

# KGEA-BA

keyless go emitter bumper antenna 153x45x27mm (33 uH - 500 uH)

## Features

The LF Bumper antenna is designed for emission of a LF field to allow hands free access towards the Customer Device Identification for automotive application. This antenna can be inserted in the bumper of the vehicle and/or some locations are subject to wet conditions.

Overmoulded with PA66 (ABS optional) assuring the IP67 classification.

Inside the overmoulding the serial inductance, capacitor and resistor can be customized to required values.

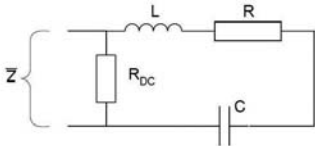
Designed to allow long read-ranges in the smallest volume.



## Characteristics

- High stability in temperature (-40°C up to +85°C)
- LF transponder Transmitter antenna.
- Ideally used in keyless smart entry system.
- Connector integrated in the enclosure.
- The enclosure will provide mounting features into the vehicle and will ensure the mechanical robustness
- Low tolerances in the resonance frequency LC
- Long reading distances and average current 2-4App
- Strong anchor points which provide an easy assembly
- Custom LCR value under demand

## Electrical diagram

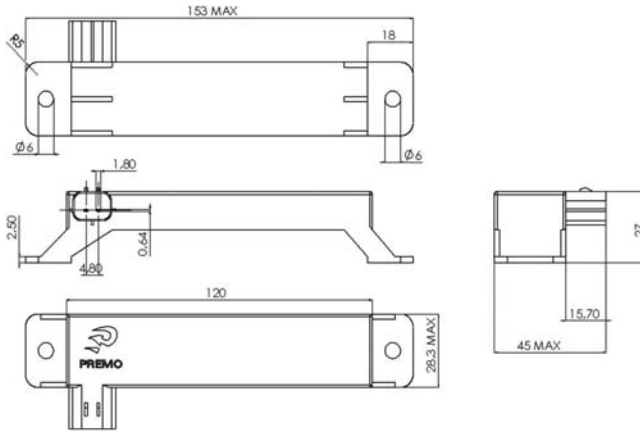


- L: Ferrite core coil inductance
- R: Copper resistance and connection
- C: Tuning internal capacitor NPO
- R<sub>dc</sub>: Diagnostic parallel resistor (typical 10 kΩ)
- Z: External impedance

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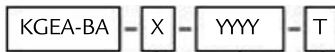
www.helmschmitt.com keyless go emitter bumper antenna 153x45x27mm (33 uH - 500 uH)

## Mechanical dimensions



All dimensions are in mm

## Nomenclature description



Working freq.:

- A: 20 kHz
- B: 125 kHz
- C: 134.2 kHz

Inductance:

e.g. 0400 -> 0.400mH

Tolerance:

- G: 2%
- J: 5%

## Electrical specifications

### Operating Frequency @20kHz

P/N	L (mH)	Cres (nF)	Q	SRF (MHz)
KGEA-BA-A-0161J	0.161	330	>60	>1
KGEA-BA-A-0422J	0.422	150	>65	>1
KGEA-BA-A-0634J	0.634	100	>70	>1

### Operating Frequency@125kHz

P/N	L (mH)	Cres (nF)	Q	SRF (MHz)
KGEA-BA-B-0033J	0.033	47,00	>75	>3
KGEA-BA-B-0108J	0.108	15,00	>110	>3
KGEA-BA-B-0162J	0.162	10,00	>125	>3
KGEA-BA-B-0240J	0.240	6,8	>125	>3
KGEA-BA-B-0345J	0.345	4,7	>125	>3
KGEA-BA-B-0500J	0.500	3.3	>125	>3

### Operating Frequency @134.2kHz

P/N	L (mH)	Cres (nF)	Q	SRF (MHz)
KGEA-BA-C-0030J	0.030	47,00	>75	>3
KGEA-BA-C-0094J	0.094	15,00	>110	>3
KGEA-BA-C-0141J	0.141	10,00	>125	>3
KGEA-BA-C-0207J	0.207	6,8	>125	>3
KGEA-BA-C-0300J	0.300	4,7	>125	>3
KGEA-BA-C-0426J	0.426	3,3	>125	>3

Add under the chart: This chart is a reference guide for the most common required values at working frequency of 125 kHz. Any other inductance value at LF or tighter tolerances can be provided. Please contact our sales department for any inquiry. Sensitivity measured with Helmholtz coils H=8.36 App/m @125 kHz. Contact us for me

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