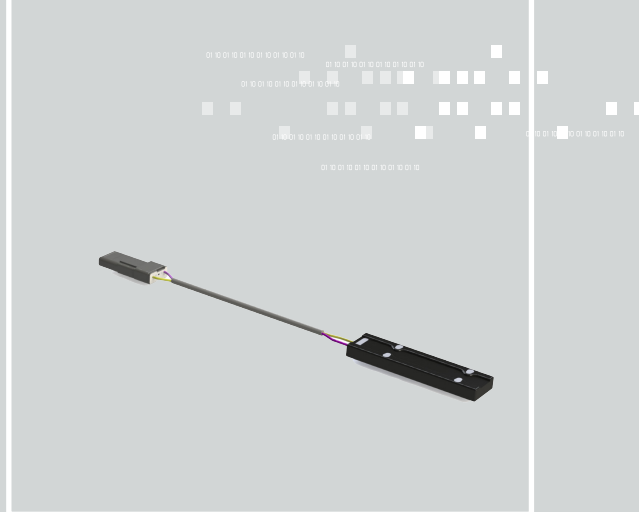


KGEA-LPM2W

Door Handle antenna LF for smart entry system

EMITTER ANTENNAS & SWITCHES / SHORT RANGE



FEATURES

PREMO is developing customized door handle antenna using a type of technology overmolding 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)

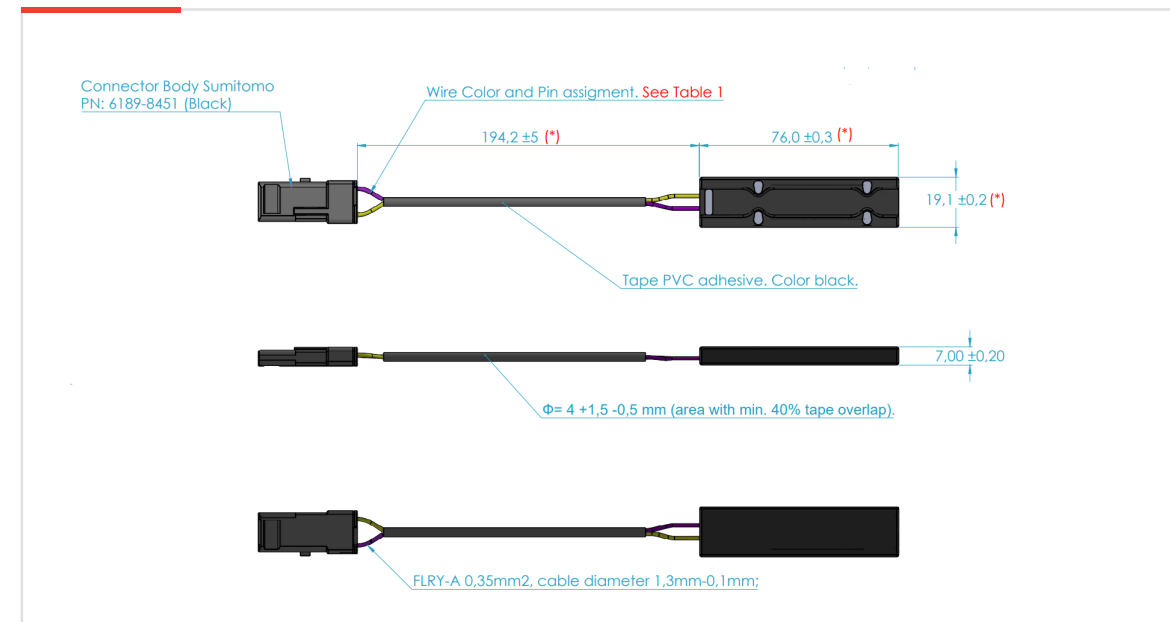

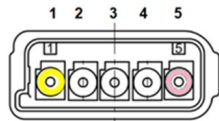


TABLE 1: PIN ASSIGNMENT CONNECTOR

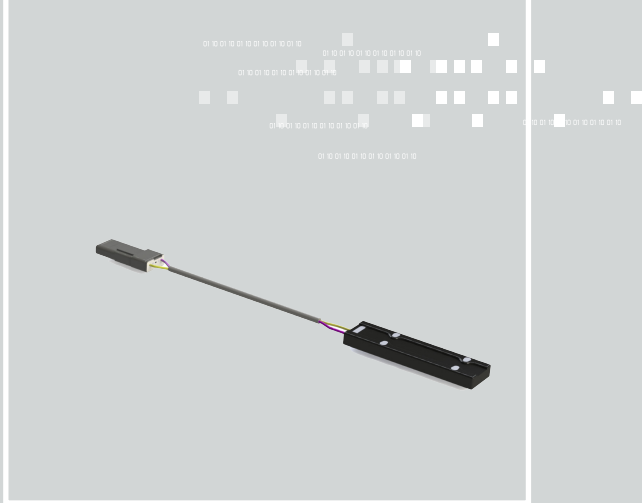
PIN ASSIGNMENT (Sumitomo)		GM 13536809
Pin	Signal - Description	13.347.820
1	Peps Antenna Plus	Yellow
2	-	-
3	-	-
4	-	-
5	Peps Antenna negative	Magenta

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

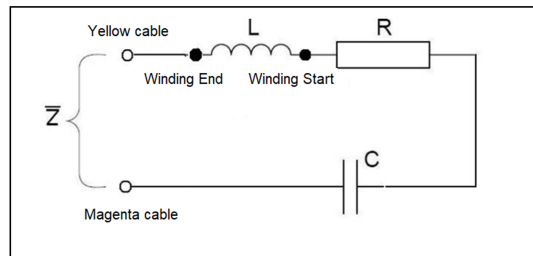
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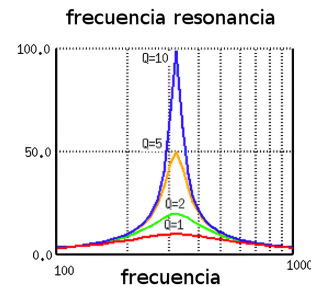
ELECTRICAL SCHEMATIC



- > L: Coil, Ferrite winding= 750µH +/-6%
- > 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= 124kHz (+1,5%,-1,8%) @1Vac@25°C

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

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



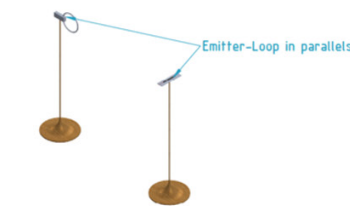
ELECTRICAL PARAMETERS

	L (mH)	Cres (nF)	Q (L+C+Rpower)	Rac (Ω)	E-field (dBµV/m) @1App@1m	Freq (kHz)	Arms max
KGEA-LPM2W-0750J	0,750	2,2	43 (typ)	13,25	>127	124	0,707

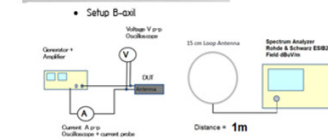
> Antenna is measured in resonant mode with LCR meter Wayne kerr PMA3260A.

FUNCTIONAL PERFORMANCE E-FIELD (MAGNETIC FIELD STRENGTH)

Y-Axe Radiation measurement



MALAGA LABORATORY



MAGNETIC FIELD STRENGTH E@1meter E (@1meter, I_{peak}=500mA, without DH)= 127 dBµV/m +/-1,5dB