

HARWIN

KONA[®]



NPI RELEASE

KONA RIGHT-ANGLE SERIES

MALE RIGHT-ANGLE PCB CONNECTORS, BOARD MOUNT & PANEL MOUNT



The [right-angle versions](#) are also available in 2, 3 and 4-contact single row options for PCB throughboard mounting.

The KA1-MH1xx05M3 Standard gender fixings have a female thread for use with the 10mm long hex socket bolt [KA1-4200000](#) for additional security on the PCB.

The KA1-MH1xx05M4 include both the board mount and mating threads, but also additional internal threads for fixing to a front panel.

FEMALE RIGHT-ANGLED CONNECTORS, CABLE

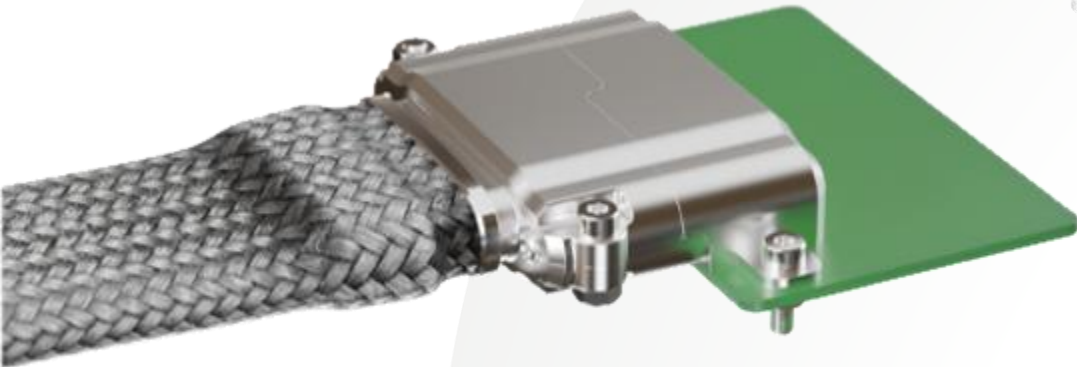


The right-angled female cable connectors also include 2, 3 and 4-contact single row housings for cable connections, but are of two-piece construction. The main contact bodies are part numbers [KA1-202xx98F1](#), fitted with standard gender fixings (floating thumbscrews with added hex socket cavities for use with torque drivers). To complete the connector, the rear cap is also required (part number range [KA1-510xx98](#)).

Both housing parts are supplied separately, as is the [KA1-0500005](#) solder contact.



MALE PCB RIGHT-ANGLE BACKSHELLS



Kona Male Right-Angle Backshells are offered for the Male PCB Connectors. These mate with existing KA1-970xx00 Straight Cable Metal Backshells. Panel mount option available, with side tabs for fastening.

RELEASED PART NUMBERS

Part Number	Description	Part Number	Description
KA1-MH1XX05M3	Male Right-Angle Throughboard Board Mount	KA1-960XX02	Male Right-Angle PCB Backshell
KA1-MH1XX05M4	Male Right-Angle Throughboard Board Mount & Panel Mount	KA1-961XX02	Male Right-Angle Panel Mount Backshell
KA1-1150005	Male Right-Angle PCB Contact	KA1-4200000	Panel Mount or Board Mount Bolt
KA1-202XX98F1	Female Right-Angle Cable Housings with Thumbscrews	KA1-4300000	Female Right-Angle Housing Backplate
KA1-510XX98	Female Right-Angle Housing Backplate	ZA1-9100000	Cap Removal Tool
KA1-0500005	Female Right-Angle 8AWG Solder Contact		

Note: 'XX' = 02, 03, 04: three connector sizes, where the number designates the number of contacts.

RELEASE HIGHLIGHTS – WHY?

Right-Angle range of PCB and cable connector format now offers solutions for end-applications in tighter areas where there may be height or cabling restrictions, also requiring board edge mount connectors for panels and quick routing away from the PCB.

The new variants support the evolution and growth of the Kona product series. Designed for power transmission and extreme environmental use.

KONA FAMILY

EXISTING KONA FAMILY MEMBERS



- Male Vertical PCB: Board Mount & Reverse Fix | Standard & Extended Tail Length
- Male Vertical PCB Shielding
- Male & Female Cable: Thumb Screw, Retaining Nut, Panel Mount | Solder Contacts & Crimp (female only)
- Cable Connector Shielding
- Hardware & Accessories: Crimp Tool, Positioner, Contact Removal Tool, Nuts

EMC SHIELDING – METAL BACKSHELLS



The strong and lightweight machined [aluminium backshells](#) provide EMI protection to sensitive components on the system, keeping noise to a minimum and maximising product performance.

They are designed to accommodate flexible, abrasion resistant, metal braiding and are supplied with tie-bands to attach such braiding to the shell. The backshells, together with the braiding, provide mechanical and electrical protection for performance benefits.

READY-MADE CABLE ASSEMBLIES



Ready-made cables are available made to order, inspected and tested for immediate production use. Variations include:

- Single-ended, male or female – free end can be supplied as cut, or stripped to your specified length
- Double-ended – male-to-male, female-to-female, or male-to-female
- Specify your own cable lengths from 100mm to 9,990mm
- Standard gender and reverse fixing options for each end

KONA SPECS & FEATURES

ELECTRICAL SPECIFICATIONS

Specification	Rating
Current Rating	60A per contact
Maximum Voltage	3,000V AC/DC for 1 minute
Working Voltage (sea level)	1,500V AC/DC
Contact Resistance	2mΩ max

Kona is capable of the highest current rating per contact from Harwin. At 121A per inch or 48A per centimeter for the 4-contact model, it's the highest power density in our portfolio.

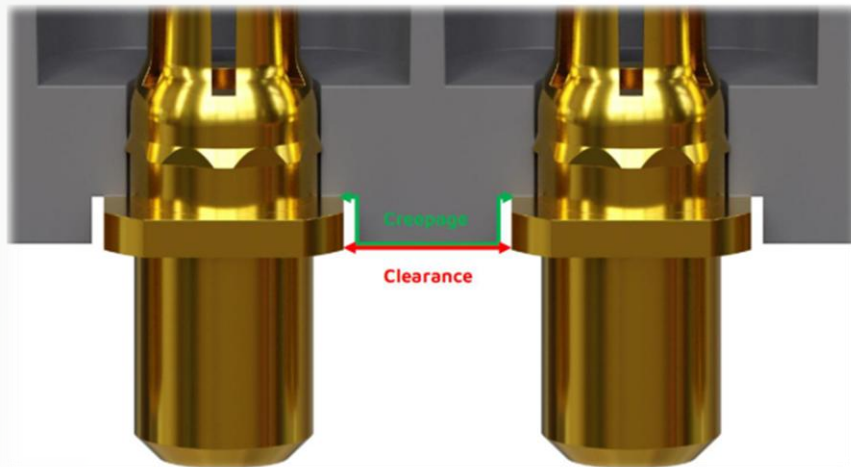
The full Kona [Component Specification C052xx](#) includes additional information and de-rating curves.



8.5MM PITCH FOR CURRENT & VOLTAGE



8.5mm PITCH PIN SPACING



By increasing the pitch of the connector to 8.5mm, you get increased electrical specifications:

- Current rating – 60A max per contact simultaneously;
- Voltage rating – 3,000V AC maximum for 1 minute; 1,500V DC or AC peak working voltage at sea level.

Commercial or COTS, the Kona range is a professional high-performing connection system.

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Specification	Rating
Operating Temperature Range	-65°C to +150°C
Vibration	10-2,000Hz @ 20g (198m/s ²)
Shock	100g (981m/s ²) for 6ms
Durability	250 mating cycles

Extreme environmental resilience in a robust, compact design for high performance.

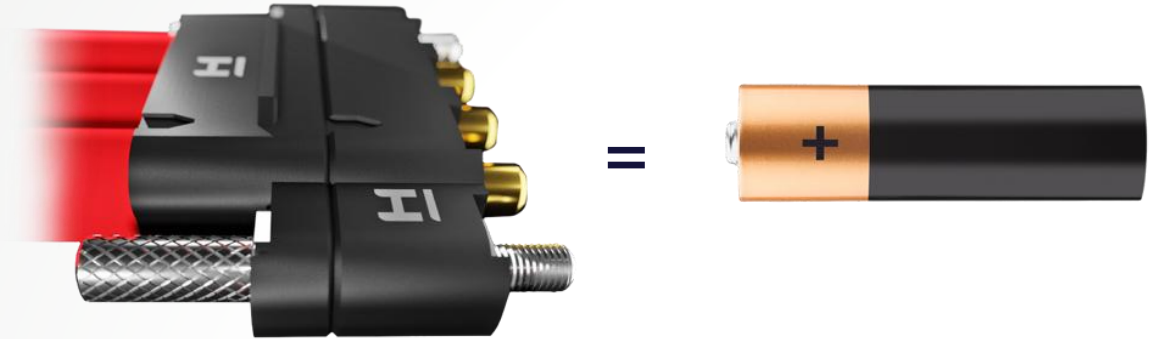
Temperature range exceeds Datamate, and matches Gecko.

Consult the [Test Report Summary HT076xx](#) for more information.

COMPACT & LIGHTWEIGHT



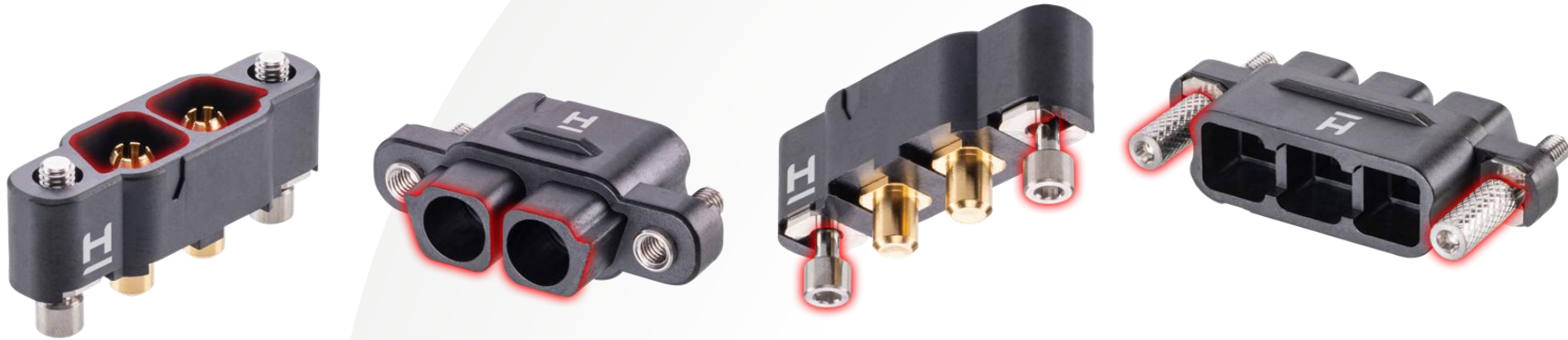
**A KONA 4
WAY MATED
PAIR WEIGHS
THE SAME AS
AN AA
BATTERY**



A mated pair of connectors will weigh just 25g (0.88oz), which is the same as a standard AA battery. The lengths are also comparable – the 3-contact version is 50mm long, also the same length as that AA battery.

Specifying this connector for power connections will keep the component weight low and PCB real estate minimal, releasing more weight and space for your other functions.

FEATURES – SHROUDING, POLARIZATION, SCREW LOCK FIXING



Contacts on the Kona range are all individually shrouded, with a recessed design. This helps prevent accidental touch of contacts by locating the contact end below the housing face. The contacts are also better protected against incidental damage from physical knocks or mis-mating.

Polarizing features can be seen on the outer edge of the shrouding, to prevent mating round the wrong way.

All Kona connectors are fitted with screw-lock fixings, to achieve the maximum vibration and shock specifications. They are also mate-before-lock, so connectors are easier and faster to mate before the screws are engaged and screwed together.