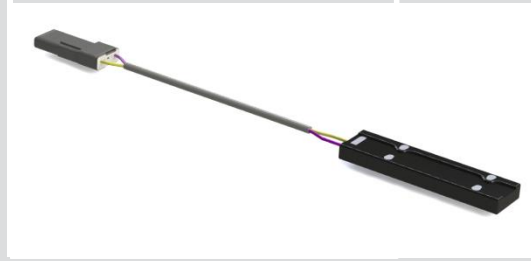


KGEA-LPM2W

Door Handle antenna LF for smart entry system.

EMITTER ANTENNAS / SHORT ANTENNA



FEATURES

PREMO is developing customized door handle antenna using a type of technology over-molding low pressure depending on the mechanical requirements and HIGH waterproof IP degree.



01 CHARACTERISTICS

- > Over-molded Antenna with Low Pressure Technology (LPM).
- > LPM is a well know technology PREMO.
- > Very fast to produce (No Curing needed).
- > Low Profile Height max=7,2mm.
- > IP 68 grade Waterproof
- > Connector located outside assembly Antenna LF
- > The cables LF Antenna (Yellow & Magenta color) assembled Connector.
- > High stability in temperature (-40°C up to +85°C)
- > Interface/output LCR-series resonant (Q.-factor 43 ref).
- > Resonant frequency adjusting below +/- 2kHz.
- > Current Maximum 2App
- > This antenna is designed based on AECQ-200.

02 SPECIFICATIONS

DIMENSIONS (mm)

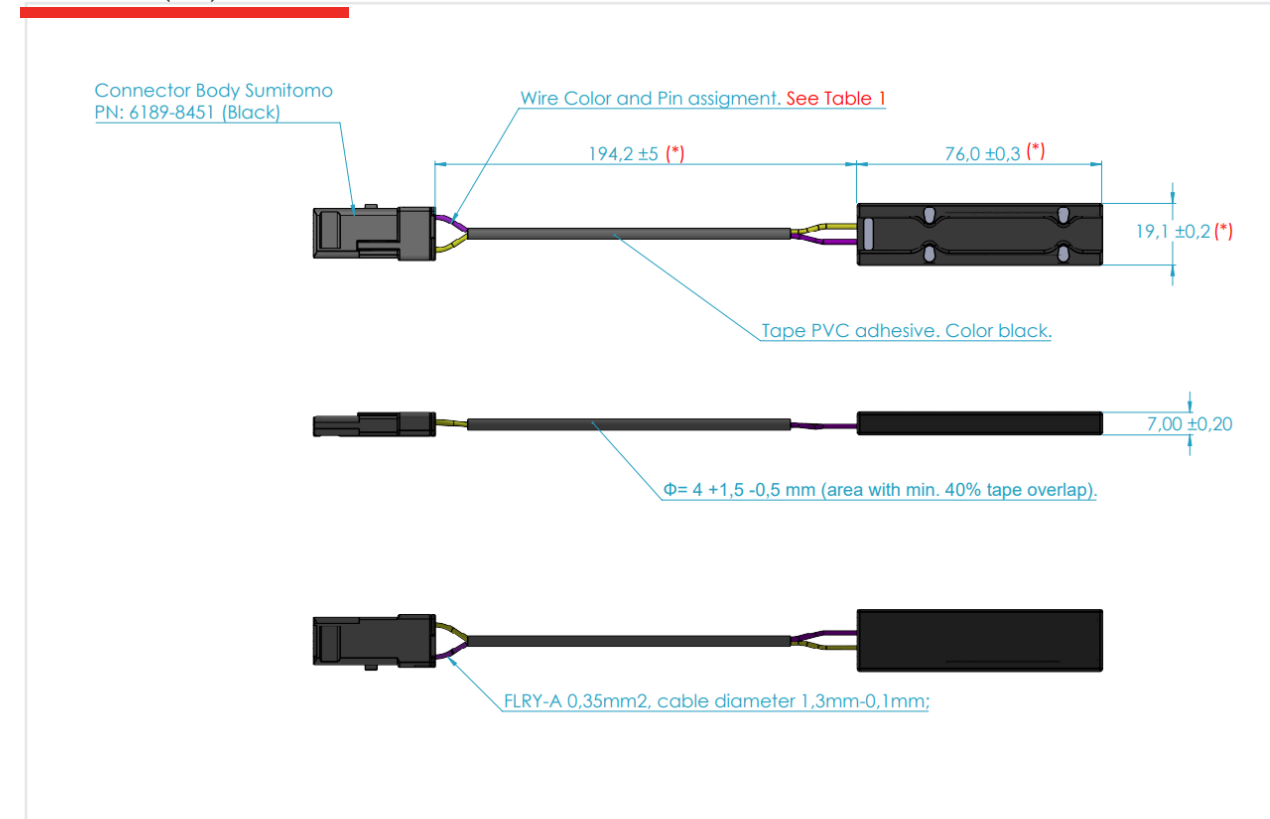
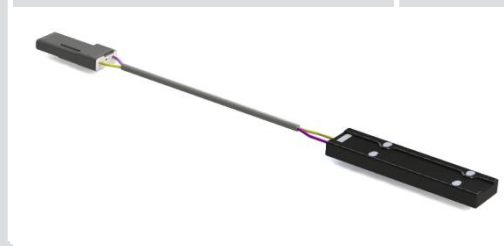


TABLA 1: PIN ASSIGNMENT CONNECTOR

PIN ASSIGNMENT (Sumitomo)		PN: 6189-8451 (Black)
Pin	Signal - Description	
1	Peps Antenna Plus	Yellow
2	-	-
3	-	-
4	-	-
5	Peps Antenna negative	Magenta

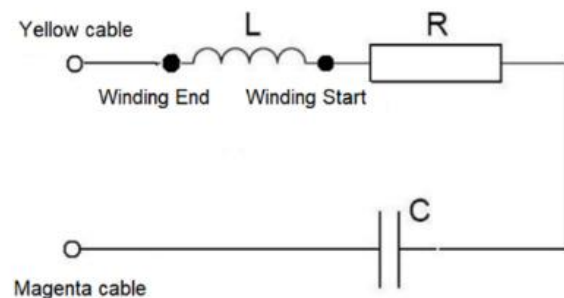
● Pin1: Cable antenna Plus
● Pin5: Cable antenna Negative

Door Handle antenna LF for smart entry system.
EMITTER ANTENNAS / SHORT RANGE



ELECTRICAL SCHEMATIC

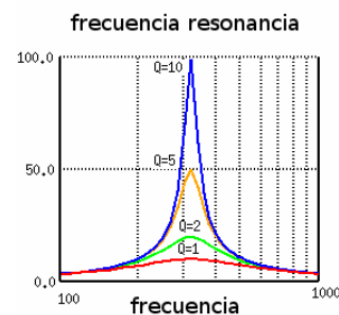
-Interface/Output LCR-series resonant



- > **L:** Coil, Ferrite winding= 750μH +/-3% inductance value
- > **R:** Power damping Resistor 10Ω (3 Watts)
- > **C:** Cap Ceramic Multilayer COG 2,2nF +/-5% 400Vac, 1000 Vdc
- > **Q (L+ C+ R_power)= 43 (typ)@1Vac@25°C.**
- > **Fo= Resonant frequency= 123kHz (+3%,-2%) @1Vac@25°C**

-ECU-Output:
-Q-factor variable depend on R-power

$$Q = \frac{1}{R} \sqrt{\frac{L}{C}}$$



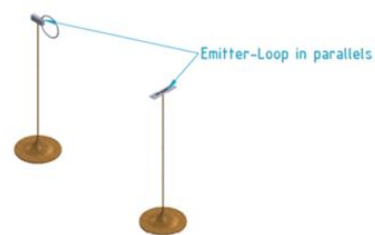
ELECTRICAL PARAMETERS

	L (mH)	Cres (nF)	Q (L+C+Rpower)	Rac (Ω)	E-field (dBμV/m) @1App@1m	Freq (kHz)	Arms max
KGEA-LPM4W-0750J	0.750	2,2	43 (typ)	13,25	>127	123	0,707

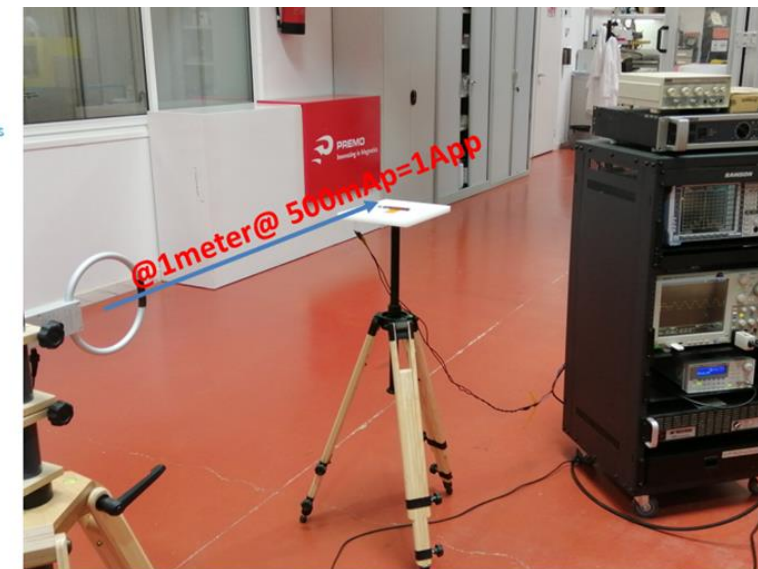
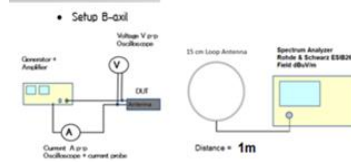
Antenna is measured in resonant mode with LCR meter Wayne kerr PMA3260A.

FUNCTIONAL PERFORMANCE E-FIELD (MAGNETIC FIELD STRENGTH)

Y-Axe Radiation measurement



LABORATORY



1 meter from antenna-center to loop-center

MAGNETIC FIELD STRENGTH E@1meter

E (@1meter, Ipeak=500mA, without DH)= 127 dBμV/m +/-1,5dB