

## Transmitting Loop Antenna, type MTA-MLA-930

Item no. 11938

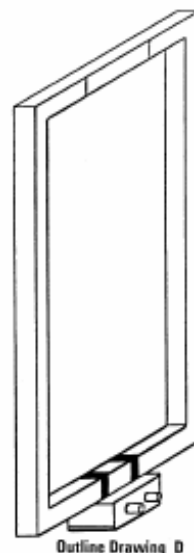
### Short description

In the VLF-HF frequency range 9 kHz to 30 MHz the magnetic field strength is measured preferably, but often expressed in the unit of the electric field strength as the "fictive E field level" (dB $\mu$ V/m).

In the undistorted far-field both units are linked by the characteristic impedance of free space  $120 \text{ pW} = 377 \text{ W}$ . Practical EMC/EMI measurements however are carried out in the near-field zone ( $D < 0.1 \lambda$ ).

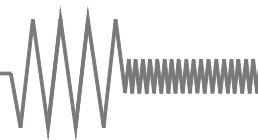
For that reason defined magnetic field sources are required. For immunity tests powerful H fields might be needed, but also general tests and measurements at an open site in screened rooms and in absorber-lined rooms require well-defined powerful H field sources.

Magnetic fields in the near-field zone decay with the inverse 3rd power of distance (approx. 18 dB at twice the distance). Even at 1 m distance at 30 MHz the transition from pure near-field to far-field begins, the exponent of degradation gradually reduces from 3 to 1 in the undistorted far-field.



### Characteristics

- ▶ H Field transmit loop, passive
- ▶ Frequency range 9 kHz – 30 MHz
- ▶ Constant H field, strength independent of frequency
- ▶ 3/8" camera thread for mounting on tripods
- ▶ Fully shielded
- ▶ Application: transmit 100 W



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### Technical datas

#### Electrical specification:

Frequency range:	9 kHz – 30 MHz
VSWR typ.(Ref. 50 Ω):	<1,2 of 0,1 – 10 MHz
Polarisation vertically mounted:	Vert.pol. f. E-Feld
Directive pattern:	2x 90° half power vertical axis
Max. input power:	30 W continuously, 100 W for short periods (with external dummy-load)

#### Delivery package:

- 50 Ω 5 W termination

#### Comments:

Warranty: 12 months

#### Recommended accessories:

- measurement cable assembl.
- preamplifier

#### Connectors:

RF-connectors:	2x BNC female
Camera thread:	3/8"

#### Mechanical specification:

Dimensions:	0,6 m x 0,6 m
Weight:	2 kg

The magnetic loop antennas described here may be operated with up to 100 W for short periods and with 30 W continuously. An external 50 ohm power termination with the proper dissipation is required. Up to 5 watts of laboratory power signal generators a 50 W termination is part of the complete package.