

## Clock Model RAD2000



- Synchronizes time and date by means of official signals with RF emission.
- Interfaces with RS232-C, RS232-C/RS422 serial lines, impulses, solid-state switching, Ethernet.
- Immediate availability of the signal on installation.

### General description

The RAD2000 is a Radio-Synchronized clock that incorporates a high stability temperature-compensated quartz oscillator. The oscillator is recalibrated automatically at each emission of the official time signal for Italy – generated by the IEN (Istituto Elettrotecnico Nazionale Galileo Ferraris) and broadcast via the RAI radio stations– thereby allowing the clock to maintain its level of accuracy.

It contains a digital tuning F.M. receiver and a F.S.K. decoder for reception and decoding of the signals emitted by the radio stations, an internal microprocessor that permits complete automation of synchronization such as for example update for switching over between Normal time/Summer time or the change of the calendar – analyzing the signals received, it regulates the Frequency of the oscillator.

When not powered from the mains, a back-up system permits maintenance of the clock function.



The RAD2000 is used mainly in EDP systems, PC networks to synchronize their Time and Date, NTP Ethernet networks with TCP/IP protocols, surveillance systems (which use TV camera viewing systems and access control systems with motion sensors), synchronization clocks of movement automatic devices for PLC system; it can synchronize impulse clocks, time-card clocks or attendance control systems, measurement systems, printers, modems and laboratory instrumentation.

RECEIVER SECTION		RAD2000
Receiver	-	Radio
Tuning	-	Digital, frequency synthesis PPL
Band or frequency reception	-	FM 88 – 108 MHz
Decoder	-	High stability FSK (2 KHz, 2,5 KHz)
Antenna input	-	BNC
Antenna	- Option Option Option	pen type 5-part antenna with 25 m cable 50 m 75 m
Signal output	-	Internal audio
Number of channels	-	1

#### SAMPLE TIME REFERENCE

##### SECTION (PPS)

Impulse	-	positive, TTL compatible
Amplitude	-	> 3 Vpp on 50 Ohm
Duration	-	1 ms
Accuracy of the positive edge in relation to UTC time (USNO)	-	< 0,1 ms + 1 ms/h

#### POWER SUPPLY I/O SECTION

Model set up	- Option	table-top container W235x H90xD240 mm 19" rack W480x H90xD240 mm
Configurazione d'interfaccia	- - - Option Option	RS232C RS232C/RS422 Solid-state switching Ethernet TCP/IP IRIG-B
Power supply	- Option	220 V, 50 - 60 Hz, 10 W 18 – 72 Vcc, 12 W