

# ALFACHARGE WIRELESS CHARGER AL1

## 12/24VDC WIRELESS CHARGER MODULE

### AL1 SERIES WIRELESS CHARGER MODULE FOR INTEGRATION INTO VEHICLE EQUIPMENT

Wireless charging is increasingly becoming the preferred method of maintaining battery power in mobile devices, with most of the latest designs from the major manufacturers including wireless charging as standard.

The AL1 series wireless charger module is designed for integration into equipment on vehicles to allow this facility to extend to private and public transport applications. This module is typically housed in apparatus that enables mobile phones to be retained in position on the vehicle during charging. Typical applications include integration into seat back consoles and table tops.

The charging element is placed within 0.7mm of the casing exterior to allow for maximum performance in a wide range of situations. When designing into housing equipment, we recommend keeping the active face of the unit within 5.0mm of the passenger accessible area.



Designed for integration into passenger vehicles.

Accepts both 12Vdc and 24Vdc.

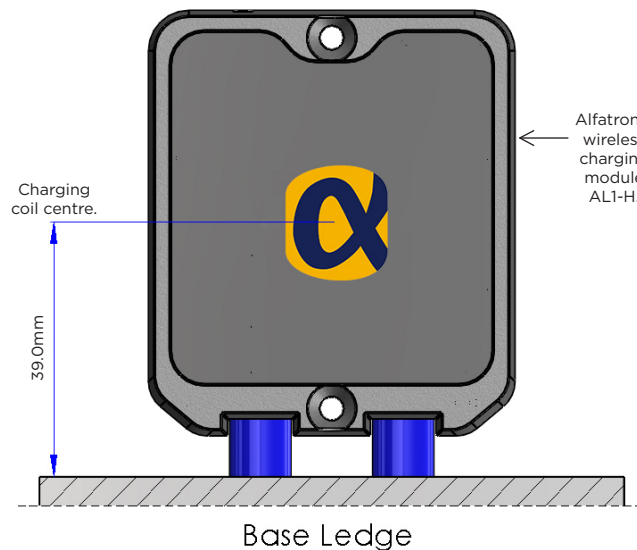
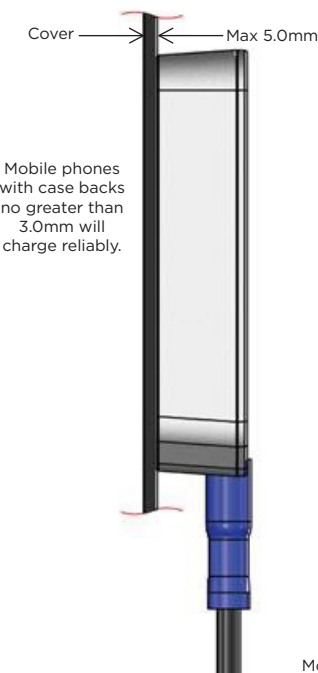
- Extra vibration protection to EN61373.
- Approved to EN50498, ISO7637-2 and EN50155. E marked (Reg10) and CE marked.
- Phone communicates every millisecond to establish correct charge.
- Foreign object detection & activation.
- Convenient wide input of 9-32Vdc for wireless charger in one extrusion.
- LED to confirm correct operation.

### THE RANGE

The Alfacharge range has been designed to meet the rigorous standards required for on board commercial vehicle applications including EN50498, EN61373, ISO7637-2 and is both CE and E marked (Reg10). The casings are made from V0 rated (self extinguishing) high impact polycarbonate and the PCB is populated by computer controlled SMT for maximum accuracy and durability.

This is a module unit which must be installed within a further structure. Cover or structure over the coil area should not exceed 5.0 mm in thickness.

When placed against a structure, wireless devices such as mobile phones with cases less than 3.0mm thick will reliably charge.



Most wireless mobile phones will connect within 5.0mm from optimal central point. If the installation includes a base ledge (on which the phone sits) this should ideally be placed 39.0mm from the centre of the AL1 series module for optimum performance with a wide variety of mobile phones.



It is recommended that these units are fused individually with a 1Amp fuse (24V systems) or a 2Amp fuse (12V Systems). Suitable in-line fuses are available.

### WARRANTY

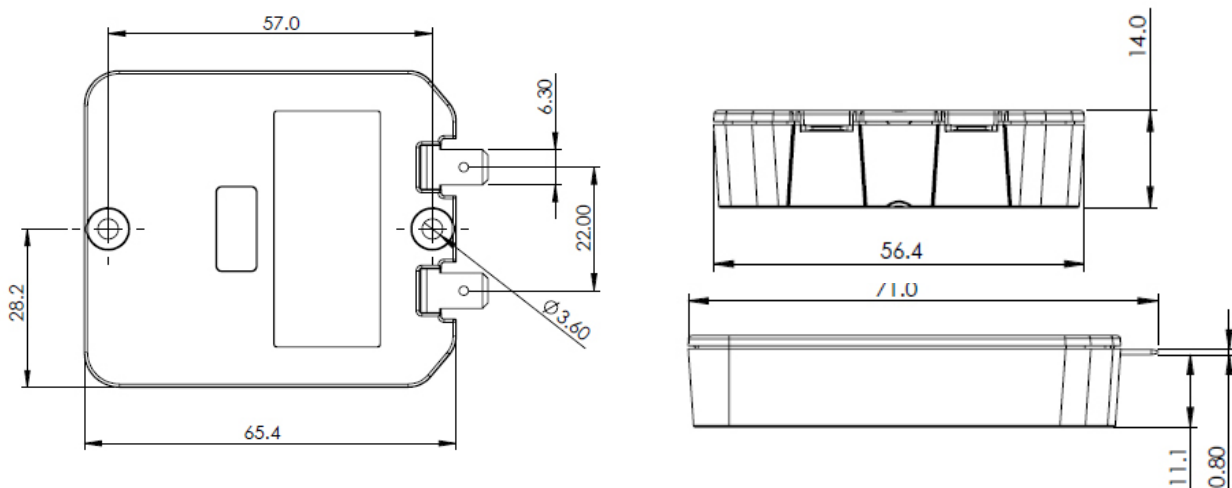
The AL1 Series of wireless chargers are manufactured using rugged components to provide years of services in demanding commercial environments and are covered by a three year return to base warranty.

# ALFACHARGE PART SELECTION

Part Number	Description	Dimensions (mm)	Weight
AL1-H	Integrated wireless phone charger with horizontal connectors	65.4 x 56.4 x 14	70g

## TECHNICAL DATA

Input voltage range	9-32Vdc
Output power	Nominal 5W
Application	Charging of wireless enabled devices
Transient voltage protection	Meets ISO7637-2 International standard for 12/24V vehicles
Tx-Range	Nominal 8mm
Off load current (quiescent current)	6mA
Power conversion efficiency	50% - 60%
Operating temperature	-25°C to +40°C
Storage temperature	-25°C to +100°C
Operating humidity	95% max., non-condensing
Casework	Black polycarbonate body
Connections	Input: 6.3mm push-in flat blade connectors Output: Wireless transmission <200kHz
Output indicator	Green/blue LED output indication
Mounting method	Box with mounting screw holes - screws provided. Can also be installed by clips or other bespoke method
Safe area protection:	Over Current Limited by current sensing circuit Over heat Limited by temperature sensing circuit Overvoltage and Undervoltage Limited by sensing circuit Reverse Polarity Limited by sensing circuit Transients Protected by filters and rugged component selection Catastrophic protection Internal fuse
Approvals	2014/30/EU The general EMC directive Regulation 10 The automotive directive 93/68/EEC The CE marking directive
Designed to	EN50498, EN61373, EN50155, EN45545, EN50121-3-2, ISO 7637-2 & R118
Markings	CE and E marked
IP Rating:	IP65 when installed correctly



Version: 2106