

## WireLock®

### MORE RELIABILITY LOW MATING FORCE AUTOMOTIVE GRADE CONNECTOR SYSTEM

WireLock® is a 1.80mm pitch wire-to-board and flex-to-wire connector system. Its compact design addresses the growing need for space-saving automotive-grade connectors. WireLock® is a double-row connector system offering four coding types with different colors.

The connector has a nominal current carrying capacity of 2A and supports cable wire gauges from 22AWG to 26AWG. WireLock® is available in 10 up to 40 positions in a double row with vertical and horizontal TH and SMT configurations.

- USCAR-T2V2, LV 214 S2 compliant
- Reflow tin plated reduce mating force
- Four different codings with different colors visual
- Positions from 10 to 40
- Terminal Position Assurance (TPA)
- Connector Position Assurance (CPA)

#### FEATURES

- Reflow Tin plating terminal
- Current rating 2A per each contact
- Terminal-Position-Assurance (TPA)
- Four different codings with different colors
- Connector positioning assurance (CPA)
- Wire gauge from 22AWG to 26AWG



#### TARGET MARKETS



#### BENEFITS

- Low mating and un-mating force
- Meets higher current performance
- Ensures proper terminal insertion position and retention
- Visual and mechanical mismatching prevention system
- Ensures proper connector mating and locking
- Meet wide gauge application requirement

## TECHNICAL INFORMATION

### MATERIAL

- Board Connector: Copper Alloy
- Housing: High Temperature UL94-V0
- Crimping Terminal: Phosphor Bronze Alloy/Brass (Tin and Gold plated)

### ELECTRICAL PERFORMANCE

- Voltage Rating: 12VAC/VDC
- Insulation Resistance: 100M $\Omega$  min.
- Contact Resistance: 25m $\Omega$  max. (initial)
- Current Rating: 2A
- Low Level Contact Resistance: < 15m $\Omega$
- Dielectric Withstand Voltage: 1000VAC

### MECHANICAL PERFORMANCE

- Durability: 10 cycles (Tin and Gold plated)
- Mating/Un-mating Force: 75N max.
- Terminal Insertion Force: <5N max./pin
- Terminal Retention Force: 20N min. (before testing).  
40N min. (after testing)

### ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C

### APPROVALS AND CERTIFICATIONS

- USCAR T2V2
- LV 214 S2

### SPECIFICATIONS

- Product Specification:
  - GS-12-1535 (WtB – USCAR-2)
  - GS-12-1780 (WtB – LV 214 S2)
  - GS-12-1797 (WtW – USCAR-2)
  - GS-12-1945 (WtB SMT header – USCAR-2)
- PCB Termination: 1.6mm and 2.0mm
- Packaging Specification:
  - GS-14-2668 (header)
  - GS-14-3129 (SMT header)
  - GS-14-2679 (receptacle terminal)
- Hand Tool Part Number: 10159164-001
- Application Specification:
  - GS-20-0594 (WtB)
  - GS-20-0779 (WtW)

### PACKAGING

- PCB Header: Tape and Reel or Tray
- Receptacle Housing: Tray
- Crimping Terminal: Reel

### TARGET MARKETS/APPLICATIONS



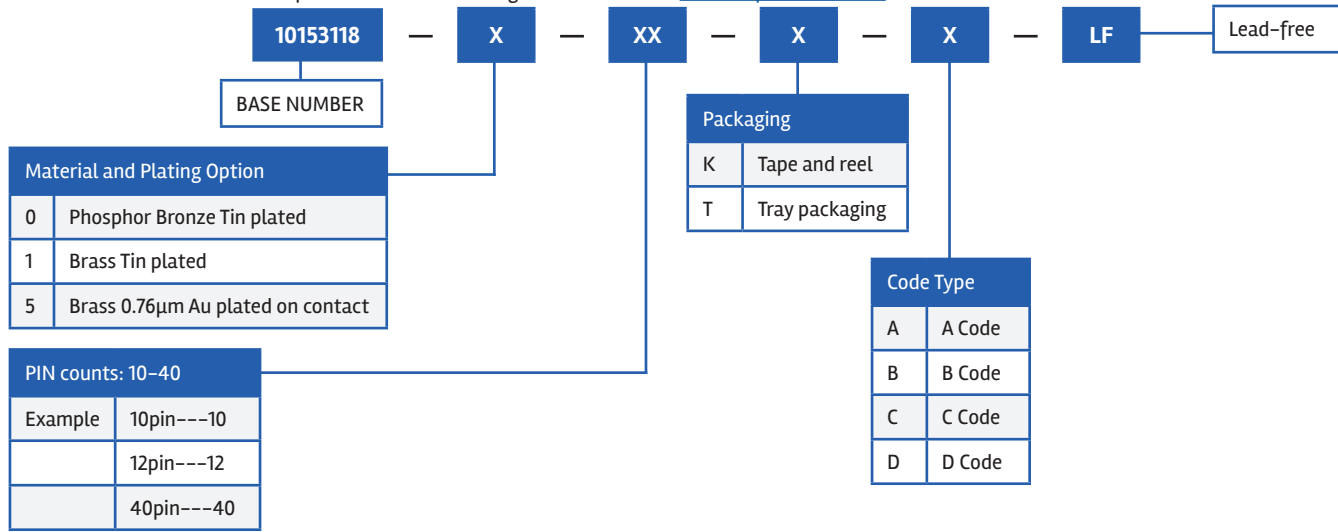
BMS (Battery Management System)  
OBC (On-Board Charger)  
MCU (Micro Control System)  
Gateway  
Lighting  
ADAS (Advanced Driving Assistance System)  
RADAR



Robotics

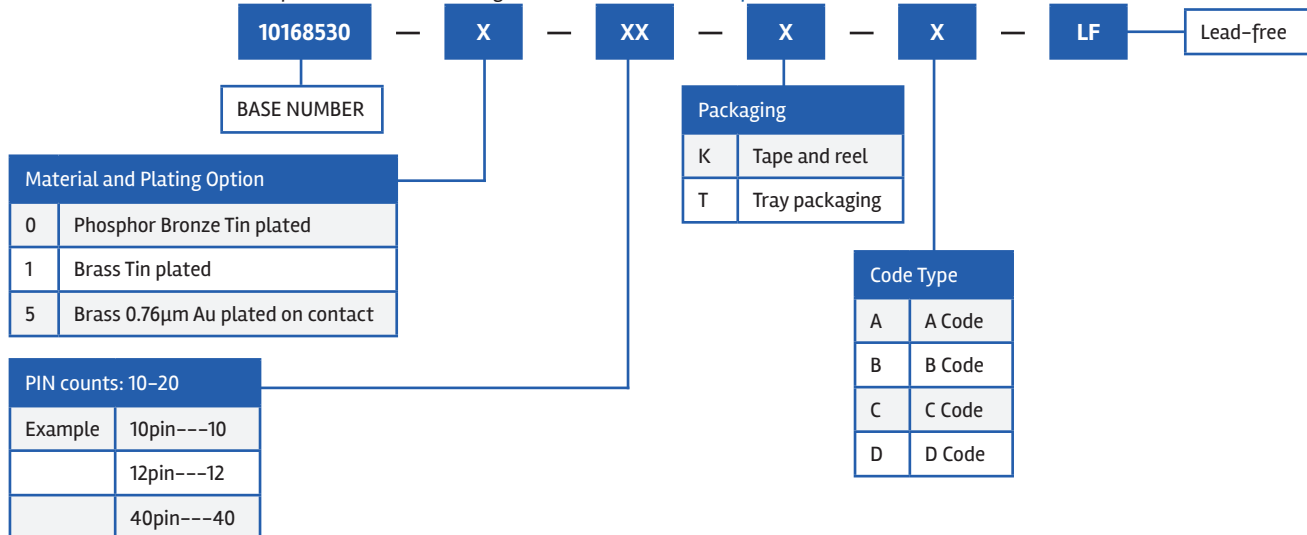
## PART NUMBER SELECTOR—DOUBLE ROW R/A-TH-HEADER (PCB MOUNT)

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

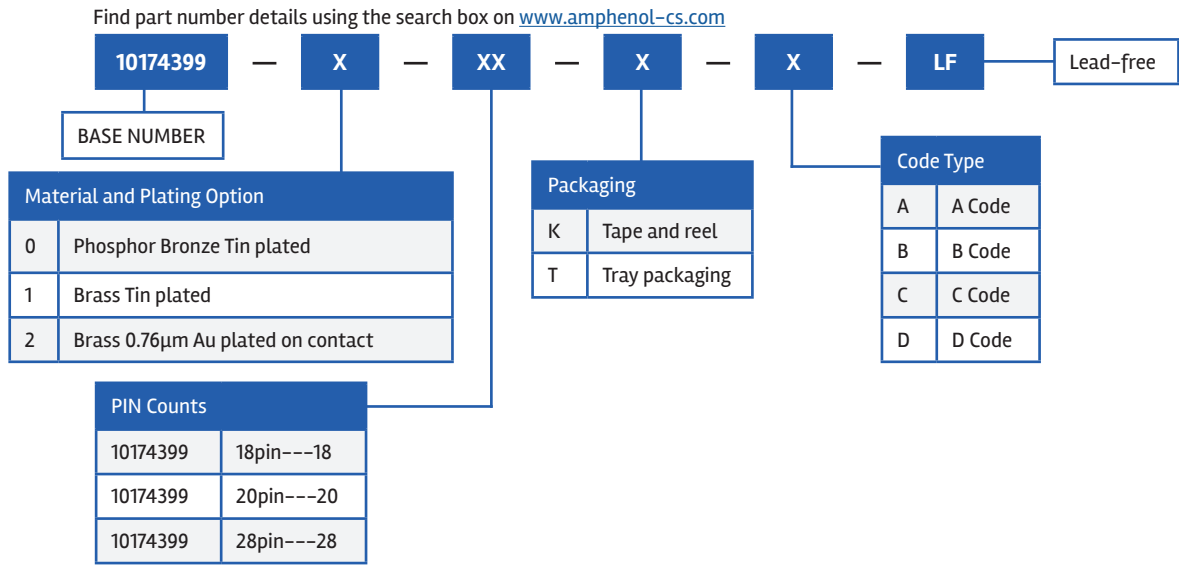


## PART NUMBER SELECTOR—DOUBLE ROW R/A-TH-HEADER (FLEX MOUNT)

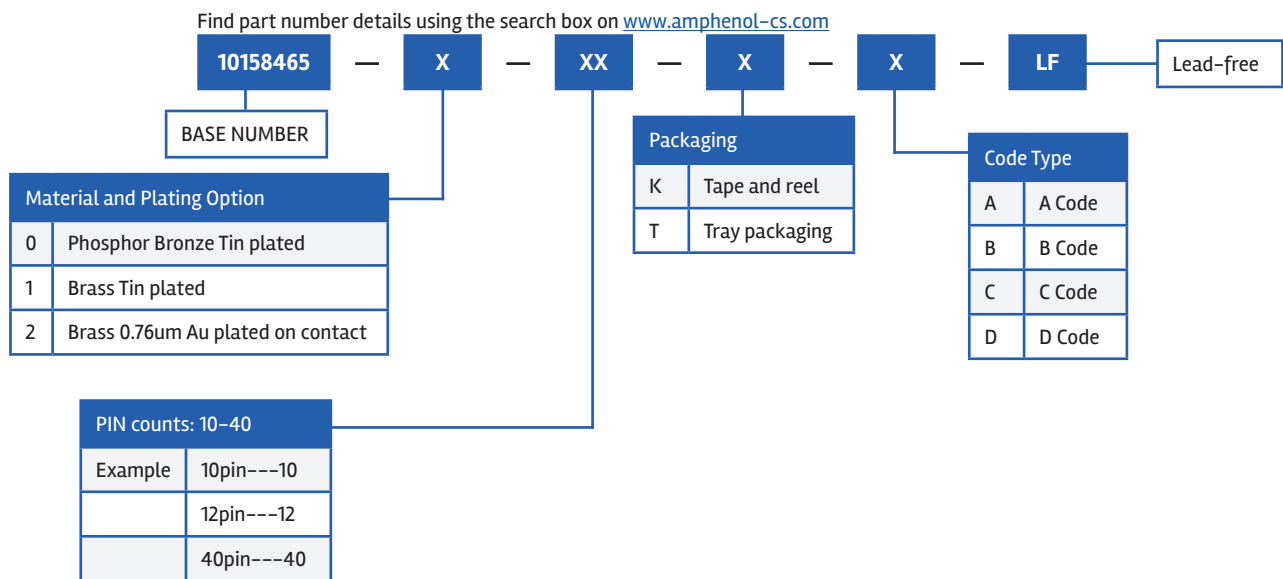
Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



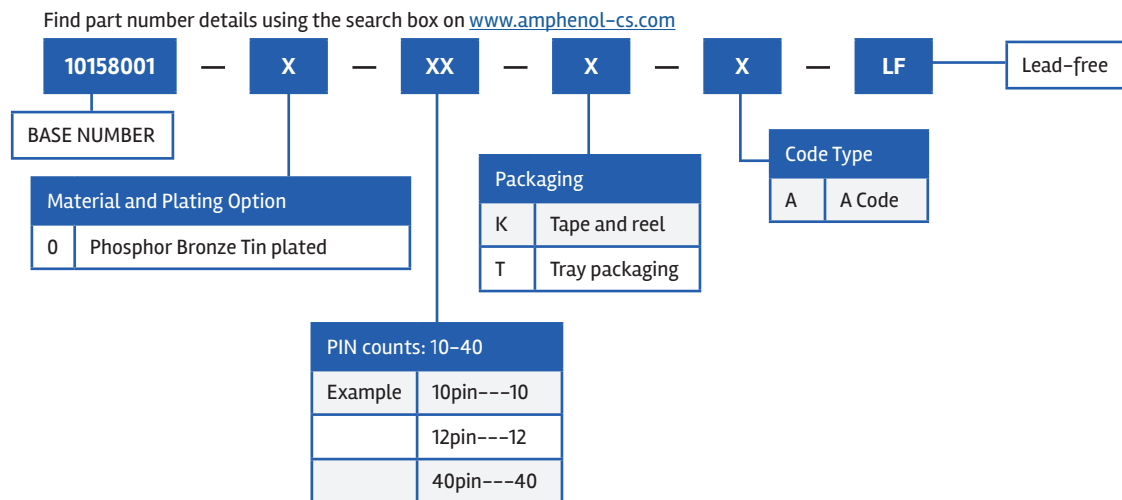
## PART NUMBER SELECTOR—DOUBLE ROW R/A—SMT-HEADER (PCB MOUNT)



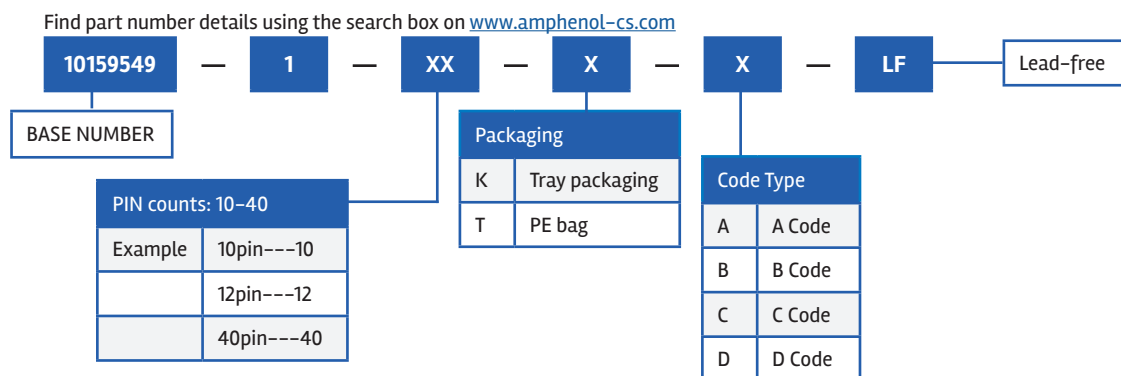
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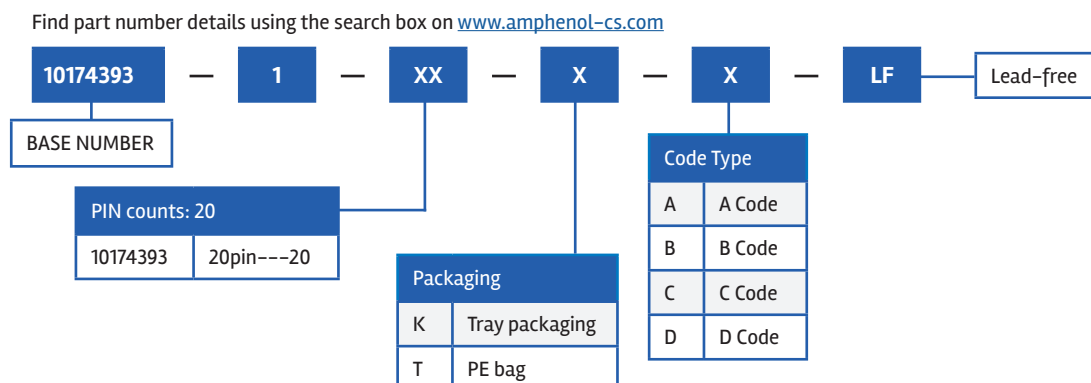
## PART NUMBER SELECTOR–DOUBLE ROW VERTICAL–SMT-HEADER (PCB MOUNT)



## PART NUMBER SELECTOR–RECEPTACLE (USCAR T2V2)

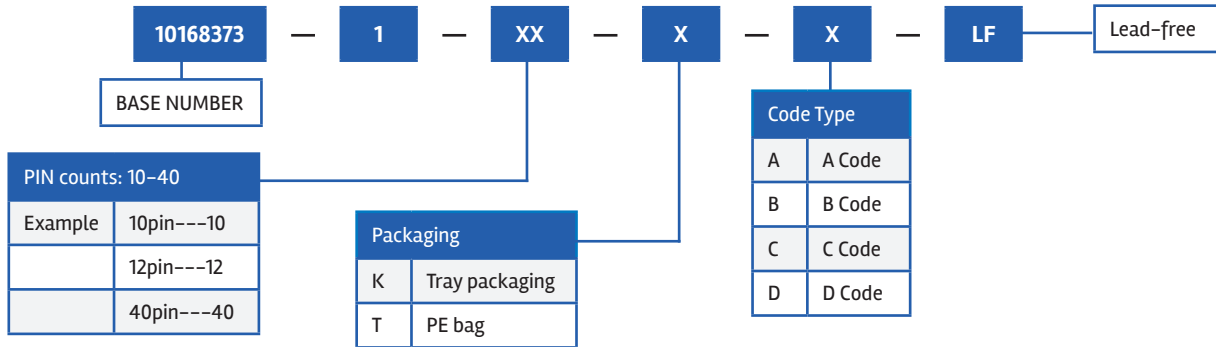


## PART NUMBER SELECTOR–RECEPTACLE (USCAR T2V2)



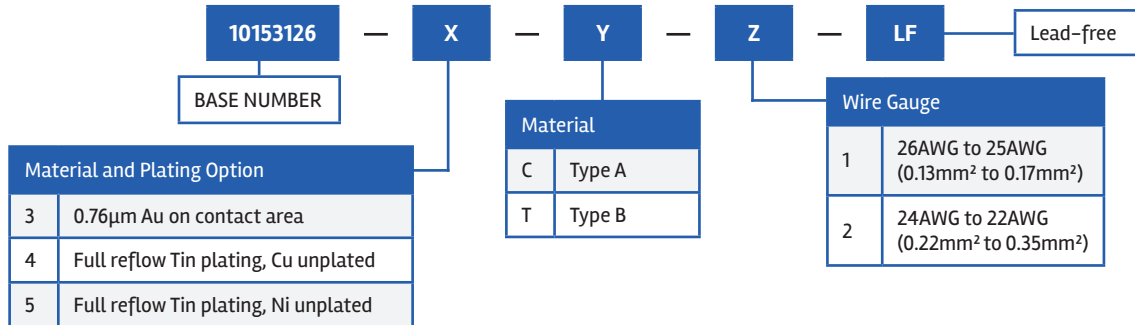
## PART NUMBER SELECTOR-RECEPTACLE (LV214 S2)

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



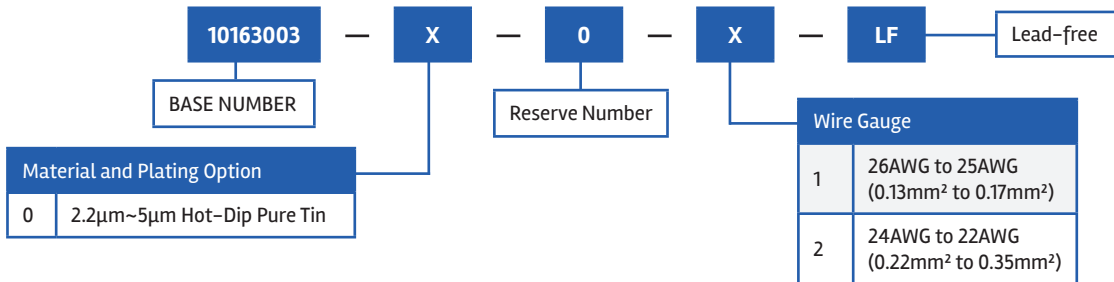
## PART NUMBER SELECTOR-RECEPTACLE TERMINAL (USCAR T2V2)

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



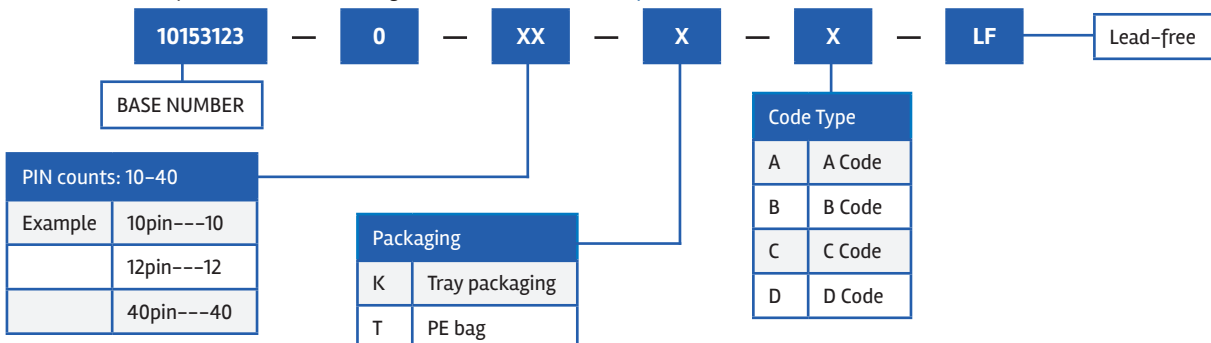
## PART NUMBER SELECTOR-RECEPTACLE TERMINAL (LV214 S2/USCAR)

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



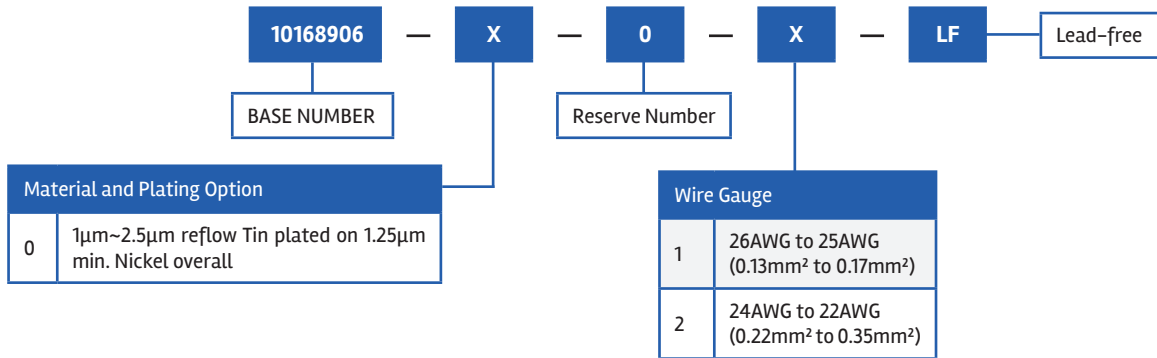
## PART NUMBER SELECTOR-RECEPTACLE (USCAR) FOR WTB OR WTW

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



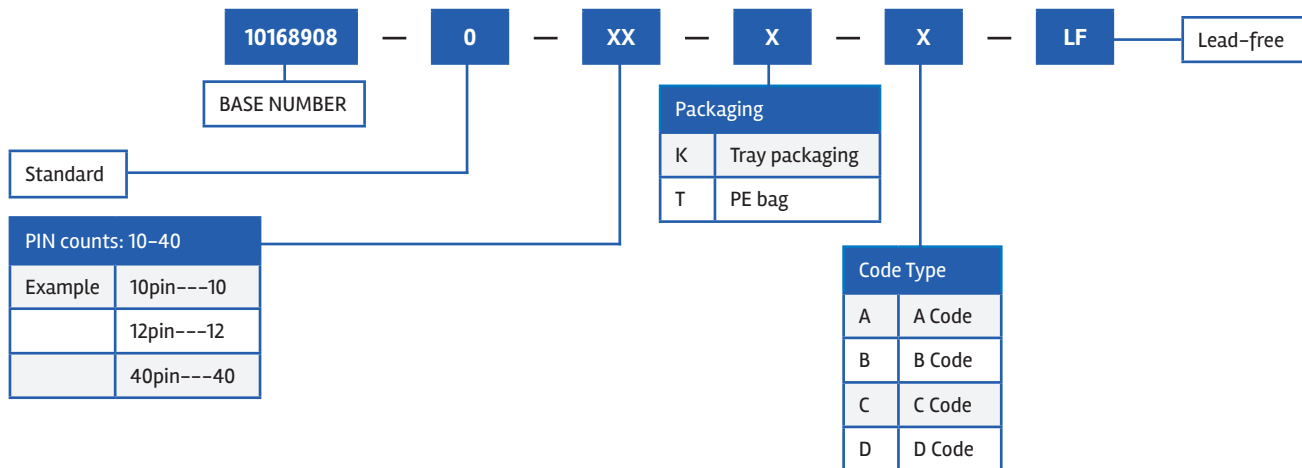
## PART NUMBER SELECTOR—MALE TERMINAL (USCAR) FOR WTW

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



## PART NUMBER SELECTOR—MALE CABLE HOUSING FOR WTW

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)



## HAND TOOL

- Hand Tool Part Number: 10176999-001HT
- Application Specification:
  - GS-20-0594 (WtB)
  - GS-20-0779 (WtW)