# ComboLock® Wire–to–Board Connector System

## MODULAR, RELIABLE, AND COMPACT SOLUTION

ComboLock® is a compact, hybrid wire–to–board connector system that saves space, allows for simpler assembly and simpler cable management. The connector system offers a hybrid 1.00mm pitch signal and 3.00mm pitch power configuration with an active latching feature.

The connector has nominal current carrying capacity of 10A/pin max. for power and 1.5A/pin max. for signal. Power wire sizes ranges from 26AWG to 18AWG and for signal wire sizes from 30AWG to 24AWG. ComboLock® is available from 5 to 19 positions for signal and 2 to 8 positions for power in vertical and right–angle configurations with surface mount termination.

- Active latch for secure mating
- Power and signal in one connector
- Compact design for space constraint applications
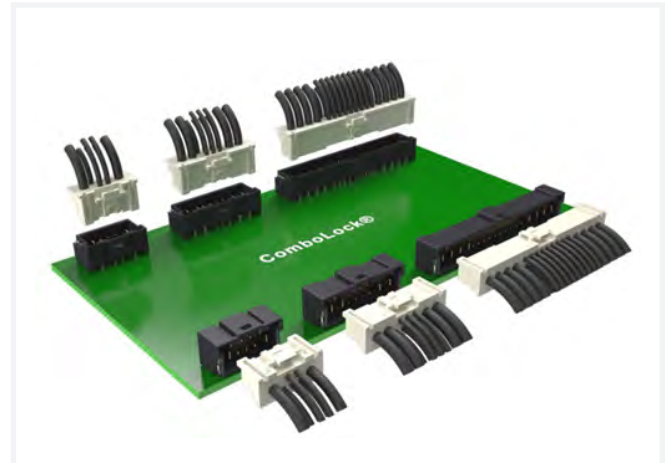


## TARGET MARKETS



## FEATURES

- Housing with positive locking
- Hold down features
- Multiple wire sizes
- Hybrid current capacity
- Layout compatibility

## BENEFITS

- Ensures secure mating retention
- Increase the board grip force
- Power from 26AWG to 18AWG, signal from 30AWG to 24AWG
- Up to 10A/pin max. for power and up to 1.5A/pin max. for signal pin
- Footprint is compatible for both vertical and right angle types

# TECHNICAL INFORMATION

## MATERIAL

- Board Connector: PA9T
- Housing: PA66 UL 94V–0
- Crimping Terminal: Phosphor bronze alloy

## MECHANICAL PERFORMANCE

- Durability: 30 cycles
- Mating Force: 3N max./signal pin; 8N max./power pin
- Housing Retention Force: 9.8N min.
- Wire Sizes: 26AWG to 18AWG and 30AWG to 24AWG

## ELECTRICAL PERFORMANCE

- Voltage Rating: 50V AC/DC
- Dielectric Withstand Voltage: 500VAC
- Insulation Resistance: 100M$\Omega$
- Contact Resistance: < 40M$\Omega$
- Current Rating: 1.5A signal, 10A power

## PACKAGING

- PCB Header: Tape and reel
- Receptacle Housing: Bag
- Crimping Terminal: Reel

## APPROVALS & CERTIFICATION

- UL approval: Pending

## SPECIFICATION

- Product Specification: GS–12–1702
- Packaging Specification: GS–14–2794
- Application Specification: GS–20–0703
- Hand Tool:
  - 10164147–001LF (Signal)
  - 10164148–001LF (Power)

## ENVIRONMENTAL

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

## TARGET MARKETS/APPLICATIONS

Personal Care Devices (Air Dryer)
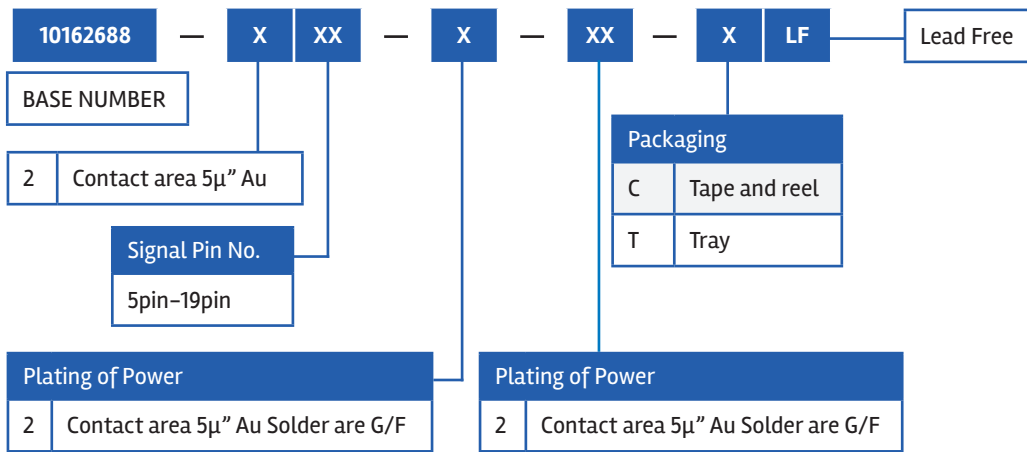Home Care Devices (Cleaning Robot)
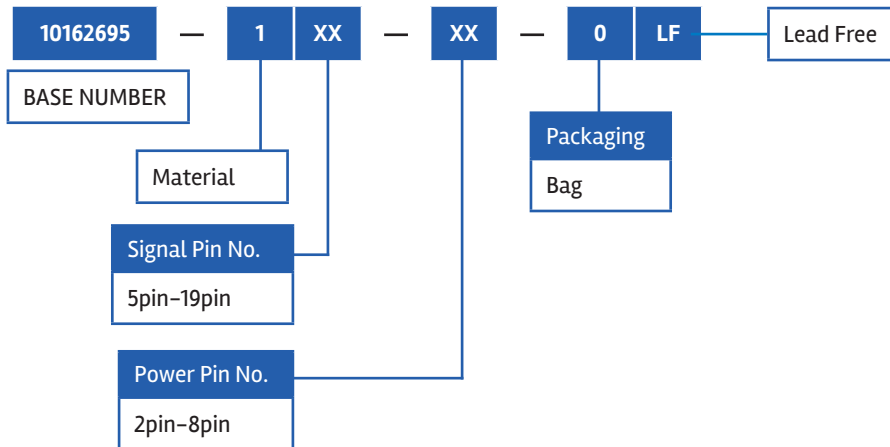Home Automation (Alarm System)

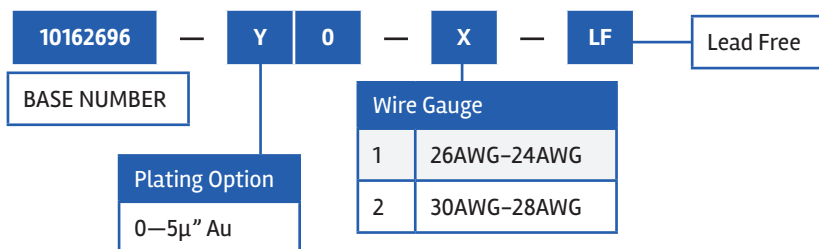Server
Storage

Robotics
PLC
Power tool

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## PART NUMBER SELECTOR–R/A_SMT HEADER

10162688 — X XX — X — XX — X LF ── Lead Free

BASE NUMBER

| 2 | Contact area 5µ" Au |

Signal Pin No.

5pin–19pin

| Packaging | |
|---|---|
| C | Tape and reel |
| T | Tray |

| Plating of Power | |
|---|---|
| 2 | Contact area 5µ" Au Solder are G/F |

| Plating of Power | |
|---|---|
| 2 | Contact area 5µ" Au Solder are G/F |

## PART NUMBER SELECTOR–RECEPTACLE HOUSING

10162695 — 1 XX — XX — 0 LF ── Lead Free

BASE NUMBER

Material

Signal Pin No.

5pin–19pin

Power Pin No.

2pin–8pin

Packaging

Bag

## PART NUMBER SELECTOR–SIGNAL TERMINAL

10162696 — Y 0 — X — LF ── Lead Free

BASE NUMBER

Plating Option

0—5µ" Au

| Wire Gauge | |
|---|---|
| 1 | 26AWG–24AWG |
| 2 | 30AWG–28AWG |

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## PART NUMBER SELECTOR–POWER TERMINAL

| 10162697 | — | Y | 0 | — | X | — | LF | — Lead Free |

**BASE NUMBER**

**Plating Option**

0—5µ" Au

| Wire Gauge | |
|---|---|
| 2 | 20AWG–18AWG |
| 3 | 26AWG–22AWG |

## HAND TOOL

10164147–001LF (Signal)
10164148–001LF (Power)

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