EN 300-220-3: Radio equipment

EN 301-489-3: EMC standard for radio equipment

EN 60950- EN 55022 - EN 55024: Safety of information technology equipment

NF S 87500C: AFNOR time transmission (single channel, 869.525 MHz, 500 mW).



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### ► Master clocks:

	Wall	Rack	Rack
		110/230VAC	24VDC
• Sigma H	907411	907413	907414
• Sigma P	907431	907433	907434
• Sigma Mod	907451	907453	907454

### ► DHF transmitter and repeater:

• DHF transmitter 9-40V DC	907511
• DHF repeater 110/240V	927240

### ► DHF clocks:

**Cristalys** – 4 casing colours (aluminium, burgundy, champagne, white)

Powered by	batteries	TBT
• Cristalys 7	938141	938143
• Cristalys Date	938241	938243
• Cristalys Ellipse	938341	938343
• Cristalys 14	938641	938643

#### Opalys powered by 240V

• Opalys 7	938133
• Opalys Date	938242
• Opalys Ellipse	938342
• Opalys 14	938642

#### Style powered by 240V

	Red	Yellow	Green
• Style 5	936371	936373	936372
• Style 5S	936471	936473	936472
• Style 5D	936571	936573	936572
• Style 7	936671	936673	936672
• Style 7E	936771	936773	936772
• Style 7D	936871	936873	936872
• Style 12	935171	935173	
• Style 12S	935271	935273	
• Style 12E	935371	935373	
• Style 12SE	935471	935473	
• Style 12Ei	935571	935573	

#### Profil powered by batteries

	White	Black	Chromium
• Profil 930 HM figures	982211	982212	982213
• Profil 930 HM notches	982221	982222	982223
• Profil 930 HMS figures	982311	982312	982313
• Profil 930 HMS notches	982321	982322	982323
• Profil 940i HM figures	985211	985212	985213
• Profil 940i HM notches	985221	985222	985223
• Profil 940i HMS figures	985311	985312	985313
• Profil 940i HMS notches	985321	985322	985323
• Profil 940e HM figures	984B11 A		
• Profil 940e HM notches	984B21 A		
(A = waterproof version IP54 for farm-produce industry).			
• Profil 960i HM figures	933B11		
• Profil 960i HM notches	933B21		

#### Profil powered by TBT

	White	Black	Chromium
• Profil 930 HM figures	982411	982412	982413
• Profil 930 HM notches	982421	982422	982423
• Profil 930 HMS figures	982511	982512	982513
• Profil 930 HMS notches	982521	982522	982523
• Profil 940i HM figures	985411	985412	985413
• Profil 940i HM notches	985421	985422	985423
• Profil 940i HMS figures	985511	985512	985513
• Profil 940i HMS notches	985521	985522	985523
• Profil 960i HM figures (230VAC)	933C11		
• Profil 960i HM notches (230VAC)	933C21		

### ► DHF interface:

This interface enables synchronisation of any AFNOR clocks with DHF signal

• DHF / AFNOR interface 240V	927245
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