HVLock® High Voltage Platform

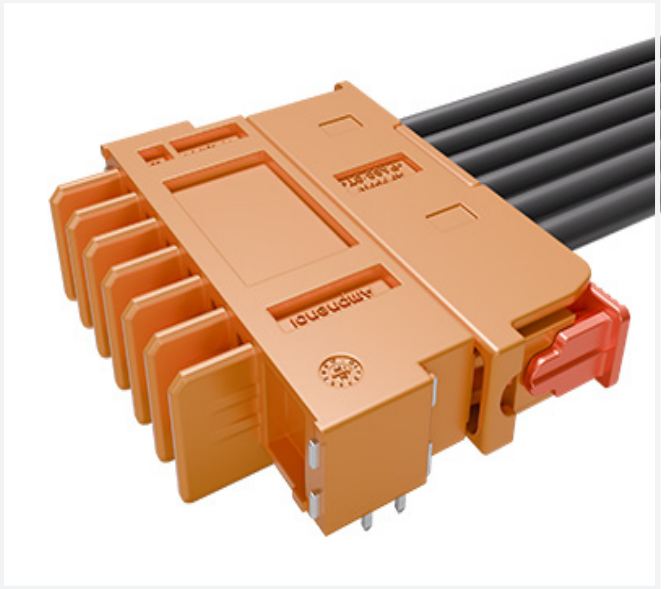
MODULAR, RELIABLE, AND COMPACT SOLUTION

The BMS consistently tracks the charge/discharge activities of the battery pack and monitors cell voltages. This data is useful 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 designed specifically to optimize performance and size, fitting OEM application needs with a 4.50 mm pitch and a nominal current-carrying capacity of 3 A.

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

- HVLock® is USCAR-2 /LV-214 compatible
- Multiple plating options (Tin/Gold/Silver)
- Working voltage rate: 1200 V DC
- Connector Position Assurance (CPA)
- Primary Lock Reinforcement (PLR)



TARGET MARKETS

FEATURES	BENEFITS
Multiple plating options for terminal	Meets different mating cycles and spec requirements
Current rating of 3 A with each contact	Meet higher power Amps performance
Connector Position Assurance (CPA)	Second lock to ensure the connection
Two different coding options	Mechanical mismatching prevention system
Primary Lock Reinforcement (PLR)	Ensures the receptacle terminal primary lock
Wire gauge up to 20 AWG	Meet wide gauge application requirement

TECHNICAL INFORMATION

GENERAL

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

MATERIAL

- Housing: High-temperature UL 94 V-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: <75 N
- Terminal Retention into Housing: >50 N

ELECTRICAL PERFORMANCE

- Clearance: Impulse voltage 4000 V
- Low Level Contact Resistance:< 25 mΩ
- Insulation Resistance: > 100 MΩ
- Voltage Rating: 1200 V DC
- Current Rating: 3 A max./per pin
  - Wire Gauge: 0.50 mm^2 (20 AWG), 0.22-0.35 mm^2 (22 AWG)

ENVIRONMENTAL

- Working Temperature: -40 °C / +105 °C(Tin plated)
- Working Temperature: -40 °C / +130 °C(Gold plated)
- Material: UL 94 V-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

TARGET MARKETS/APPLICATIONS

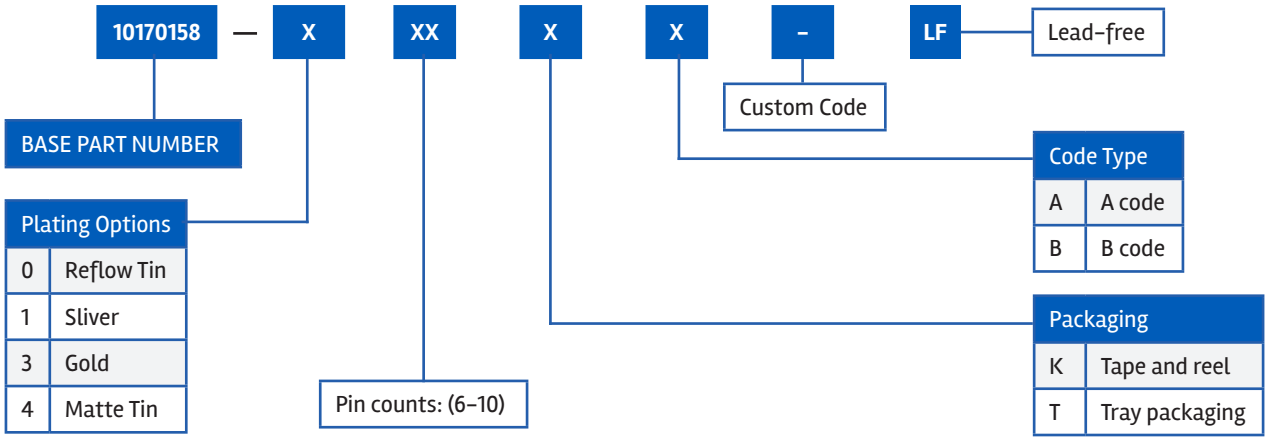


BMS (Battery Management System)
OBC (On-board Charger)
MCU (Microcontroller Unit)

Disclaimer
Please note that the above information is subject to change without notice.

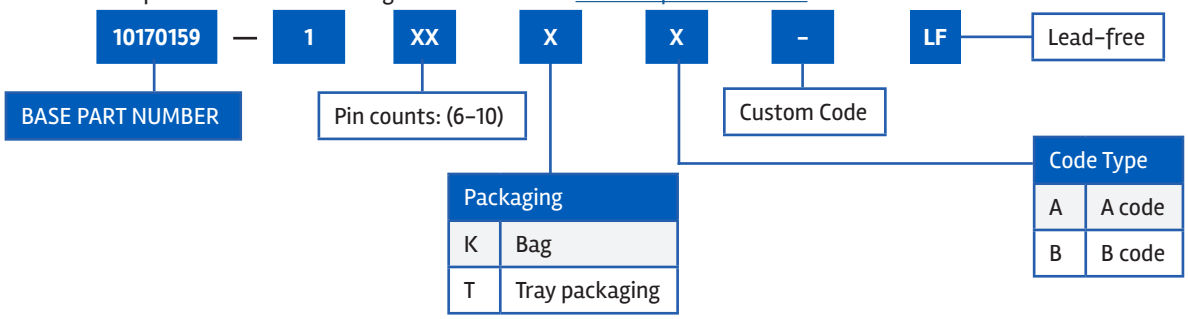
PART NUMBER SELECTOR – HEADER

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



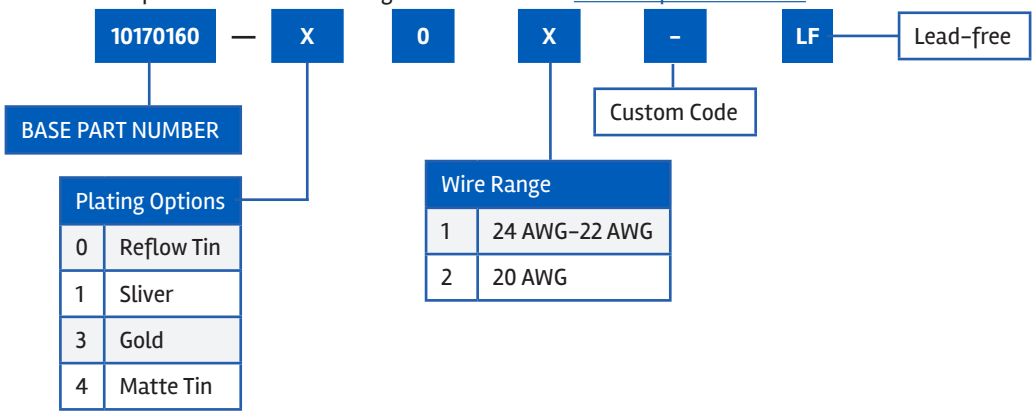
PART NUMBER SELECTOR – RECEPTACLE

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PART NUMBER SELECTOR – CTW

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