

LFAD-BF

Diabolo antenna shape for smart entry system.

Most of the vehicles currently manufactured in the world with a KES (keyless entry system) use a number of short antennas. Depending on the quality of the vehicle and the system they use 3, 4, 5 antennas (in the door handles, interior antenna, in the trunk handle...)

Rooming an antenna in the car sometime becomes a very hard task.

This kind of antennas keep the performance saving space, little bit wider, but very reduced length in the total space.



Depending on the requirements and location of the antennas in the vehicle and taking into account its exposure to environmental conditions, grade IP waterproof, mechanical robustness, etc.. PREMIO offers from LPM technology, to Polyurethane, mixed LPM-resin and HPM.

New Diabolo with Low Pressure Technology (LPM)

- LPM is a well know technology in PREMIO
- Vert fast to produce (No Curing needed)
- IP56 grade Waterproof

New Diabolo with PU-resin

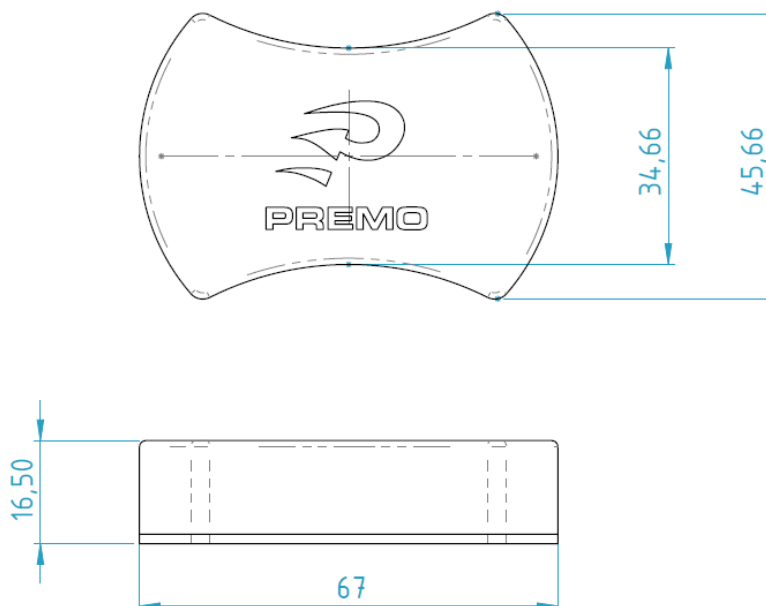
- High mechanical robustness
- IP68 grade Waterproof

Characteristics:

The main technical and economic advantages:

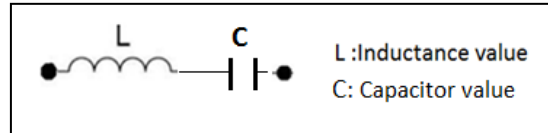
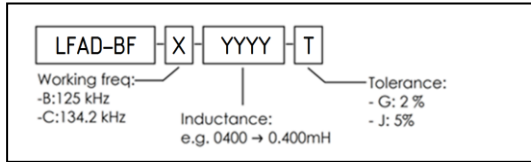
- Middle antenna (length until 70mm).
- External housing shape flat Material PBT-GF30% or PA66-GF30%
- High stability in temperature (-40°C up to +85°C).
- Resonant frequency adjusting below +/- 2kHz.
- Custom L-C value (F-Res: LFAD-BF) under demand
- This antenna is designed based on AECQ-200.
- Less length than classic ferrite rod antenna.

Mechanical dimensions:



Nomenclature description and Schematic Diagram

- L+C in series:**



Electrical specifications

Operating Frequency @125Khz @25°C @1Vac (L+C in series)

P/N	L(mH)	Cres (nF)	Q(L+C)	Rac (Ω)	Arms	H-Field (dBμV/m) @1App@1m
LFAD-BF-B-0500J	0.500	3.3	>100	<2	1A	108.3

Antenna is measured in resonant mode.

The specification chart is a reference guide for the most common required values at working frequencies of 125 kHz, 20 kHz and 134.2 kHz. Any other inductance value at LF or tighter tolerances can be provided. Please contact our sales department for any inquiry.

RADIATED H-field (Ipp)@distance:

- **Procedure**

- Magnetic field probe measures in load $I_{pp}=1A_{pp}$ to 1meters @ $f_0=125KHz$
- Receiving the signal from the probe field with the spectrum analyzer.

- **Setup**

