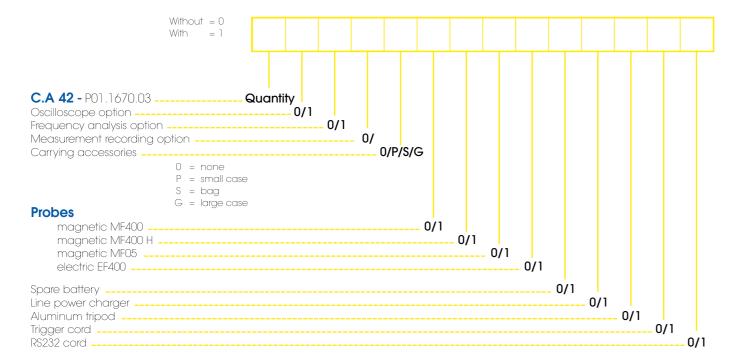
#### **Technical characteristics**

- With an isotropic internal probe for measurement of the magnetic field.
- The frequency bands, dynamic ranges, scales, and measurement precisions vary with the isotropic magnetic or electric field probe used.
- Back-lit liquid crystal display (LCD) 160 x 140 pixels.
- Stored evaluation standards: 6 standard, including ICNIRP (Example: BGV B11 Exp.1, 2h/d, Exp.2, DIN/VDE 0848, others optional)
- Surveillance by automatic recording with time interval between 1 and 999 s
- Communication: RS232 serial port Rate from 4,800 to 57,600 Bauds
- Analog outputs (3 channels) standardized: 1 V full scale 0 to 30 kHz direct: output voltages of the probe
- Operating temperature: 0 to +50°C
- Power supply: by rechargeable internal battery

#### To order a C.A 42

in the configuration and with the accessories of your choice, fill in all the boxes of the codification line

Delivered with protective sheath, 230 V line power charger, RS232 cord, Trigger cord, rechargeable battery pack, carrying bag, and LOG42 PC



Protection and transport         Small case         P01.1673.07           Large case         P01.1673.08           Bag         P01.1673.09           Magnetic probes         MF 400         P01.1673.02           MF 400 H         P01.1673.03           MF 05         P01.1673.04           Electric probe         EF 400         P01.1673.05           Spare battery         P01.1673.13           Line power charger         P01.1673.13           Aluminum tripod         P01.1673.10           Option:         oscilloscope frequency analysis measurment recording           Trigger cord         P01.1673.11           RS232 cord         P01.1673.12	Accessories				
Magnetic probes  MF 400 — P01.1673.02  MF 400 H — P01.1673.03  MF 05 — P01.1673.04  Electric probe  EF 400 — P01.1673.05  Spare battery — P01.1673.13  Aluminum tripod — P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord — P01.1673.11	Protection and transport	Small case	P01.1673.07		
Magnetic probes         MF 400         P01.1673.02           MF 400 H         P01.1673.03           MF 05         P01.1673.04           Electric probe         EF 400         P01.1673.05           Spare battery         P01.1673.06           Line power charger         P01.1673.13           Aluminum tripod         P01.1673.10           Option: oscilloscope frequency analysis measurment recording           Trigger cord         P01.1673.11	·	Large case	P01.1673.08		
MF 400 H P01.1673.03 MF 05 P01.1673.04 Electric probe EF 400 P01.1673.05  Spare battery P01.1673.06 Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11					
MF 400 H P01.1673.03 MF 05 P01.1673.04 Electric probe EF 400 P01.1673.05  Spare battery P01.1673.06 Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11					ly The state of th
Electric probe  EF 400  P01.1673.04  P01.1673.05  Spare battery  P01.1673.06  Line power charger  P01.1673.13  Aluminum tripod  Option: oscilloscope frequency analysis measurment recording  Trigger cord  P01.1673.11	Magnetic probes	MF 400	P01.1673.02		
Electric probe  EF 400 P01.1673.05  Spare battery P01.1673.06 Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11		MF 400 H	P01.1673.03		
Spare battery P01.1673.06 Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11		MF 05	P01.1673.04		1
Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11	Electric probe	EF 400	P01.1673.05		
Line power charger P01.1673.13 Aluminum tripod P01.1673.10  Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.11	Spare battery		P01.1673.06	-3	
Aluminum tripod Option: oscilloscope frequency analysis measurment recording  Trigger cord P01.1673.10 P01.1673.11	,				
Option: oscilloscope frequency analysis measurment recording  Trigger cord ————————————————————————————————————					
measurment recording  Trigger cord — P01.1673.11	'			/   \	
Trigger cord P01.1673.11	1	frequency analysis		/ 11/	
	1	measurment recording		r\	
RS232 cord — P01.1673.12	Trigger cord —————				
	RS232 cord —		— P01.1673.12		

#### **FRANCE**

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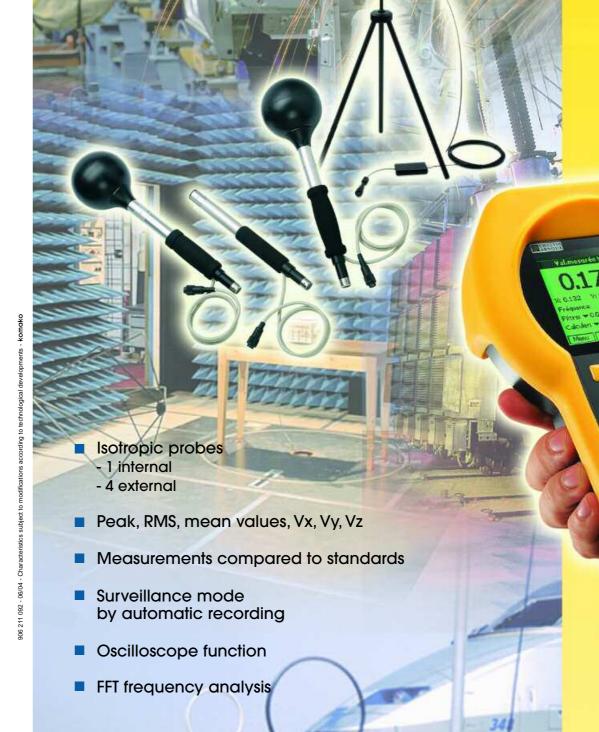


\* according to the probe

**C.A 42** 

LF fieldmeter





The C.A 42 is an LF electric and magnetic fieldmeter designed to check the emissivity of any electrical device in accordance with EMC requirements. It also checks the field levels present at a site in the context of international standards governing the protection of individuals in a private capacity or at their places of work.

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The C.A 42 also represents the variations of the electric or magnetic fields vs. time (oscilloscope function), or the harmonic and non-harmonic frequency distribution by calculation of the FFT.

#### Oscilloscope function option

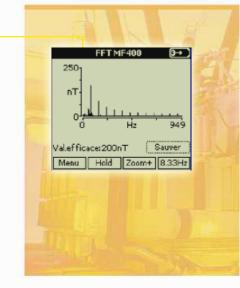
- Representation of variations of the mean, RMS, or peak values in one of the 3 axes (x, y, or z) vs. time
- Adjustable time base
- Synchronization: level and polarity of triggering adjustable
- "Hold" function with the use of an adjustable cursor
- Zoom: increase of resolution by a factor between 20 and 40

#### Clientele

- Suppliers and users of electric power:
  - Electricity manufacturers and users of electrical equipment and household appliances,
  - Railways, Automobile, etc.
- Inspection organizations



- Representation of the harmonic and non-harmonic components of the observed field, in mean, RMS, or peak value in one of the 3 axes (x, y, or z)
- FFT calculated on 2048 points
- Bandwidth to 3 dB down: 91 kHz (according to the probe)
- Hold function with the use of an adjustable cursor
- Zoom: increase of resolution by a factor of 8



Very simple to use, this fieldmeter has an internal isotropic magnetic **measurement probe**. Four other isotropic probes are available as accessories: the EF 400 electric field probe (1 V/m to 30 kV/m) and three magnetic field probes, MF 05, MF 400, and MF 400H (10 nT to 1T), one of which measures the earth's magnetic field (MF 05).

## Fields of application

- EMC: fields radiated by electrical equipment
- Protection of the individual: check of the values specified by international standards (ICNIRP, etc.),











Name	C.A 42	MF 400	MF 400 H	MF 05	EF 400			
Isotropic probes	Internal	P01.1673.02	P01.1673.03	P01.1673.04	P01.1673.05			
Measurement	Magnetic field	Magnetic field	Magnetic field	Magnetic field	Magnetic field			
Equivalent area (ç)		100 cm <sup>2</sup>	100 cm <sup>2</sup>					
Frequency band to 3 dB down (without filter)	10 Hz to 30 kHz	10 Hz to 400 kHz <sup>(2)</sup>	10 Hz to 400 kHz <sup>(2)</sup>	0 to 500 Hz	5 Hz to 400 kHz (5)			
Measurement dynamic range	200 nT to 40 mT	10 nT to 20 mT	100 nT to 200 mT	1 μT to 1 T	1 V/m to 30 kV/m			
Measurement scales		200 nT / 2 / 20 / 200 µT / 2 / 20 mT	2 μT / 20 / 200 μT / 2 mT / 20 / 200 mT	200 μT, 10 mT and 1T	300 V/m, 3 and 30 kV/m			
Precision	±5% <sup>(1)</sup> ±4 digits	±3% <sup>(3)</sup> ±4 digits	±3% <sup>(3)</sup> ±4 digits	±3% <sup>(4)</sup>	(6)			
Band-pass filters	From 16,67 to 2000 Hz depending of the probe							
Wide-band filters	According to the standard							
Power supply	Ni-MH batteries	none	none	none	Ni-MH or Ni-CD Batteries			
Batterie live	6 h (without back-lighting)			-	6 to 8 h			
Dimensions	266 x 144 x 60 mm	425 x 35 x 118 mm	425 x 35 x118 mm	316 x 35 mm	Sphere - Diameter 8mm			
Length of cable		1 m	1 m	1 m	Optical fibre			
Mass	950 g	400 g	400 g	260 g	300 g			

The C.A 42 fieldmeter is specially designed to measure electric and magnetic fields in the low-frequency range (from DC to 400kHz) and compare the measured values to the requirements of European directives and world standards (IEC, EN, DIN, UTE, VDE, BGV, ICNIRP, etc.).

The measurements made by the device are displayed either as absolute values (V/m or T and their multiples and sub-multiples), or as relative values (%) compared to the reference values prescribed by the standards.

They apply to the public and private domains as well as to the industrial testing of the electromagnetic conformity of electrical apparatus.

The function of surveillance of the long-term evolution of the fields is performed by recording in automatic mode; the interval of time between measurements can be configured from  $1\ \text{to }999\ \text{s}.$ 

- (1) frequency response  $\pm 1\%$ ; linearity  $\pm 1\%$  et  $\pm 3.5\%$  for internal probe , isotropy  $\pm 1\%$  and  $\pm 3\%$  for MH 05 and EF 400
- (2) with wide-band filter ; 2 kHz to 400 kHz with high-pass filter

(3) Band 1 - 10 Hz to 3,2 kHz 5 Hz to 3,2 kHz Band 2 - RMS 2 kHz HP 2 kHz to 400 kHz Band 3 - RMS wide-band 5 Hz to 400 kHz

- (4) in permanent use
- (5) in permanent recording mode with a measurement interval of 1 mm
- (6) In conformity with the requirements of standards DIN VDE 0848

