

HVLock® High Voltage Platform

MODULAR, RELIABLE, AND COMPACT SOLUTION

The BMS consistently tracks the charge/discharge activities of the battery pack and monitor cell voltages. This data is useful for for determining if the battery is drained, for sustaining passive cells balancing and for ensuring that the high-voltage area is responsible for the voltage and total voltage detection of a single battery, insulation detection, relay adhesion detection, high-voltage power-on pre-charging and other functions.

The HVLock® High Voltage Platform is a wire-to-board connector of specific design, which will optimize the performance and size to fit OEM’s application needs in 4.50mm pitch with a nominal current carrying capacity of 3A.

Some of the key features of this wire-to-board connector platform include:

- HVLock® is USCAR-2 compatible
- Multiple plating options (Tin/Gold/Silver)
- Working voltage rate: 1200VAC
- Connector Position Assurance (CPA)
- Primary Lock Reinforcement (PLR)

FEATURES

- Multiple plating options for terminal
- Current rating of 3A with each contact
- Connector Position Assurance (CPA)
- Two different coding options
- Primary Lock Reinforcement (PLR)
- Wire gauge up to 20AWG



TARGET MARKETS



BENEFITS

- Meets different mating cycles and spec requirements
- Meet higher power Amps performance
- Second lock to ensure the connection
- Mechanical mismatching prevention system
- Ensures the receptacle terminal primary lock
- Meet wide gauge application requirement

TECHNICAL INFORMATION

GENERAL

- Modular high-voltage connector system
- 6-10 position (Custom for 2-5 position)
- Pitch: 4.5mm
- Configuration: Right-angle & Vertical
- PCB Thickness: 1.60mm

MATERIAL

- Housing: High temperature UL94V-0; Halogen-free
- Crimping Terminal: Copper Alloy(Tin, Gold, Ag plating options)
- Resin Material: CTI>600

MECHANICAL PERFORMANCE

- Durability: 10 cycles (Tin plated), 30 cycles (Gold plated)
- Mating /Un-mating Force: <75N
- Terminal Retention into Housing: >50N

ELECTRICAL PERFORMANCE

- Clearance: Impulse voltage 4000V
- Low Level Contact Resistance:< 25mΩ
- Insulation Resistance: > 100MΩ
- Voltage Rating: 1200VDC*
- Current Rating: 3A max./per pin
 - Wire Gauge: 0.50mm² (20AWG), 0.22-0.35mm² (22AWG)

ENVIRONMENTAL

- Working Temperature: -40°C / +105°C(Tin plated)
- Working Temperature: -40°C / +130°C(Gold plated)
- Material: UL94V-0
- Halogen-free

SPECIFICATIONS

- Product Specification: GS-12-1831
- Application Specification: GS-20-0802
- Hand Tool P/N: 10172953-001HT

APPROVALS & CERTIFICATIONS

- USCAR-2 V2
- USCAR-37 (HV testing parts)
- LV-214 S2 (In process)

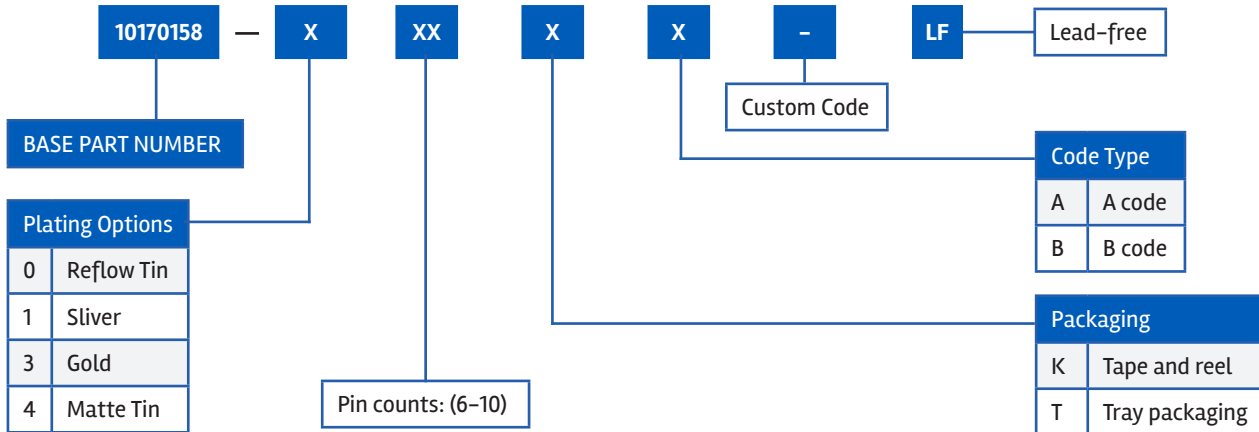
TARGET MARKETS/APPLICATIONS



BMS (Battery Management System)
OBC (On board Charge)
MCU (Micro Control system)

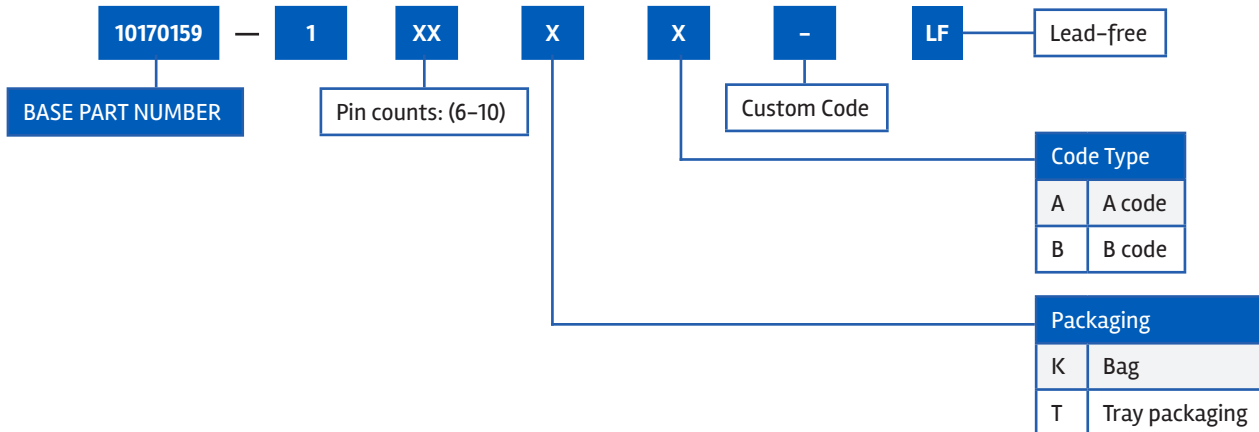
PART NUMBER SELECTOR – HEADER

Find part number details using the search box on www.amphenol-cs.com



PART NUMBER SELECTOR – RECEPTACLE

Find part number details using the search box on www.amphenol-cs.com



PART NUMBER SELECTOR – CTW

Find part number details using the search box on www.amphenol-cs.com

