

INSTRUMENTS FOR MEASURING AND MONITORING
OF ENVIRONMENTAL ELECTROMAGNETIC FIELDS

HT300 · HT300P HT310 · HT310P

Low and high frequencies application compliant to
D.P.C.M. 08/07/2003 and 2004/40/CE Directive Dosimetry
function aimed to individual control of the exposure in working places.
Long term monitoring with analysis period up to one month
Graphic application for measurement analysis
ISO IEC EN 17025 calibrating

TECHNICAL SPECIFICATIONS

	HT300	HT300 FFT	HT300P	HT310	HT310P
Unit of measurement	microTesla (T)	microTesla (T)	microTesla (T)	Volt/meter (V/m)	Volt/meter (V/m)
Measure type	RMS	RMS	RMS	RMS	RMS
Sensor type	Isotropic	Isotropic	Isotropic	isotropic triaxial	
Isotropy (typ.)	0,5dB	0,5dB	0,5dB	n.d.	3dB (250MHz)
Orthographic rejection	20dB	20dB	20dB	-	-
Frequency response	1dB	1dB	1dB	±4,5dB	±3dB
Linearity	<1dB + 1 step	1,5dB	<1dB + 1 step	1dB + 1 step	1dB + 1 step
Frequency range	40Hz-1kHz (5kHz)	20Hz-10kHz	40Hz-1kHz (5kHz)	50MHz-2,5GHz	50MHz-2,5GHz
Dynamics	0,05 - 200_T	<0,3 - 200_T	0,05 - 50_T (0,5-199,99_T)	0,5 - 30 V/m	0,5 - 19,99 V/m
Resolution step	0,01_T (< 2_T)	0,1_T 0,2_T (<200_T)	0,05_T	0,2 V/m	0,1 V/m
Frequency accuracy	-	10Hz	-	-	-
Power supply	9V PP3 battery	9V PP3 battery	9V PP3 battery	9V PP3 battery	9V PP3 battery
Battery duration	More than 1 month	80 hours	More than 24 hours	10 days	More than 8 hours
Memory	> 16.000 values	> 16.000 values	> 8.600 values	> 16.000 values	> 2.800 values
Measures	Instantaneous value	Instantaneous value	Instantaneous value	Instantaneous value	
	24 hours average	24 hours average	6 minutes average	6 minutes average	
	Arithm. average	Arithm. average	Min. value	Min. value	
	Min. value	Min. value	Max. value	Max. value	
	Max. value	Max. value			
Display	-	-	LCD 31/2	-	LCD 31/2
Temperature range	From 0°C to 40°C	From 0°C to 40°C	From 0°C to 40°C	From 0°C to 40°C	From 0°C to 40°C
Humidity	80% no condensation	80% no condensation	80% no condensation	80% no condensation	80% no condensation
Size (mm)	175 x 60 x 25	175 x 60 x 25	310 x 95 x 40	175 x 60 x 25	310 x 95 x 40
Weight	150 g	150 g	300 g	150 g	300 g



TECNOSERVIZI

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 **TECNOSERVIZI**

HT300

This professional isotropic device measures and monitors low frequency magnetic induction. Its special design permits you to use it as an instantaneous measure device via a real time connection to a PC, as well as a personal dosimeter or monitoring microdevice for acquiring long term measures. Being compliant to D.P.C.M. 08/07/2003 concerning the exposition of population and to directive 2004/40/CE regarding the exposition in working places, HT300 allow for a continuous magnetic induction analysis with sampling period and frequency user programmable via the specific managing software.

Easy to use and precise, allow for the storage of monitoring intervals greater than one month without having to replace batteries. Typical suitable applications are in the public field (private buildings, areas for children, offices and any location close to transformation cabins, power lines and similar field sources) and professional field (health physics hospital departments, firms operating in the safety field and occupational medicine, industrial machineries). The supplied software allows the display of the measure in RS-232 connection and returns the following data:

- Calculation of the average in a 24 hour period.
- Calculation of the average, minimum and peak value of the resultant.
- Graphical display of the amplitude/time trend of each axis and for the resultant.
- Vector graphical display.
- Threshold marker and adjustable zoom window.
- Chronological and level list of each sampling for each axis and the resultant with indication of the average value.
- Statistic histogram of the resultant up to 11 field values classes.

HT300 is available as the FFT version which offers the frequency analysis in the measure spectrum of the device



HT300P

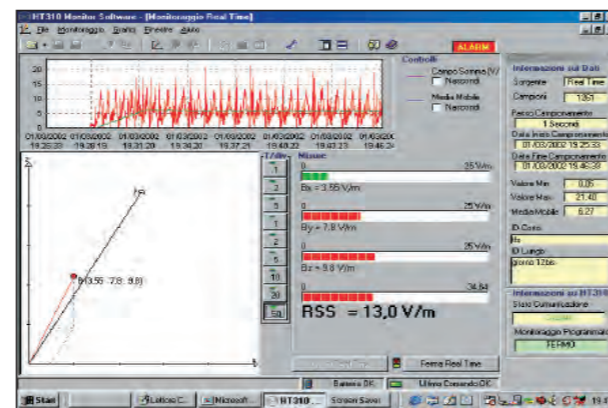
Is a professional isotropic measuring device for measuring and monitoring of low frequency magnetic induction. The heart of the instrument derives from the HT300 model and it is particularly suitable when is necessary to carry preliminary measures with realtime display of the values without the need of an external PC. Supplied with dedicated function keys, this instrument permits the realtime analysis of the magnetic induction with the possibility of automatic storage for a period up to 24 hours. On the LCD display the measures of the RMS instantaneous, average and peak isotropic value are presented. Compliant to D.P.C.M. 08/07/2003 concerning the exposition of population and to directive 2004/40/CE regarding the exposition in working places, HT300P represent a quick and cheap solution for carrying out magnetic induction measurements in conformity with the current guide lines. The supplied software allows the measure display in USB connection and returns data the same as the HT300 version.

HT310P

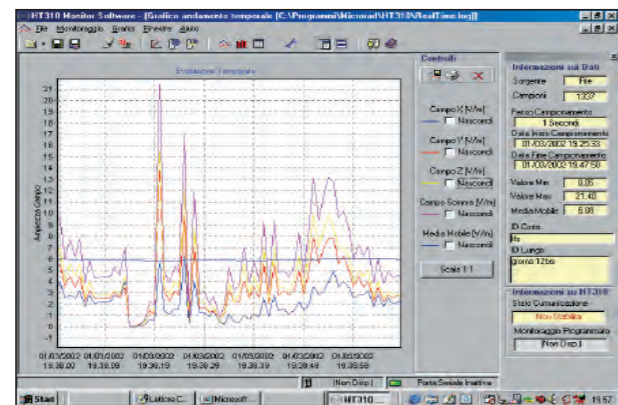
Measures and monitors the RF electric field. With the same basic functions of the HT310, the TH310P is used mainly in the field of telecommunications, of broadcasting and mobile communication systems. The battery duration for the long term measuring is about 8 hours depending on the sampling frequency chosen. On the LCD display the measures of the RMS instantaneous isotropic value, the moving average value on 6 minutes and the peak value are presented. The supplied software has the same features of the HT300P model with the exception that the average value of each axis and of the resultant is presented as moving average on 6 minutes in compliance to the regulation

HT310

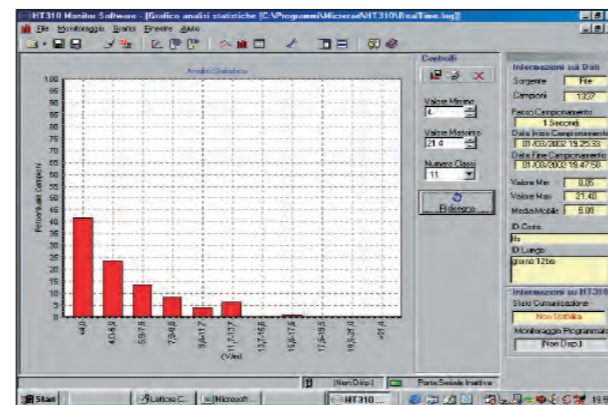
Conceptually identical to the HT300 model, HT310 measures and monitors the RF electric field. With the same basic functions of the HT300, the HT310 is used mainly in the field of telecommunications, of broadcasting and mobile communication systems. The battery duration for the long term monitoring is about 7 days depending on the sampling frequency chosen. The supplied software has the same features of the HT300 model with the exception that the average value of each axis and of the resultant is presented as moving average on 6 minutes in compliance to the regulation.



X, Y, Z axis and isotropic graph



Real Time Measure



Histogram

Values table

Data	Value	Unit	Scale	Resolution
01/09/2002 19:25:33	0.04	V/m	0.01	0.01
01/09/2002 19:25:34	0.03	V/m	0.01	0.01
01/09/2002 19:25:35	0.03	V/m	0.01	0.01
01/09/2002 19:25:36	0.03	V/m	0.01	0.01
01/09/2002 19:25:37	0.03	V/m	0.01	0.01
01/09/2002 19:25:38	0.03	V/m	0.01	0.01
01/09/2002 19:25:39	0.03	V/m	0.01	0.01
01/09/2002 19:25:40	0.03	V/m	0.01	0.01
01/09/2002 19:25:41	0.03	V/m	0.01	0.01
01/09/2002 19:25:42	0.03	V/m	0.01	0.01
01/09/2002 19:25:43	0.04	V/m	0.01	0.01
01/09/2002 19:25:44	0.04	V/m	0.01	0.01
01/09/2002 19:25:45	0.04	V/m	0.01	0.01
01/09/2002 19:25:46	0.04	V/m	0.01	0.01
01/09/2002 19:25:47	0.04	V/m	0.01	0.01
01/09/2002 19:25:48	0.04	V/m	0.01	0.01
01/09/2002 19:25:49	0.04	V/m	0.01	0.01
01/09/2002 19:25:50	0.04	V/m	0.01	0.01
01/09/2002 19:25:51	0.04	V/m	0.01	0.01
01/09/2002 19:25:52	0.04	V/m	0.01	0.01
01/09/2002 19:25:53	0.04	V/m	0.01	0.01
01/09/2002 19:25:54	0.04	V/m	0.01	0.01
01/09/2002 19:25:55	0.04	V/m	0.01	0.01
01/09/2002 19:25:56	0.04	V/m	0.01	0.01
01/09/2002 19:25:57	0.04	V/m	0.01	0.01
01/09/2002 19:25:58	0.04	V/m	0.01	0.01
01/09/2002 19:25:59	0.04	V/m	0.01	0.01
01/09/2002 19:26:00	0.04	V/m	0.01	0.01

CODICI D'ORDINE

TS/HT300 Base unit with hard case, data transfer and analysis software, PC connection cable, calibration certification.

TS/HT300 FFT Base unit with hard case, data transfer and analysis software, PC connection cable, calibration certification.

TS/HT/opz01 Frequency band extension from 10Hz to 5kHz.

TS/HT300P Base unit with hard case, data transfer and analysis software, PC connection cable, calibration certification.

TS/HTP/opz02 Dynamic range from 0,2_T to 200_T.

TS/HT310 Base unit with hard case, data transfer and analysis software, PC connection cable, calibration certification.

TS/HT310P Base unit with hard case, data transfer and analysis software, PC connection cable, calibration certification.

TS/HT/opz03 Non metallic tripod.

TS/HT/opz04 IP67 protective case for open-air monitoring.

