

# Gecko

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# Gecko Connectors Introduction

GECKO

Gecko is a 1.25mm pitch High-Reliability connector range from Harwin. Improving on the popular 2mm pitch Datamate series, and harnessing the modern technology of micro-machining, this range brings the best of the high-reliability specifications to a smaller size.

Gecko provides a low-profile, dual-row solution for all variations of cable-to-board, board-to-board and cable-to-cable interconnect requirements. With up to 50 contacts per connector, but still capable of 2A per contact, Gecko gives both significant weight and space-saving advantages over Micro-D connections. The Gecko range offers either latching connectors, for maximum weight and space-saving, or Screw-Lok connectors for maximum mating strain relief.

- ❖ 2A per contact (all electrically loaded; 2.8A per individual contact)
- ❖ 4-finger Patented\* contact design to maintain electrical contact through high vibration and shock
- ❖ Beryllium Copper Contact for improved temperature range: -65°C to +150°C
- ❖ 1,000 Mating cycles durability
- ❖ Weight and Space-saving over Micro-D connector products
- ❖ Future-proofed Materials - Halogen-free, PFOS-free, SVHC-free and RoHS compliant
- ❖ Low outgassing properties - 0.68% TML, 0.01% CVM, 0.26 WVR (Water Vapour Recovered)
- ❖ All PCB connectors available in Tape and Reel for automation

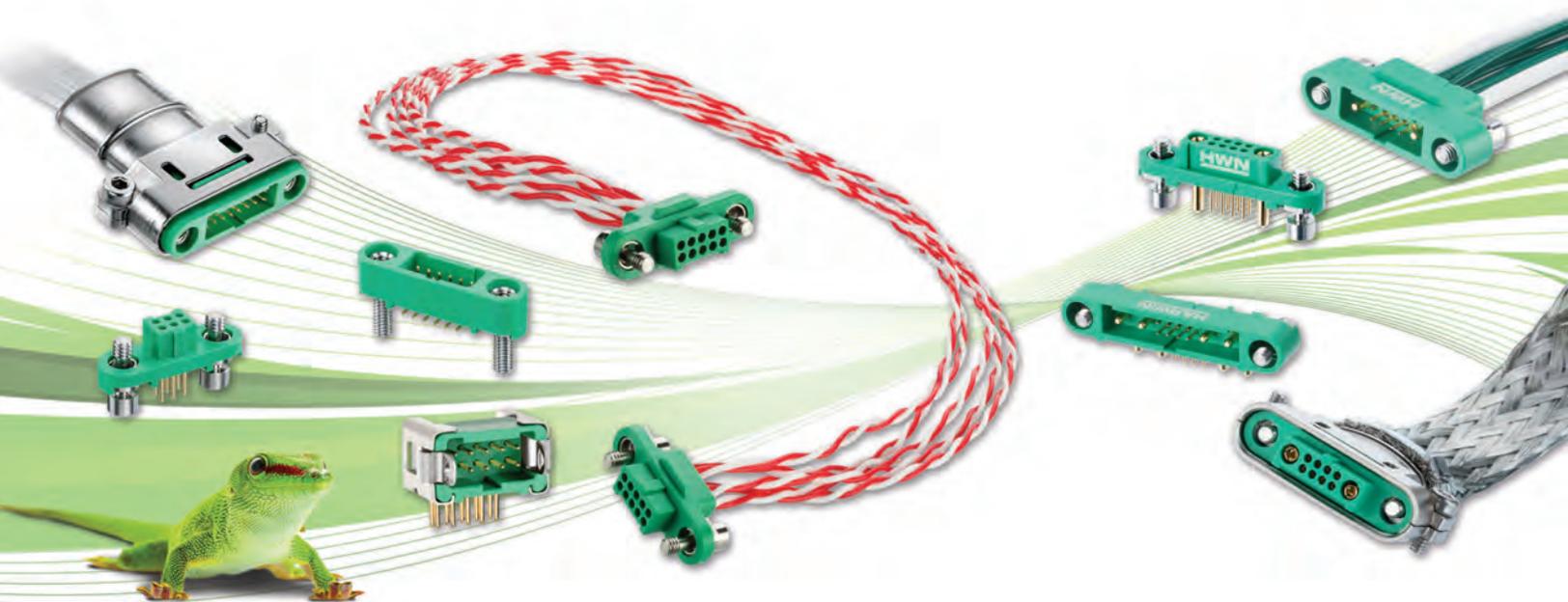
\*Granted US9017089, Pending GB2501063, Pending EP2642604

## Gecko-SL or Latches

- ❖ Strong stainless steel screw fixings for maximum strain relief, or lightweight space-saving robust latches
- ❖ Lightweight hoods for additional cable protection and shielding
- ❖ Choices of pre-wired contacts or full cable assemblies from stock, for prototyping and full production

## Gecko-MT

- ❖ Additional power contacts incorporated into the smallest, lightest mixed-layout connector
- ❖ Choice of 2 or 4 power contacts rated to 10A each
- ❖ Compatible with existing lightweight metal hoods



Patent Published

# Gecko Connectors Product Features

## Four Finger Beryllium Copper Contact

Unique patented pending high-reliability contact design ensures signal integrity under extremes of bump, vibration and shock. Durable to over 1,000 mating cycles.



## Keyway Polarization Points

3 polarizing points on each component prevent mis-mating.



## No. 1 Position identified, Potting Wall

Housings are clearly marked with identifier for fast visual inspection. Cable connectors feature a rear potting wall adding an extra level of strain relief.



## Packaged in Tape & Reel

All connectors for PCB assembly are available packaged in industry standard Tape and Reel format for automated assembly.



## Robust Metal Backshells

Lightweight aluminium hoods / backshells available for all connector sizes from stock. Supplied with tie-bands to attach external braiding for shielded cable assemblies.



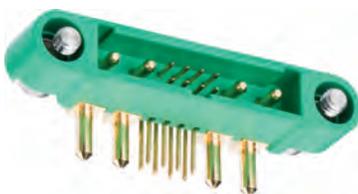
## Pre-assembled Cable Configurations

Cable connectors supplied in ready-made cable assemblies. Single and double-ended configurations available in standard lengths off-the-shelf, or custom assemblies on request.



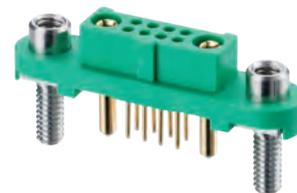
## Minimal Outgassing

Low outgassing properties from future-proofed plastic; within NASA and ESA recommendations.



## Operating Temperature Range

Performance is maintained across the full operating temperature range of -65°C to +150°C.



All dimensions in mm.

Patent Published

# Gecko-MT Connectors Specifications

## Materials

Housings:	Glass-filled High Temperature Thermoplastic UL94V-0
Female contacts:	Beryllium Copper
Male contacts	
Signal PCB Connector:	Phosphor Bronze
Signal Crimp:	Brass
Power (all):	Beryllium Copper
Finish	
Signal Contacts:	0.2 - 0.3 $\mu$ m (8 - 12 $\mu$ "") Gold, over 1.5 - 2.0 $\mu$ m (60 - 80 $\mu$ "") Nickel
Power Contacts:	0.8 - 1.0 $\mu$ m (30 - 40 $\mu$ "") Gold, over 1.5 - 2.5 $\mu$ m (60 - 100 $\mu$ "") Nickel
Screw-Loks:	Stainless Steel

## Electrical

Current	
Signal contacts in isolation:	2.8A max (at 25°C)
Signal contacts simultaneous:	2.0A max (at 25°C)
Power contacts simultaneous:	10A max
Working voltage	
At sea level 1006 mbar:	450V DC or AC peak
At altitude 44 mbar:	250V DC or AC peak
Voltage proof	
At sea level 1013 mbar:	600V DC or AC peak
At altitude 44 mbar:	350V DC or AC peak
Contact resistance	
Initial:	20m $\Omega$ max
After conditioning:	25m $\Omega$ max
Insulation resistance	
Initial:	10G $\Omega$ min at 500V DC
After conditioning:	>1G $\Omega$ min at 500V DC

## Mechanical

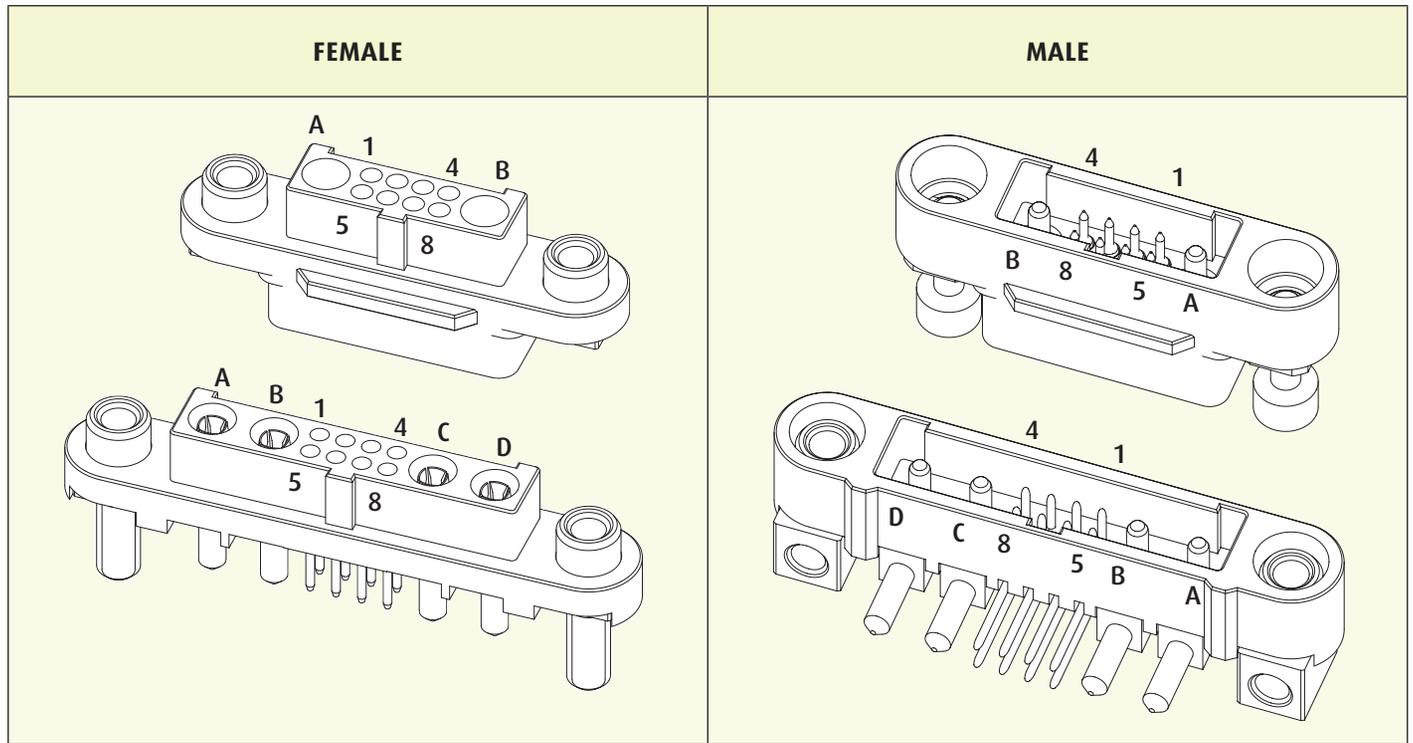
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force (signal):	2.8N max
Insertion force (power):	7.0N max
Withdrawal force:	0.2N min
Contact retention in housing:	6.0N max

## Environmental

Environmental classification:	65/150/56 days at 93% RH
Operating temperature:	-65°C to +150°C
*Vibration sensitivity:	10Hz to 2000Hz, 1.5mm, 198m/s <sup>2</sup> (20G) duration 6 hours
*Bump severity:	390m/s <sup>2</sup> (40G), 4000 $\pm$ 10 bumps
*Shock severity:	981m/s <sup>2</sup> (100G) for 6ms in Z axis 490m/s <sup>2</sup> (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s <sup>2</sup> (50G)

\* Tested with latched connectors.

# Gecko-MT Pin Numbering



# Gecko-MT Mating Profiles

		FEMALE	
		VERTICAL THROUGHBOARD	CABLE
MALE	HORIZONTAL THROUGHBOARD	<p>Standard: 10.05 Reverse Fix: 9.15</p>	<p>Standard: 12.70 max Reverse Fix: 11.90 max</p>
	CABLE	<p>10.95 max</p>	<p>13.35 max</p>

All dimensions in mm.

Patent Published

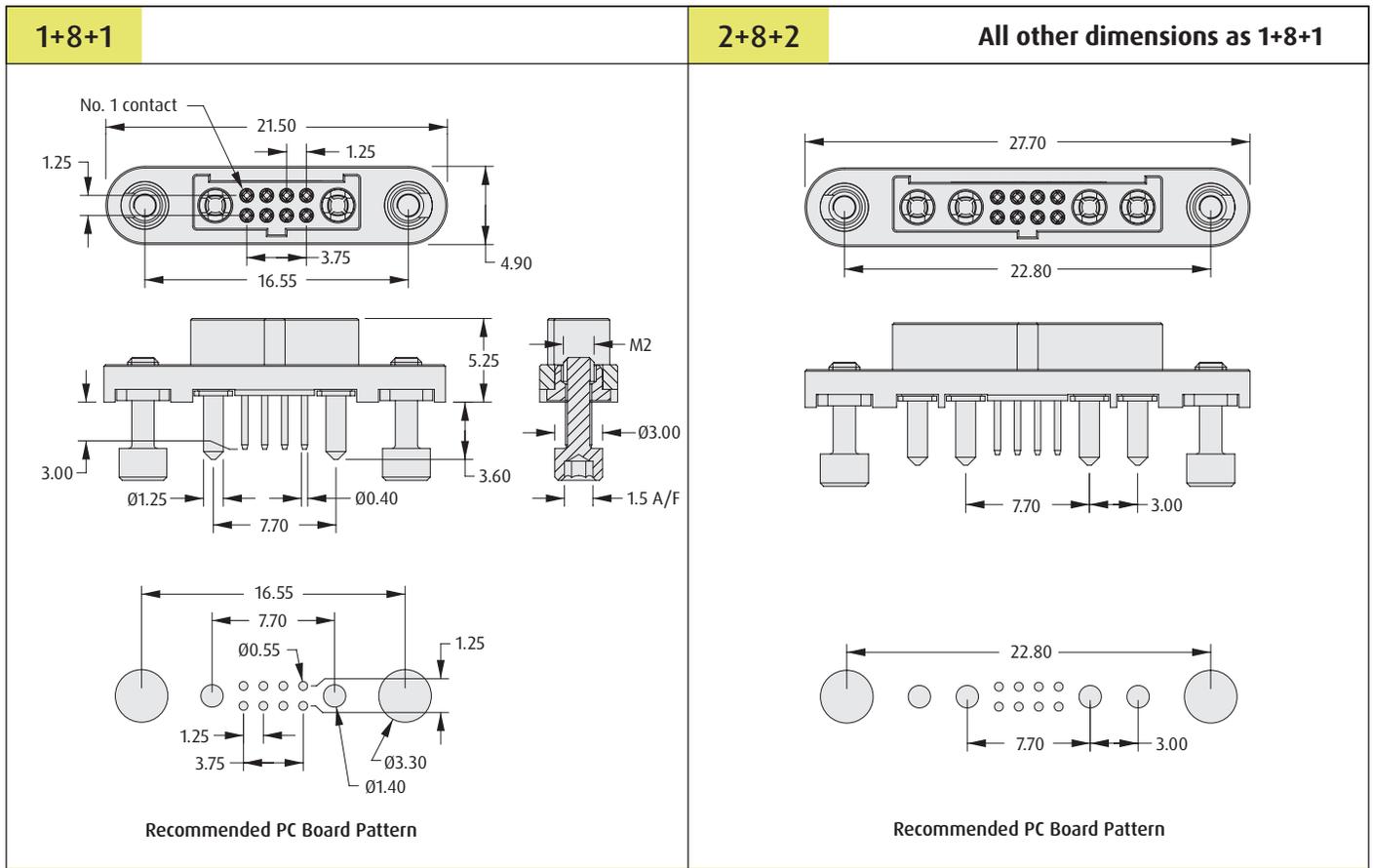
# Gecko-MT Connectors

## Female Vertical Throughboard

- ❏ 2A current rating for signal contacts, 10A for power contacts.
- ❏ Stainless steel floating screw fixing to mate with internal screw-loks on male connectors.
- ❏ 4-finger Beryllium Copper contact design on both signal and power contacts.
- ❏ Positive keyway polarization.



GECKO-MT



### HOW TO ORDER

**G125 - FV1 08 05 F1 - XABXAB P**

**SERIES CODE**

**TOTAL NO. OF SIGNAL CONTACTS**

08

**SCREW-LOK**

F1 Floating Hex Socket

**PACKAGING**

P Tape & Reel strips

**POWER CONTACTS**

1AB1AB 1+8+1 Configuration

2AB2AB 2+8+2 Configuration

All dimensions in mm.

Patent Published

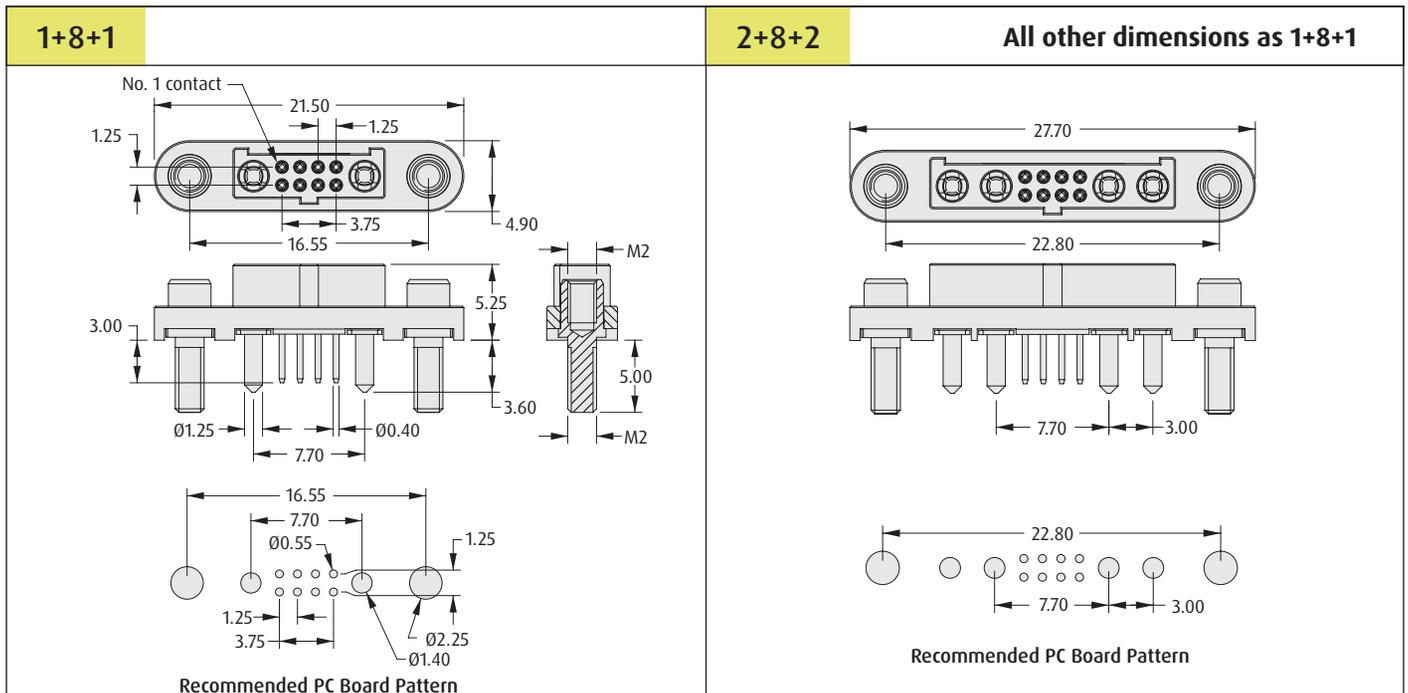
# Gecko-MT Connectors

## Female Vertical Throughboard – Reverse Fix

- Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- 2A current rating for signal contacts, 10A for power contacts.
- 4-finger Beryllium Copper contact design on both signal and power contacts.
- Order nuts for board-mount separately – see bottom of page for choice of nut type.



GECKO-MT



All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Female Cable Housings

- Features potting wall for backpotting to give extra security.
- No. 1 position identified on housing.
- Stainless steel floating screw fixing to mate with internal screw-loks on male connectors.
- Available without fixing screws, for use with metal backshells.



GECKO-MT

1+8+1	2+8+2

### TOOLS

**Recommended Crimp Tools** - Z125-900 (signal), Z125-903 (power)  
**Positioner** - Z125-901 (signal), Z125-904 (power)  
**Contact Insertion/Removal Tool** - Z125-902 (signal), Z125-905 (power)

- Female contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 22496 XX - 0X - 08 - 0X**

**SERIES CODE**

**SCREW-LOK**

<b>F1</b>	Floating Hex Socket
<b>00</b>	No Fixings (Use with Metal Hoods)

**NO. OF CONTACTS**

<b>01-08-01</b>	1+8+1 Configuration
<b>02-08-02</b>	2+8+2 Configuration

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Female Cable Housings – Reverse Fix

- ❖ Reverse fix screw-lok, where the male connector has the floating screw.
- ❖ Features potting wall for backpotting to give extra security.
- ❖ No. 1 position identified on housing.



GECKO-MT

1+8+1	2+8+2
<p style="text-align: right;"><b>All other dimensions as 1+8+1</b></p>	

### TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)

**Positioner** – Z125-901 (signal), Z125-904 (power)

**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

❖ Female contacts shown on a following page.

❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 22496 F2 - 0X - 08 - 0X**

**SERIES CODE**

**SCREW-LOK**

**F2** Internal Thread

**NO. OF CONTACTS**

**01-08-01** 1+8+1 Configuration

**02-08-02** 2+8+2 Configuration

# Gecko-MT Connectors

GECKO-MT

## Female Cable Housings – Reverse Fix Panel Mount

- Reverse fix screw-lok, where the male connector has the floating screw.
- Features potting wall for backpotting to give extra security.
- No. 1 position identified on housing.
- Order nuts for panel mount separately - see bottom of page.



1+8+1	2+8+2      All other dimensions as 1+8+1

### TOOLS

**Recommended Crimp Tools** – Z125-900 (signal), Z125-903 (power)  
**Positioner** – Z125-901 (signal), Z125-904 (power)  
**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

- Female contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 22496 F3 - 0X - 08 - 0X**

**SERIES CODE**

**SCREW-LOK**

**F3** With 5.2mm Panel Mount stud

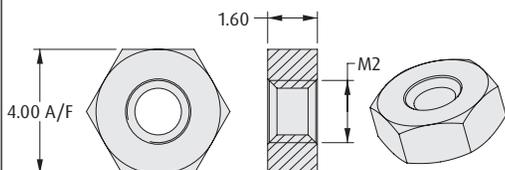
**NO. OF CONTACTS**

<b>01-08-01</b>	1+8+1 Configuration
<b>02-08-02</b>	2+8+2 Configuration

### REQUIRED HARDWARE

Order separately from connector

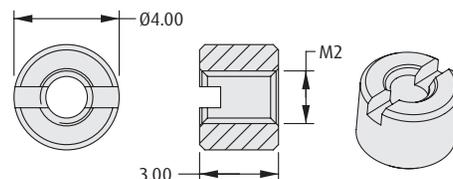
#### Hexagonal Board Mount Nut



**ORDER CODE**

**G125-4500000B**

#### Slotted Board Mount Nut



**ORDER CODE**

**G125-4510000B**

All dimensions in mm.

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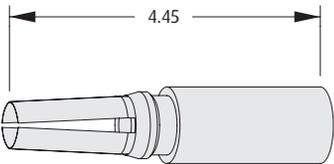
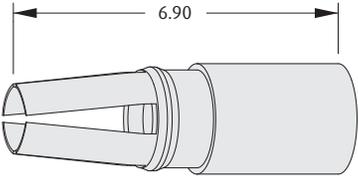
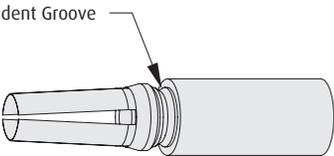
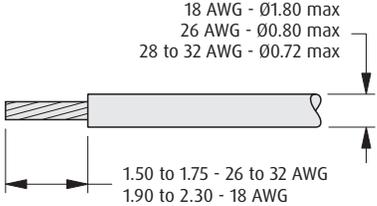
# Gecko-MT Connectors

## Female Crimp Contacts

- ❖ 4-finger Beryllium Copper contact design on both signal and power contacts.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).



GECKO-MT

CONTACTS	POWER CONTACT												
<p><b>26 AWG</b></p> 	<p><b>18 AWG</b></p> 												
<p><b>28 - 32 AWG</b></p> 	<p><b>WIRE STRIPPING DETAILS</b></p>  <p>18 AWG - Ø1.80 max                  26 AWG - Ø0.80 max                  28 to 32 AWG - Ø0.72 max</p> <p>1.50 to 1.75 - 26 to 32 AWG                  1.90 to 2.30 - 18 AWG</p>												
<p><b>TOOLS</b></p> <p><b>Recommended Crimp Tools</b> - Z125-900 (signal), Z125-903 (power)</p> <p><b>Positioner</b> - Z125-901 (signal), Z125-904 (power)</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902 (signal), Z125-905 (power)</p> <ul style="list-style-type: none"> <li>❖ Female crimp housings shown on previous pages.</li> <li>❖ Pre-cabled contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>													
<p><b>HOW TO ORDER</b></p>													
<p style="text-align: center;"><b>G125 - 0XX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1654 318 1696" style="border: 1px solid black; padding: 2px;"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1730 581 1885" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td><b>001</b></td> <td>Female 26 AWG crimp contact</td> </tr> <tr> <td><b>002</b></td> <td>Female 28-32 AWG crimp contact</td> </tr> <tr> <td><b>050</b></td> <td>Female power crimp contact</td> </tr> </tbody> </table> </div> <div data-bbox="1321 1709 1474 1789" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td><b>05</b></td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		<b>001</b>	Female 26 AWG crimp contact	<b>002</b>	Female 28-32 AWG crimp contact	<b>050</b>	Female power crimp contact	FINISH		<b>05</b>	Gold
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<b>050</b>	Female power crimp contact												
FINISH													
<b>05</b>	Gold												

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.



FEMALE SINGLE ENDED	FEMALE – FEMALE

### TOOLS

**Contact Insertion/Removal Tool** – Z125-902 (signal), Z125-905 (power)

- ❖ Female crimp housings and loose contacts shown on previous pages.
- ❖ Full cable assemblies shown on following page.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - F XX XXXX X 94**

<b>SERIES CODE</b>	G125	<b>CABLE COLOR</b>	94   White
<b>GENDER - FIRST END</b>	F   Female	<b>TERMINATION - SECOND END</b>	L   Loose cut end F   Female
<b>CABLE SIZE</b>	W1   26 AWG (signal) W2   28 AWG (signal) W3   30 AWG (signal) P1   18 AWG (power)	<b>CABLE LENGTH</b>	0150   150mm 0300   300mm (double-ended) 0450   450mm (single-ended)

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

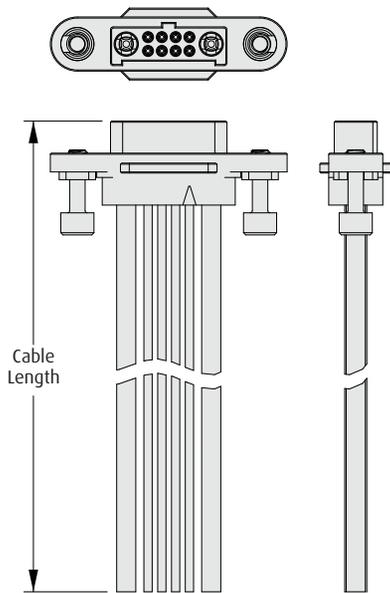
## Female Cable Assemblies

- Ready-made cable assemblies, backpotted for added strain relief.
- 4-finger Beryllium Copper contacts.
- No. 1 position identified on housing.
- Constructed with Contact 1 to Contact 1, Contact A to Contact A, etc.

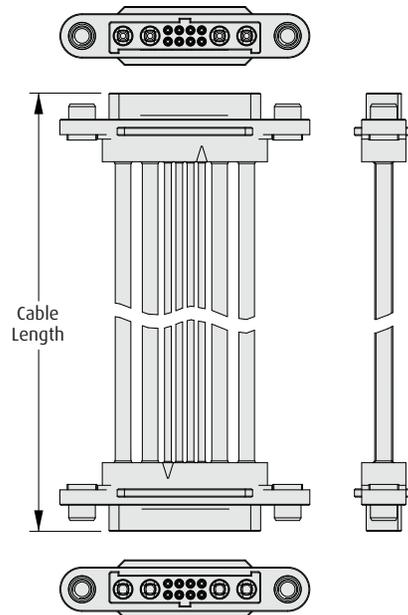


GECKO-MT

### FEMALE SINGLE ENDED



### FEMALE - FEMALE



### HOW TO ORDER

**G125 - F CX 08 FX - XBXB - XXXX - XX**

#### SERIES CODE

#### GENDER - FIRST END

**F** Female

#### CABLE SIZE (SIGNAL)

**C1** 26 AWG

**C2** 28 AWG

#### SCREW-LOK

**F1** Floating Hex Socket

**F2** Internal Thread (Reverse Fix)

#### TERMINATION - SECOND END

**L** Loose cut end

**F1 or F2** Female connector (same as First End)

#### CABLE LENGTH

**XXXX** XXXXmm

#### POWER CONTACTS

**1B1B** 1+8+1 configuration

**2B2B** 2+8+2 configuration

All dimensions in mm.

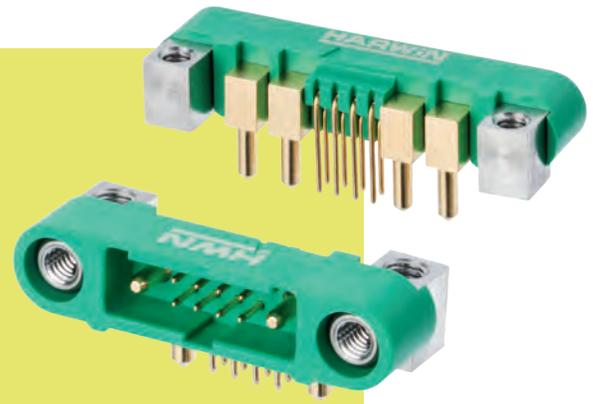
Patent Published

# Gecko-MT Connectors

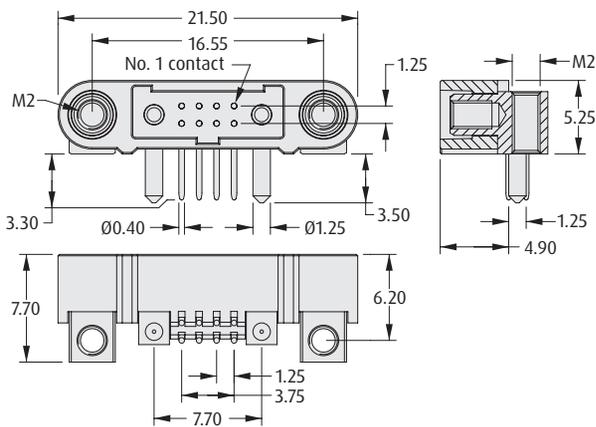
GECKO-MT

## Male Horizontal Throughboard

- 2A current rating for signal contacts, 10A for power contacts.
- Polarized housing with 3 keyways.
- Stainless steel screw fixing to mate with floating screw-loks on female connectors, also with board mount thread.
- Order bolts for board-mount separately.
- If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.

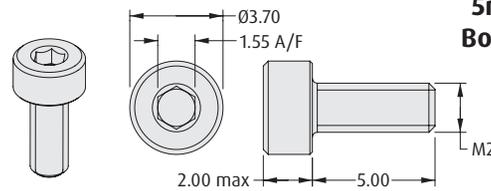


**1+8+1**



### REQUIRED HARDWARE

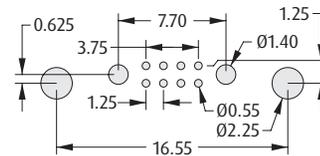
Order separately from connector



**5mm Hex Socket  
Board Mount Bolt**

**ORDER CODE**

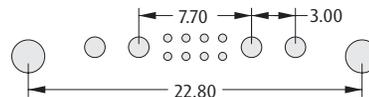
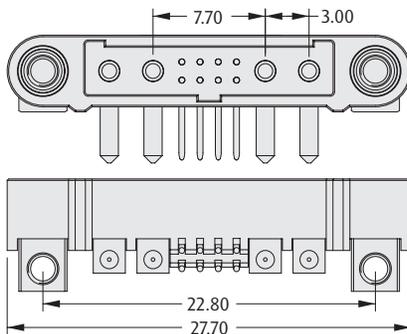
**G125-452000B**



Recommended PC Board Pattern

**2+8+2**

All other dimensions as 1+8+1



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - MH1 08 05 M4 - XADXAD P**

**SERIES CODE**

**TOTAL NO. OF SIGNAL CONTACTS**

**08**

**SCREW-LOK**

**M4** With Board Mount

**PACKAGING**

**P** Tape & Reel strips

**POWER CONTACTS**

**1AD1AD** 1+8+1 Configuration

**2AD2AD** 2+8+2 Configuration

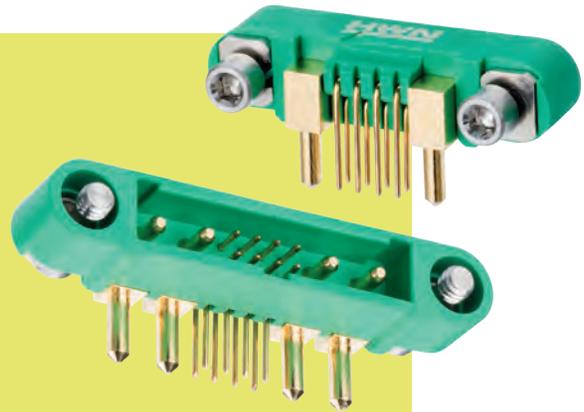
All dimensions in mm.

Patent Published

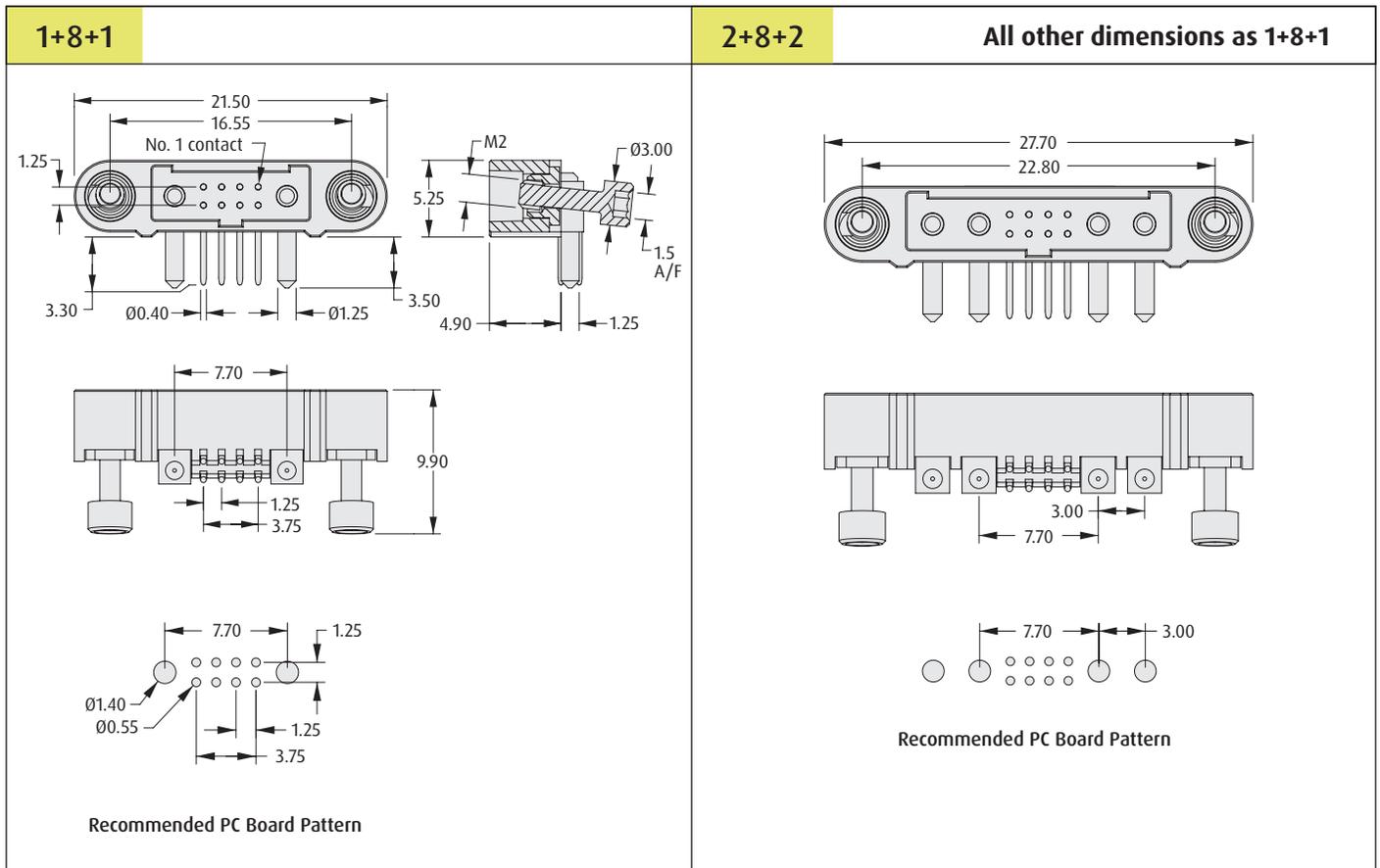
# Gecko-MT Connectors

## Male Horizontal Throughboard – Reverse Fix

- ❖ Reverse fix screw-lok, where the male connector has the floating screw.
- ❖ 2A current rating for signal contacts, 10A for power contacts.
- ❖ Polarized housing with 3 keyways.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.



GECKO-MT



All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Male Cable Housings

- Features potting wall for backpotting to give extra security.
- No. 1 position identified on housing.
- Stainless steel screw fixing to mate with floating screw-loks on female connectors.
- Compatible with metal backshells.



GECKO-MT

1+8+1	2+8+2	All other dimensions as 1+8+1

### TOOLS

**Recommended Crimp Tools** - Z125-900 (signal), Z125-903 (power)  
**Positioner** - Z125-901 (signal), Z125-904 (power)  
**Contact Insertion/Removal Tool** - Z125-902 (signal), Z125-905 (power)

- Male contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 32496 M1 - 0X - 08 - 0X**

<b>SERIES CODE</b>	
<b>SCREW-LOK</b>	
M1	Internal Thread

<b>NO. OF CONTACTS</b>	
01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Male Cable Housings - Panel Mount

- Features potting wall for backpotting to give extra security.
- No. 1 position identified on housing.
- Stainless steel screw fixing to mate with floating screw-loks on female connectors.
- Order nuts for panel mount separately - see bottom of page.



GECKO-MT

1+8+1	2+8+2	All other dimensions as 1+8+1
		<p style="text-align: center;">All other dimensions as 1+8+1</p>

### TOOLS

**Recommended Crimp Tools** - Z125-900 (signal), Z125-903 (power)  
**Positioner** - Z125-901 (signal), Z125-904 (power)  
**Contact Insertion/Removal Tool** - Z125-902 (signal), Z125-905 (power)

- Male contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 32496 M2 - 0X - 08 - 0X**

**SERIES CODE**

**SCREW-LOK**

**M2** With 5.2mm Panel Mount stud

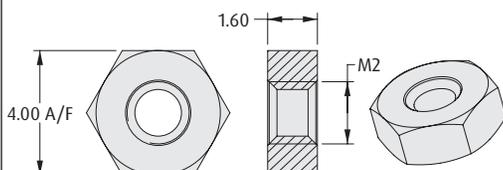
**NO. OF CONTACTS**

<b>01-08-01</b>	1+8+1 Configuration
<b>02-08-02</b>	2+8+2 Configuration

### REQUIRED HARDWARE

Order separately from connector

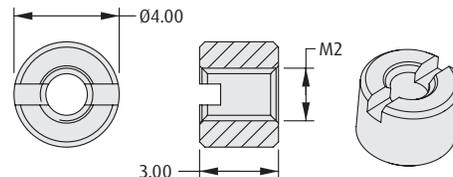
#### Hexagonal Board Mount Nut



**ORDER CODE**

**G125-4500000B**

#### Slotted Board Mount Nut



**ORDER CODE**

**G125-4510000B**

All dimensions in mm.

Patent Published



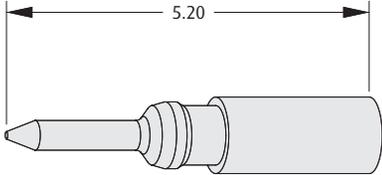
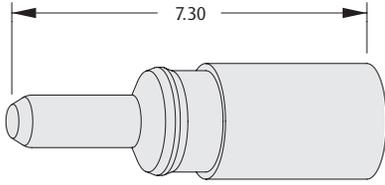
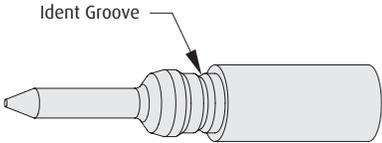
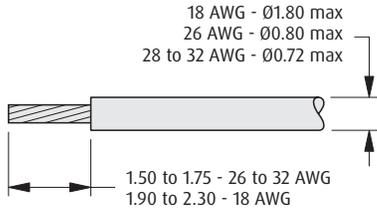
# Gecko-MT Connectors

## Male Crimp Contacts

- Crimp barrel meets all crimp guidelines and standards.
- Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).



GECKO-MT

CONTACTS	POWER CONTACT												
<p><b>26 AWG</b></p> 	<p><b>18 AWG</b></p> 												
<p><b>28 - 32 AWG</b></p> 	<p><b>WIRE STRIPPING DETAILS</b></p>  <p>18 AWG - Ø1.80 max                  26 AWG - Ø0.80 max                  28 to 32 AWG - Ø0.72 max</p> <p>1.50 to 1.75 - 26 to 32 AWG                  1.90 to 2.30 - 18 AWG</p>												
<p><b>TOOLS</b></p> <p><b>Recommended Crimp Tools</b> - Z125-900 (signal), Z125-903 (power)</p> <p><b>Positioner</b> - Z125-901 (signal), Z125-904 (power)</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902 (signal), Z125-905 (power)</p>													
<p>➤ Male housings shown on previous pages.</p> <p>➤ Pre-cabled contacts shown on following page.</p> <p>➤ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</p>													
<p><b>HOW TO ORDER</b></p>													
<p style="text-align: center;"><b>G125 - 1XX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1654 318 1696"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1730 581 1885"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td>101</td> <td>Male 26 AWG crimp contact</td> </tr> <tr> <td>102</td> <td>Male 28-32 AWG crimp contact</td> </tr> <tr> <td>150</td> <td>Male power crimp contact</td> </tr> </tbody> </table> </div> <div data-bbox="1320 1709 1474 1791"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td>05</td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		101	Male 26 AWG crimp contact	102	Male 28-32 AWG crimp contact	150	Male power crimp contact	FINISH		05	Gold
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150	Male power crimp contact												
FINISH													
05	Gold												

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- Ready for assembling to housing.
- Crimp barrel meets all crimp guidelines and standards.



GECKO-MT

<b>MALE SINGLE ENDED</b>	<b>MALE - MALE</b>
<b>MALE - FEMALE</b>	<b>TOOLS</b>
	<p><b>Contact Insertion/Removal Tool</b> – Z125-902 (signal), Z125-905 (power)</p> <ul style="list-style-type: none"> <li>➤ Male crimp housings and loose contacts shown on previous pages.</li> <li>➤ Full cable assemblies shown on following page.</li> <li>➤ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>

### HOW TO ORDER

**G125 - M XX XXXX X 94**

**SERIES CODE**

CABLE COLOR	
94	White

GENDER - FIRST END	
M	Male

TERMINATION - SECOND END	
L	Loose cut end
F	Female
M	Male

CABLE SIZE	
W1	26 AWG (signal)
W2	28 AWG (signal)
W3	30 AWG (signal)
P1	18 AWG (power)

CABLE LENGTH	
0150	150mm
0300	300mm (double-ended)
0450	450mm (single-ended)

All dimensions in mm.

Patent Published

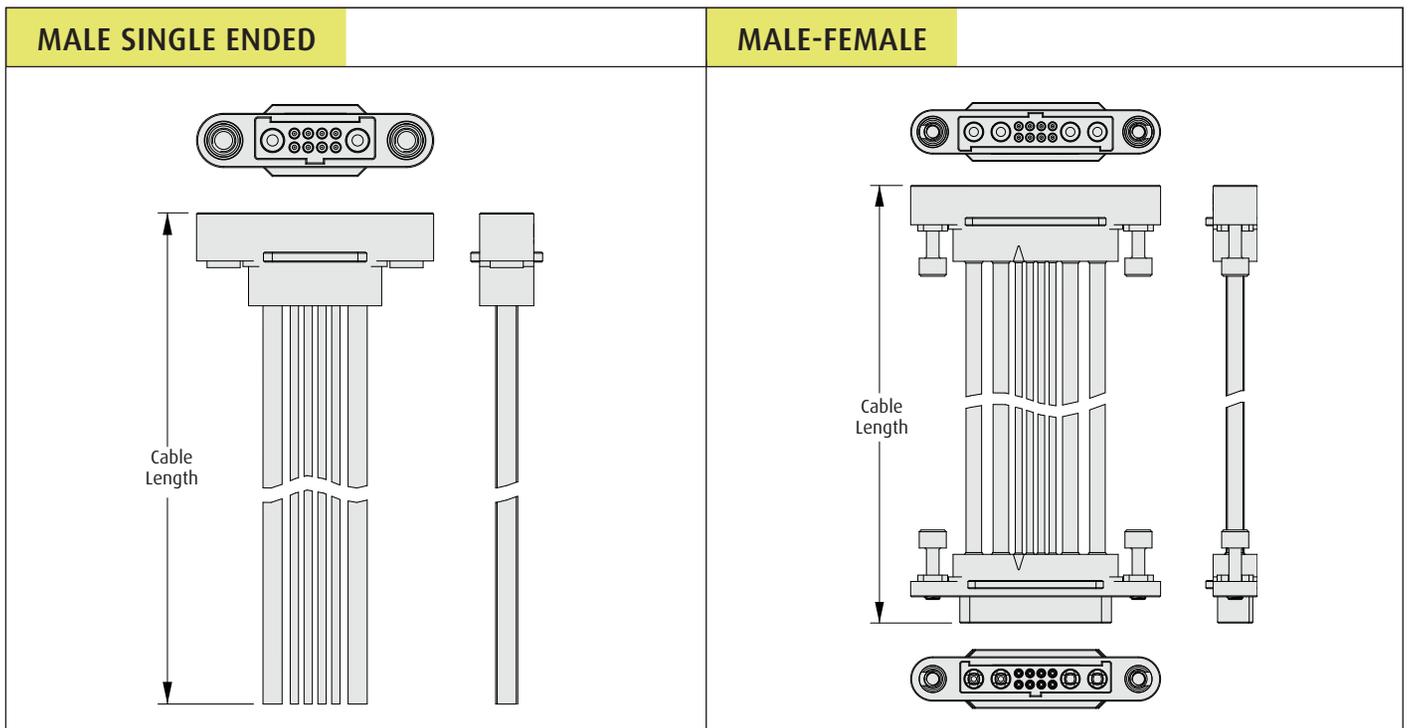
# Gecko-MT Connectors

## Male Cable Assemblies

- Ready-made cable assemblies, backpotted for added strain relief.
- 4-finger Beryllium Copper contacts.
- No. 1 position identified on housing.
- Constructed with Contact 1 to Contact 1, Contact A to Contact A, etc.
- Male-to-male cable length (not shown) is measured in the same style as male-to-female.



GECKO-MT



### HOW TO ORDER

**G125 - M CX 08 MX - XDXD - XXXX - XX**

<b>SERIES CODE</b> G125	<b>GENDER - FIRST END</b> M	<b>CABLE SIZE (SIGNAL)</b> CX 08	<b>TERMINATION - SECOND END</b> MX	<table border="1"> <thead> <tr> <th colspan="2">TERMINATION - SECOND END</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>Loose cut end</td> </tr> <tr> <td>F1</td> <td>Female with Floating Hex Socket</td> </tr> <tr> <td>F2</td> <td>Female with Internal Thread (Reverse Fix)</td> </tr> <tr> <td>M1 or M3</td> <td>Male connector (same as First End)</td> </tr> </tbody> </table>	TERMINATION - SECOND END		L	Loose cut end	F1	Female with Floating Hex Socket	F2	Female with Internal Thread (Reverse Fix)	M1 or M3	Male connector (same as First End)		
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All dimensions in mm.

Patent Published

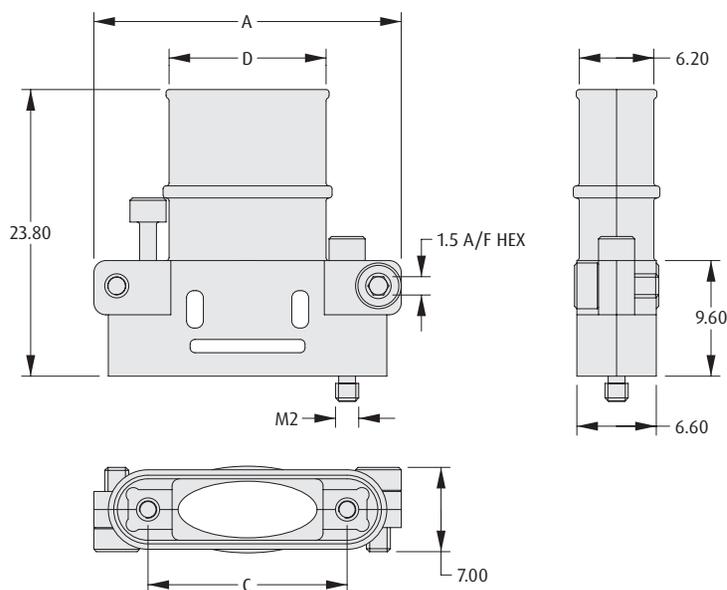
# Gecko-MT Connectors

## Metal Hood / Backshell - Cable

- ❖ Supplied as a kit - includes 2 metal hood halves, and short screws & nuts to join the two hood halves together (nuts not illustrated).
- ❖ Use 00 fixing kit on male housings G125-32496M1-xx-08-xx for standard gender fixings.
- ❖ F1 kit includes extended fixing screws - use with female housings G125-2249600-xx-08-xx.
- ❖ Tie-band can be used to attach external braid, to construct a shielded cable assembly.

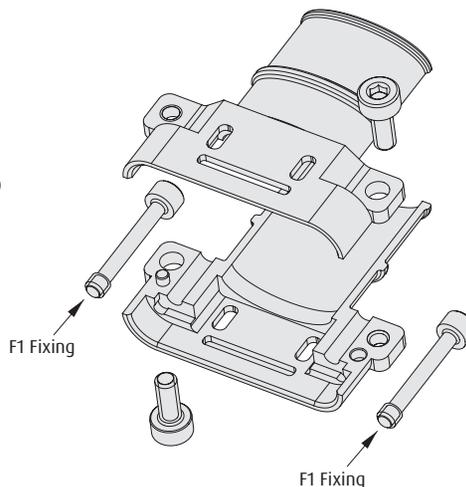


### HOOD / BACKSHELL



### CALCULATION

<b>A</b>	$B + 16.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$
<b>D</b>	$B + 4.3$



### HOW TO ORDER

**G125 - 964 XX XX**

**SERIES CODE**

### SCREW-LOK

<b>00</b>	Use with G125-32496M1 male housings
<b>F1</b>	Use with G125-2249600 female housings

### TOTAL NO. OF CONTACTS

<b>16</b>	Use with 1+8+1 configuration
<b>26</b>	Use with 2+8+2 configuration

### BAND-IT TIE

- ❖ For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool).



### ORDER CODE

<b>M80-9470000</b>	Length = 206.8mm
<b>M80-9480000</b>	Length = 362.0mm

All dimensions in mm.

Patent Published

# Gecko-MT Connectors

## Metal Hood / Backshell - Board Mount or Panel Mount

- ❖ Use with G125-FV10805F3-xABxAB connectors in a PCB mounted application.
- ❖ Use with G125-22496F3-xx-08-xx housings for a panel mount application.

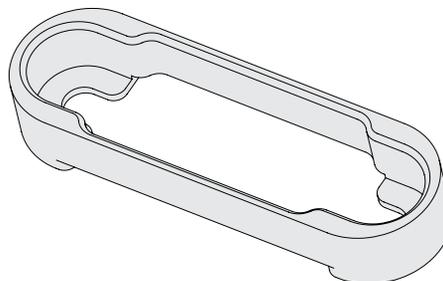
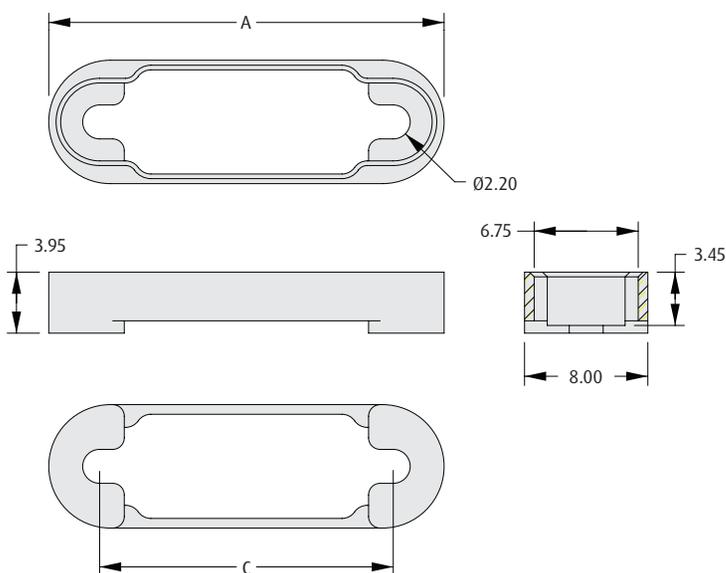


GECKO-MT

### HOOD / BACKSHELL

### CALCULATION

<b>A</b>	$B + 14.4$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$



### HOW TO ORDER

**G125 - 960 XX 02**

**SERIES CODE**

**TOTAL NO. OF CONTACTS**

<b>16</b>	Use with 1+8+1 configuration
<b>26</b>	Use with 2+8+2 configuration

All dimensions in mm.

Patent Published

# Gecko-SL Specifications

## Materials

Housings:	Glass-filled High Temperature Thermoplastic UL94V-0
Female contacts:	Beryllium Copper
Male contacts	
PCB Connector:	Phosphor Bronze
Crimp:	Brass
Finish:	0.2 – 0.3µm (8 – 12µ") Gold, over 1.5 – 2.0µm (60 – 80µ") Nickel
Screw-Loks:	Stainless Steel

## Electrical

<b>Current</b>	
Individual contacts in isolation:	2.8A max (At 25°C)
All contacts simultaneously:	2.0A max (At 25°C)
<b>Working voltage</b>	
At sea level 1006 mbar:	450V DC or AC peak
At altitude 44 mbar:	250V DC or AC peak
<b>Voltage proof</b>	
At sea level 1013 mbar:	600V DC or AC peak
<b>Contact resistance</b>	
Initial:	20mΩ max
After conditioning:	25mΩ max
<b>Insulation resistance</b>	
Initial:	10GΩ min at 500V DC
After conditioning:	>1GΩ min at 500V DC

## Mechanical

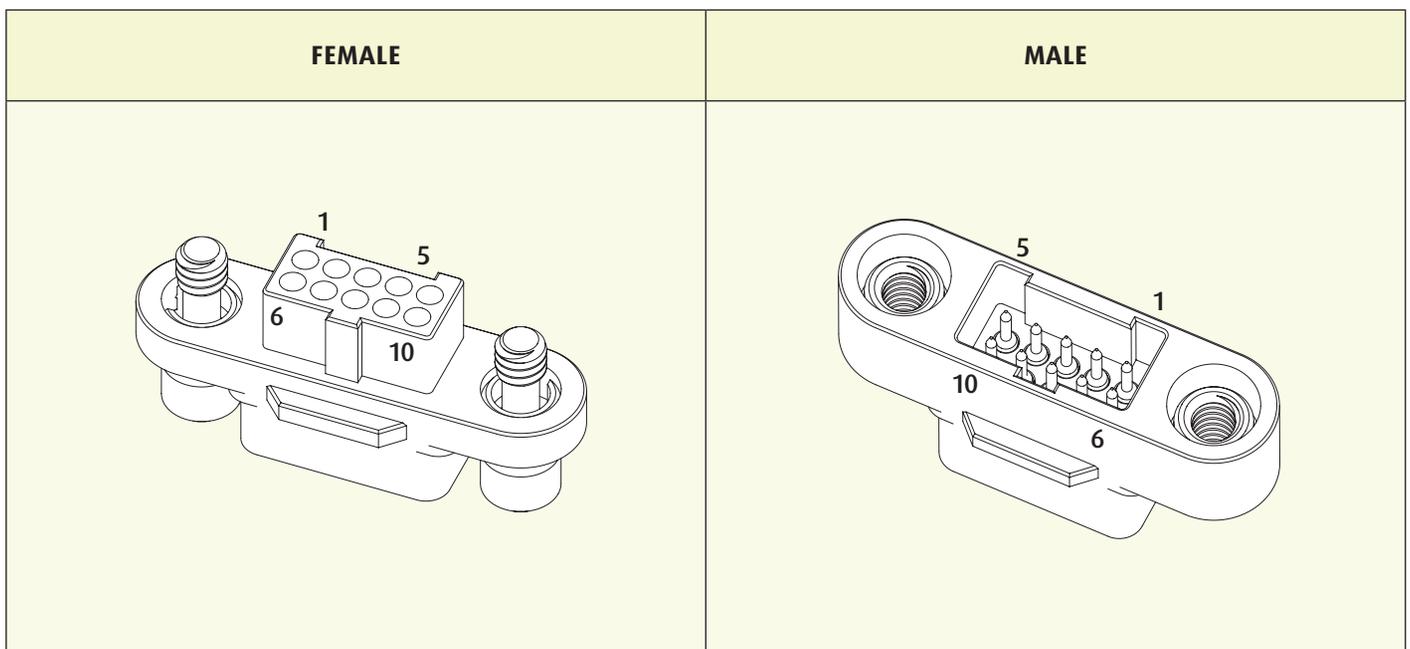
Contact durability:	1000 operations
<b>Mating forces (per contact pair)</b>	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

## Environmental

Environmental classification:	65/150/56 days at 93% RH
Operating temperature:	-65°C to +150°C
*Vibration sensitivity:	10Hz to 2000Hz, 1.5mm, 198m/s <sup>2</sup> (20G) duration 6 hours
*Bump severity:	390m/s <sup>2</sup> (40G), 4000 ±10 bumps
*Shock severity:	981m/s <sup>2</sup> (100G) for 6ms in Z axis 490m/s <sup>2</sup> (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s <sup>2</sup> (50G)

\* Tested with latched connectors.

# Pin Numbering



All dimensions in mm.

Patent Published

# Gecko-SL Mating Profiles

		FEMALE			
		VERTICAL THROUGHBOARD	VERTICAL SMT	CABLE	
MALE	VERTICAL THROUGHBOARD				
	HORIZONTAL THROUGHBOARD	 Standard	 Reverse Fix	 Standard	 Reverse Fix
	VERTICAL SMT				
	CABLE				

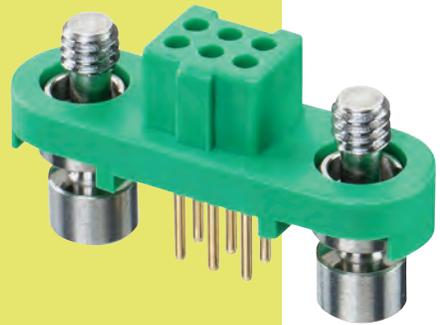
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Throughboard

- ❑ 4-finger Beryllium Copper contact.
- ❑ Stainless steel screw fixing to mate with applicable male connector.
- ❑ Positive keyway polarization features.
- ❑ 2A current capacity, resists high vibration and shock.
- ❑ Withstands extremes of temperature: -65°C to +150°C.

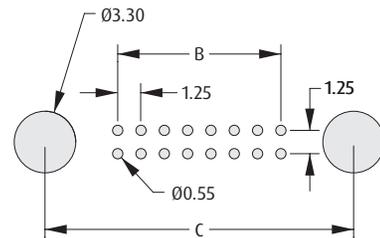
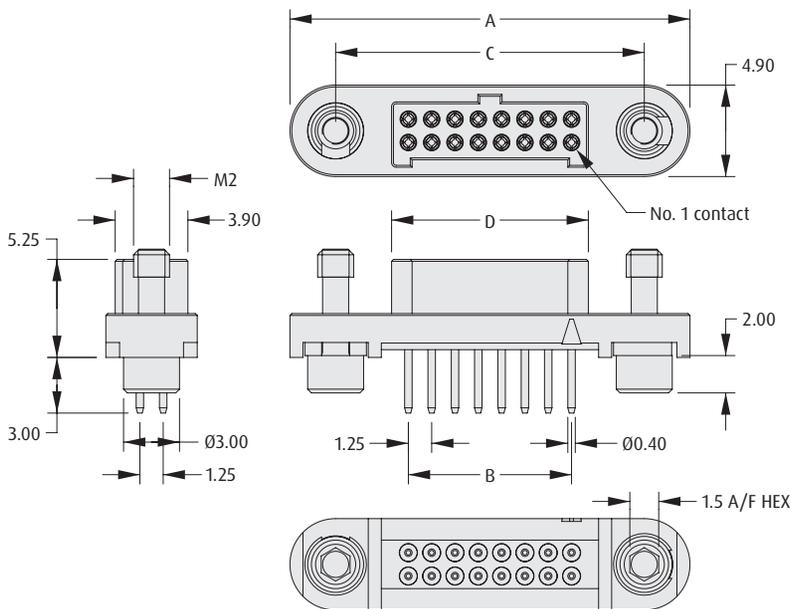


GECKO-SL

### 3mm THROUGHBOARD

#### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$
<b>D</b>	$B + 1.8$



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F V1 XX 05 F1 X**

**SERIES CODE**

**TYPE**

**V1** 3mm Throughboard

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FINISH

**05** Gold

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Throughboard - Reverse Fix

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ F3 Screw-Lok is compatible with board mount metal backshell G125-960 range.



GECKO-SL

WITHOUT BOARD MOUNT	WITH BOARD MOUNT																								
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All dimensions in mm.

Patent Published

# Gecko-SL Connectors

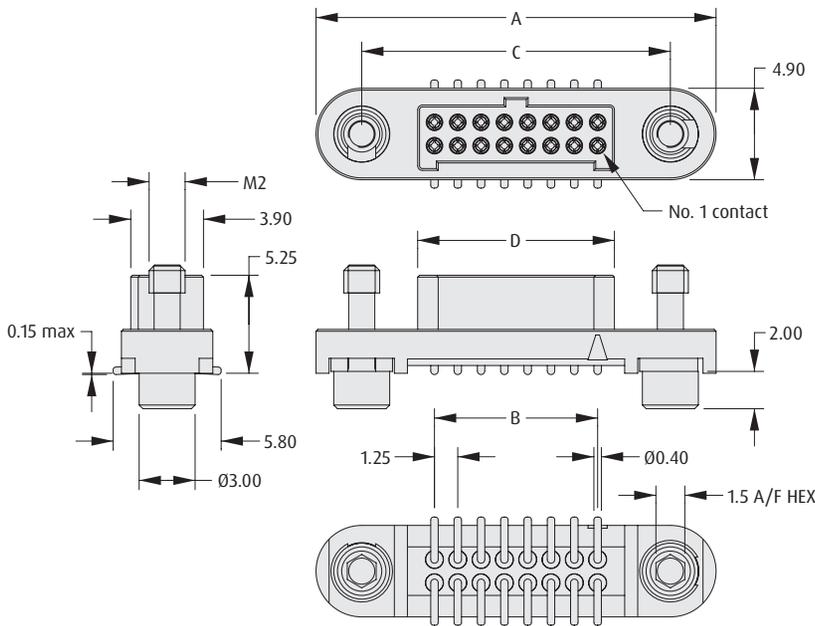
## Female Surface Mount

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Available in Tape and Reel Packaging, with Pick and Place cap.



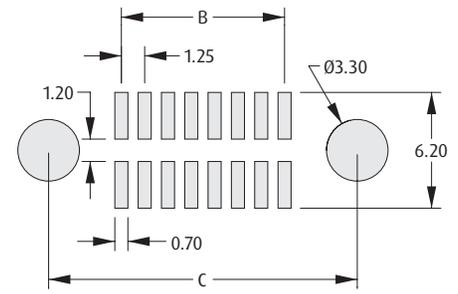
GECKO-SL

### SURFACE MOUNT



### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$
<b>D</b>	$B + 1.8$



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F S1 XX 05 F1 X**

**SERIES CODE**

**TYPE**

**S1** Surface Mount

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FINISH

**05** Gold

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

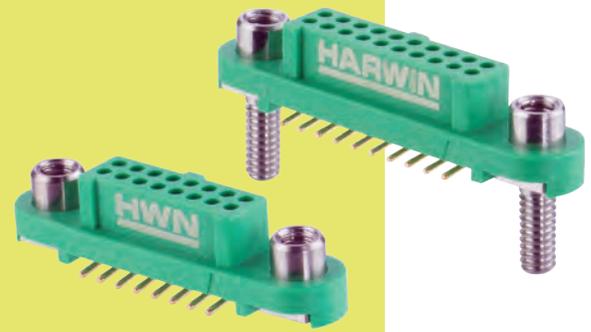
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Surface Mount - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ Available in Tape and Reel Packaging, with Pick and Place cap.



GECKO-SL

WITHOUT BOARD MOUNT	WITH BOARD MOUNT										
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CALCULATION											
<b>A</b>	$B + 12.7$										
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$										
<b>C</b>	$B + 7.8$										
<b>D</b>	$B + 1.8$										

### HOW TO ORDER

**G125 - F S1 XX 05 FX X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

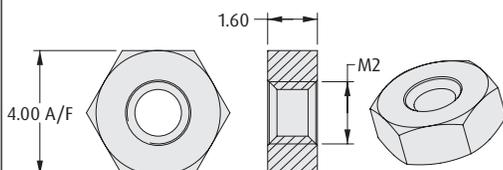
#### SCREW-LOK

<b>F2</b>	Internal Thread
<b>F3</b>	With 5mm Board Mount stud

### REQUIRED HARDWARE

Order separately from connector

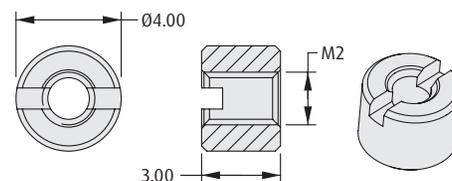
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Crimp Housings

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on housing.
- 3 polarizing points on each housing prevent mis-mating.
- Use 00 Screw-Lok version (without fixings) with G125-964xxF1 metal hood / backshell, shown on a following page.



GECKO-SL

FEMALE		CALCULATION	
		<b>A</b>	$B + 12.7$
		<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
		<b>C</b>	$B + 7.8$
		<b>D</b>	$B + 1.8$
<b>TOOLS</b>			
<p><b>Recommended Crimp Tool</b> - Z125-900</p> <p><b>Positioner</b> - Z125-901</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902</p>		<ul style="list-style-type: none"> <li>Female contacts shown on a following page.</li> <li>Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>	
<b>HOW TO ORDER</b>			
<b>G125 - 224 XX 96 XX</b>			
<b>SERIES CODE</b>			
<b>TYPE</b>			
<b>224</b> Female Housing			
<b>TOTAL NO. OF CONTACTS</b>			
<b>06, 10, 12, 16, 20, 26, 34, 50</b>			
		<b>SCREW-LOK</b>	
		<b>F1</b>	Floating Hex Socket fixings
		<b>00</b>	No fixings (use with Metal Hoods)
		<b>FINISH</b>	
		<b>96</b>	Housing

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Crimp Housings - Reverse Fix

- Features 2.5mm potting wall for extra security.
- F3 Screw-Lok is compatible with panel mount metal backshell G125-960 range.
- Stainless steel screw fixing mates to applicable male connector fitted with floating screw-loks.
- Order nuts for panel mount separately - see bottom of page.



GECKO-SL

WITHOUT PANEL MOUNT	WITH PANEL MOUNT										
<table border="1"> <thead> <tr> <th colspan="2">CALCULATION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><math>B + 12.7</math></td> </tr> <tr> <td>B</td> <td><math>0.625 \times (\text{Total No. of contacts} - 2)</math></td> </tr> <tr> <td>C</td> <td><math>B + 7.8</math></td> </tr> <tr> <td>D</td> <td><math>B + 1.8</math></td> </tr> </tbody> </table>		CALCULATION		A	$B + 12.7$	B	$0.625 \times (\text{Total No. of contacts} - 2)$	C	$B + 7.8$	D	$B + 1.8$
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A	$B + 12.7$										
B	$0.625 \times (\text{Total No. of contacts} - 2)$										
C	$B + 7.8$										
D	$B + 1.8$										

### HOW TO ORDER

**G125 - 224 XX 96 FX**

<table border="1"> <thead> <tr> <th colspan="2">SERIES CODE</th> </tr> </thead> <tbody> <tr> <td>G125</td> <td>224</td> </tr> </tbody> </table>	SERIES CODE		G125	224	<table border="1"> <thead> <tr> <th colspan="2">SCREW-LOK</th> </tr> </thead> <tbody> <tr> <td>F2</td> <td>Internal Thread</td> </tr> <tr> <td>F3</td> <td>With 5.2mm Panel Mount stud</td> </tr> </tbody> </table>	SCREW-LOK		F2	Internal Thread	F3	With 5.2mm Panel Mount stud
SERIES CODE											
G125	224										
SCREW-LOK											
F2	Internal Thread										
F3	With 5.2mm Panel Mount stud										
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FINISH											
96	Housing										
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TOTAL NO. OF CONTACTS											
06, 10, 12, 16, 20, 26, 34, 50											

### TOOLS

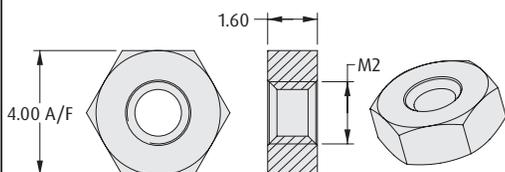
**Recommended Crimp Tool** - Z125-900  
**Positioner** - Z125-901  
**Contact Insertion/Removal Tool** - Z125-902

- Female contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### REQUIRED HARDWARE

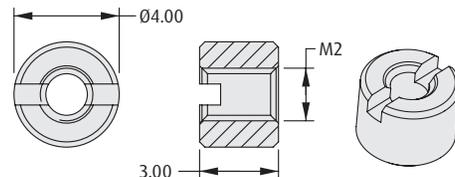
Order separately from connector

#### Hexagonal Board Mount Nut



**ORDER CODE**  
G125-4500000B

#### Slotted Board Mount Nut



**ORDER CODE**  
G125-4510000B

All dimensions in mm.

Patent Published

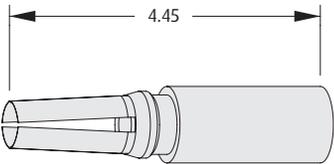
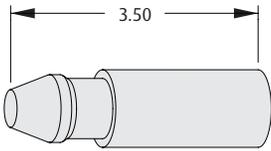
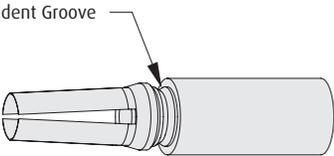
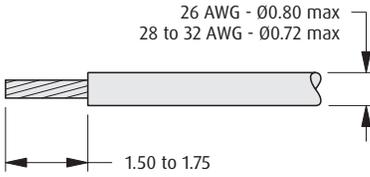
# Gecko-SL Connectors

GECKO-SL

## Female Crimp Contacts, Dummy Contact

- ❖ 4-finger Beryllium Copper contact on a female connector.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT												
<p><b>26 AWG</b></p> 													
<p><b>28 - 32 AWG</b></p> 	<p><b>WIRE STRIPPING DETAILS</b></p> 												
<p><b>TOOLS</b></p>													
<p><b>Recommended Crimp Tool</b> - Z125-900  <b>Positioner</b> - Z125-901  <b>Contact Insertion/Removal Tool</b> - Z125-902</p>	<ul style="list-style-type: none"> <li>❖ Female crimp housings shown on previous pages.</li> <li>❖ Pre-cabled contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>												
<p style="text-align: center;"><b>HOW TO ORDER</b></p>													
<p style="text-align: center;"><b>G125 - 0XX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1629 318 1667" style="border: 1px solid black; padding: 2px;"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1703 581 1856" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td><b>001</b></td> <td>Female 26 AWG crimp contact</td> </tr> <tr> <td><b>002</b></td> <td>Female 28-32 AWG crimp contact</td> </tr> <tr> <td><b>020</b></td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> </div> <div data-bbox="1317 1686 1471 1761" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td><b>05</b></td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		<b>001</b>	Female 26 AWG crimp contact	<b>002</b>	Female 28-32 AWG crimp contact	<b>020</b>	Dummy Contact (blanking plug)	FINISH		<b>05</b>	Gold
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FINISH													
<b>05</b>	Gold												

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



FEMALE SINGLE ENDED	FEMALE – FEMALE

### TOOLS

**Contact Insertion/Removal Tool** – Z125-902

- ❖ Female crimp housings and loose contacts shown on previous pages.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 – F WX XXXX X 94**

<b>SERIES CODE</b>	G125	<b>CABLE COLOR</b>	94   White
<b>GENDER - FIRST END</b>	F   Female	<b>TERMINATION - SECOND END</b>	L   Loose cut end F   Female
<b>CABLE SIZE</b>	W1   26 AWG W2   28 AWG W3   30 AWG	<b>CABLE LENGTH</b>	0150   150mm 0300   300mm (double-ended) 0450   450mm (single-ended)

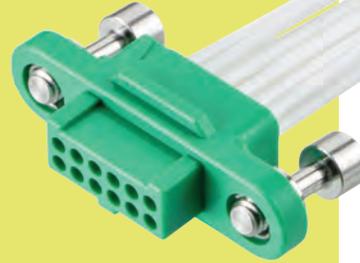
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Female Cable Assemblies

- ❏ 4-finger Beryllium Copper contact.
- ❏ No.1 position identified on housing.
- ❏ Stainless steel screw fixing to mate with applicable male connector.
- ❏ Back potted for added strain relief.
- ❏ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - F X X XX XX FX - XXXX XX**

#### SERIES CODE

#### GENDER - FIRST END

<b>F</b>	Female
----------	--------

#### CABLE STYLE

<b>C</b>	Standard Cables
<b>D</b>	Twisted Pairs

#### CABLE SIZE

<b>1</b>	26 AWG
<b>2</b>	28 AWG

#### TOTAL NO. OF CONTACTS

<b>06, 10, 12, 16, 20, 26, 34, 50</b>
---------------------------------------

#### TERMINATION - SECOND END

<b>L</b>	Loose cut end
<b>F0, F1, F2 or F3</b>	Female connector (same as First End)

#### CABLE LENGTH

<b>0150</b>	150mm
<b>0300</b>	300mm (double-ended)
<b>0450</b>	450mm (single-ended)
<b>XXXX</b>	XXXXmm

#### SCREW-LOK

<b>F0</b>	No fixings (use with Metal Hoods)
<b>F1</b>	Floating Hex Socket fixings
<b>F2</b>	Internal Thread (reverse fix)
<b>F3</b>	With 5.2mm panel mount stud (reverse fix)

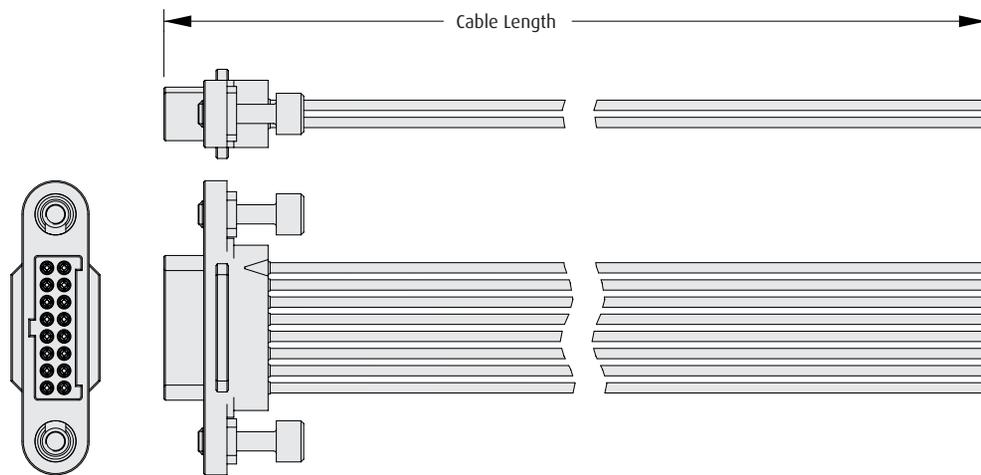
#### CABLE COLOR / BRAID

<b>05</b>	White cable
<b>68</b>	Multicolor cable (single-ended)
<b>69</b>	Shielded assembly (with metal backshells & braid)

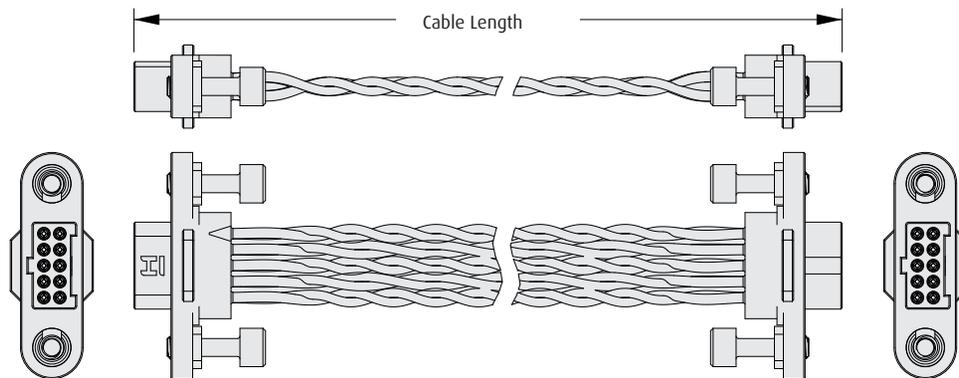
# Gecko-SL Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the connector.

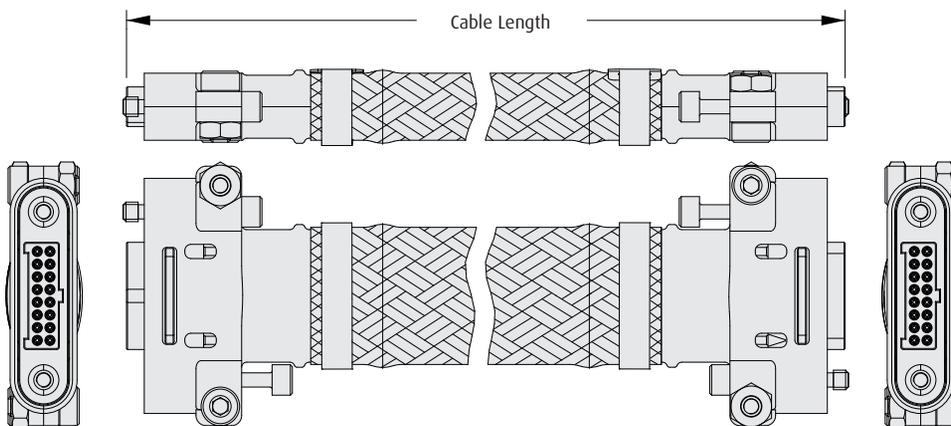
## FEMALE SINGLE ENDED



## FEMALE - FEMALE WITH TWISTED PAIRS



## FEMALE - FEMALE WITH SHIELDING



All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Vertical Throughboard

- Stainless steel screw fixing to mate with applicable female connector.
- Order nuts for board-mount separately - see bottom of page.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



GECKO-SL

WITHOUT BOARD MOUNT	WITH BOARD MOUNT																						
<p style="text-align: center;">Recommended PC Board Pattern</p>	<p style="text-align: center;">Recommended PC Board Pattern</p>																						
<table border="1" style="margin: auto;"> <thead> <tr style="background-color: #f2f2f2;"> <th colspan="2">CALCULATION</th> </tr> </thead> <tbody> <tr> <td><b>A</b></td> <td><math>B + 12.7</math></td> </tr> <tr> <td><b>B</b></td> <td><math>0.625 \times (\text{Total No. of contacts} - 2)</math></td> </tr> <tr> <td><b>C</b></td> <td><math>B + 7.8</math></td> </tr> <tr> <td><b>D</b></td> <td><math>B + 1.8</math></td> </tr> </tbody> </table>		CALCULATION		<b>A</b>	$B + 12.7$	<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$	<b>C</b>	$B + 7.8$	<b>D</b>	$B + 1.8$												
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<p style="font-size: 1.2em; font-weight: bold; letter-spacing: 0.2em;">G125 - M V1 XX 05 MX X</p>																							
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<b>REQUIRED HARDWARE</b>																							
<p style="text-align: center;"><b>Hexagonal Board Mount Nut</b></p> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>G125-4500000B</td> </tr> </tbody> </table>	ORDER CODE	G125-4500000B	<p style="text-align: center;"><b>Slotted Board Mount Nut</b></p> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr style="background-color: #f2f2f2;"> <th>ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>G125-4510000B</td> </tr> </tbody> </table>	ORDER CODE	G125-4510000B																		
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G125-4500000B																							
ORDER CODE																							
G125-4510000B																							

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

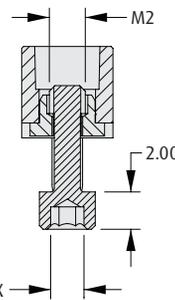
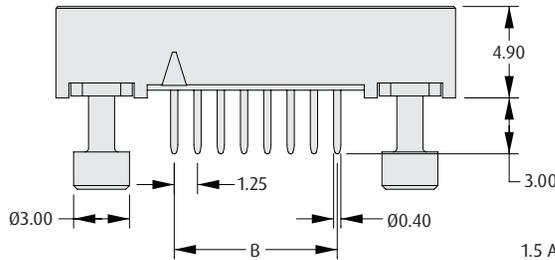
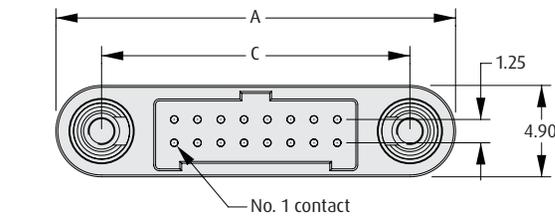
## Male Vertical Throughboard - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ No. 1 position identified on housing.



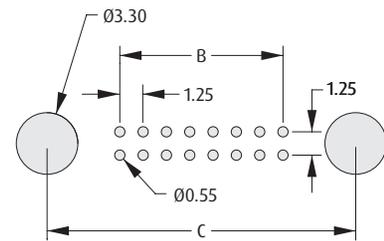
GECKO-SL

### THROUGHBOARD



### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M V1 XX 05 M3 X**

**SERIES CODE**

**TYPE**

**V1** 3mm Throughboard

**TOTAL NO. OF CONTACTS**

**06, 10, 12, 16, 20, 26, 34, 50**

**PACKAGING**

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

**FINISH**

**05** Gold

All dimensions in mm.

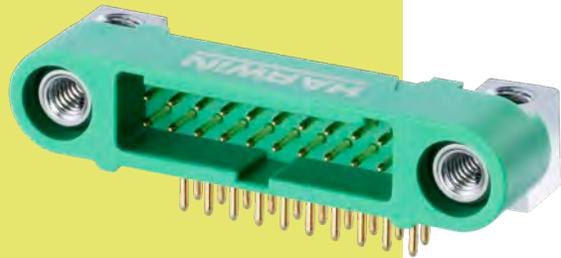
Patent Published

# Gecko-SL Connectors

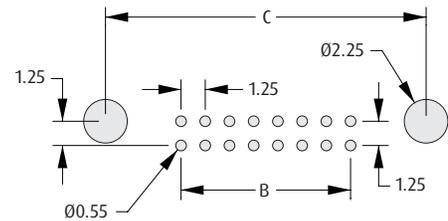
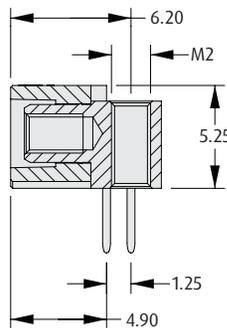
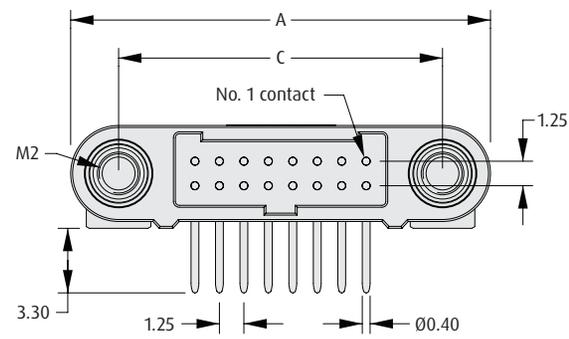
GECKO-SL

## Male Horizontal Throughboard

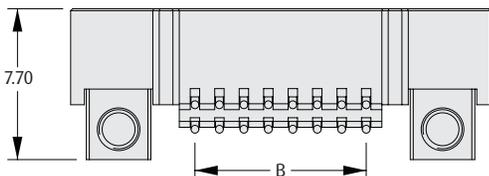
- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors, also with board mount thread.
- ❖ Order bolts for board-mount separately.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.



### THROUGHBOARD



Recommended PC Board Pattern

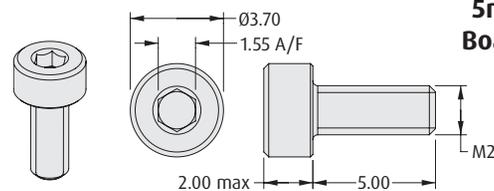


### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$

### REQUIRED HARDWARE

Order separately from connector



**5mm Hex Socket Board Mount Bolt**

### ORDER CODE

**G125-4520000B**

### HOW TO ORDER

**G125 - M H1 XX 05 M4 X**

#### SERIES CODE

#### TYPE

**H1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FINISH

**05** Gold

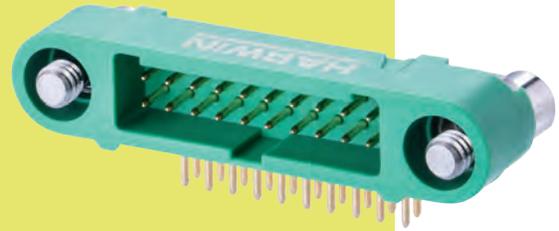
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

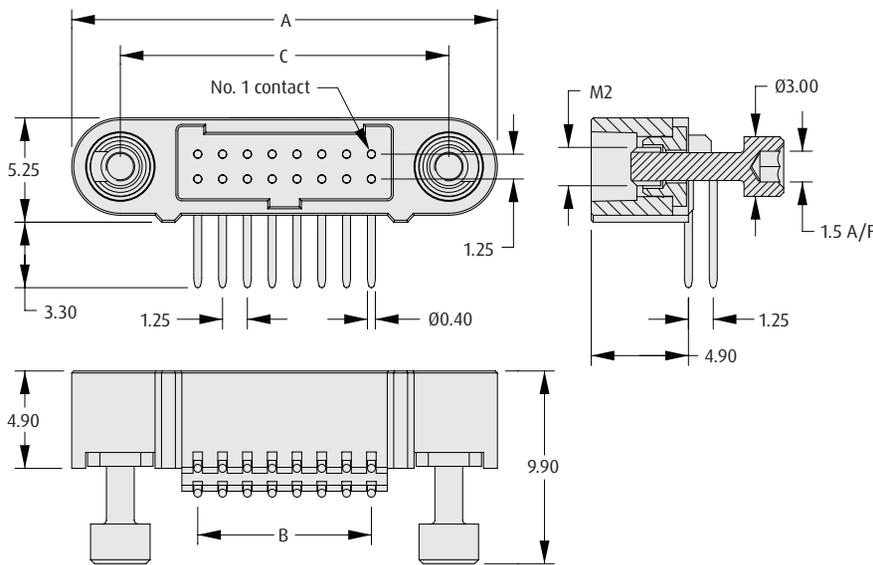
## Male Horizontal Throughboard - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ No. 1 position identified on housing.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing for details.



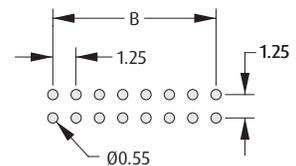
GECKO-SL

### THROUGHBOARD



### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M H1 XX 05 M3 X**

#### SERIES CODE

#### TYPE

**H1** 3mm Throughboard

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FINISH

**05** Gold

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

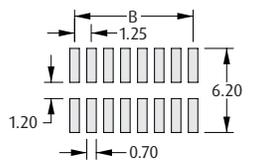
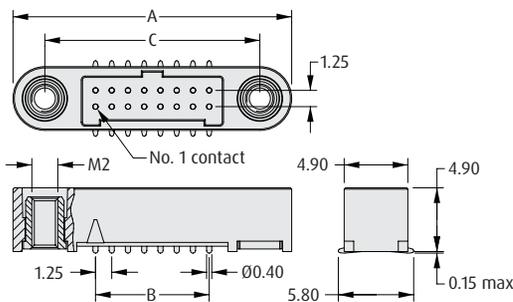
GECKO-SL

## Male Vertical Surface Mount

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Order nuts for board-mount separately - see bottom of page.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



### WITHOUT BOARD MOUNT

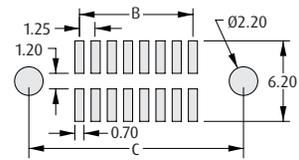
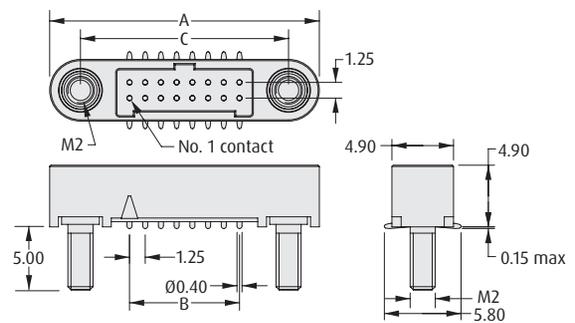


Recommended PC Board Pattern

#### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$
<b>D</b>	$B + 1.8$

### WITH BOARD MOUNT



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - M S1 XX 05 MX X**

#### SERIES CODE

#### TYPE

**S1** Surface Mount

#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

#### PACKAGING

**R** Tape & Reeled

**P** Tape & Reel strips

#### SCREW-LOK

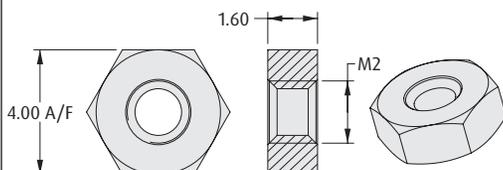
**M1** Internal Thread

**M2** With 5mm Board Mount Stud

### REQUIRED HARDWARE

Order separately from connector

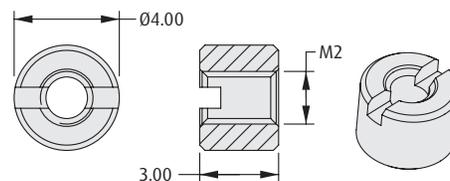
#### Hexagonal Board Mount Nut



#### ORDER CODE

**G125-4500000B**

#### Slotted Board Mount Nut



#### ORDER CODE

**G125-4510000B**

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

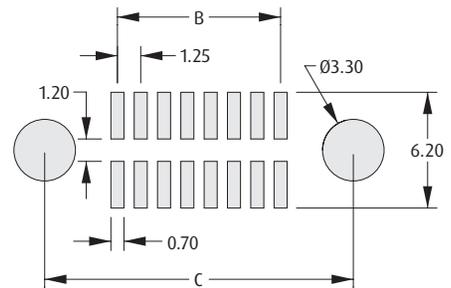
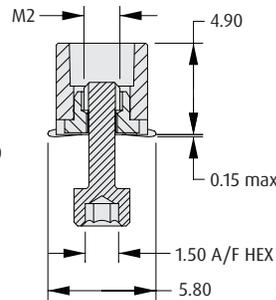
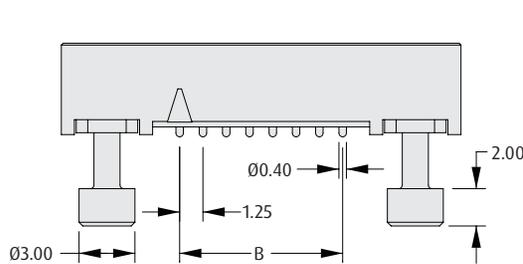
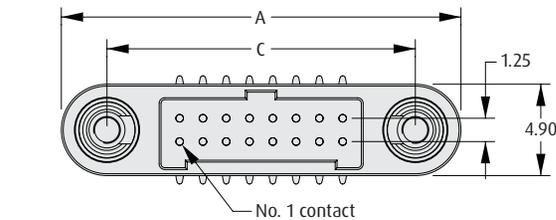
## Male Vertical Surface Mount - Reverse Fix

- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.



GECKO-SL

### SURFACE MOUNT



Recommended PC Board Pattern

### CALCULATION

<b>A</b>	$B + 12.7$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$

### HOW TO ORDER

**G125 - M S1 XX 05 M3 X**

**SERIES CODE**

**TYPE**

**S1** Surface Mount

**TOTAL NO. OF CONTACTS**

**06, 10, 12, 16, 20, 26, 34, 50**

**PACKAGING**

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

**FINISH**

**05** Gold

# Gecko-SL Connectors

## Male Crimp Housing

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on housing.
- 3 polarizing points on each housing prevent mis-mating.
- Housing without fixings can be used with G125-964xxF1 metal hoods / backshells for reverse fix screw-lok.
- Order nuts for panel mount separately - see bottom of page.



GECKO-SL

WITHOUT PANEL MOUNT	WITH PANEL MOUNT								
<table border="1"> <thead> <tr> <th colspan="2">CALCULATION</th> </tr> </thead> <tbody> <tr> <td><b>A</b></td> <td><math>B + 12.7</math></td> </tr> <tr> <td><b>B</b></td> <td><math>0.625 \times (\text{Total No. of contacts} - 2)</math></td> </tr> <tr> <td><b>C</b></td> <td><math>B + 7.8</math></td> </tr> </tbody> </table>		CALCULATION		<b>A</b>	$B + 12.7$	<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$	<b>C</b>	$B + 7.8$
CALCULATION									
<b>A</b>	$B + 12.7$								
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$								
<b>C</b>	$B + 7.8$								

### HOW TO ORDER

**G125 - 324 XX 96 XX**

<b>SERIES CODE</b>	G125	<b>SCREW-LOK</b>	M1 Internal Thread
<b>TYPE</b>	324 Male Housing	M2 With 5.2mm Panel Mount stud	00 No fixings (use with metal hoods)
<b>TOTAL NO. OF CONTACTS</b>	06, 10, 12, 16, 20, 26, 34, 50	<b>FINISH</b>	96 Housing

### TOOLS

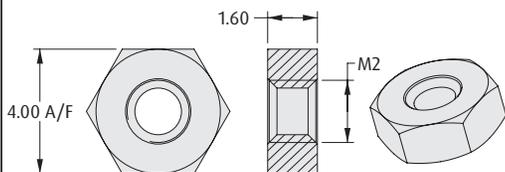
**Recommended Crimp Tool** - Z125-900  
**Positioner** - Z125-901  
**Contact Insertion/Removal Tool** - Z125-902

- Male contacts shown on a following page.
- Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### REQUIRED HARDWARE

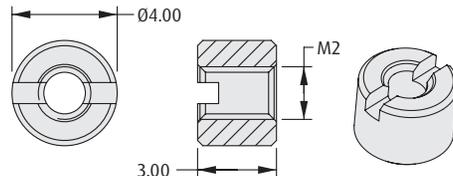
Order separately from connector

#### Hexagonal Board Mount Nut



**ORDER CODE**  
G125-4500000B

#### Slotted Board Mount Nut



**ORDER CODE**  
G125-4510000B

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Crimp Housing - Reverse Fix

- ❖ Features 2.5mm potting wall for extra security.
- ❖ Stainless steel screw fixing to mate with applicable female connector.
- ❖ Reverse fix screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.



GECKO-SL

MALE	CALCULATION								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"><b>A</b></td> <td><math>B + 12.7</math></td> </tr> <tr> <td><b>B</b></td> <td><math>0.625 \times (\text{Total No. of contacts} - 2)</math></td> </tr> <tr> <td><b>C</b></td> <td><math>B + 7.8</math></td> </tr> </table>	<b>A</b>	$B + 12.7$	<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$	<b>C</b>	$B + 7.8$		
<b>A</b>	$B + 12.7$								
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$								
<b>C</b>	$B + 7.8$								
<h3>TOOLS</h3> <p><b>Recommended Crimp Tool</b> - Z125-900</p> <p><b>Positioner</b> - Z125-901</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902</p>	<ul style="list-style-type: none"> <li>❖ Male contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>								
<b>HOW TO ORDER</b>									
<p><b>G125 - 324 XX 96 M3</b></p>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 100px;">SERIES CODE</th> <td style="width: 100px;">G125</td> </tr> <tr> <th>TYPE</th> <td>324 Male Housing</td> </tr> </table>	SERIES CODE	G125	TYPE	324 Male Housing	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 100px;">FINISH</th> <td style="width: 100px;">96 Housing</td> </tr> <tr> <th>TOTAL NO. OF CONTACTS</th> <td>06, 10, 12, 16, 20, 26, 34, 50</td> </tr> </table>	FINISH	96 Housing	TOTAL NO. OF CONTACTS	06, 10, 12, 16, 20, 26, 34, 50
SERIES CODE	G125								
TYPE	324 Male Housing								
FINISH	96 Housing								
TOTAL NO. OF CONTACTS	06, 10, 12, 16, 20, 26, 34, 50								

All dimensions in mm.

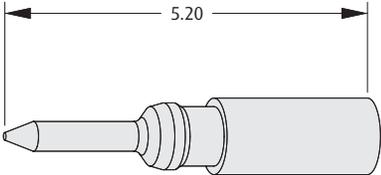
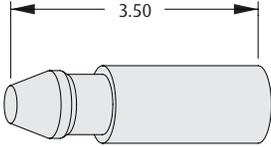
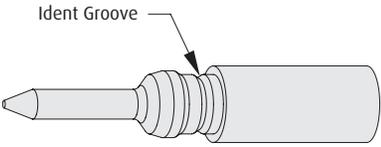
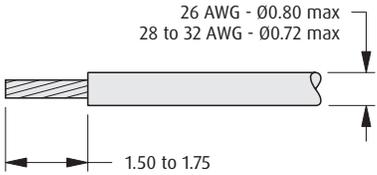
Patent Published

# Gecko-SL Connectors

## Male Crimp Contacts, Dummy Contact

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT												
<p><b>26 AWG</b></p> 													
<p><b>28 - 32 AWG</b></p> 	<p><b>WIRE STRIPPING DETAILS</b></p> 												
<p><b>TOOLS</b></p>													
<p><b>Recommended Crimp Tool</b> - Z125-900  <b>Positioner</b> - Z125-901  <b>Contact Insertion/Removal Tool</b> - Z125-902</p> <ul style="list-style-type: none"> <li>❖ Male crimp housings shown on previous pages.</li> <li>❖ Pre-cabled contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>													
<p><b>HOW TO ORDER</b></p>													
<p style="text-align: center;"><b>G125 - XXX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1623 318 1665" style="border: 1px solid black; padding: 2px;"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1703 548 1860" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td><b>101</b></td> <td>Male 26 AWG crimp contact</td> </tr> <tr> <td><b>102</b></td> <td>Male 28-32 AWG crimp contact</td> </tr> <tr> <td><b>020</b></td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> </div> <div data-bbox="1320 1686 1474 1759" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td><b>05</b></td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		<b>101</b>	Male 26 AWG crimp contact	<b>102</b>	Male 28-32 AWG crimp contact	<b>020</b>	Dummy Contact (blanking plug)	FINISH		<b>05</b>	Gold
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FINISH													
<b>05</b>	Gold												

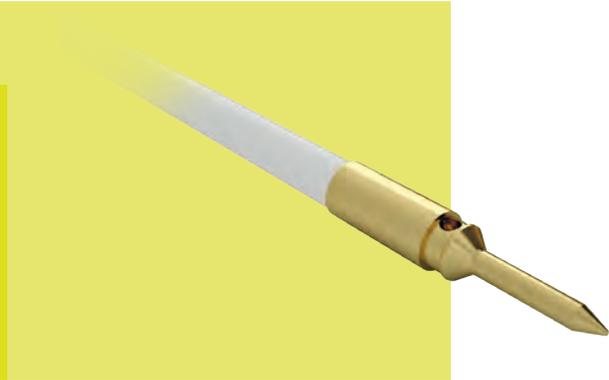
All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- Ready for assembling to housing.
- Crimp barrel meets all crimp guidelines and standards.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



<b>MALE SINGLE ENDED</b>	<b>MALE - MALE</b>
<b>MALE - FEMALE</b>	<b>TOOLS</b>
	<p><b>Contact Insertion/Removal Tool</b> – Z125-902</p> <ul style="list-style-type: none"> <li>➤ Male crimp housings and loose contacts shown on previous pages.</li> <li>➤ &gt; Full cable assemblies shown on following page.</li> <li>➤ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>

### HOW TO ORDER

**G125 - M WX XXXX X 94**

**SERIES CODE**

**CABLE COLOR**

94 White

**GENDER - FIRST END**

M Male

**TERMINATION - SECOND END**

L Loose cut end

F Female

M Male

**CABLE SIZE**

W1 26 AWG (signal)

W2 28 AWG (signal)

W3 30 AWG (signal)

**CABLE LENGTH**

0150 150mm

0300 300mm (double-ended)

0450 450mm (single-ended)

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Male Cable Assemblies

- No. 1 position identified on housing.
- Stainless steel screw fixing to mate with applicable male connector.
- Back potted for added strain relief.
- Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - M X X XX XX MX - XXXX XX**

#### SERIES CODE

#### GENDER - FIRST END

<b>M</b>	Male
----------	------

#### CABLE STYLE

<b>C</b>	Standard Cables
<b>D</b>	Twisted Pairs

#### CABLE SIZE

<b>1</b>	26 AWG
<b>2</b>	28 AWG

#### TOTAL NO. OF CONTACTS

<b>06, 10, 12, 16, 20, 26, 34, 50</b>
---------------------------------------

#### TERMINATION - SECOND END

<b>L</b>	Loose cut end
<b>F0</b>	Female connector No fixings (use with Metal Hoods)
<b>F1</b>	Female connector Floating Hex Socket fixings
<b>M1 or M3</b>	Male connector (same as First end)

#### CABLE LENGTH

<b>0150</b>	150mm
<b>0300</b>	300mm (double-ended)
<b>0450</b>	450mm (single-ended)
<b>XXXX</b>	XXXXmm

#### SCREW-LOK

<b>M1</b>	Internal thread
<b>M3</b>	Floating Hex Socket (reverse fix)

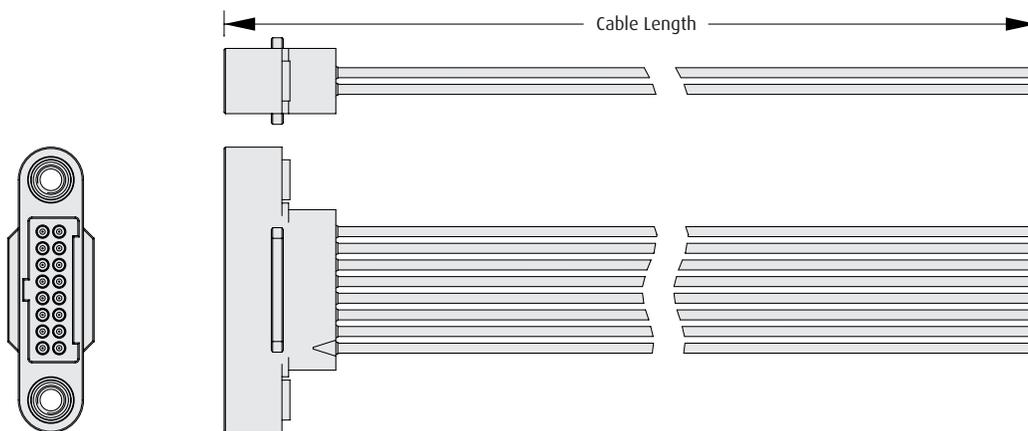
#### CABLE COLOR / BRAID

<b>05</b>	White cable
<b>68</b>	Multicolor cable (single-ended)
<b>69</b>	Shielded assembly (with metal backshells & braid)

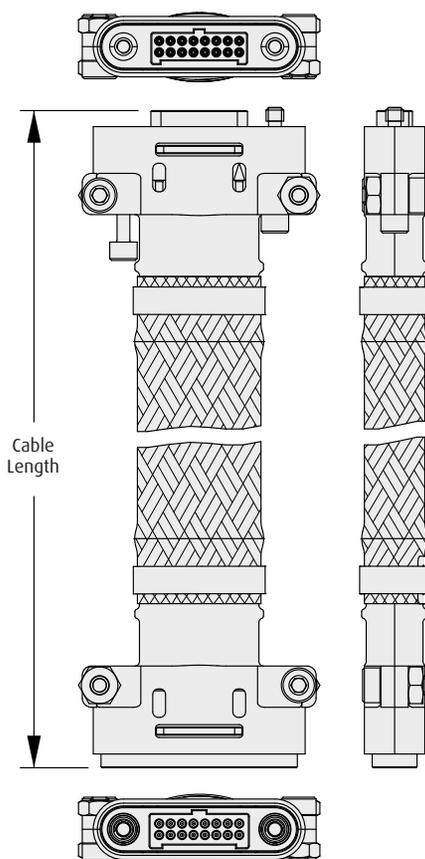
# Gecko-SL Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the conductor.

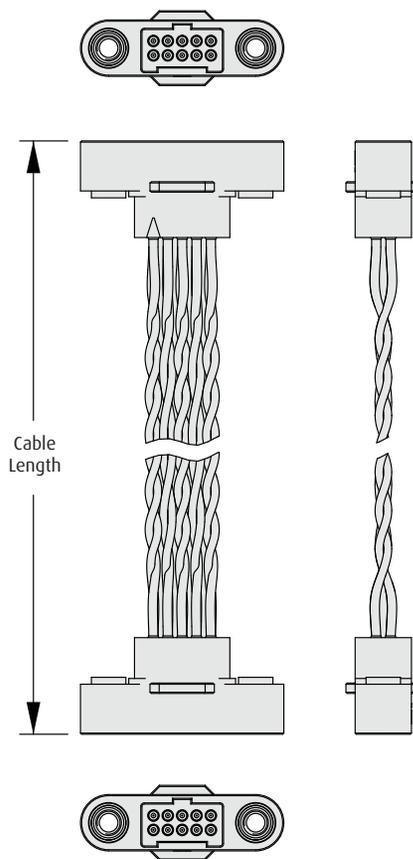
## MALE SINGLE ENDED



## MALE - FEMALE WITH SHIELDING



## MALE - MALE WITH TWISTED PAIRS



All dimensions in mm.

Patent Published

# Gecko-SL Connectors

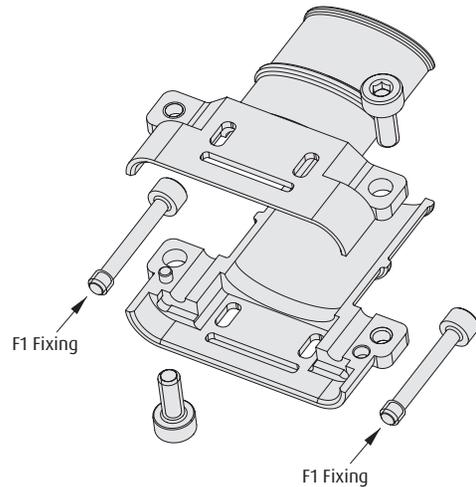
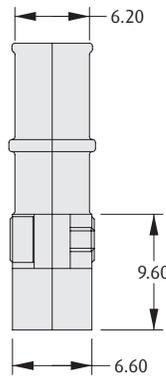
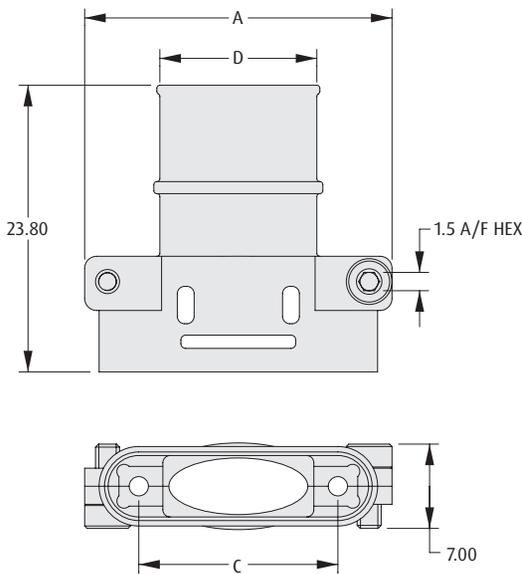
GECKO-SL

## Metal Hood / Backshell - Cable

- ❖ Supplied as a kit - includes 2 metal hood halves, and short screws & nuts to join the two hood halves together (nuts not illustrated).
- ❖ Use 00 fixing kit on male housings G125-324xx96M1 for standard gender fixings.
- ❖ F1 kit includes extended fixing screws - use with female housings G125-224xx9600 for standard gender fixings, or G125-324xx9600 for reverse fix.



### HOOD / BACKSHELL



### CALCULATION

<b>A</b>	$B + 16.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$
<b>D</b>	$B + 4.3$

### HOW TO ORDER

**G125 - 964 XX XX**

**SERIES CODE**

### SCREW-LOK

<b>00</b>	Use with G125-324xx96M1 male housings
<b>F1</b>	Use with G125-224xx9600 female housings or G125-324xx9600 male housings

### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

### BAND-IT TIE

- ❖ For fixing braid to rear collar (requires Tie Dex II A30199 Micro Band tool).



### ORDER CODE

<b>M80-9470000</b>	Length = 206.8mm
<b>M80-9480000</b>	Length = 362.0mm

All dimensions in mm.

Patent Published

# Gecko-SL Connectors

## Metal Hood / Backshell - Board Mount or Panel Mount

- ❖ Use with G125-MV1xx05M2x male connectors or G125-FV1xx05F3x female connectors in a PCB mounted application.
- ❖ Use with G125-324xx96M2 male housings or G125-224xx96F3 female housings in a panel mount application.
- ❖ Mating connector to be fitted with metal backshell G125-964xxF1 (shown on previous page) for complete EMC shielded connection.

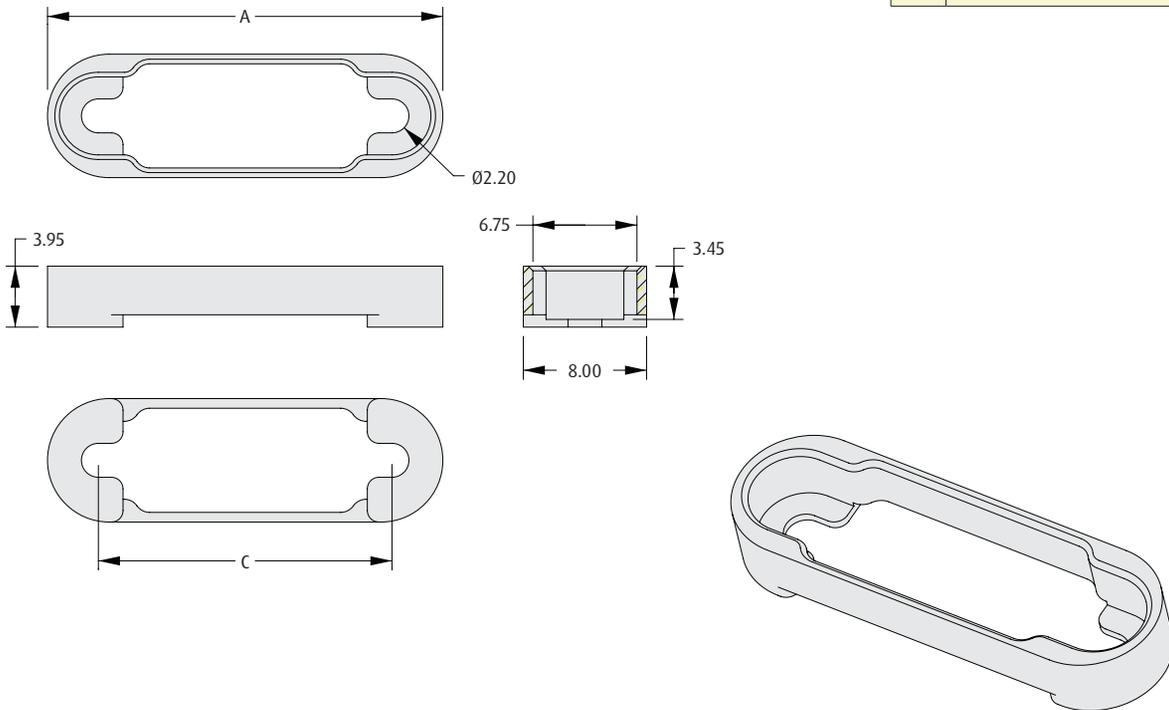


GECKO-SL

### HOOD / BACKSHELL

### CALCULATION

<b>A</b>	$B + 14.4$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 7.8$



### HOW TO ORDER

**G125 - 960 XX 02**

SERIES CODE

TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

# Gecko with Latches Specifications

## Materials

Housings:	Glass-filled High Temperature Thermoplastic UL94V-0
Female contacts:	Beryllium Copper
Male contacts	
PCB Connector:	Phosphor Bronze
Crimp:	Brass
Finish:	0.2 – 0.3µm (8 – 12µ") Gold, over 1.5 – 2.0µm (60 – 80µ") Nickel
Latches:	Copper Alloy

## Electrical

<b>Current</b>	
Individual contacts in isolation:	2.8A max (At 25°C)
All contacts simultaneously:	2.0A max (At 25°C)
Flex Circuit Assembly:	0.4A max per track (At 25°C)
<b>Working voltage</b>	
At sea level 1006 mbar:	450V DC or AC peak
At altitude 44 mbar:	250V DC or AC peak
<b>Voltage proof</b>	
At sea level 1013 mbar:	600V DC or AC peak
<b>Contact resistance</b>	
Initial:	20mΩ max
After conditioning:	25mΩ max
<b>Insulation resistance</b>	
Initial:	10GΩ min at 500V DC
After conditioning:	>1GΩ min at 500V DC

## Mechanical

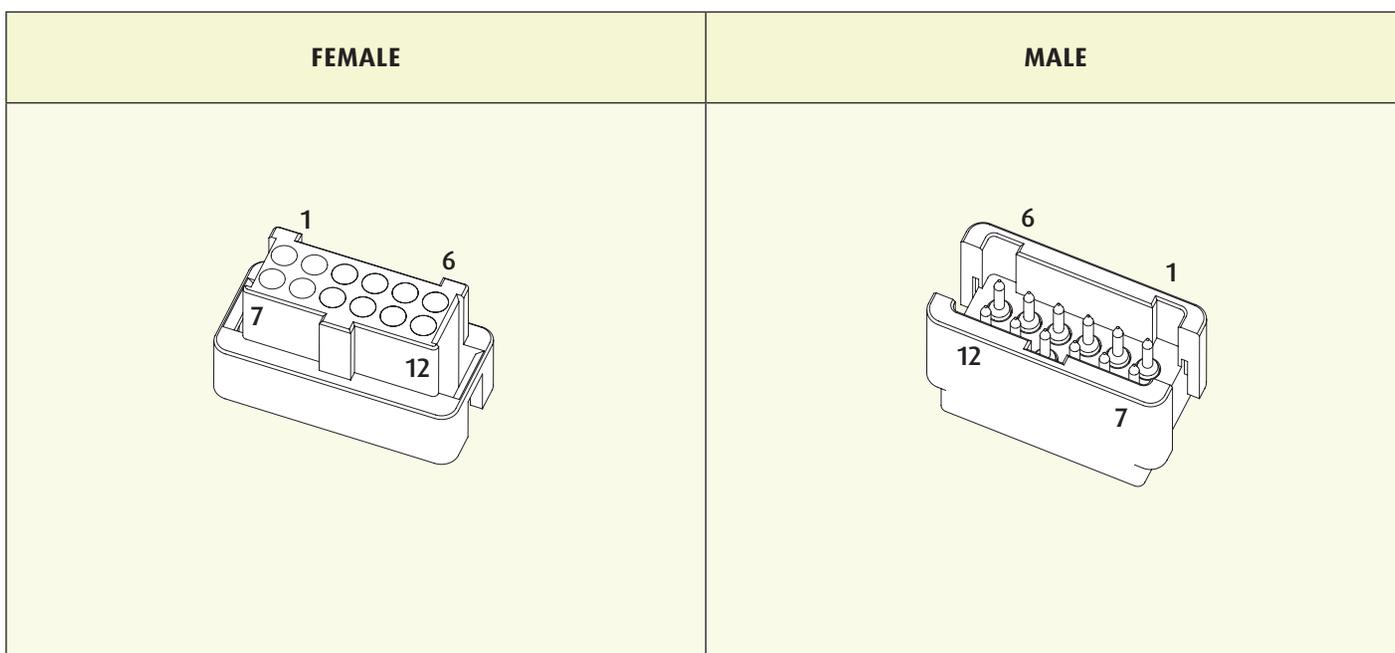
Contact durability:	1000 operations
<b>Mating forces (per contact pair)</b>	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

## Environmental

Environmental classification:	65/150/56 days at 93% RH
Operating temperature:	-65°C to +150°C
*Vibration sensitivity:	10Hz to 2000Hz, 1.5mm, 198mm/s <sup>2</sup> (20G) duration 6 hours
*Bump severity:	390m/s <sup>2</sup> (40G), 4000 ±10 bumps
*Shock severity:	981m/s <sup>2</sup> (100G) for 6ms in Z axis 490m/s <sup>2</sup> (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s <sup>2</sup> (50G)

\* Tested with latched connectors.

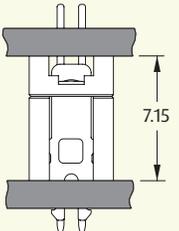
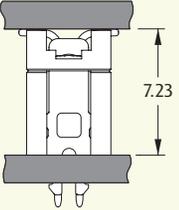
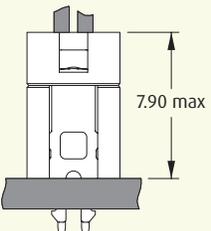
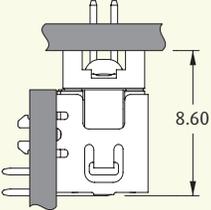
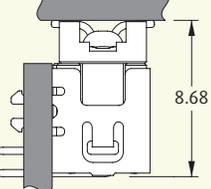
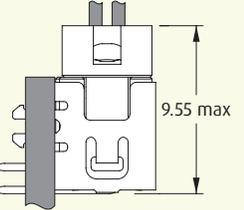
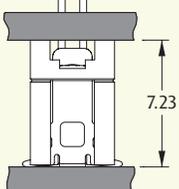
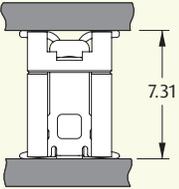
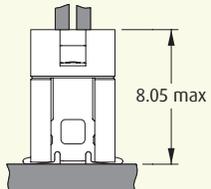
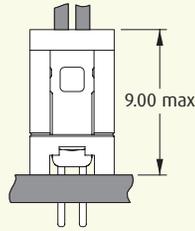
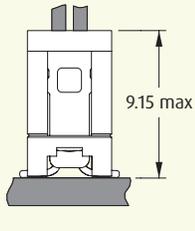
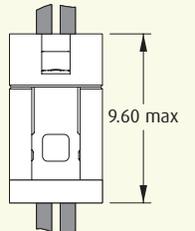
# Pin Numbering



All dimensions in mm.

Patent Published

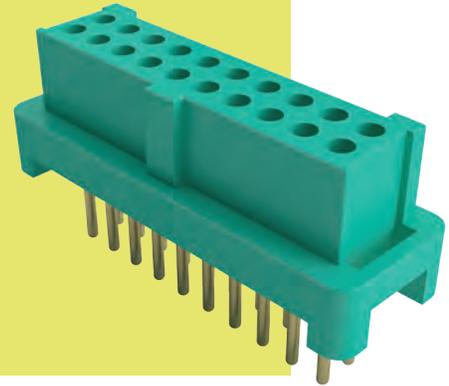
# Gecko with Latches Mating Profiles

		FEMALE		
		VERTICAL THROUGHBOARD	VERTICAL SMT	CABLE
MALE	VERTICAL THROUGHBOARD			
	HORIZONTAL THROUGHBOARD			
	VERTICAL SMT			
	CABLE			

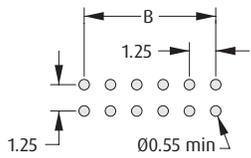
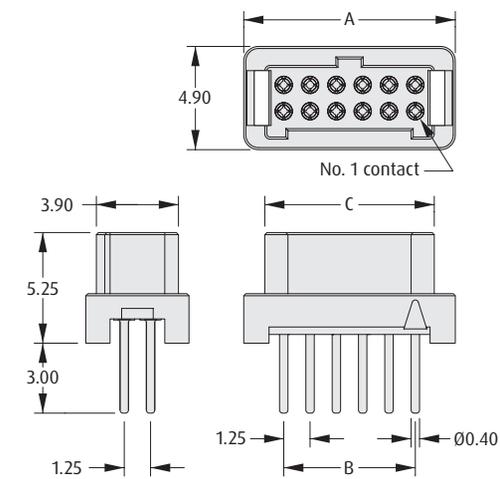
# Gecko with Latches Connectors

## Female Throughboard

- ❖ 4-finger Beryllium Copper contact.
- ❖ Positive keyway polarization features.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



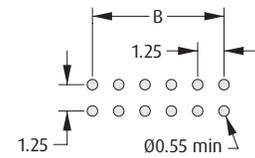
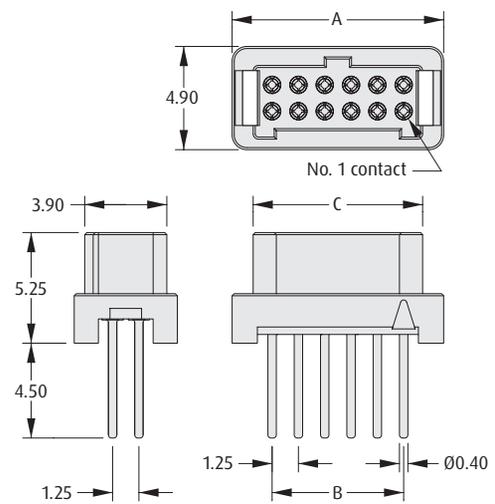
### 3mm THROUGHBOARD



Recommended PC Board Pattern

CALCULATION	
<b>A</b>	$B + 3.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 1.8$

### 4.5mm THROUGHBOARD



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F VX XX 05 L0 X**

**SERIES CODE**

**TYPE**

<b>V1</b>	3mm Throughboard
<b>V2</b>	4.5mm Throughboard

**PACKAGING**

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

**FINISH**

<b>05</b>	Gold
-----------	------

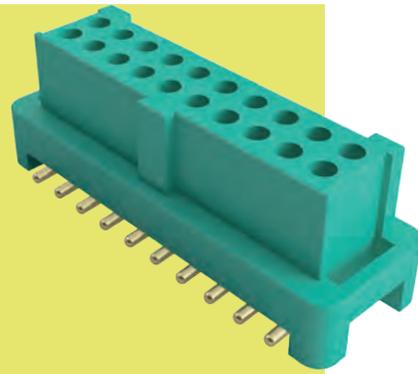
**TOTAL NO. OF CONTACTS**

**06, 10, 12, 16, 20, 26, 34, 50**

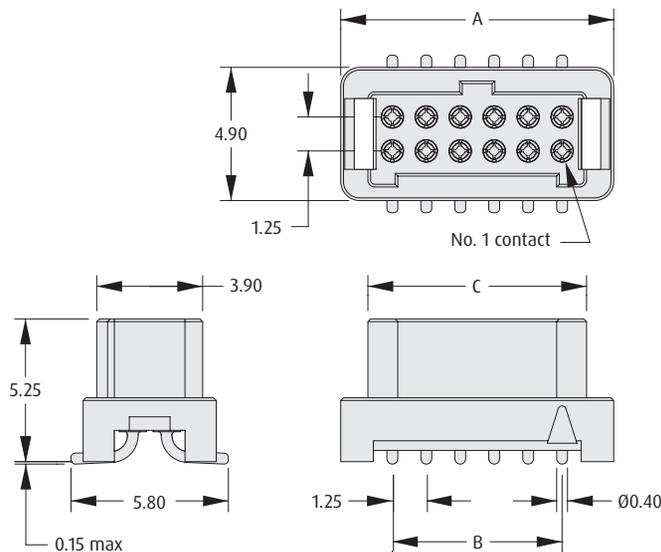
# Gecko with Latches Connectors

## Female Surface Mount

- ❑ 4-finger Beryllium Copper contact.
- ❑ Positive keyway polarization features.
- ❑ 2A current capacity, resists high vibration and shock.
- ❑ Withstands extremes of temperature: -65°C to +150°C.
- ❑ Available in Tape and Reel Packaging, with Pick and Place cap.

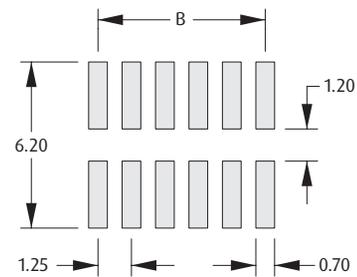


### SURFACE MOUNT



### CALCULATION

<b>A</b>	$B + 3.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 1.8$



Recommended PC Board Pattern

### HOW TO ORDER

**G125 - F S1 XX 05 L0 X**

**SERIES CODE**

**TYPE**

**S1** Surface Mount

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FINISH

**05** Gold

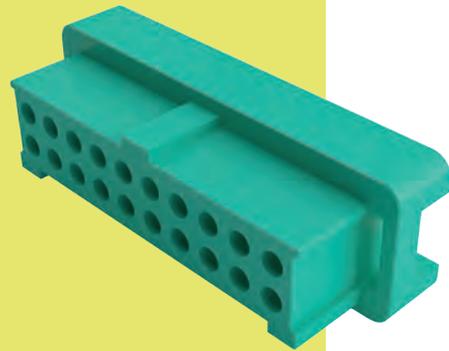
#### TOTAL NO. OF CONTACTS

**06, 10, 12, 16, 20, 26, 34, 50**

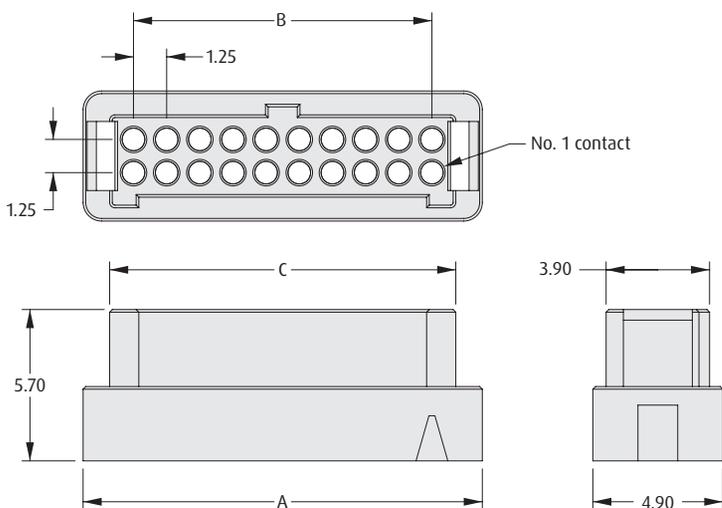
# Gecko with Latches Connectors

## Female Crimp Housings

- ❖ Features potting wall for extra security.
- ❖ No. 1 position identified on housing.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ 3 polarizing points on each housing prevent mis-mating.



### FEMALE



### CALCULATION

<b>A</b>	$B + 3.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 1.8$

### TOOLS

**Recommended Crimp Tool** - Z125-900

**Positioner** - Z125-901

**Contact Insertion/Removal Tool** - Z125-902

❖ Female contacts shown on following pages.

❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 204 XX 96 L0**

**SERIES CODE**

**TYPE**

**204** Female Housing

**LATCHES**

**L0** No Latches

**FINISH**

**96** Housing

**TOTAL NO. OF CONTACTS**

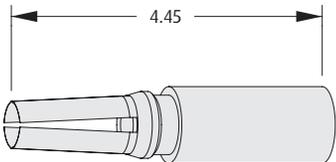
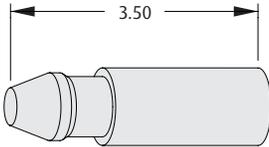
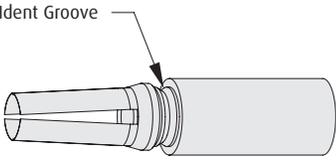
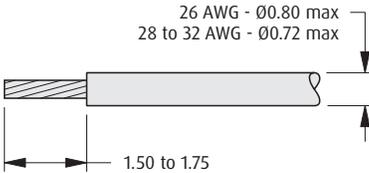
**06, 10, 12, 16, 20, 26, 34, 50**

# Gecko with Latches Connectors

## Female Crimp Contacts, Dummy Contact

- ❖ 4-finger Beryllium Copper contact on a female connector.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT												
<p><b>26 AWG</b></p> 													
<p><b>28 - 32 AWG</b></p> 	<p><b>WIRE STRIPPING DETAILS</b></p> 												
<p><b>TOOLS</b></p>													
<p><b>Recommended Crimp Tool</b> - Z125-900  <b>Positioner</b> - Z125-901  <b>Contact Insertion/Removal Tool</b> - Z125-902</p>	<ul style="list-style-type: none"> <li>❖ Female crimp housing shown on previous page.</li> <li>❖ Pre-cabled contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>												
<p style="text-align: center;"><b>HOW TO ORDER</b></p>													
<p style="text-align: center;"><b>G125 - 0XX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1627 316 1669" style="border: 1px solid black; padding: 2px;"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1701 584 1858" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td><b>001</b></td> <td>Female 26 AWG crimp contact</td> </tr> <tr> <td><b>002</b></td> <td>Female 28-32 AWG crimp contact</td> </tr> <tr> <td><b>020</b></td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> </div> <div data-bbox="1323 1680 1469 1764" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td><b>05</b></td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		<b>001</b>	Female 26 AWG crimp contact	<b>002</b>	Female 28-32 AWG crimp contact	<b>020</b>	Dummy Contact (blanking plug)	FINISH		<b>05</b>	Gold
TYPE													
<b>001</b>	Female 26 AWG crimp contact												
<b>002</b>	Female 28-32 AWG crimp contact												
<b>020</b>	Dummy Contact (blanking plug)												
FINISH													
<b>05</b>	Gold												

All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Female Crimp Contacts – Pre-Crimped Wires

- ❖ 4-finger Beryllium Copper contact.
- ❖ Ready for assembling to housing.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.



FEMALE SINGLE ENDED	FEMALE – FEMALE

### TOOLS

**Contact Insertion/Removal Tool** – Z125-902

- ❖ Female crimp housing and loose contacts shown on previous pages.
- ❖ Full Cable assemblies shown on following page.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 – F WX XXXX X 94**

<b>SERIES CODE</b>	G125	<b>CABLE COLOR</b>	94   White
<b>GENDER - FIRST END</b>	F   Female	<b>TERMINATION - SECOND END</b>	L   Loose cut end F   Female
<b>CABLE SIZE</b>	W1   26 AWG W2   28 AWG W3   30 AWG	<b>CABLE LENGTH</b>	0150   150mm 0300   300mm (double-ended) 0450   450mm (single-ended)

All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Female Cable Assemblies

- ❖ 4-finger Beryllium Copper contact.
- ❖ No. 1 position identified on housing.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Back potted for added strain relief.
- ❖ Check website or Ask an Expert for available combinations.



GECKO WITH LATCHES

### PART NUMBERING SYSTEM

**G125 - F X X XX XX LO - XXXX X**

#### SERIES CODE

#### GENDER - FIRST END

<b>F</b>	Female
----------	--------

#### CABLE STYLE

<b>C</b>	Standard Cables
<b>D</b>	Twisted Pairs

#### CABLE SIZE

<b>1</b>	26 AWG
<b>2</b>	28 AWG
<b>3</b>	30 AWG

#### TOTAL NO. OF CONTACTS

<b>06, 10, 12, 16, 20, 26, 34, 50</b>
---------------------------------------

#### TERMINATION - SECOND END

<b>L</b>	Loose cut end
<b>F</b>	Female connector

#### CABLE LENGTH

<b>0150</b>	150mm
<b>0300</b>	300mm (double-ended)
<b>0450</b>	450mm (single-ended)
<b>XXXX</b>	XXXXmm

#### LATCHES

<b>LO</b>	No Latches
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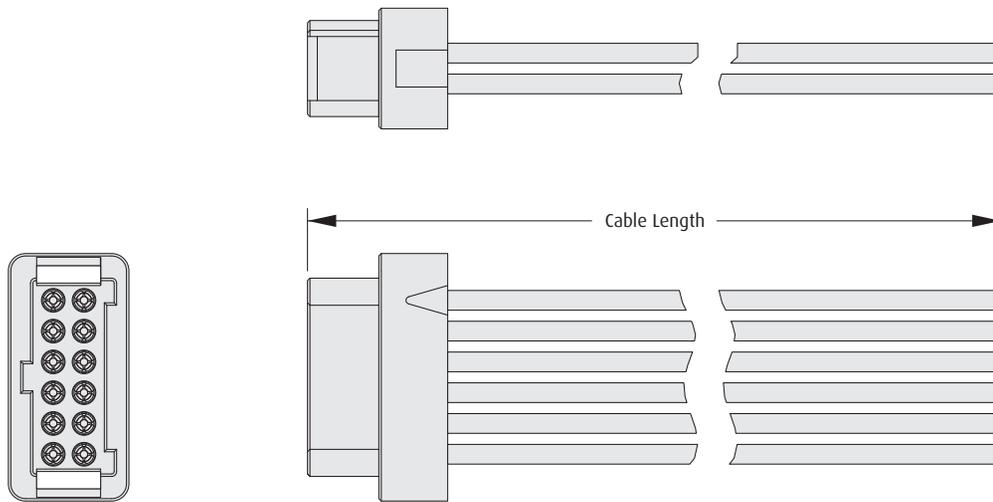
#### CABLE COLOR

<b>05</b>	White cable
<b>68</b>	Multicolor cable (single-ended)

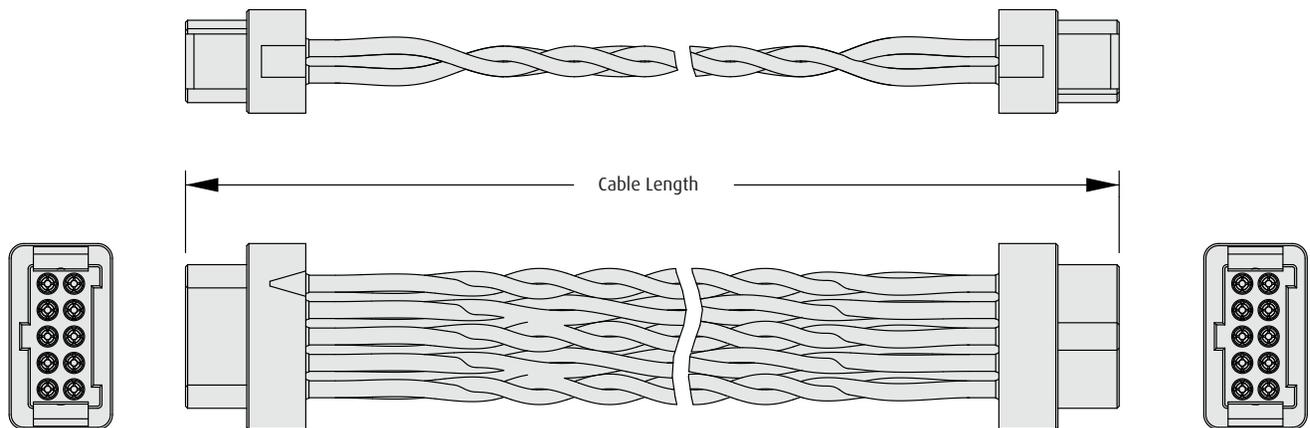
# Gecko with Latches Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the conductor.

## FEMALE SINGLE ENDED



## FEMALE - FEMALE WITH TWISTED PAIRS



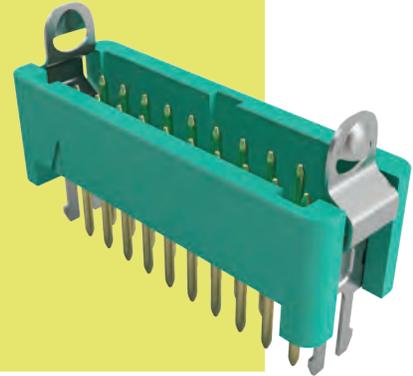
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Male Vertical Throughboard

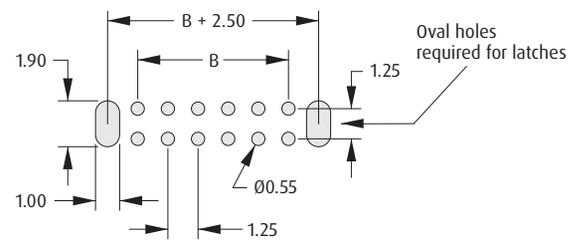
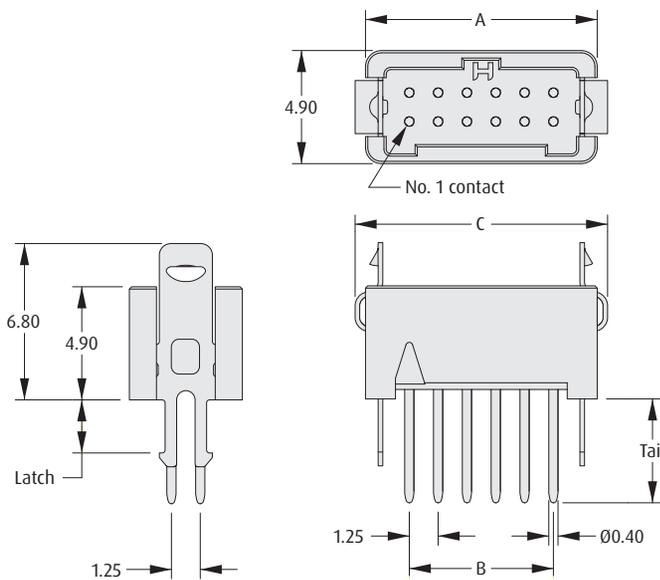
- Secure fixing to the PCB via retention bars for through hole.
- Easy-to-release latches require no tooling.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD

### CALCULATION

<b>A</b>	$B + 3.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 5.2$



### HOW TO ORDER

**G125 - M VX XX 05 LX X**

**SERIES CODE**

**TYPE**

<b>V1</b>	3mm Throughboard Tail
<b>V2</b>	4.5mm Throughboard Tail

**TOTAL NO. OF CONTACTS**

06, 10, 12, 16, 20, 26, 34, 50

**PACKAGING**

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

**LATCH**

<b>L0</b>	No Latch
<b>L1</b>	Latch for 1.6mm PCB (use with V1)
<b>L2</b>	Latch for 2.4mm PCB (use with V2)

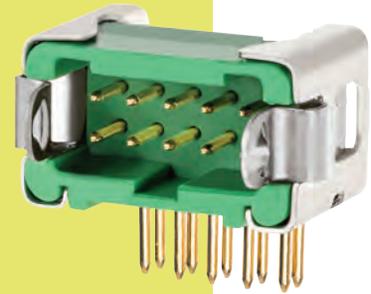
**FINISH**

05 Gold

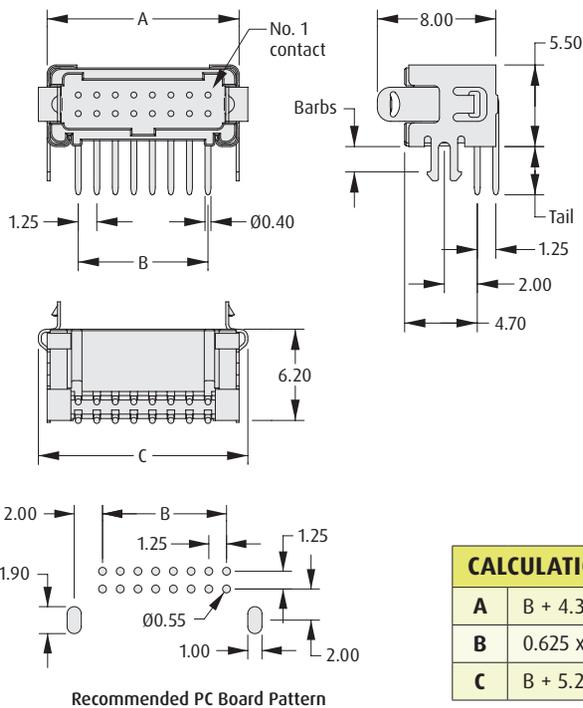
# Gecko with Latches Connectors

## Male Horizontal Throughboard - Latched

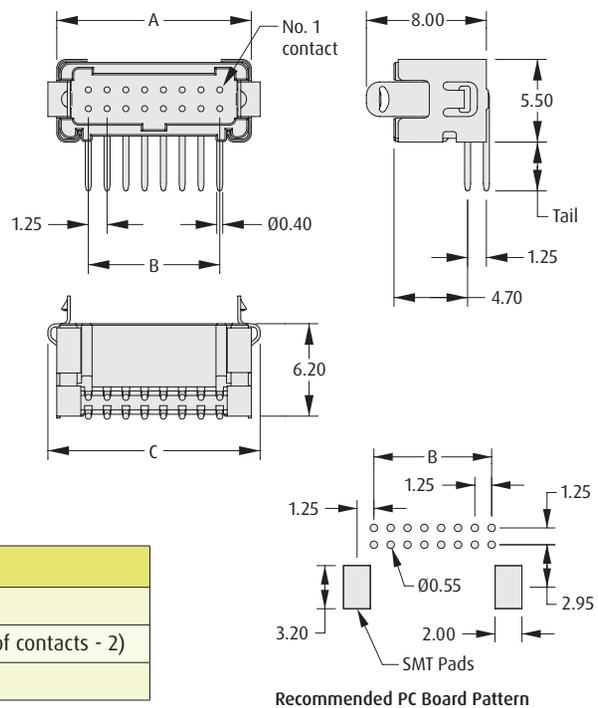
- Secure fixing to the PCB via retention bars for through hole.
- Surface mount option for automated assembly.
- Easy-to-release latches - tooling available for additional assistance with releasing latches - see part numbers **Z125-926xx00**.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD LATCH



### SURFACE MOUNT LATCH



### HOW TO ORDER

**G125 - M HX XX 05 LX X**

**SERIES CODE**

**TYPE**

<b>H1</b>	3.2mm Throughboard Tail
<b>H2</b>	4.7mm Throughboard Tail

**TOTAL NO. OF CONTACTS**

06, 10, 12, 16, 20, 26, 34, 50

**PACKAGING**

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

**LATCH**

<b>L1</b>	Latch for 1.6mm PCB (use with H1)
<b>L2</b>	Latch for 2.4mm PCB (use with H2)
<b>L3</b>	Surface Mount Latch

**FINISH**

<b>05</b>	Gold
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All dimensions in mm.

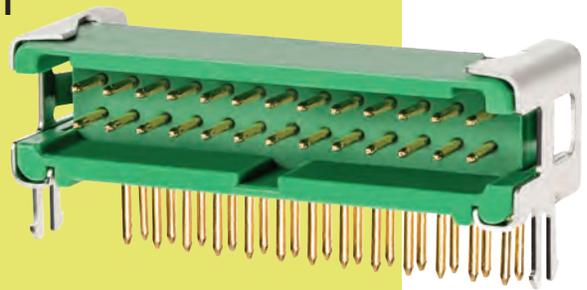
Patent Published

# Gecko with Latches Connectors

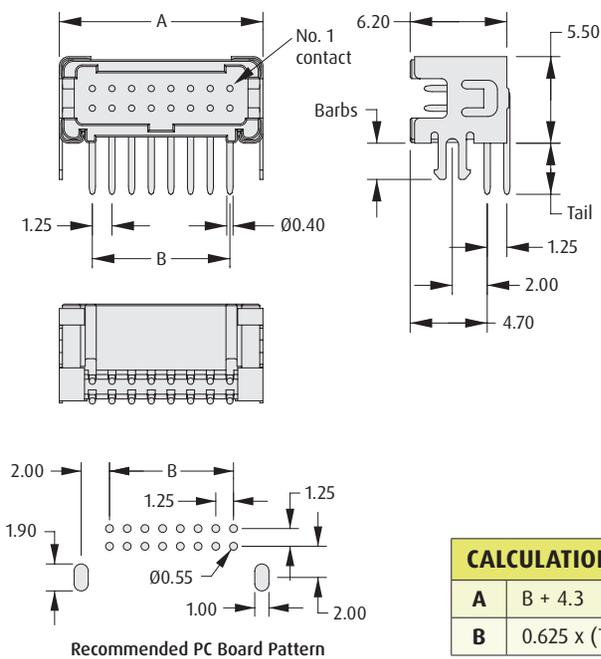
GECKO WITH LATCHES

## Male Horizontal Throughboard - Without Latch

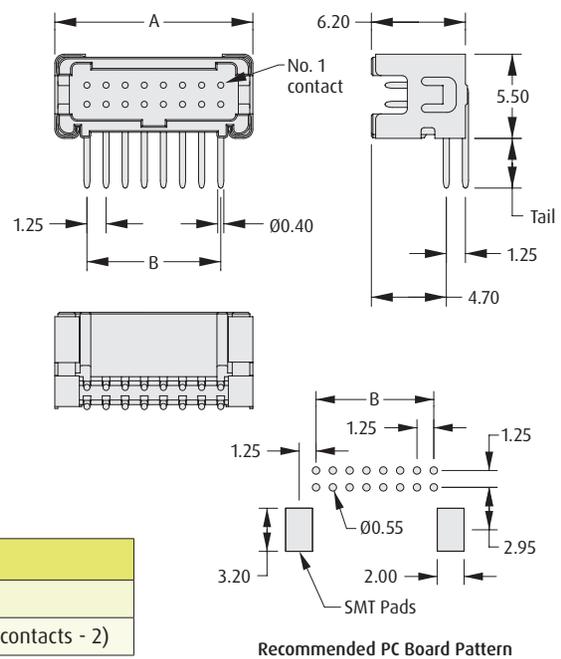
- Secure fixing to the PCB via retention bars for through hole.
- Surface mount option for automated assembly.
- 2A current capacity.
- Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD FIXING



### SURFACE MOUNT FIXING



#### CALCULATION

<b>A</b>	$B + 4.3$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$

### HOW TO ORDER

**G125 - M HX XX 05 LX X**

#### SERIES CODE

#### TYPE

<b>H1</b>	3.2mm Throughboard Tail
<b>H2</b>	4.7mm Throughboard Tail

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50

#### PACKAGING

<b>R</b>	Tape & Reeled
<b>P</b>	Tape & Reel strips

#### FIXING

<b>L5</b>	Barbs for 1.6mm PCB (use with H1)
<b>L6</b>	Barbs for 2.4mm PCB (use with H2)
<b>L7</b>	Surface Mount Fixing

#### FINISH

<b>05</b>	Gold
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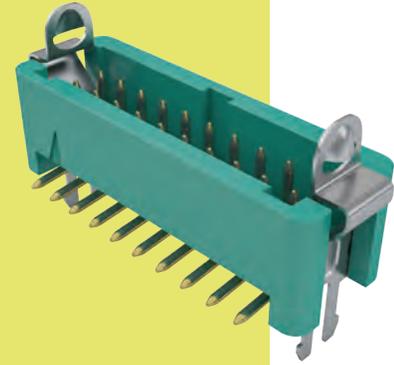
All dimensions in mm.

Patent Published

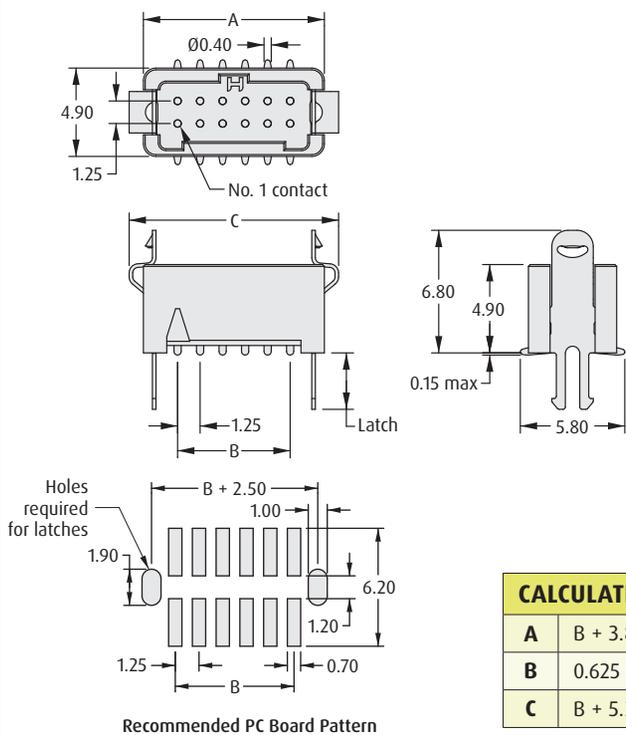
# Gecko with Latches Connectors

## Male Vertical Surface Mount

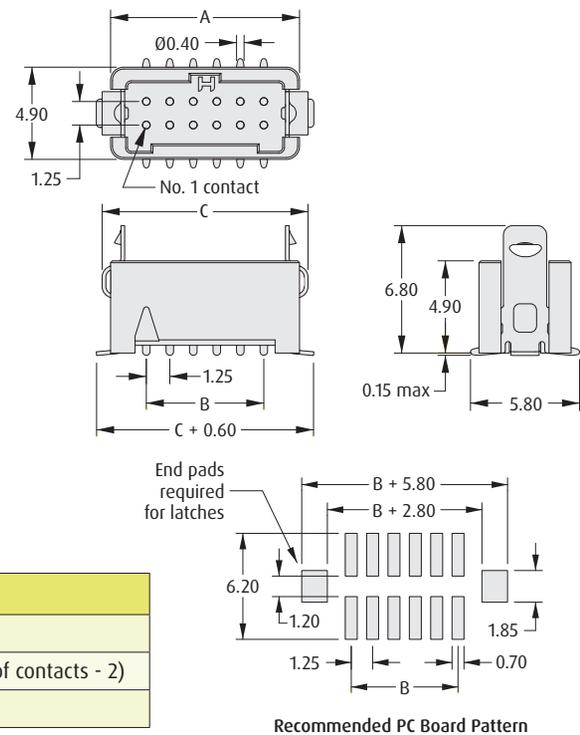
- Secure fixing to the PCB via hold-down tabs (SMT).
- Easy-to-release latches require no tooling.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



### THROUGHBOARD LATCH



### SURFACE MOUNT LATCH



CALCULATION	
A	B + 3.8
B	0.625 x (Total No. of contacts - 2)
C	B + 5.2

### HOW TO ORDER

**G125 - M S1 XX 05 LX X**

<b>SERIES CODE</b>	G125	<b>PACKAGING</b>	R	Tape & Reeled
<b>TYPE</b>	M	P	P	Tape & Reel strips
<b>TOTAL NO. OF CONTACTS</b>	S1			
	06, 10, 12, 16, 20, 26, 34, 50			
<b>FINISH</b>	XX			
	05			
	LX			
	X			
		<b>LATCH</b>		
		L0		No Latch
		L1		Latch for 1.6mm PCB
		L2		Latch for 2.4mm PCB
		L3		Surface Mount Latch

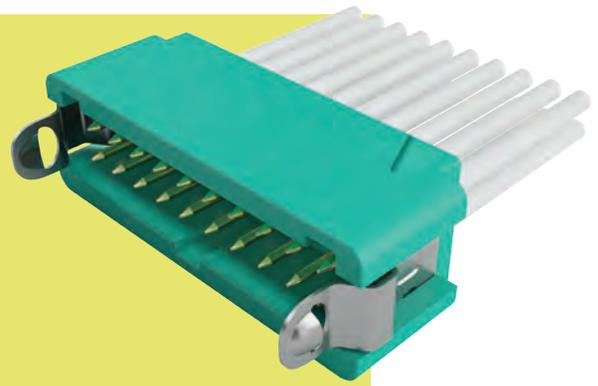
All dimensions in mm.

Patent Published

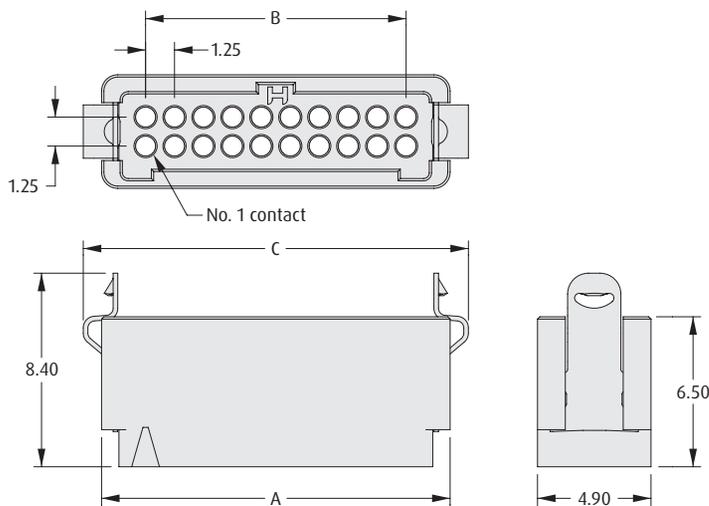
# Gecko with Latches Connectors

## Male Crimp Housing

- ❖ Features potting wall for extra security.
- ❖ No. 1 position identified on housing.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ 3 polarizing points on each housing prevent mis-mating.
- ❖ Easy to release latches require no tooling.



### MALE



### CALCULATION

<b>A</b>	$B + 3.8$
<b>B</b>	$0.625 \times (\text{Total No. of contacts} - 2)$
<b>C</b>	$B + 5.2$

### TOOLS

**Recommended Crimp Tool** - Z125-900  
**Positioner** - Z125-901  
**Contact Insertion/Removal Tool** - Z125-902

- ❖ Male contacts shown on following pages.
- ❖ Instruction sheets available at [www.harwin.com/instructions](http://www.harwin.com/instructions).

### HOW TO ORDER

**G125 - 304 XX 96 LX**

**SERIES CODE**

**TYPE**

**304** Male Housing

**LATCH**

<b>L0</b>	No Latches
<b>L4</b>	Latches (Male Only)

**FINISH**

**96** Housing

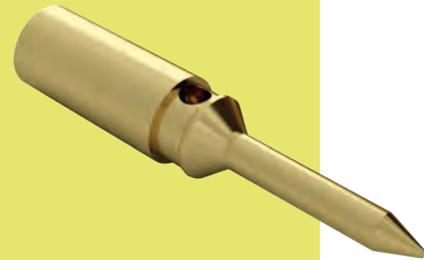
**TOTAL NO. OF CONTACTS**

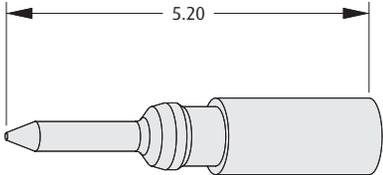
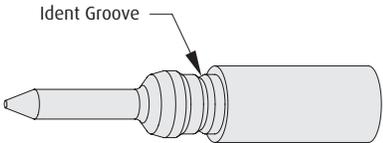
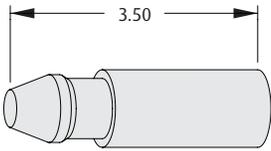
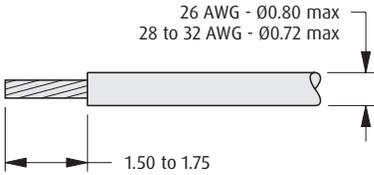
**06, 10, 12, 16, 20, 26, 34, 50**

# Gecko with Latches Connectors

## Male Crimp Contacts

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT												
<p><b>26 AWG</b></p>  <p><b>28 - 32 AWG</b></p> 	 <p><b>WIRE STRIPPING DETAILS</b></p> 												
TOOLS													
<p><b>Recommended Crimp Tool</b> - Z125-900</p> <p><b>Positioner</b> - Z125-901</p> <p><b>Contact Insertion/Removal Tool</b> - Z125-902</p>	<ul style="list-style-type: none"> <li>❖ Male crimp housing shown on previous page.</li> <li>❖ Pre-cable contacts shown on following page.</li> <li>❖ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>												
HOW TO ORDER													
<p style="text-align: center;"><b>G125 - XXX 00 05</b></p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1619 318 1665" style="border: 1px solid black; padding: 2px;"> <p><b>SERIES CODE</b></p> </div> <div data-bbox="147 1703 548 1860" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td><b>101</b></td> <td>Male 26 AWG crimp contact</td> </tr> <tr> <td><b>102</b></td> <td>Male 28-32 AWG crimp contact</td> </tr> <tr> <td><b>020</b></td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> </div> <div data-bbox="1320 1682 1471 1761" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td><b>05</b></td> <td>Gold</td> </tr> </tbody> </table> </div> </div>		TYPE		<b>101</b>	Male 26 AWG crimp contact	<b>102</b>	Male 28-32 AWG crimp contact	<b>020</b>	Dummy Contact (blanking plug)	FINISH		<b>05</b>	Gold
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FINISH													
<b>05</b>	Gold												

All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Male Crimp Contacts – Pre-Crimped Wires

- Ready for assembling to housing.
- Crimp barrel meets all crimp guidelines and standards.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



<b>MALE SINGLE ENDED</b>	<b>MALE – MALE</b>
<b>MALE – FEMALE</b>	<b>TOOLS</b>
	<p><b>Contact Insertion/Removal Tool</b> – Z125-902</p> <ul style="list-style-type: none"> <li>➤ Male crimp housing and loose contacts shown on previous pages.</li> <li>➤ Full Cable assemblies shown on following page.</li> <li>➤ Instruction sheets available at <a href="http://www.harwin.com/instructions">www.harwin.com/instructions</a>.</li> </ul>

### HOW TO ORDER

**G125 – M WX XXXX X 94**

**SERIES CODE**

**CABLE COLOR**

**94** White

**GENDER – FIRST END**

**M** Male

**TERMINATION – SECOND END**

**L** Loose cut end

**F** Female

**M** Male

**CABLE SIZE**

**W1** 26 AWG

**W2** 28 AWG

**W3** 30 AWG

**CABLE LENGTH**

**0150** 150mm

**0300** 300mm (double-ended)

**0450** 450mm (single-ended)

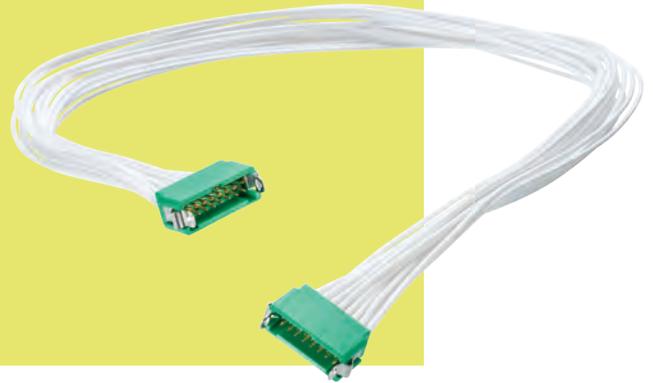
All dimensions in mm.

Patent Published

# Gecko with Latches Connectors

## Male Cable Assemblies

- ❖ No. 1 position identified on housing.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Back potted for added strain relief.
- ❖ 4-finger Beryllium Copper contact on the female connector.
- ❖ Check website or Ask an Expert for available combinations.



### PART NUMBERING SYSTEM

**G125 - M X X XX XX LX - XXXX X**

#### SERIES CODE

#### GENDER - FIRST END

M	Male
---	------

#### CABLE STYLE

C	Standard Cables
D	Twisted Pairs

#### CABLE SIZE

1	26 AWG
2	28 AWG
3	30 AWG

#### TOTAL NO. OF CONTACTS

06, 10, 12, 16, 20, 26, 34, 50
--------------------------------

#### TERMINATION - SECOND END

L	Loose cut end
F	Female connector
M	Male connector

#### CABLE LENGTH

0150	150mm
0300	300mm (double-ended)
0450	450mm (single-ended)
XXXX	XXXXmm

#### LATCHES

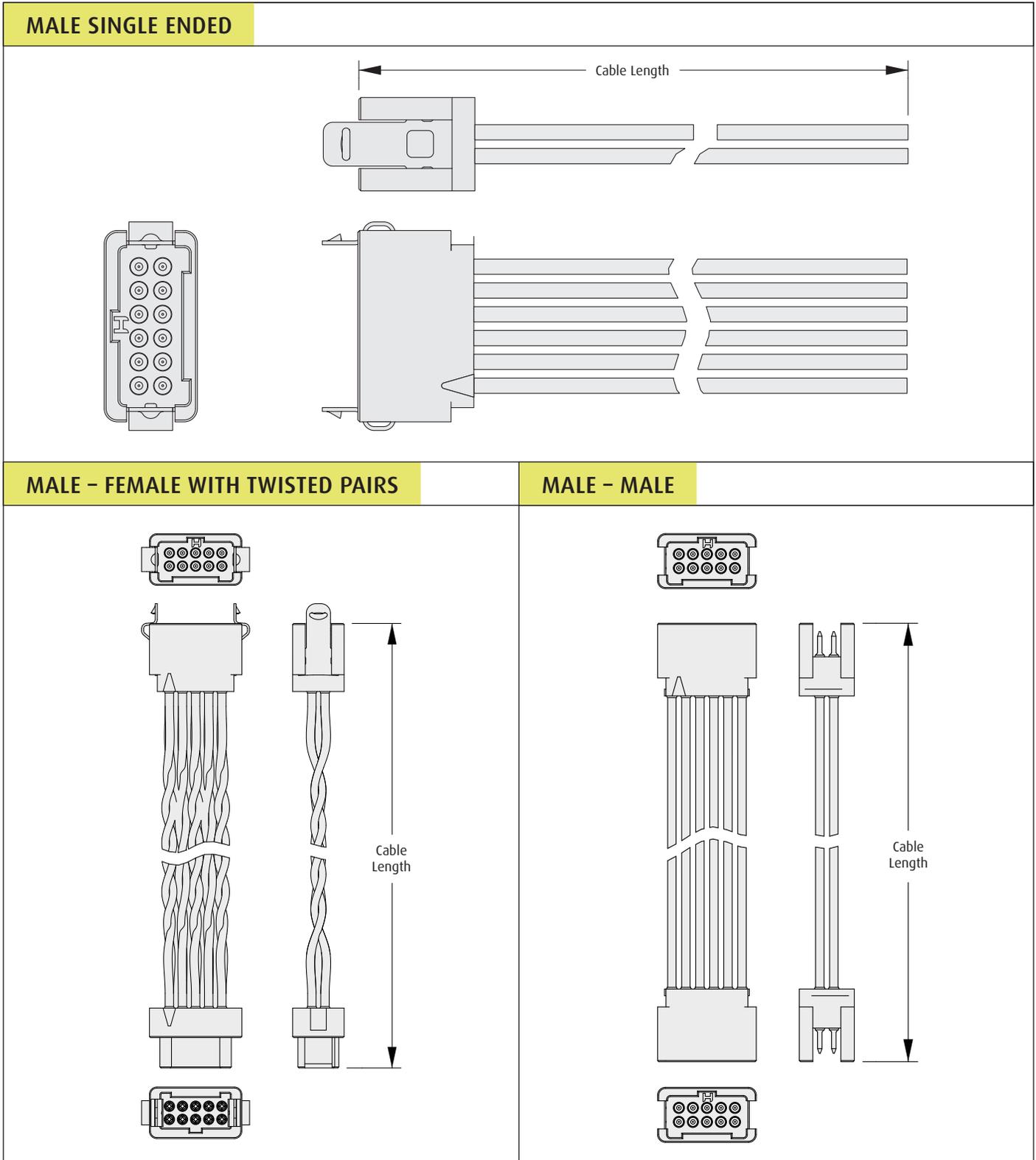
L0	No Latches
L4	Latches (male connectors only)

#### CABLE COLOR

05	White cable
68	Multicolor cable (single-ended)

# Gecko with Latches Connectors

- ❖ Examples of available cable assembly options - see previous page for part numbering.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.
- ❖ Twisted Pairs are 2 twists per inch and 3 twists per inch, alternated along the conductor.



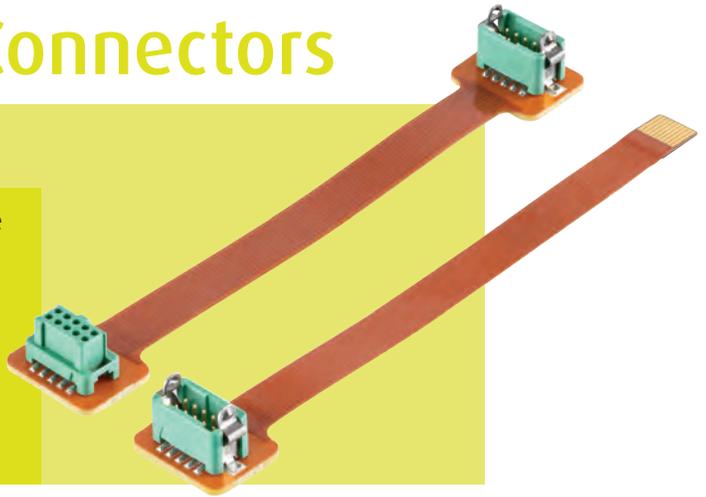
All dimensions in mm.

Patent Published

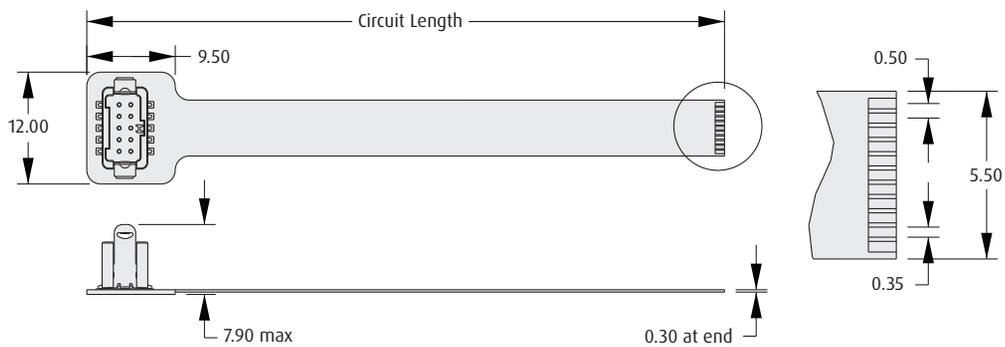
# Gecko with Latches Connectors

## Flexible Circuit Assemblies

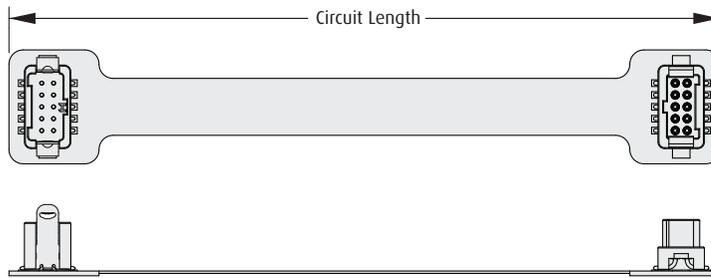
- ❖ Surface mount connectors with latches assembled to flexible printed circuit for an alternative to cable connection.
- ❖ Improved bend radius and lower mated height than equivalent cable assemblies.
- ❖ The free end of the single-ended assembly is compatible with 0.5mm pitch FPC connectors.
- ❖ Contact Harwin for alternative connector sizes and cable lengths.



### MALE SINGLE ENDED



### MALE - FEMALE DOUBLE ENDED



### HOW TO ORDER

**G125 - F1 MS1 10 - 075 - XXX**

**SERIES CODE**

**CONNECTOR - FIRST END**

**MS1** Male with Latches

**TOTAL NO. OF CONTACTS**

**10**

**CONNECTOR - SECOND END**

<b>L</b>	Free End (Single Ended)
<b>FS1</b>	Female compatible with Latches

**CIRCUIT LENGTH**

**075** 75mm

# Gecko Connectors Tooling

- ❖ Instruction sheets can be accessed at [www.harwin.com/instructions](http://www.harwin.com/instructions).
- ❖ A Gecko Crimping Instruction video is available at [www.harwin.com/harwintv](http://www.harwin.com/harwintv).

HAND CRIMP TOOL	POSITIONER												
<ul style="list-style-type: none"> <li>❖ Precision tool with ratchet mechanism and 8-indent form.</li> <li>❖ Must be used with positioner.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1" data-bbox="483 1136 808 1255"> <thead> <tr> <th colspan="2">ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Signal crimps</td> <td><b>Z125-900</b></td> </tr> <tr> <td>Power crimps</td> <td><b>Z125-903</b></td> </tr> </tbody> </table>	ORDER CODE		Signal crimps	<b>Z125-900</b>	Power crimps	<b>Z125-903</b>	<ul style="list-style-type: none"> <li>❖ Must be used with hand crimp tool.</li> </ul>  <table border="1" data-bbox="1182 1136 1511 1255"> <thead> <tr> <th colspan="2">ORDER CODE</th> </tr> </thead> <tbody> <tr> <td>Signal crimps</td> <td><b>Z125-901</b></td> </tr> <tr> <td>Power crimps</td> <td><b>Z125-904</b></td> </tr> </tbody> </table>	ORDER CODE		Signal crimps	<b>Z125-901</b>	Power crimps	<b>Z125-904</b>
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INSERTION/REMOVAL TOOL	INSERTION/REMOVAL TOOL												
<ul style="list-style-type: none"> <li>❖ For inserting and removing crimped signal contacts into the rear of housings.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1" data-bbox="630 1808 808 1892"> <thead> <tr> <th colspan="2">ORDER CODE</th> </tr> </thead> <tbody> <tr> <td></td> <td><b>Z125-902</b></td> </tr> </tbody> </table>	ORDER CODE			<b>Z125-902</b>	<ul style="list-style-type: none"> <li>❖ For inserting and removing crimped power contacts into the rear of housings.</li> <li>❖ Instruction sheet available.</li> </ul>  <table border="1" data-bbox="1328 1808 1511 1892"> <thead> <tr> <th colspan="2">ORDER CODE</th> </tr> </thead> <tbody> <tr> <td></td> <td><b>Z125-905</b></td> </tr> </tbody> </table>	ORDER CODE			<b>Z125-905</b>				
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All dimensions in mm.

Patent Published

# Gecko Connectors Tooling

❖ Instruction sheets can be accessed at [www.harwin.com/instructions](http://www.harwin.com/instructions).

GECKO

<p><b>HEX DRIVE BIT</b></p> <ul style="list-style-type: none"> <li>❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings.</li> <li>❖ For use with torque tooling or similar equipment.</li> </ul>  <p><b>ORDER CODE</b> Z9950-00</p>	<p><b>BALL HEX DRIVER</b></p> <ul style="list-style-type: none"> <li>❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings.</li> <li>❖ Ball-shaped end can be used at a wide range of angles.</li> </ul>  <p><b>ORDER CODE</b> Z9952-00</p>
<p><b>SCREWDRIVER</b></p> <ul style="list-style-type: none"> <li>❖ For use with Gecko Screw-Lok board mount nuts.</li> <li>❖ Board mount nuts to be tightened to a torque of <math>21 \pm 2\text{cmN}</math>.</li> </ul>  <p><b>ORDER CODE</b> Z80-298</p>	<p><b>DELATCH TOOL</b></p> <ul style="list-style-type: none"> <li>❖ For assisting with unmating latched connectors.</li> </ul>  <p><b>ORDER CODE</b> Z125-926xx00</p> <p>Replace xx with No. of Contacts: 06, 10, 12, 16, 20, 26, 34 or 50</p>

All dimensions in mm.

Patent Published