



EV Charging C&K Switches

2023

 **Littelfuse®**
Expertise Applied | Answers Delivered



Solutions Overview

EV Charging - Functions

- **Plug switch**

Used to detect locking and unlocking when connected to the commercial grid, indoor and outdoor*

- **Charging Stations / wallbox**

For interface or on the power board

- **On Board Charger and High Voltage Interlock Loop**

Detection of module opening

* Only GB and SAE types define the use of a switch and resistors



EV Charging – Plug Switch

A wealth of different standards!

Only plugs with a trigger will use a switch

- SAE
- GB/T
- Tesla

- SAE International confirmed that it will standardize the Tesla-developed North American Charging Standard (NACS) charging connector for Evs (June 2023) All major OEM's joined.

- GB and SAE types define the use of a switch and resistors for self diagnosis purpose



EV Charging - Plug Switch

Tactile switch for Tesla style

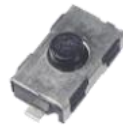
KSC series

- IP 67 with life up to 2 million cycles
- Detect soundless solutions
- KSC DCT with its unique NC/NO configuration
- Different sounds and haptics available



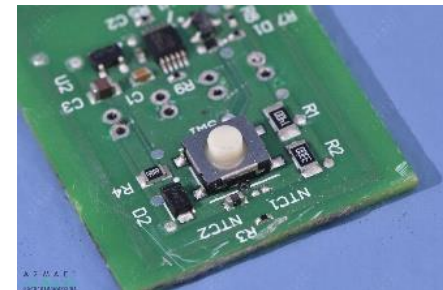
KSR

- NC and Detect versions available



KSJ

- Multidirectional actuator
- THT switch for side and top actuation
- Detect version available



EV Charging - Plug Switch

Snap/detect switches for trigger mechanism

All our products can be offered in SPST NO, SPST NC or SPDT configuration

ZMS & ZMSM series

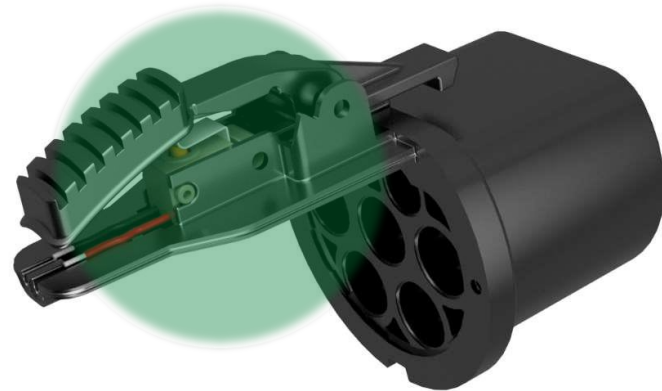
- IP 67
- Compact size with long electrical life
- Specific lever on demand

ZMT, ZMV & ZMW

- IP 67 (except terminal part.
- Fully IP67 on potted wire versions)
- Up to 3 mm silent stroke
- Lever option

AWD

- **Integrated resistors for self diagnosis**
- SPST NO, SPST NC
- Wire connection
- IP67
- Noiseless operation with up to 2.6 mm travel

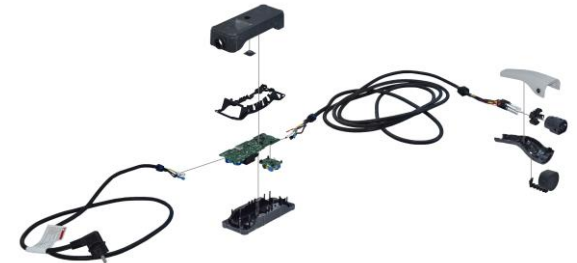


EV Charging – In-Cable Control Box

Tact Switch for voltage selection

KSC series

- IP 67 with life up to 2 million cycles
- Detect soundless solutions
- KSC DCT with its unique NC/NO configuration
- Different sounds and haptics available



EV Charging – Stations and wallbox

Most of the interfaces are touch screen or wireless.

An emergency security button can be added

ATP series

- IP 67 & IK10
- 1 million operation
- Snap action for positive feedback
- 16, 19 and 22 mm diameter
- Integrated illumination
- Anti vandal construction

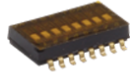


EV Charging – Stations and wallbox controller board

Piano Dip or Slide switch for communication protocol choice

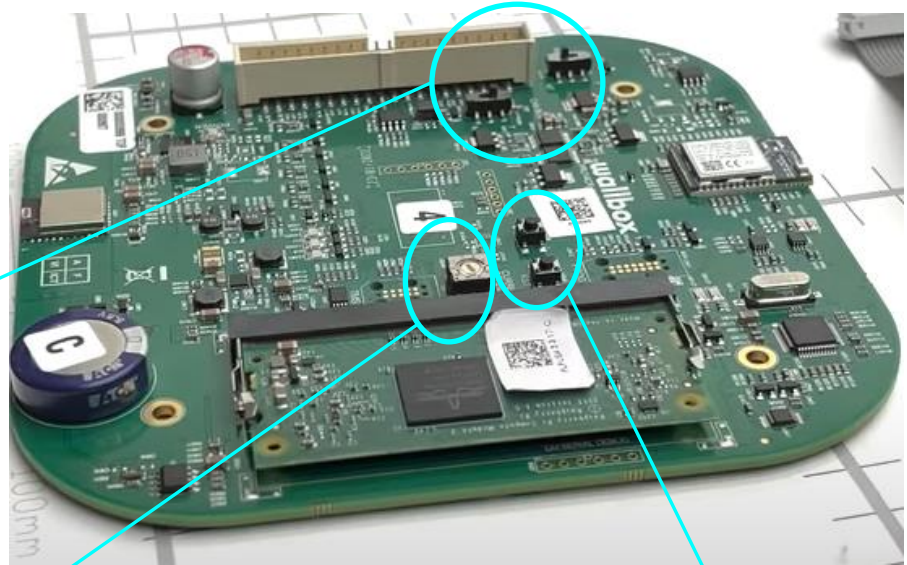
TDA

- Bifurcated contact for increased electrical reliability
- Process sealed for SMT soldering and washable processing
- 1 to 10 position



JS

- Low profile
- Positive detent
- Surface and thru hole mounting
- SPDT, DPDT, DP3T models



Rotary dip for Voltage adjustment

RTE

- SMT miniature size with metal cover
- Vertical or reverse versions
- Large choice of coding



Tact Switch for system reset

PTS647

- 4.5 x 4.5 mm form factor
- Hard actuator in 3.8, 5.0 and 7.0 mm height
- IP40



EV Charging – OBC & HVIL

Snap/detect switches for lid disconnection

All our products can be offered in SPST NO, SPST NC or SPDT configuration

ZMS & ZMSM series

- IP 67
- Compact size with long electrical life
- Specific lever on demand

ZMT, ZMV & ZMW

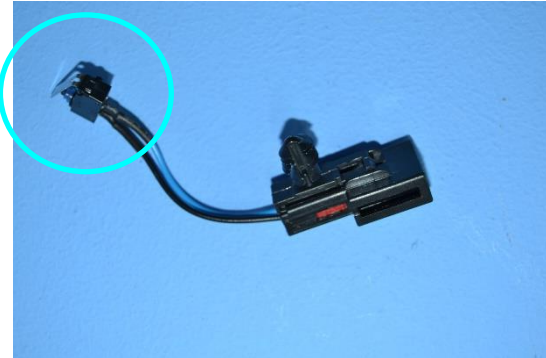
- IP 67 (except terminal part.
- Fully IP67 on potted wire versions)
- Up to 3 mm silent stroke, Lever option

AWD

- **Integrated resistors for self diagnosis**
- SPST NO, SPST NC
- Wire connection, IP67
- Noiseless operation with up to 2.6 mm travel

SSW series

- IP67 sealed
- Changeover time < 15 ms
- Redundant contacts





 **Littelfuse**[®] | **C&K**
Switches

Thank You !