

**PRECISE** : Very high frequency accuracy (0.005%) with display over 4 or 10 digits.

- Very high sine quality (distorsion <0,1%).
- duty cycle: adjustable from 10 to 90%.

**COMPLETE** : Internal or external AM, FM, FSK et PSK modulation schemes.

- Internal linear or logarithmic sweep
- 0,8Hz to 100Mhz external frequency meter.
- Offset independent of attenuator

**PROTECTED** : 50Ω and TTL output protected up to ±60V.

**EASY** : Storage for 14 setups and parameters.



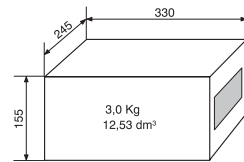
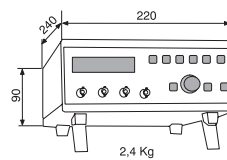
\*OPTION : USBRS232

## PROTECTED

11μHz to 12MHz

DSS

AM, FM, FSK, PSK



## Specifications

### Functions

- Sine : Frequency range 11μHz to 12MHz. distortion at 2 Volts <0,1% up to 20 KHz and harmonics <-30dB.
- Square : frequency range 11μHz to 12MHz. square-wave signal rise or fall times : 25ns maxi (10 to 90%). duty cycle calibrated to 50% ± 1% and continuously variable from 10 to 90%.
- Triangle : frequency range 11μHz to 12MHz. Linearity <1% (up to 100KHz).
- Ramp : frequency range 22μHz to 5MHz, rising or falling. Linearity <1% (up to 100 KHz)
- Impuls : Square-wave signal adjustment at the minimum
- DC : ± 10V (open circuit), ± 5V into 50Ω
- Frequency adjustment : Thumbwheel switch with selected digit incrementation or decrementation.
- Frequency display : 10 digits in extended mode  
4 digits in standard mode.
- Accuracy : ±50ppm +10μHz.

### Frequency sweep

- Internal : linear or logarithmic, sweep time adjustable from 10ms to 10s. Sweep from 0,372 Hz to frequency Max. (F stop mini = F start +100Hz. Step of 10Hz). Start synchronization of the ramp output on BNC socket.

### Modulation

Internal sine-wave AM, FM, PSK, FSK to 800 Hz.

External on BNC socket, Input impedance : 10KΩ.

- AM : Internal, modulation percentage settable to 25, 50, 75 or 100%. External, bandwidth from DC to 20KHz, 1V rms=100%.
- FM : Deviation adjustable from 100 Hz to Fmax, bandwidth from DC to 5.6KHz.
- FSK : Adjustable from 100Hz to Fmax, bandwidth from DC to 20KHz.
- PSK : Phase adjustable from 0 to 360°, bandwidth from DC to 20KHz.

### Main output (Protected against short circuits and up to ±60V reverse current surges)

- Output impedance : 50Ω, accuracy : ± 5%.

- Output level : 20V peak to peak (open circuit), 10V peak to peak into 50Ω.
- Amplitude variation : from 0,1 to 1dB depends of the frequency
- Fixed attenuation : 0, - 20dB and - 40dB switchable.
- Variable attenuation : 0 to -20dB.
- Offset voltage : ± 10V (open circuit), ± 5V into 50Ω independent of the attenuator.

### TTL output (Protected against short circuits and up to ±60V reverse current surges)

- Synchronous square-wave signal 0 to 5 Volts. Fan-out : > 10.
- Rise and fall times : < 10 ns.

### Frequency counter

- Frequency range : 0,8Hz to 100MHz in 5 automatic ranges  
0,8Hz to 25MHz and 1 range from 25 to 100MHz.
- Display over 5 digits.
- Input on BNC socket, impedance : 1MΩ/20pF
- Typical sensitivity : 25mV rms.
- Accuracy : ± 0,025% ±1 digit.

### Other specifications

- Parameter display : 2 lines of 16 characters.
- Memorizing of the parameters: Safeguard of 14 configurations.
- Interface : RS232 link 9-way male SUB-D plug. labVIEW's drivers download on [www.elc.fr](http://www.elc.fr)
- Safety : Class I, Complies with EN 61010-1, overvoltage category II, pollution degree 2.
- EMC : Complies with EN 50082-1, performance criteria B and EN55011, ISM groupe I, class B.
- Input voltage : 230V ±10%, 50 / 60 Hz ; protected by 200 mA time-delay fuse.
- Mains input : EEC socket with 2 poles + earth cable.
- Power consumption: 30VA max.
- Dielectric strength : 2300V from input to output, 1350V from input to chassis.
- Presentation : screen-printed polycarbonate front panel, metal case, epoxy finish, feet.