

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

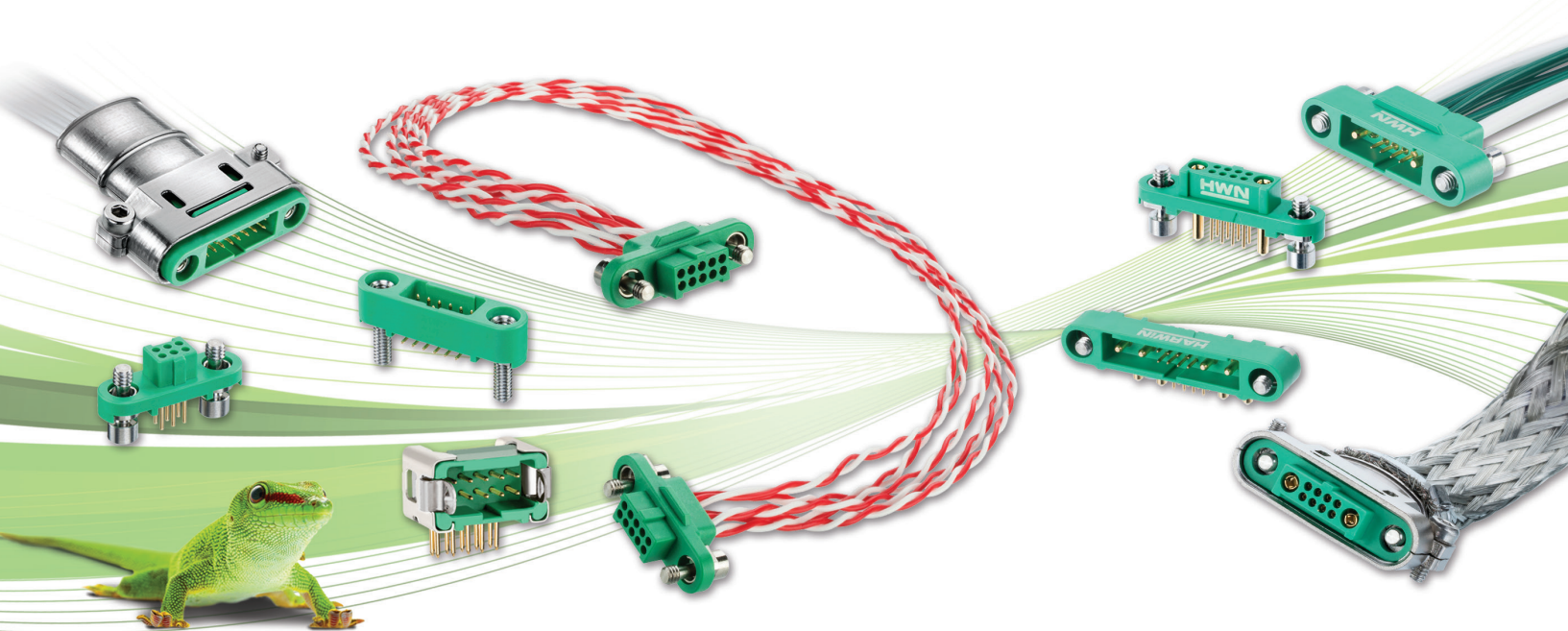
* Granted US9017089, Pending GB2501063, Pending EP2642604

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.



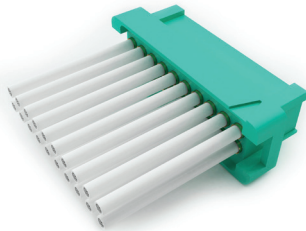
Keyway Polarization Points

3 polarizing points on each component prevent mis-mating.



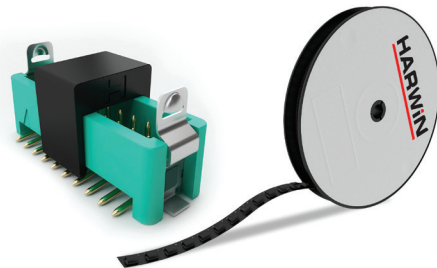
No. 1 Position identified, Potting Wall

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.



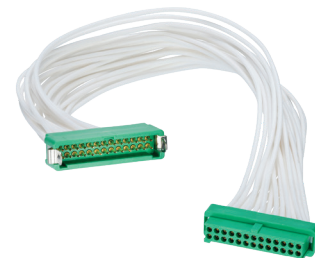
Robust Metal Backshells

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



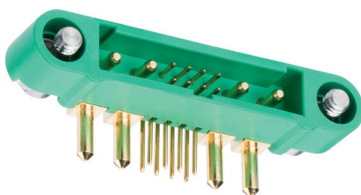
Pre-assembled Cable Configurations

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.



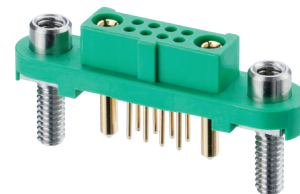
Minimal Outgassing

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.



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 μ m (8 - 12 μ ”) Gold, over 1.5 - 2.0 μ m (60 - 80 μ ”) Nickel
Power Contacts:	0.8 - 1.0 μ m (30 - 40 μ ”) Gold, over 1.5 - 2.5 μ m (60 - 100 μ ”) 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 Ω max
After conditioning:	25m Ω max
Insulation resistance	
Initial:	10G Ω min at 500V DC
After conditioning:	>1G Ω min at 500V DC

Mechanical

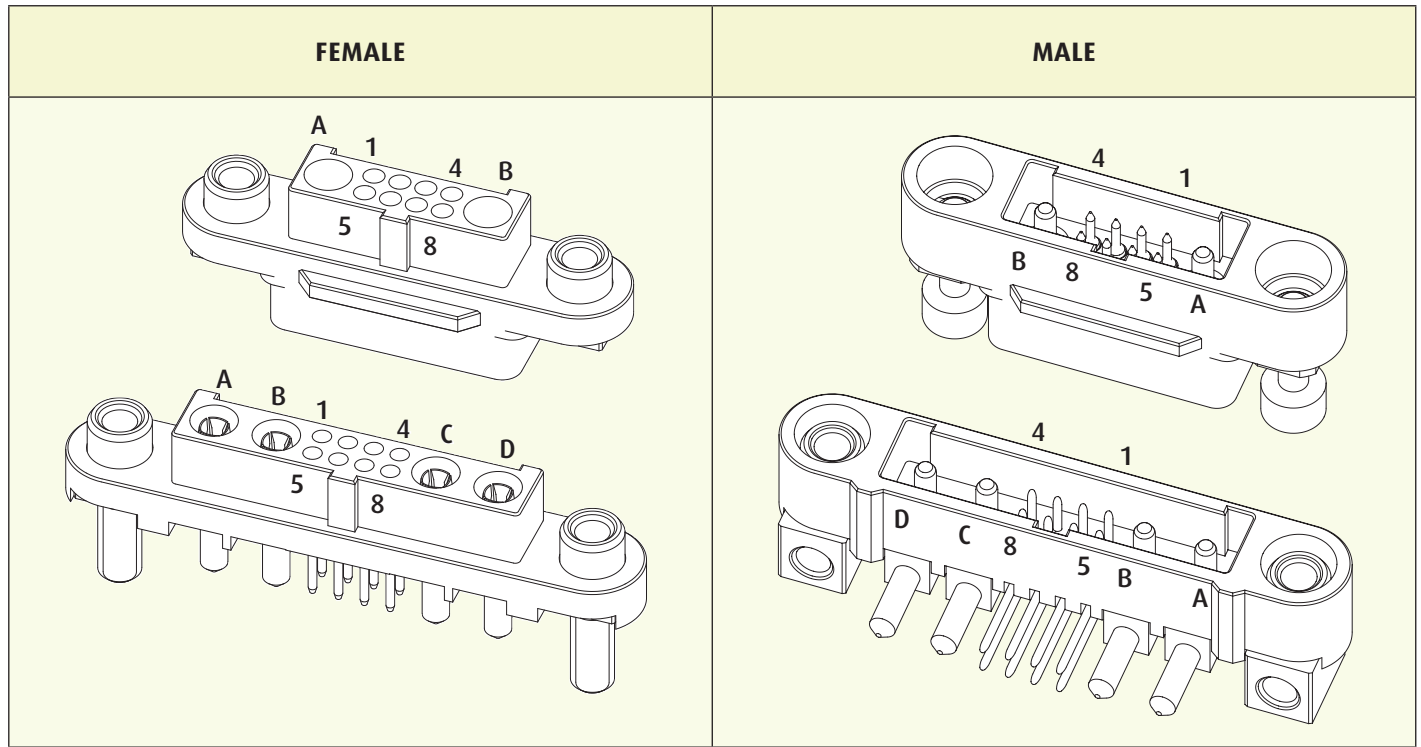
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force (signal):	2.8N max
Insertion force (power):	7.0N max
Withdrawal force:	0.2N min
Contact retention in housing:	6.0N max

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 ² (20G) duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 \pm 10 bumps
*Shock severity:	981m/s ² (100G) for 6ms in Z axis 490m/s ² (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s ² (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.

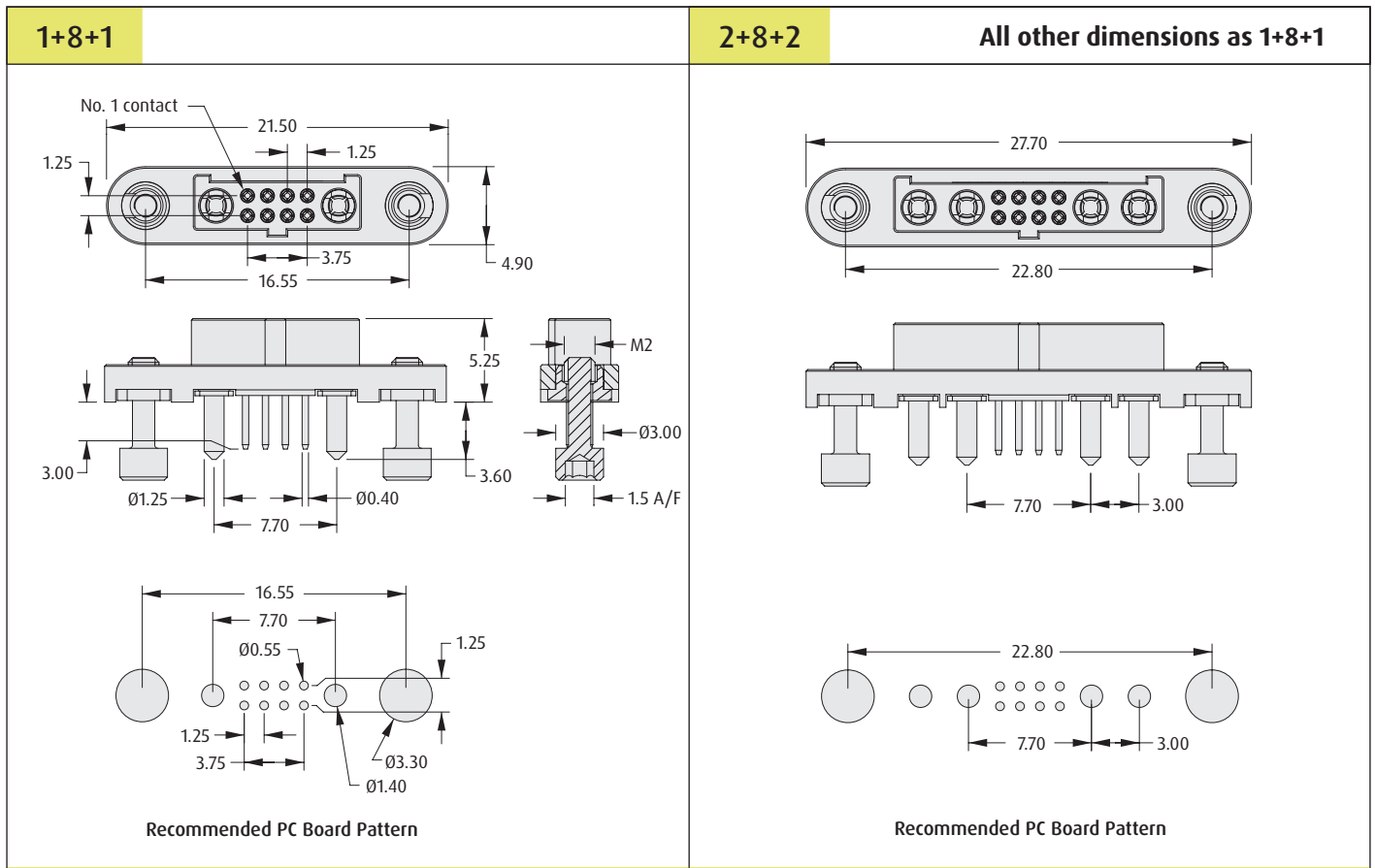
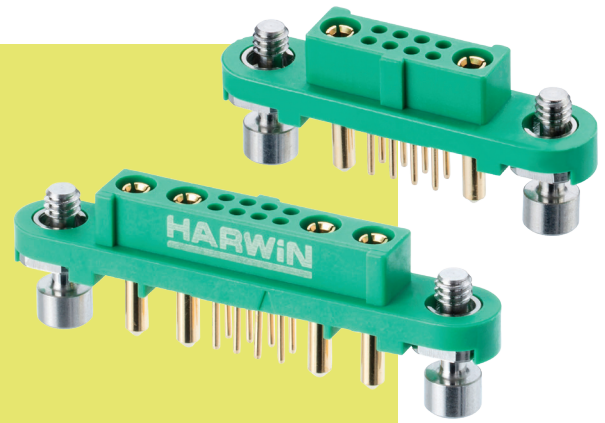
Patent Published

Gecko-MT Connectors

GECKO-MT

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.



HOW TO ORDER

G125 - FV1 08 05 F1 - XABXAB P

SERIES CODE G125	PACKAGING P Tape & Reel strips				
TOTAL NO. OF SIGNAL CONTACTS 08	POWER CONTACTS <table border="1"> <tr> <td>1AB1AB</td> <td>1+8+1 Configuration</td> </tr> <tr> <td>2AB2AB</td> <td>2+8+2 Configuration</td> </tr> </table>	1AB1AB	1+8+1 Configuration	2AB2AB	2+8+2 Configuration
1AB1AB	1+8+1 Configuration				
2AB2AB	2+8+2 Configuration				
SCREW-LOK F1 Floating Hex Socket					

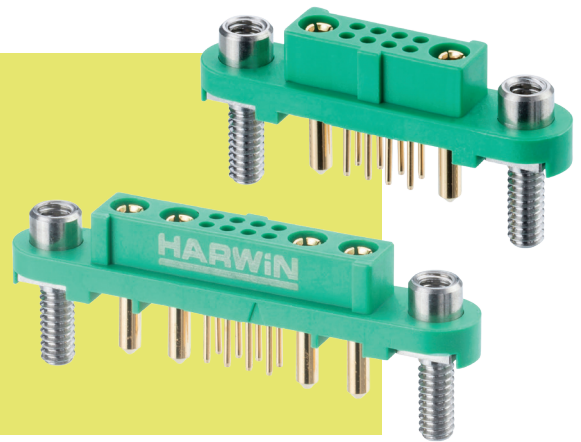
All dimensions in mm.

Patent Published

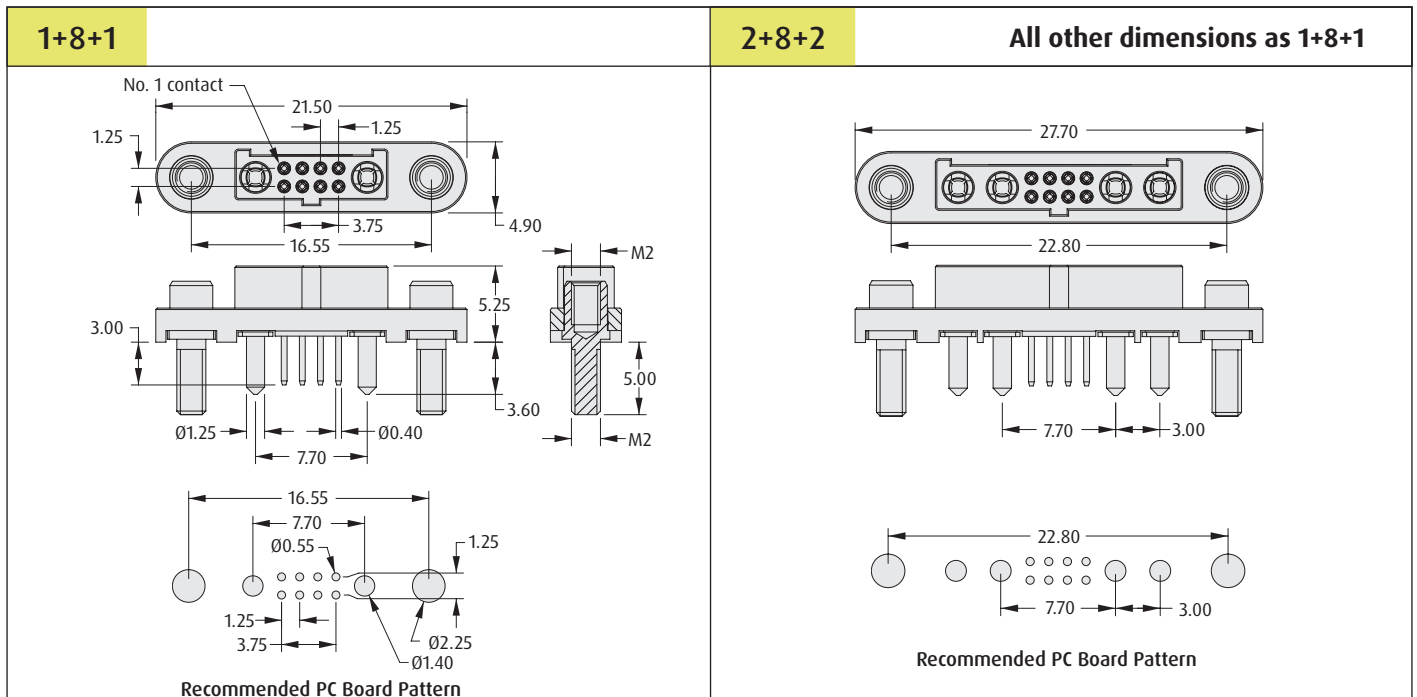
Gecko-MT Connectors

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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

F1	Floating Hex Socket
00	No Fixings (Use with Metal Hoods)

NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	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>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)

❖ Female contacts shown on a following page.

❖ Instruction sheets available at 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

All dimensions in mm.

Patent Published

Gecko-MT Connectors

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.

HOW TO ORDER

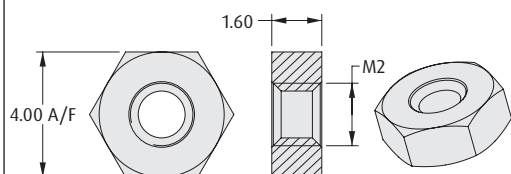
G125 - 22496 F3 - 0X - 08 - 0X

SERIES CODE	G125 - 22496	NO. OF CONTACTS
SCREW-LOK	F3	01-08-01 1+8+1 Configuration
F3 With 5.2mm Panel Mount stud	0X	02-08-02 2+8+2 Configuration
	08	
	0X	

REQUIRED HARDWARE

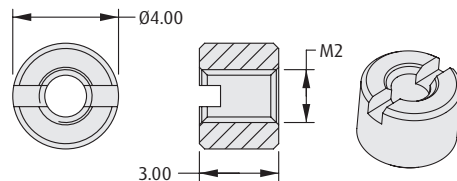
Order separately from connector

Hexagonal Board Mount Nut



ORDER CODE
G125-45000008

Slotted Board Mount Nut



ORDER CODE
G125-45100008

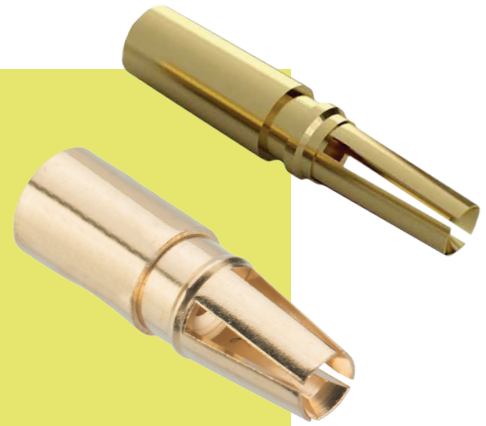
All dimensions in mm.

Patent Published

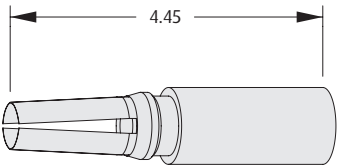
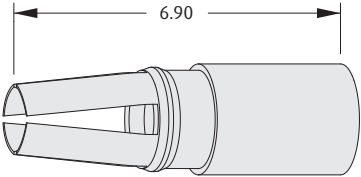
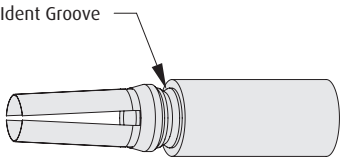
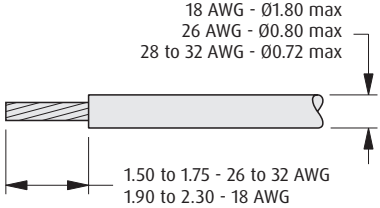
Gecko-MT Connectors

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.



GECKO-MT

CONTACTS	POWER CONTACT												
<p>26 AWG</p> 	<p>18 AWG</p> 												
<p>28 - 32 AWG</p> 	<p>WIRE STRIPPING DETAILS</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>TOOLS</p> <p>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)</p> <ul style="list-style-type: none"> ❖ Female crimp housings shown on previous pages. ❖ Pre-cabled contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions. 													
<p>HOW TO ORDER</p>													
<p style="text-align: center;">G125 - 0XX 00 05</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="146 1654 316 1696"> <p>SERIES CODE</p> </div> <div data-bbox="146 1730 581 1885"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>Female 26 AWG crimp contact</td> </tr> <tr> <td>002</td> <td>Female 28-32 AWG crimp contact</td> </tr> <tr> <td>050</td> <td>Female power crimp contact</td> </tr> </tbody> </table> </div> <div data-bbox="1318 1709 1474 1789"> <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		001	Female 26 AWG crimp contact	002	Female 28-32 AWG crimp contact	050	Female power crimp contact	FINISH		05	Gold
TYPE													
001	Female 26 AWG crimp contact												
002	Female 28-32 AWG crimp contact												
050	Female power crimp contact												
FINISH													
05	Gold												

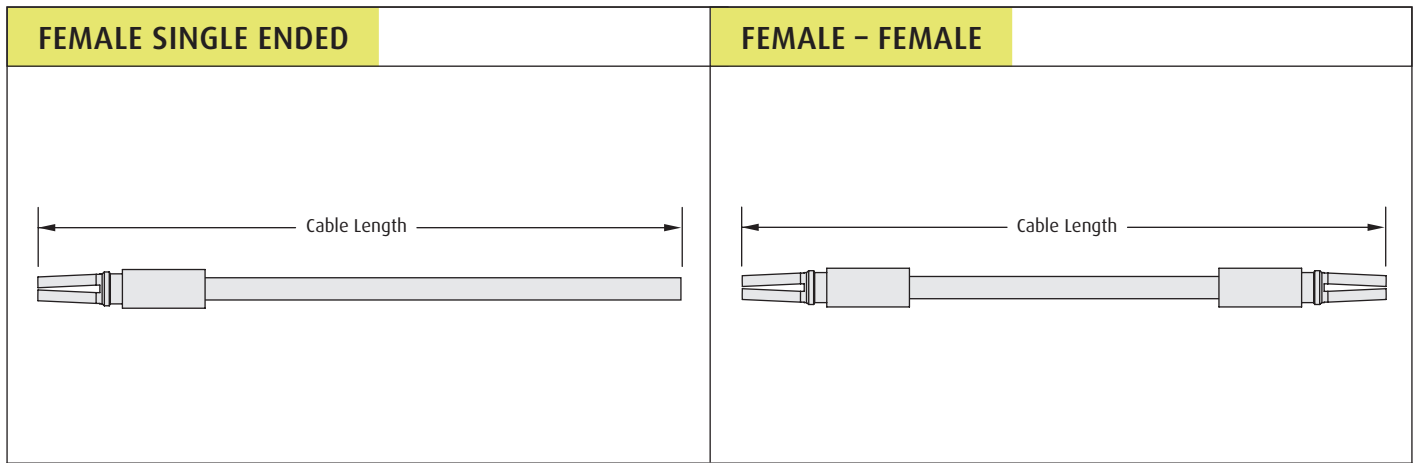
All dimensions in mm.

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.



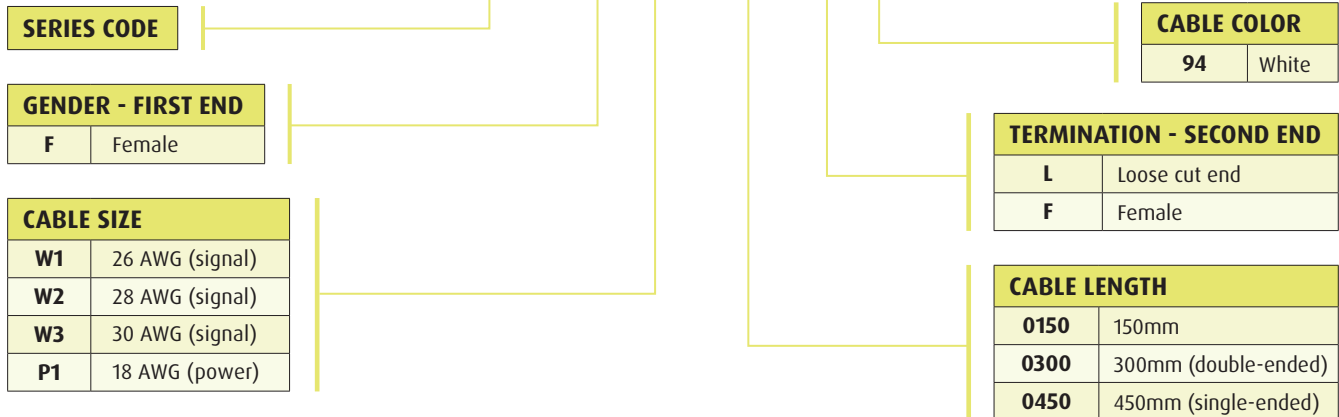
TOOLS

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.

HOW TO ORDER

G125 – F XX XXXX X 94



All dimensions in mm.

Patent Published

Gecko-MT Connectors

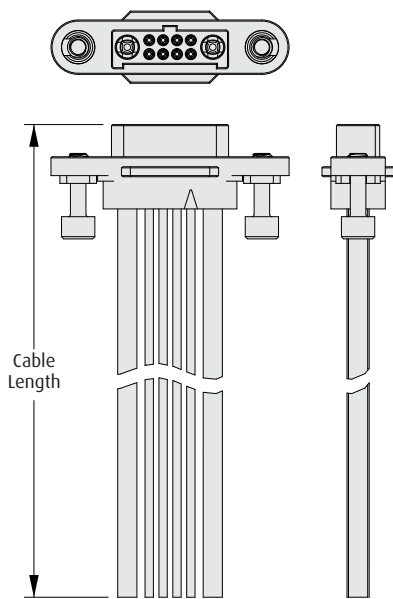
Female Cable Assemblies

- 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.

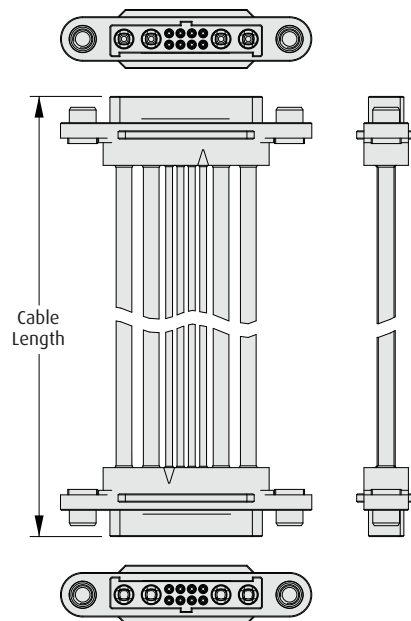


GECKO-MT

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.

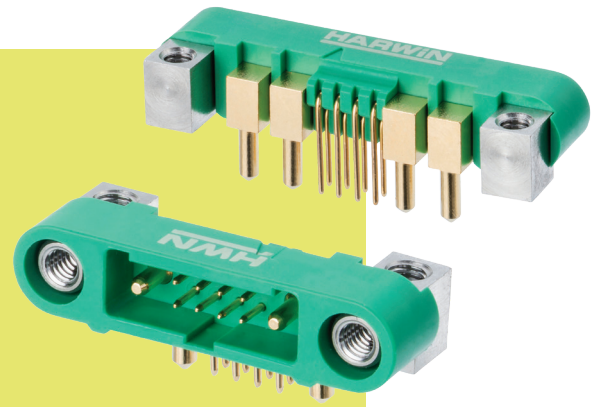
Patent Published

Gecko-MT Connectors

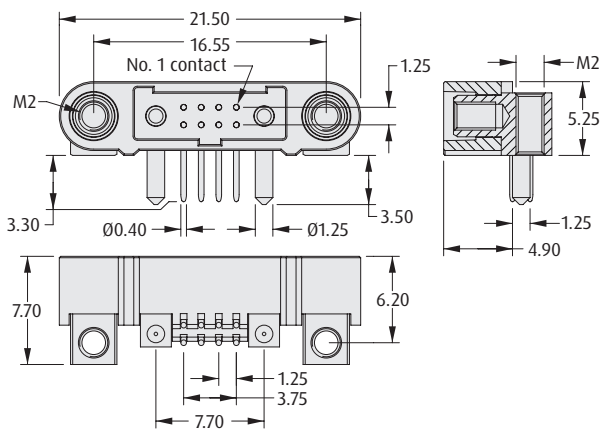
GECKO-MT

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.

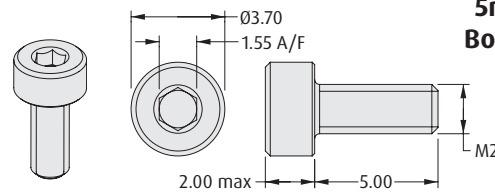


1+8+1



REQUIRED HARDWARE

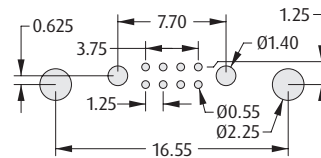
Order separately from connector



5mm Hex Socket
Board Mount Bolt

ORDER CODE

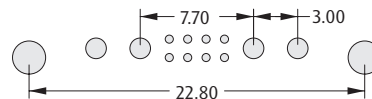
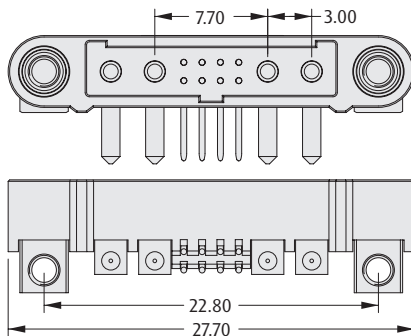
G125-452000B



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

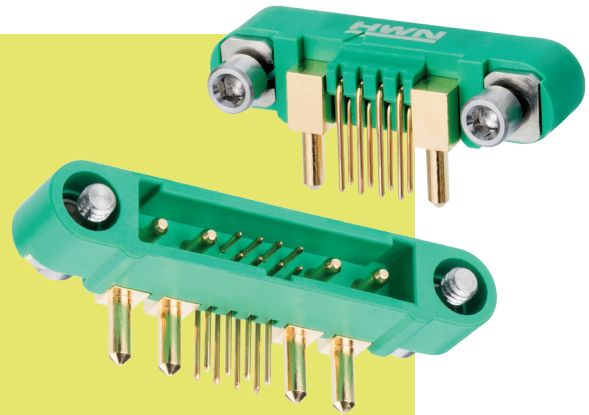
All dimensions in mm.

Patent Published

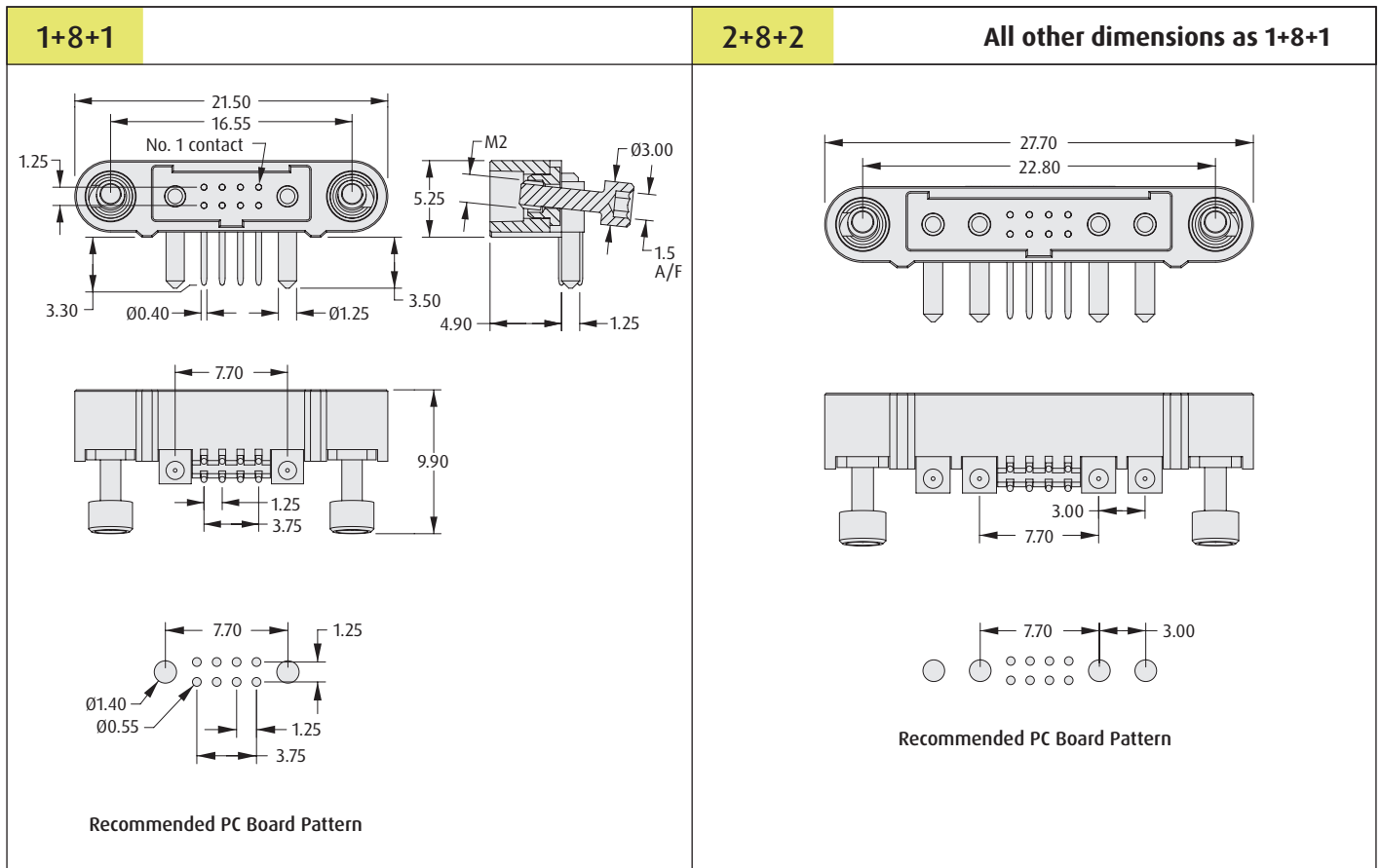
Gecko-MT Connectors

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.

HOW TO ORDER

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

SERIES CODE	
SCREW-LOK	
M1	Internal Thread

NO. OF CONTACTS	
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

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.

HOW TO ORDER

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

SERIES CODE

SCREW-LOK

M2 With 5.2mm Panel Mount stud

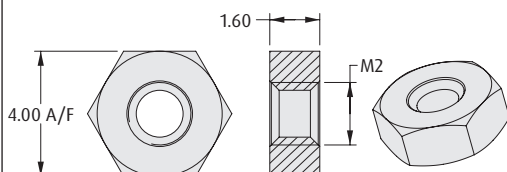
NO. OF CONTACTS

01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

REQUIRED HARDWARE

Order separately from connector

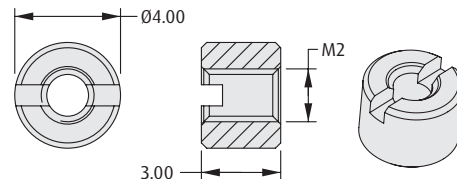
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

Gecko-MT Connectors

Male Cable Housings – Reverse Fix

- Reverse fix floating screw-lok suitable for board-to-cable applications, where the female connector is located on the PCB.
- Features potting wall for backpotting to give extra security.
- No. 1 position identified on housing.



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)

- Male contacts shown on a following page.
- Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 - 32496 M3 - 0X - 08 - 0X

SERIES CODE	
SCREW-LOK	
M3	Reverse Fix Floating Hex Socket

NO. OF CONTACTS	
01-08-01	1+8+1 Configuration
02-08-02	2+8+2 Configuration

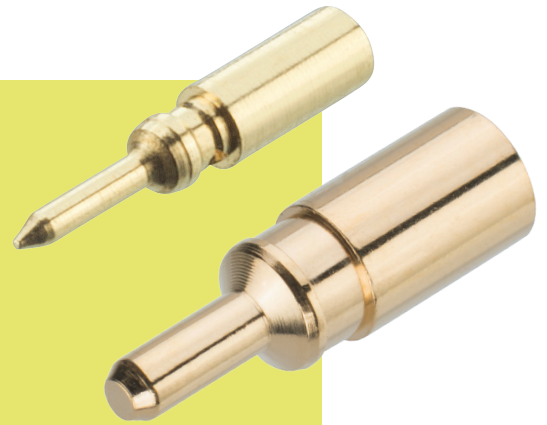
All dimensions in mm.

Patent Published

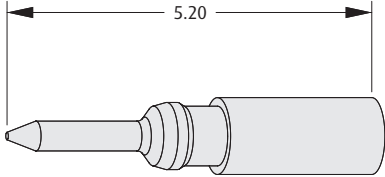
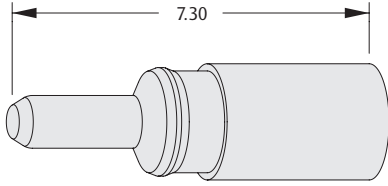
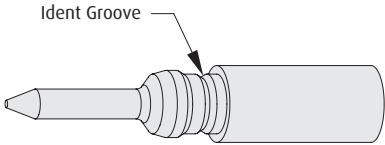
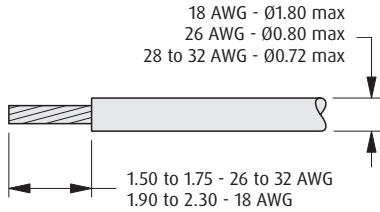
Gecko-MT Connectors

Male Crimp Contacts

- Crimp barrel meets all crimp guidelines and standards.
- Instruction video online at www.harwin.com/harwintv.



GECKO-MT

CONTACTS	POWER CONTACT												
<p>26 AWG</p> 	<p>18 AWG</p> 												
<p>28 - 32 AWG</p> 	<p>WIRE STRIPPING DETAILS</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>												
TOOLS													
<p>Recommended Crimp Tools - Z125-900 (signal), Z125-903 (power)</p> <p>Positioner - Z125-901 (signal), Z125-904 (power)</p> <p>Contact Insertion/Removal Tool - Z125-902 (signal), Z125-905 (power)</p>	<ul style="list-style-type: none"> ➤ Male housings shown on previous pages. ➤ Pre-cabled contacts shown on following page. ➤ Instruction sheets available at www.harwin.com/instructions. 												
HOW TO ORDER													
<p style="text-align: center;">G125 - 1XX 00 05</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="146 1654 316 1696"> <p>SERIES CODE</p> </div> <div data-bbox="146 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="1318 1709 1474 1789"> <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
TYPE													
101	Male 26 AWG crimp contact												
102	Male 28-32 AWG crimp contact												
150	Male power crimp contact												
FINISH													
05	Gold												

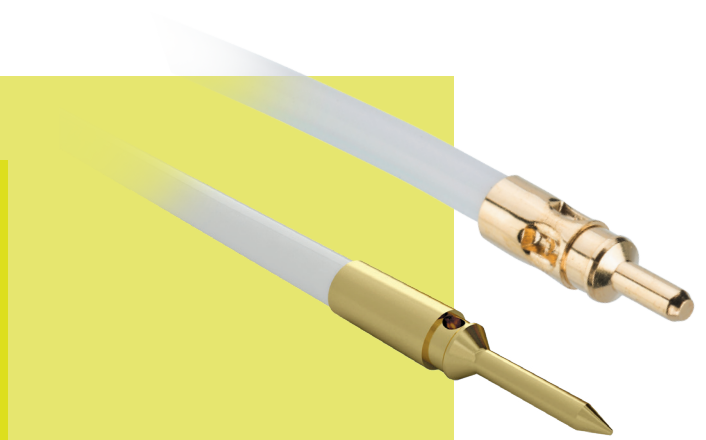
All dimensions in mm.

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

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

HOW TO ORDER

G125 - M XX XXXX X 94

SERIES CODE G125	- M XX XXXX X	CABLE COLOR 94 White
GENDER - FIRST END M Male	- M	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)	- XX XXXX	CABLE LENGTH 0150 150mm 0300 300mm (double-ended) 0450 450mm (single-ended)
	- X	

All dimensions in mm.

Patent Published

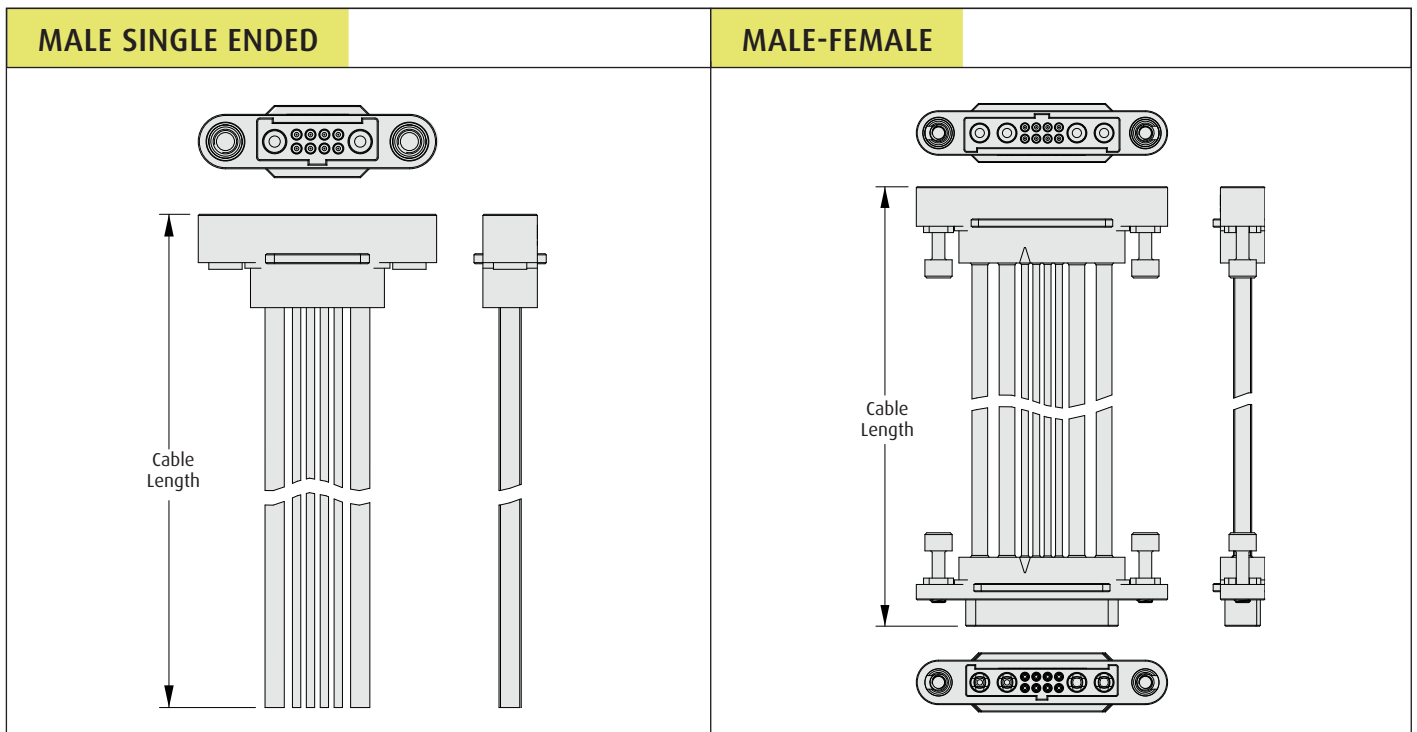
Gecko-MT Connectors

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

SERIES CODE	G125	TERMINATION - SECOND END	L	Loose cut end
GENDER - FIRST END	M	F1	Female with Floating Hex Socket	
	Male	F2	Female with Internal Thread (Reverse Fix)	
CABLE SIZE (SIGNAL)	CX	M1 or M3	Male connector (same as First End)	
C1	26 AWG	CABLE LENGTH	XXXX	XXXXmm
C2	28 AWG	POWER CONTACTS	1D1D	1+8+1 configuration
SCREW-LOK	M1	2D2D	2+8+2 configuration	
	Internal Thread			
	M3			
	Floating Hex Socket (Reverse Fix)			

All dimensions in mm.

Patent Published

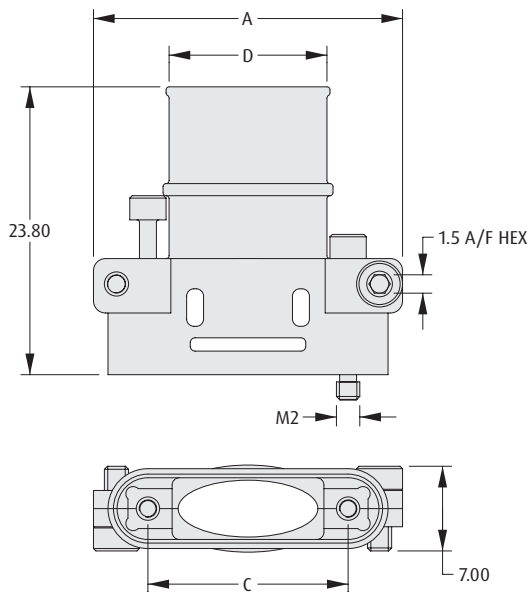
Gecko-MT Connectors

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.

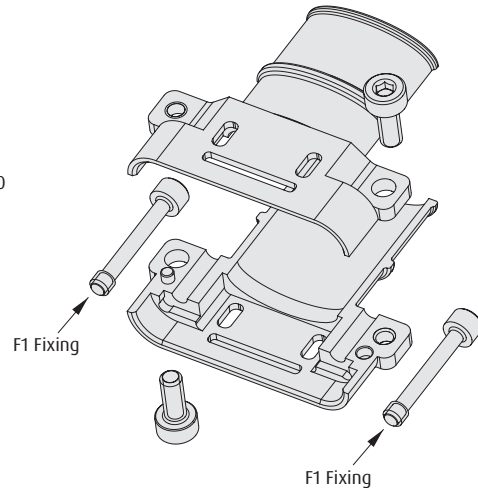


HOOD / BACKSHELL



CALCULATION

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



HOW TO ORDER

G125 - 964 XX XX

SERIES CODE

SCREW-LOK

00	Use with G125-32496M1 male housings
F1	Use with G125-2249600 female housings

TOTAL NO. OF CONTACTS

16	Use with 1+8+1 configuration
26	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

M80-9470000	Length = 206.8mm
M80-9480000	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.

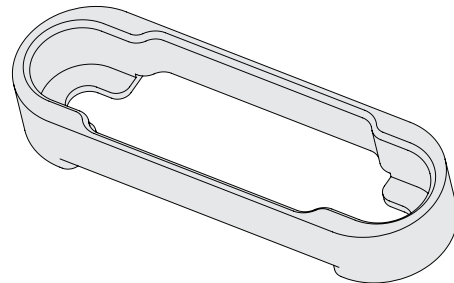
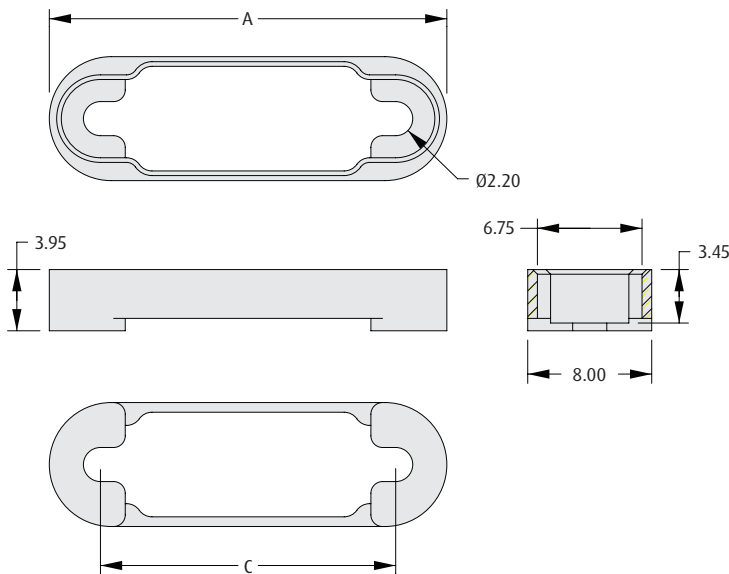


GECKO-MT

HOOD / BACKSHELL

CALCULATION

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



HOW TO ORDER

G125 - 960 XX 02

SERIES CODE

TOTAL NO. OF CONTACTS

16	Use with 1+8+1 configuration
26	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

Current	
Individual contacts in isolation:	2.8A max (At 25°C)
All contacts simultaneously:	2.0A max (At 25°C)
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
Contact resistance	
Initial:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	10GΩ min at 500V DC
After conditioning:	>1GΩ min at 500V DC

Mechanical

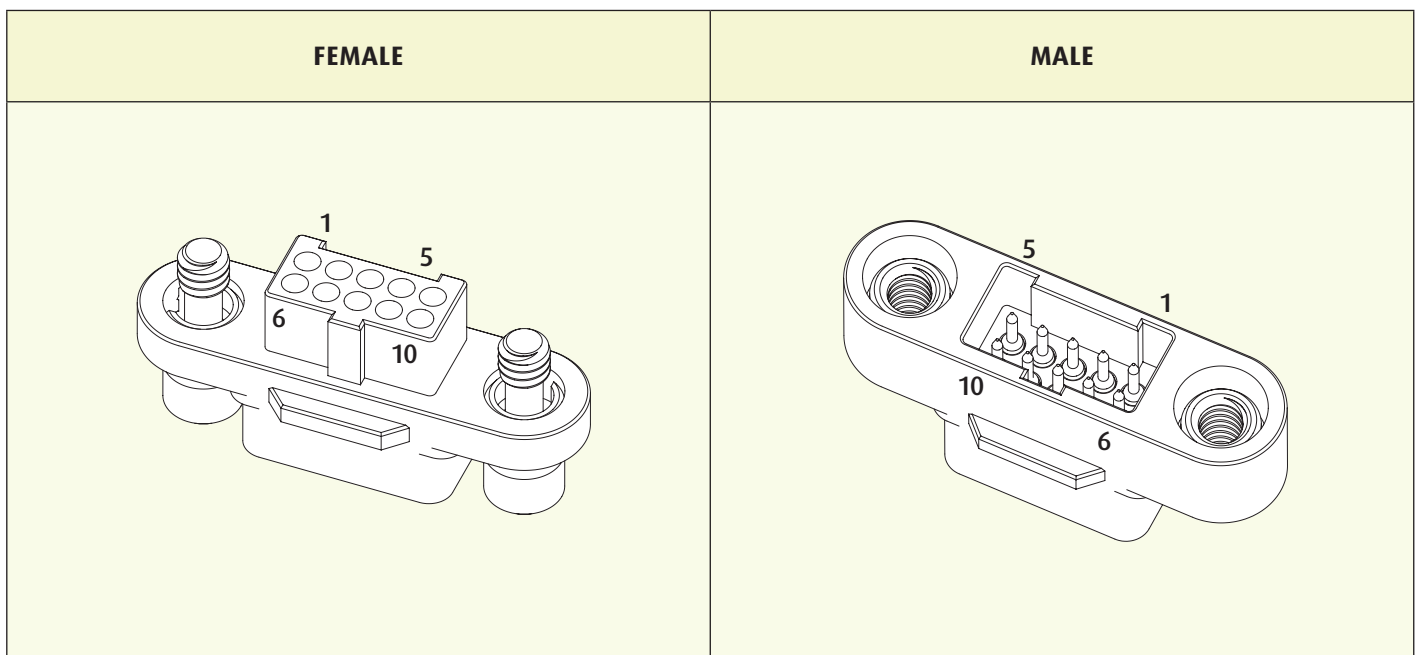
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

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 ² (20G) duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms in Z axis 490m/s ² (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s ² (50G)

* Tested with latched connectors.

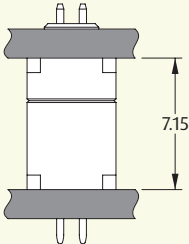
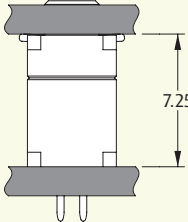
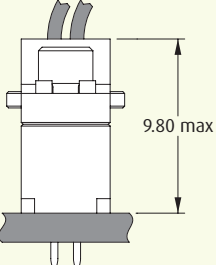
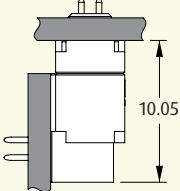
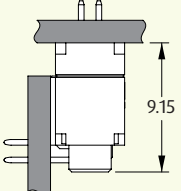
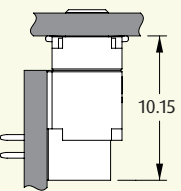
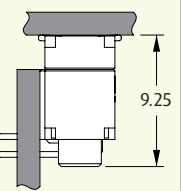
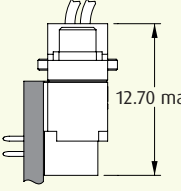
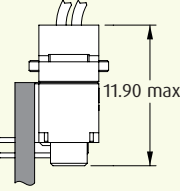
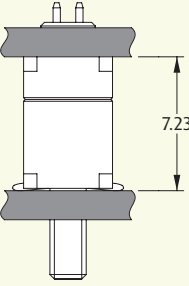
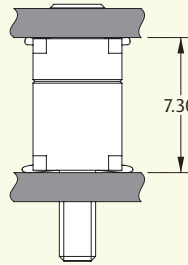
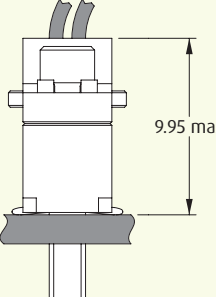
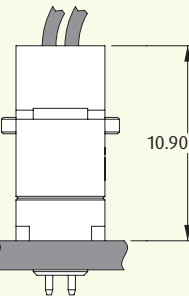
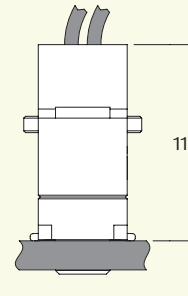
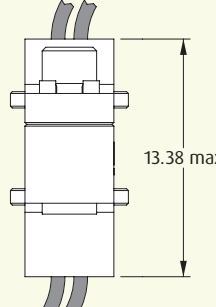
Pin Numbering



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	  Standard Reverse Fix
	VERTICAL SMT			
	CABLE			

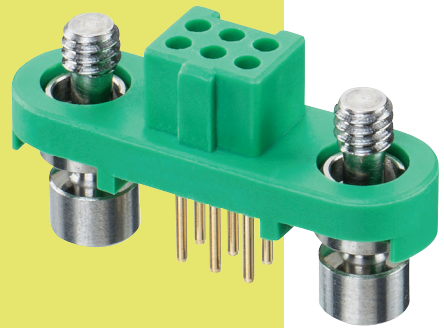
All dimensions in mm.

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.

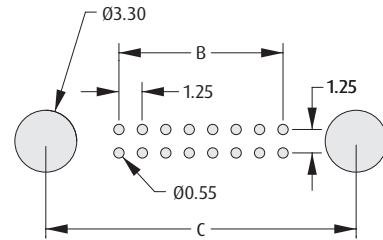
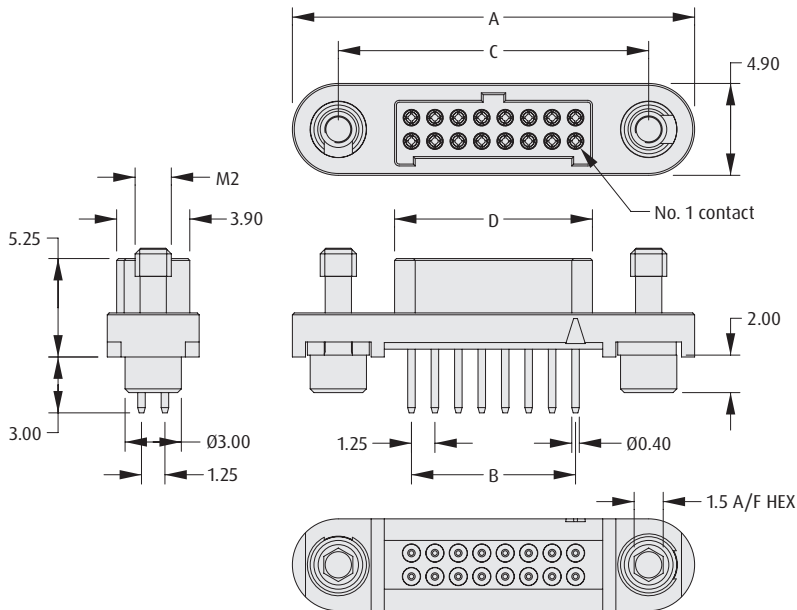


GECKO-SL

3mm THROUGHBOARD

CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F V1 XX 05 F1 X

SERIES CODE

TYPE

V1 3mm Throughboard

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

TOTAL NO. OF CONTACTS

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

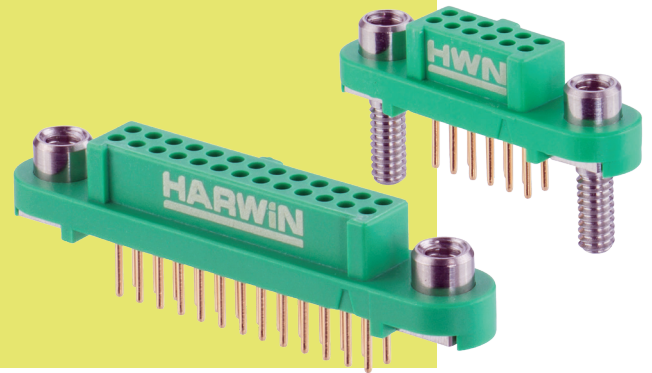
All dimensions in mm.

Patent Published

Gecko-SL Connectors

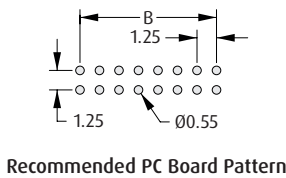
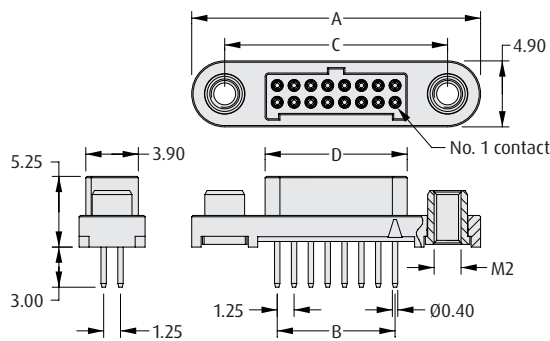
Female Throughboard - Reverse Fix

- ❖ 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

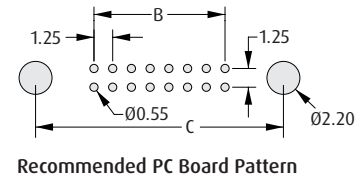
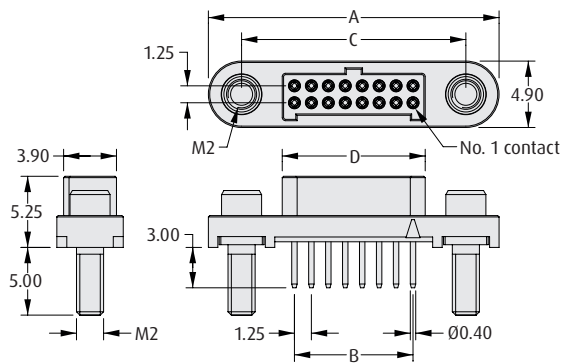
WITHOUT BOARD MOUNT



CALCULATION

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

WITH BOARD MOUNT



HOW TO ORDER

G125 - F V1 XX 05 FX X

SERIES CODE

TYPE

V1 3mm Throughboard

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

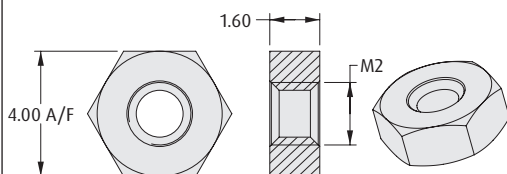
SCREW-LOK

F2	Internal Thread
F3	With 5mm Board Mount stud

REQUIRED HARDWARE

Order separately from connector

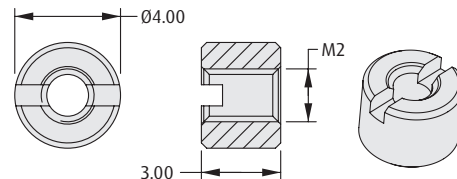
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

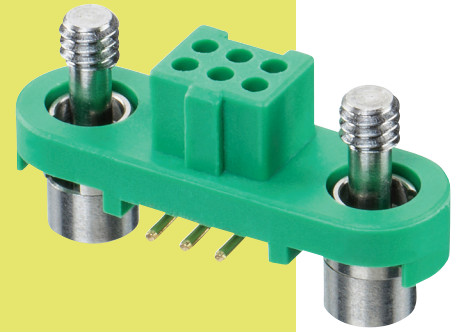
All dimensions in mm.

Patent Published

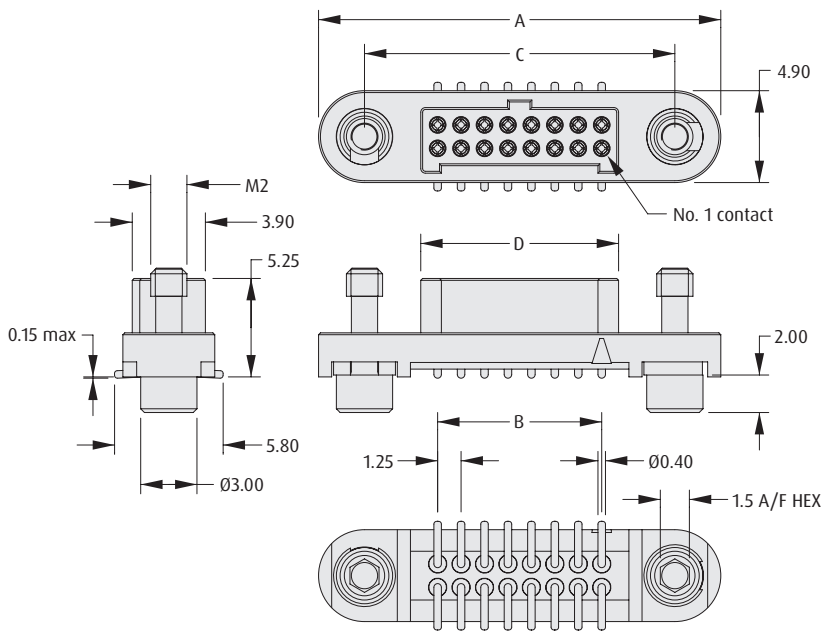
Gecko-SL Connectors

Female 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.

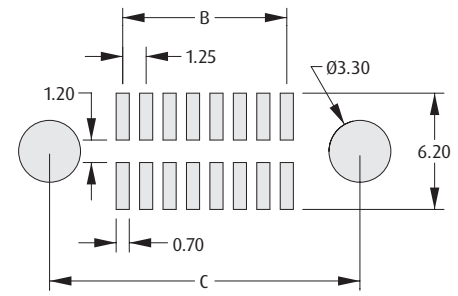


SURFACE MOUNT



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F S1 XX 05 F1 X

SERIES CODE

TYPE

S1 Surface Mount

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

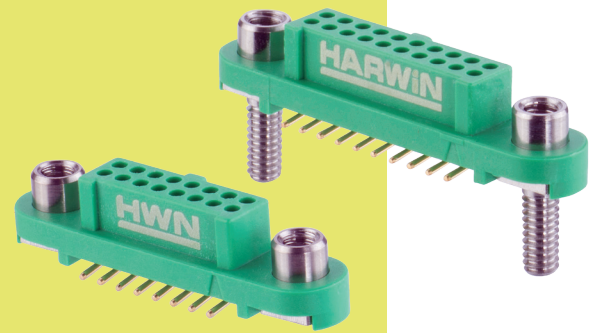
TOTAL NO. OF CONTACTS

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

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										
<p>Recommended PC Board Pattern</p>	<p>Recommended PC Board Pattern</p>										
<table border="1"> <thead> <tr> <th colspan="2">CALCULATION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>$B + 12.7$</td> </tr> <tr> <td>B</td> <td>$0.625 \times (\text{Total No. of contacts} - 2)$</td> </tr> <tr> <td>C</td> <td>$B + 7.8$</td> </tr> <tr> <td>D</td> <td>$B + 1.8$</td> </tr> </tbody> </table>		CALCULATION		A	$B + 12.7$	B	$0.625 \times (\text{Total No. of contacts} - 2)$	C	$B + 7.8$	D	$B + 1.8$
CALCULATION											
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 - 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

R	Tape & Reeled
P	Tape & Reel strips

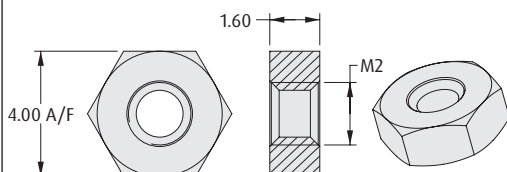
SCREW-LOK

F2	Internal Thread
F3	With 5mm Board Mount stud

REQUIRED HARDWARE

Order separately from connector

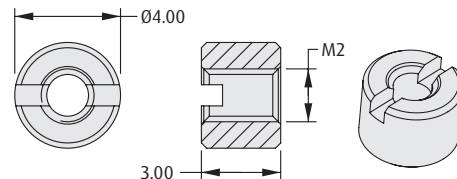
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

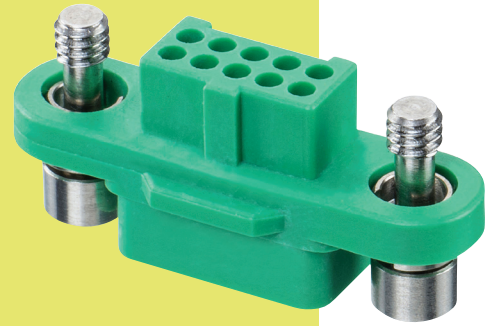
All dimensions in mm.

Patent Published

Gecko-SL Connectors

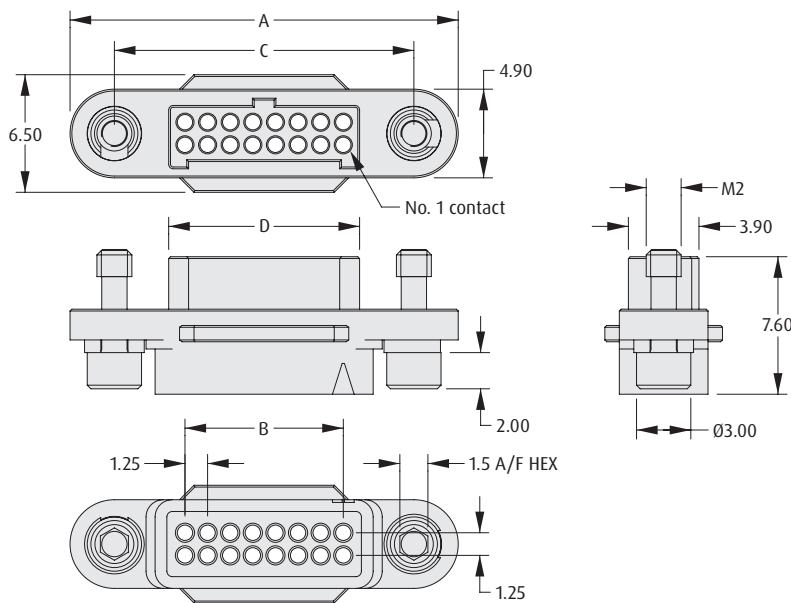
Female Crimp Housings

- 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

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

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.

HOW TO ORDER

G125 - 224 XX 96 XX

SERIES CODE

TYPE

224 Female Housing

TOTAL NO. OF CONTACTS

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

SCREW-LOK

F1 Floating Hex Socket fixings

00 No fixings (use with Metal Hoods)

FINISH

96 Housing

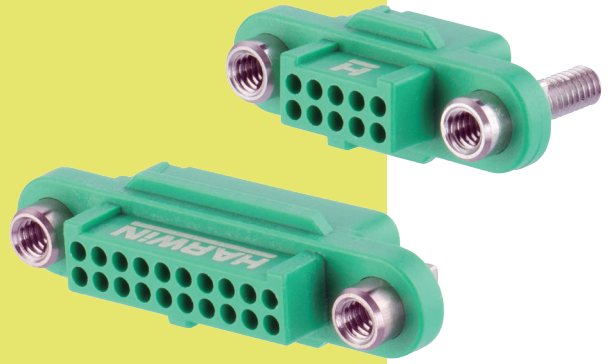
All dimensions in mm.

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

HOW TO ORDER

G125 - 224 XX 96 FX

SERIES CODE	G125	SCREW-LOK	F2 Internal Thread
TYPE	224 Female Housing	F3 With 5.2mm Panel Mount stud	
TOTAL NO. OF CONTACTS	06, 10, 12, 16, 20, 26, 34, 50	FINISH	96 Housing

TOOLS

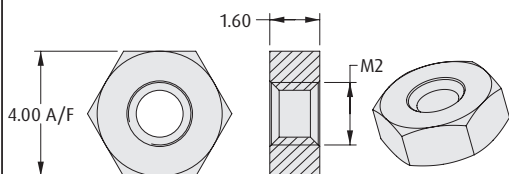
Recommended Crimp Tool - Z125-900
Positioner - Z125-901
Contact Insertion/Removal Tool - Z125-902

- Female contacts shown on a following page.
- Instruction sheets available at www.harwin.com/instructions.

REQUIRED HARDWARE

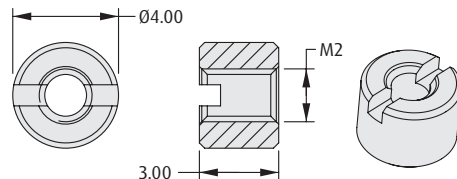
Order separately from connector

Hexagonal Board Mount Nut



ORDER CODE
G125-4500000B

Slotted Board Mount Nut



ORDER CODE
G125-4510000B

All dimensions in mm.

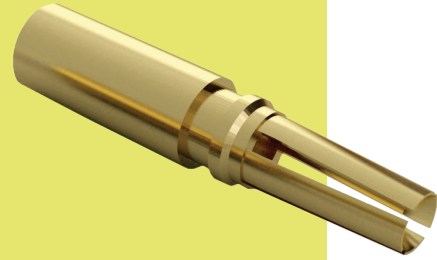
Patent Published

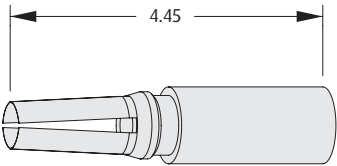
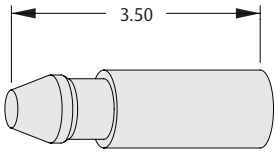
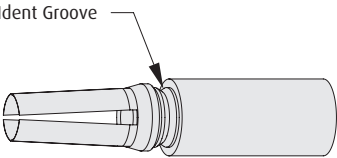
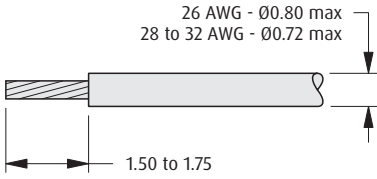
Gecko-SL Connectors

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



CONTACTS	DUMMY CONTACT												
<p>26 AWG</p> 													
<p>28 - 32 AWG</p> 	<p>WIRE STRIPPING DETAILS</p> 												
<p>TOOLS</p> <p>Recommended Crimp Tool - Z125-900 Positioner - Z125-901 Contact Insertion/Removal Tool - Z125-902</p>													
<ul style="list-style-type: none"> ❖ Female crimp housings shown on previous pages. ❖ Pre-cabled contacts shown on following page. ❖ Instruction sheets available at www.harwin.com/instructions. 													
<p style="text-align: center;">HOW TO ORDER</p>													
<p style="text-align: center;">G125 - 0XX 00 05</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1629 318 1667" style="border: 1px solid black; padding: 2px;"> <p>SERIES CODE</p> </div> <div data-bbox="147 1703 581 1860" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>Female 26 AWG crimp contact</td> </tr> <tr> <td>002</td> <td>Female 28-32 AWG crimp contact</td> </tr> <tr> <td>020</td> <td>Dummy Contact (blanking plug)</td> </tr> </tbody> </table> </div> <div data-bbox="1317 1682 1471 1766" style="border: 1px solid black; padding: 2px;"> <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		001	Female 26 AWG crimp contact	002	Female 28-32 AWG crimp contact	020	Dummy Contact (blanking plug)	FINISH		05	Gold
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FINISH													
05	Gold												

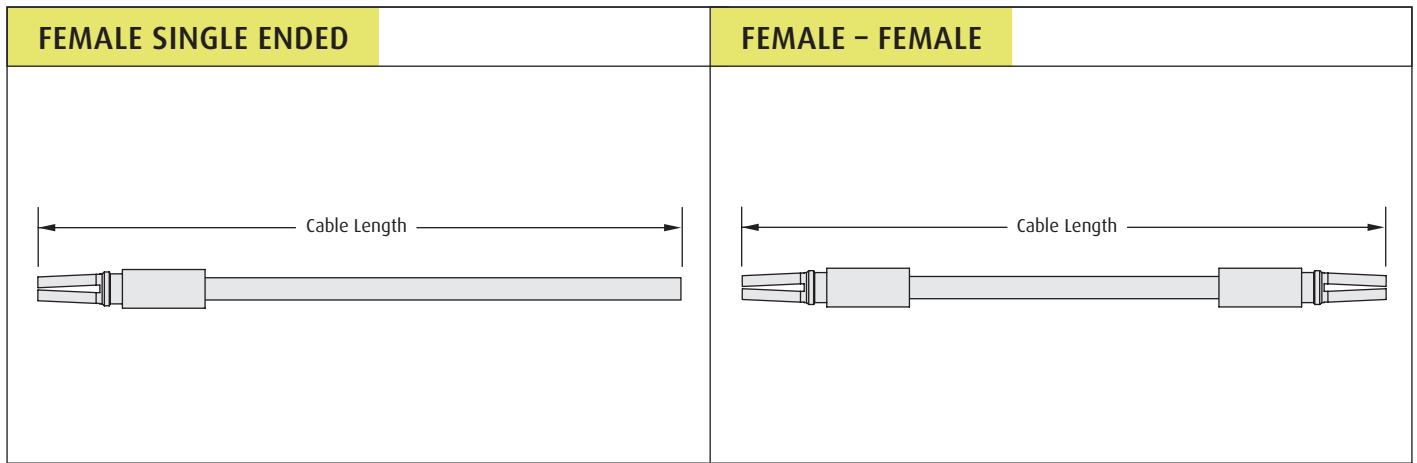
All dimensions in mm.

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.



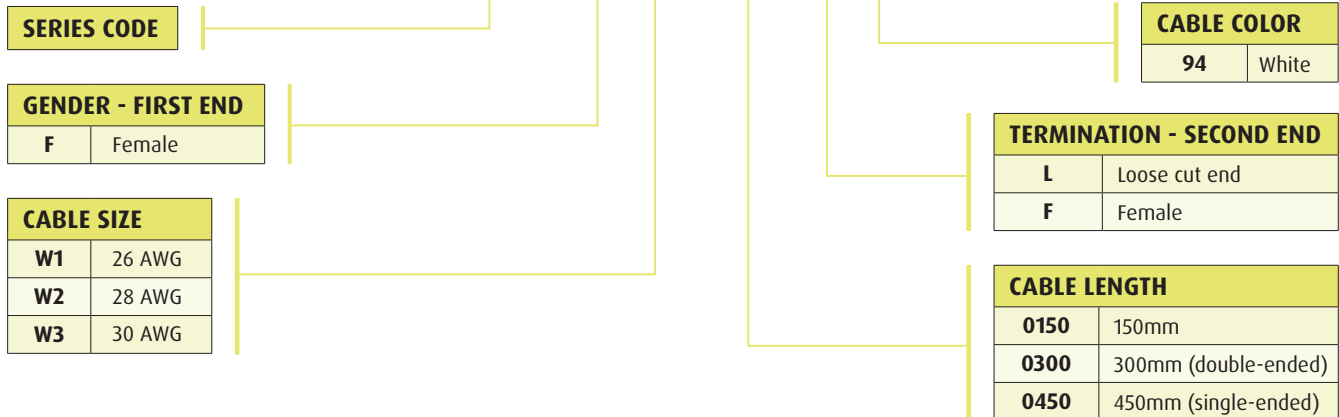
TOOLS

Contact Insertion/Removal Tool – Z125-902

- ❖ Female crimp housings and loose contacts shown on previous pages.
- ❖ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 – F WX XXXX X 94



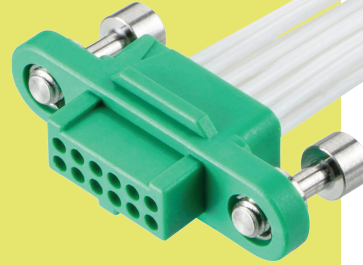
All dimensions in mm.

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

F	Female
----------	--------

CABLE STYLE

C	Standard Cables
D	Twisted Pairs

CABLE SIZE

1	26 AWG
2	28 AWG

TOTAL NO. OF CONTACTS

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

TERMINATION - SECOND END

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

CABLE LENGTH

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

SCREW-LOK

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

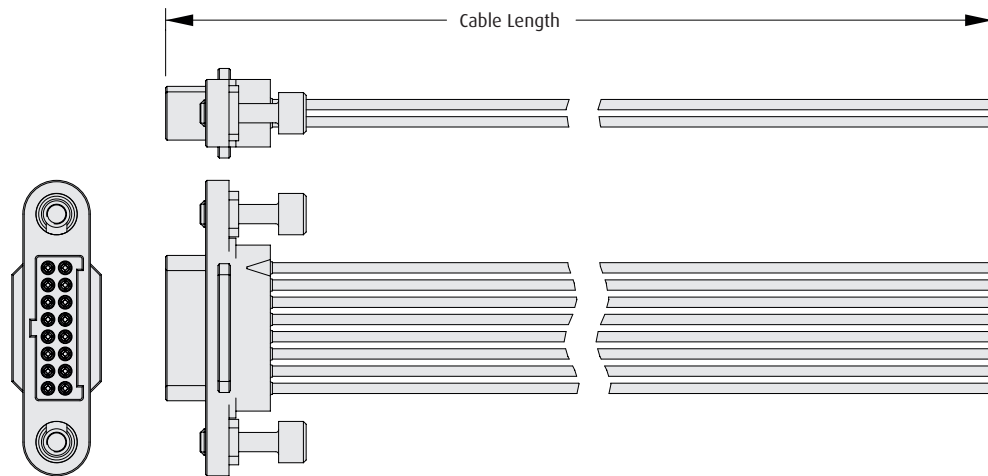
CABLE COLOR / BRAID

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

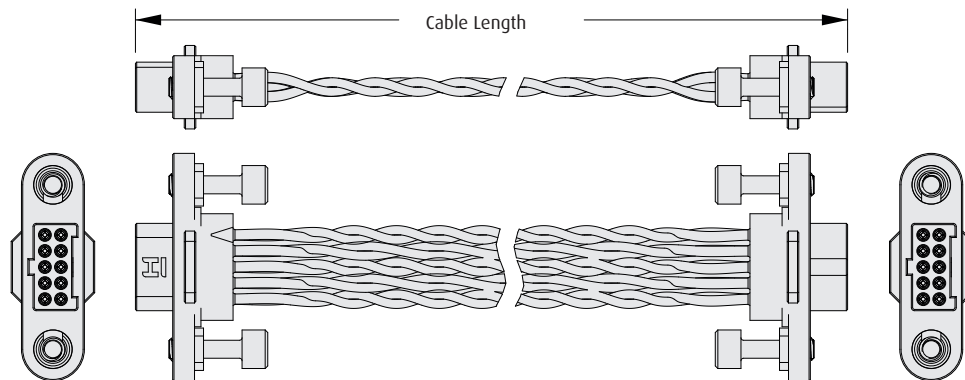
Gecko-SL Connectors

- ❖ 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.

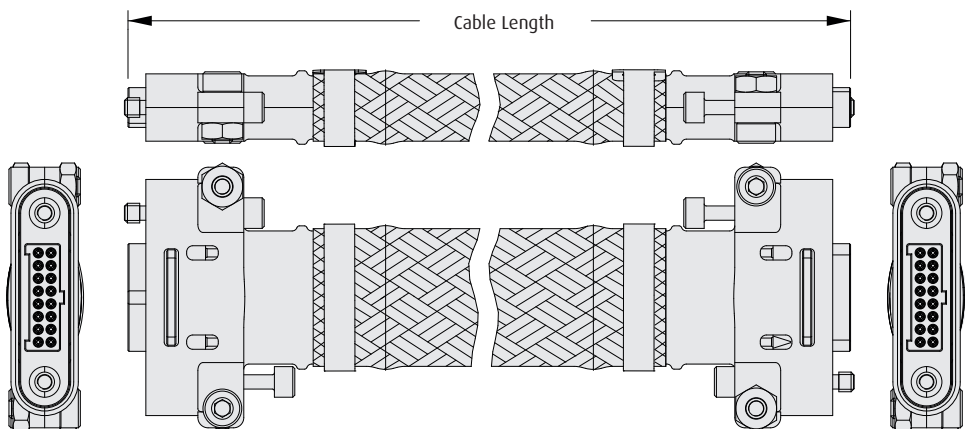
FEMALE SINGLE ENDED



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>Recommended PC Board Pattern</p>	 <p>Recommended PC Board Pattern</p>																						
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M1	Internal Thread																						
M2	With 5mm Board Mount Stud																						
REQUIRED HARDWARE																							
<p>Hexagonal Board Mount Nut</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>Slotted Board Mount Nut</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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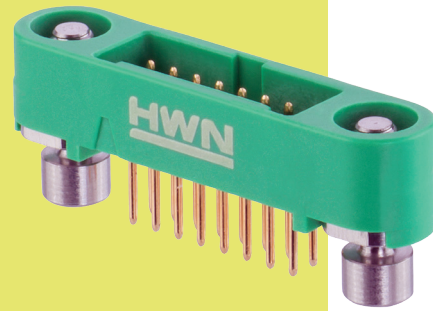
All dimensions in mm.

Patent Published

Gecko-SL Connectors

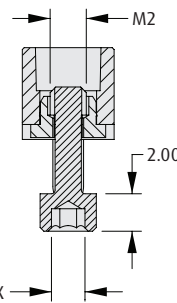
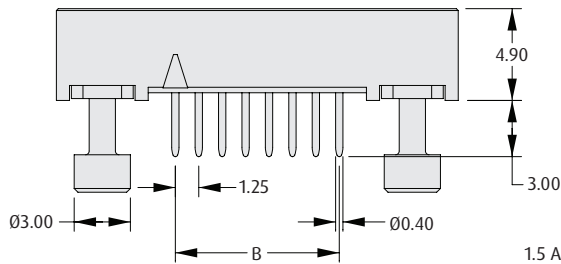
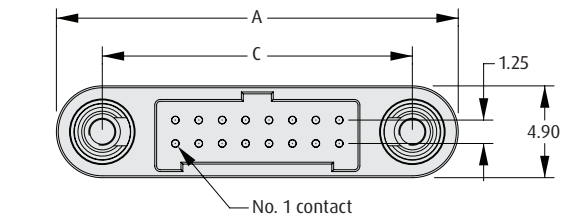
Male Vertical Throughboard - Reverse Fix

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



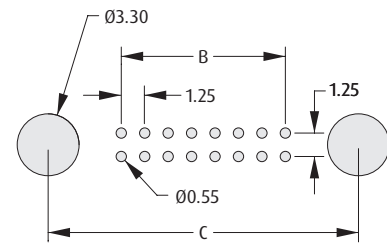
GECKO-SL

THROUGHBOARD



CALCULATION

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



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

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

All dimensions in mm.

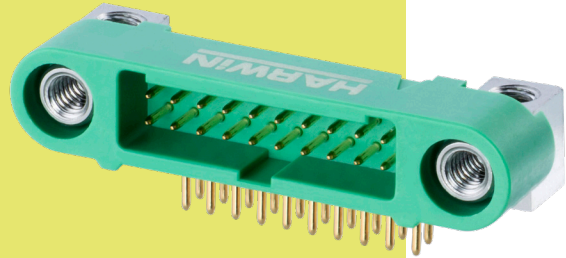
Patent Published

Gecko-SL Connectors

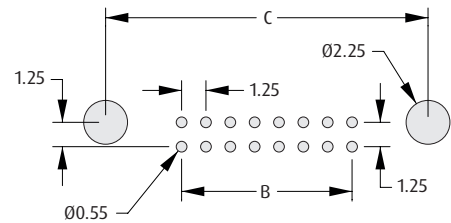
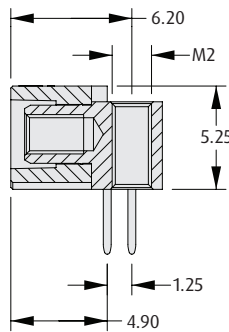
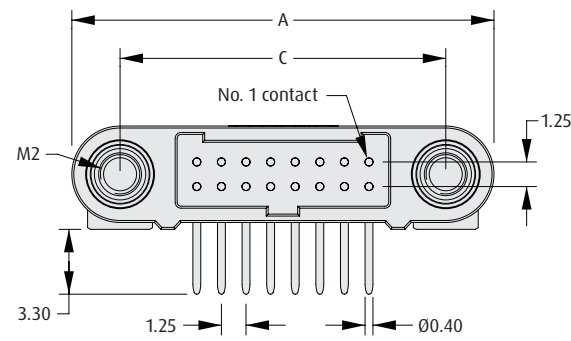
GECKO-SL

Male Horizontal Throughboard

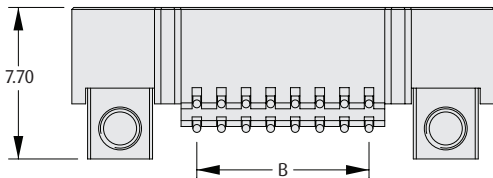
- ❖ Stainless steel screw fixing to mate with floating screw-loks on female connectors, also with board mount thread.
- ❖ Order bolts for board-mount separately.
- ❖ If mating to a female cable connector, ensure the front face of this connector is level to the PCB edge, or over. Check Technical Drawing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



THROUGHBOARD



Recommended PC Board Pattern

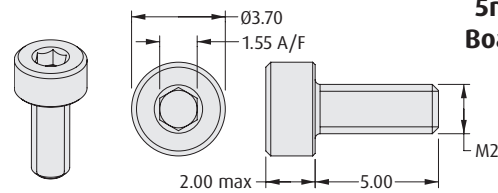


CALCULATION

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

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

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

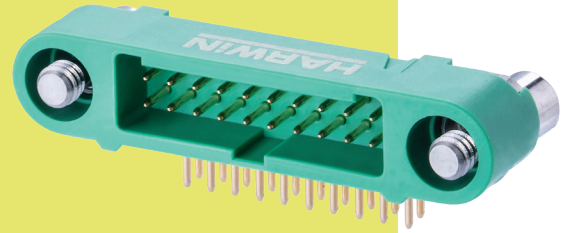
All dimensions in mm.

Patent Published

Gecko-SL Connectors

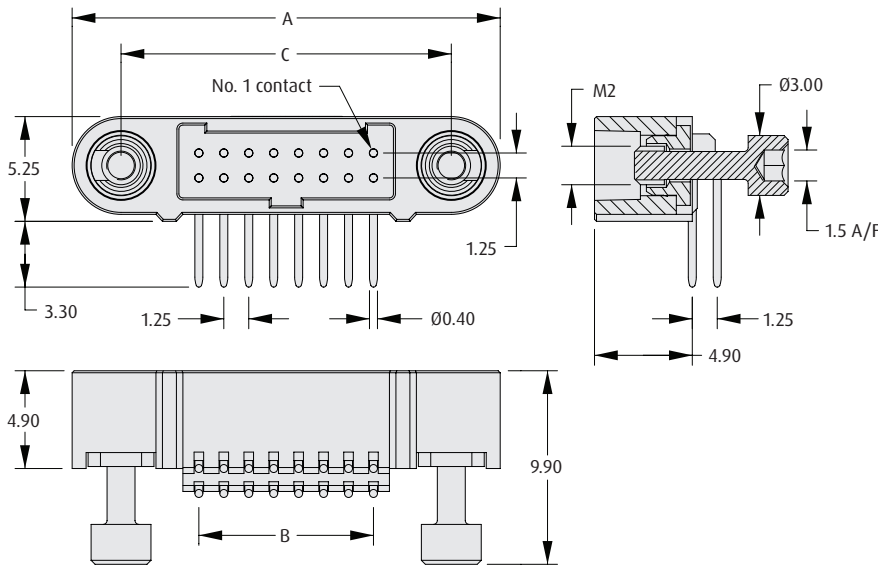
Male Horizontal Throughboard - Reverse Fix

- ❖ 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.



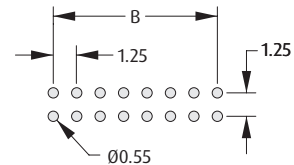
GECKO-SL

THROUGHBOARD



CALCULATION

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



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

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

All dimensions in mm.

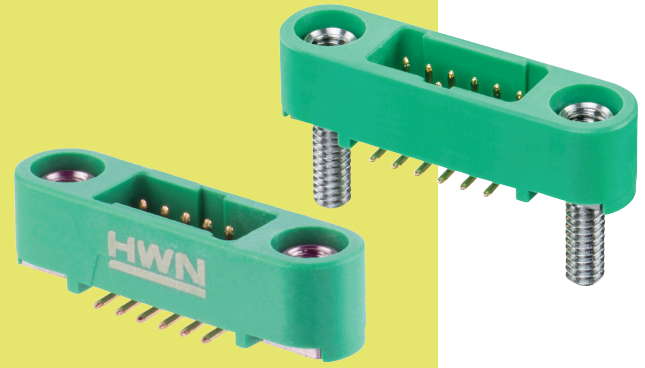
Patent Published

Gecko-SL Connectors

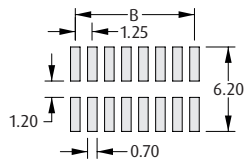
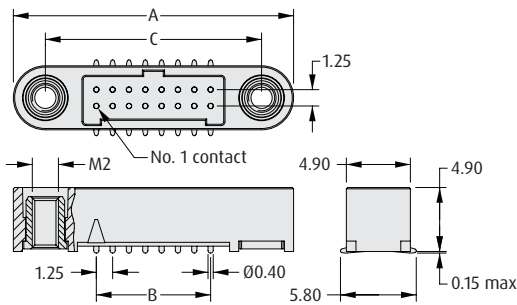
GECKO-SL

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

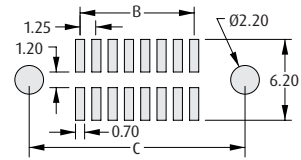
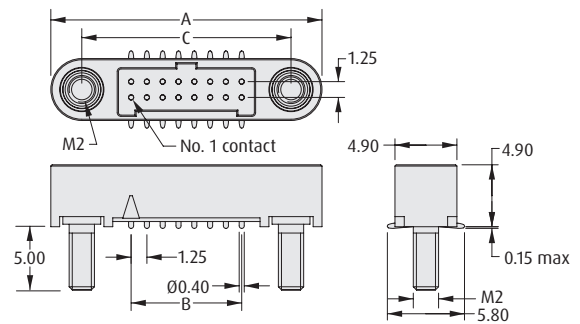


Recommended PC Board Pattern

CALCULATION

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

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

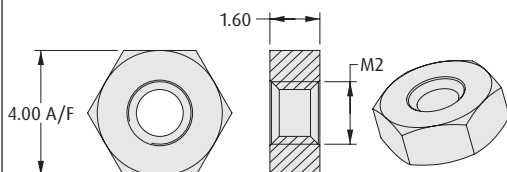
SCREW-LOK

M1	Internal Thread
M2	With 5mm Board Mount Stud

REQUIRED HARDWARE

Order separately from connector

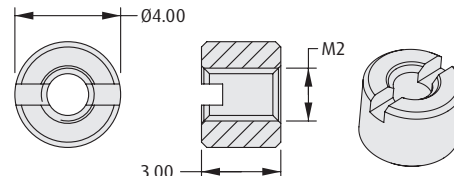
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

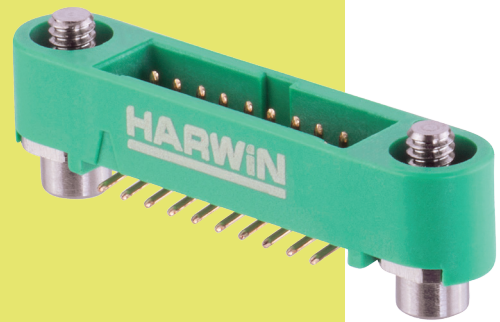
All dimensions in mm.

Patent Published

Gecko-SL Connectors

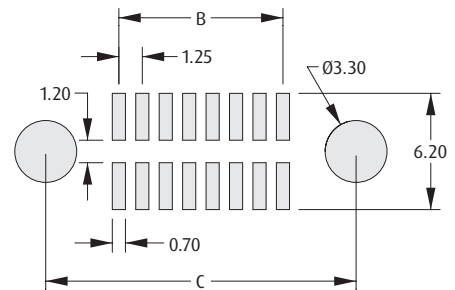
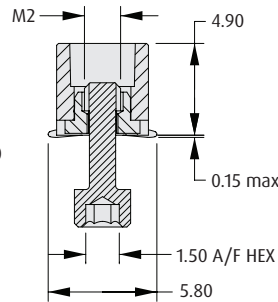
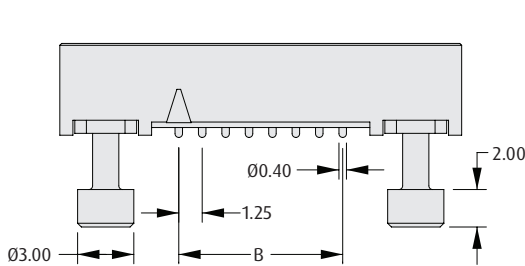
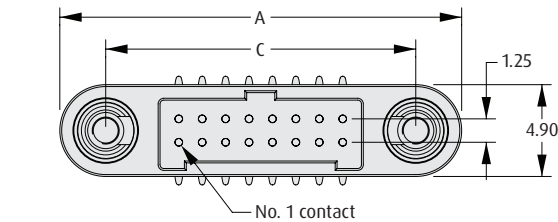
Male Vertical Surface Mount - Reverse Fix

- ❖ 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

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

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

R	Tape & Reeled
P	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>A</td> <td>$B + 12.7$</td> </tr> <tr> <td>B</td> <td>$0.625 \times (\text{Total No. of contacts} - 2)$</td> </tr> <tr> <td>C</td> <td>$B + 7.8$</td> </tr> </tbody> </table>		CALCULATION		A	$B + 12.7$	B	$0.625 \times (\text{Total No. of contacts} - 2)$	C	$B + 7.8$
CALCULATION									
A	$B + 12.7$								
B	$0.625 \times (\text{Total No. of contacts} - 2)$								
C	$B + 7.8$								

HOW TO ORDER

G125 - 324 XX 96 XX

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

TOOLS

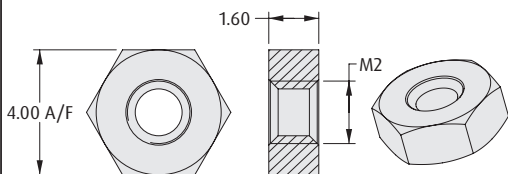
- Recommended Crimp Tool** - Z125-900
- Positioner** - Z125-901
- Contact Insertion/Removal Tool** - Z125-902

- Male contacts shown on a following page.
- Instruction sheets available at www.harwin.com/instructions.

REQUIRED HARDWARE

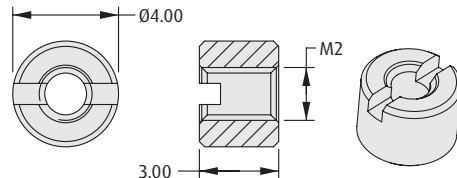
Order separately from connector

Hexagonal Board Mount Nut



ORDER CODE
G125-4500000B

Slotted Board Mount Nut



ORDER CODE
G125-4510000B

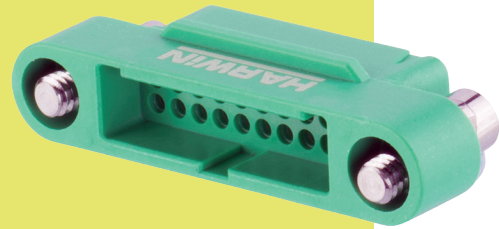
All dimensions in mm.

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	
		A	$B + 12.7$
		B	$0.625 \times (\text{Total No. of contacts} - 2)$
		C	$B + 7.8$
TOOLS			
<p>Recommended Crimp Tool - Z125-900</p> <p>Positioner - Z125-901</p> <p>Contact Insertion/Removal Tool - Z125-902</p>		<ul style="list-style-type: none"> Male contacts shown on following page. Instruction sheets available at www.harwin.com/instructions. 	
HOW TO ORDER			
<p>G125 - 324 XX 96 M3</p>			
SERIES CODE			FINISH
TYPE			96 Housing
324 Male Housing			TOTAL NO. OF CONTACTS
			06, 10, 12, 16, 20, 26, 34, 50

All dimensions in mm.

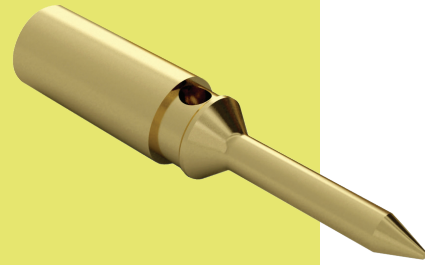
Patent Published

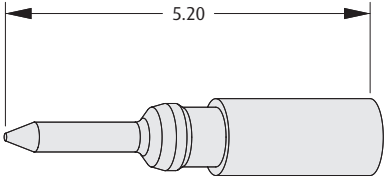
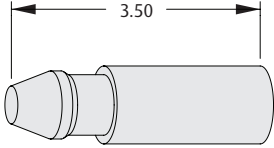
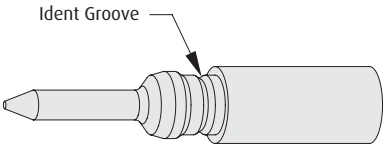
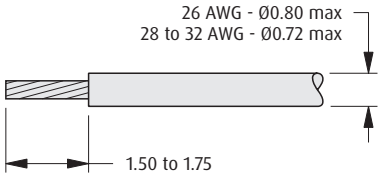
Gecko-SL Connectors

GECKO-SL

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



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

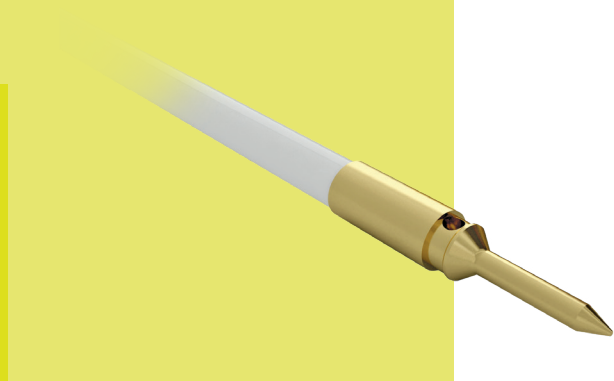
All dimensions in mm.

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.



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

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)

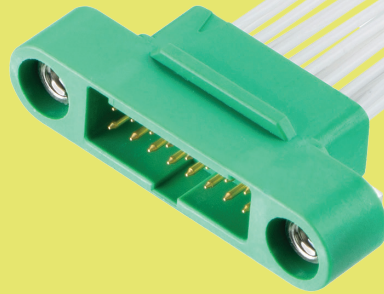
All dimensions in mm.

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.



GECKO-SL

PART NUMBERING SYSTEM

G125 - M X X XX XX MX - XXXX XX

SERIES CODE

GENDER - FIRST END

M	Male
----------	------

CABLE STYLE

C	Standard Cables
D	Twisted Pairs

CABLE SIZE

1	26 AWG
2	28 AWG

TOTAL NO. OF CONTACTS

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

TERMINATION - SECOND END

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

CABLE LENGTH

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

SCREW-LOK

M1	Internal thread
M3	Floating Hex Socket (reverse fix)

CABLE COLOR / BRAID

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

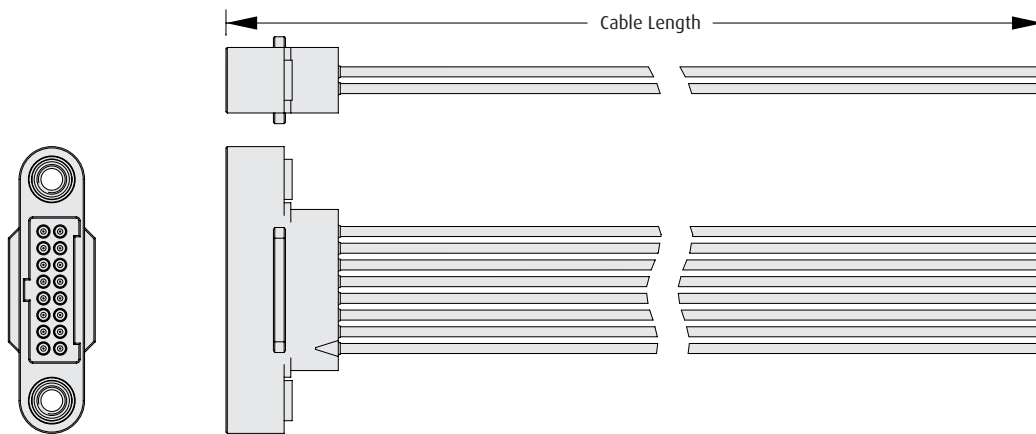
All dimensions in mm.

Patent Published

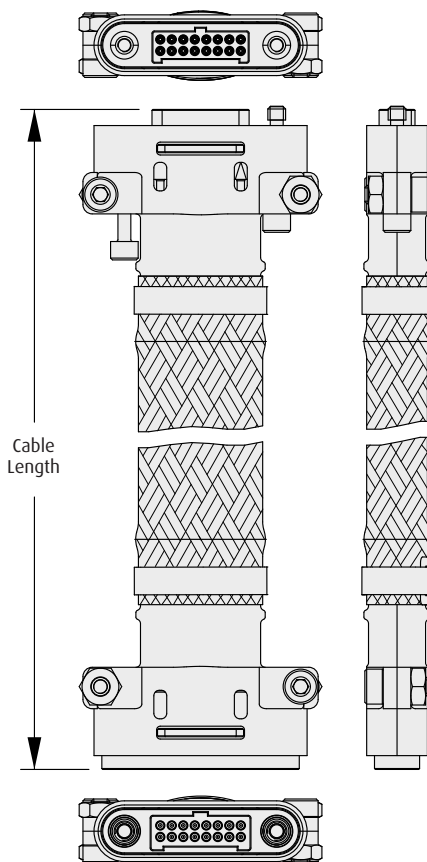
Gecko-SL Connectors

- ❖ 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.

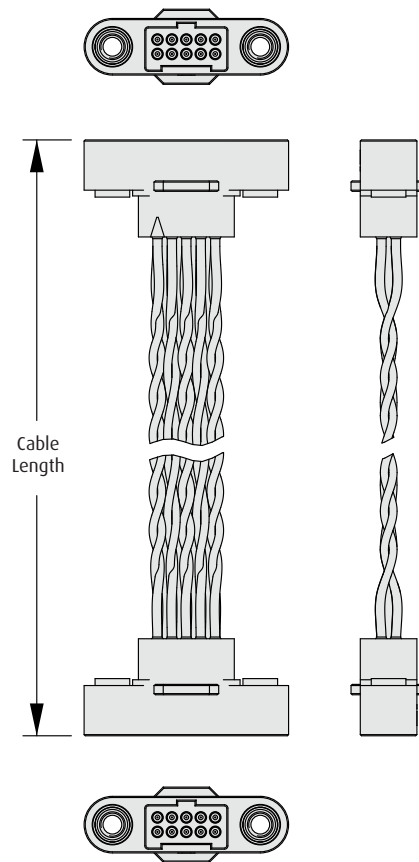
MALE SINGLE ENDED



MALE - FEMALE WITH SHIELDING



MALE - MALE WITH TWISTED PAIRS



All dimensions in mm.

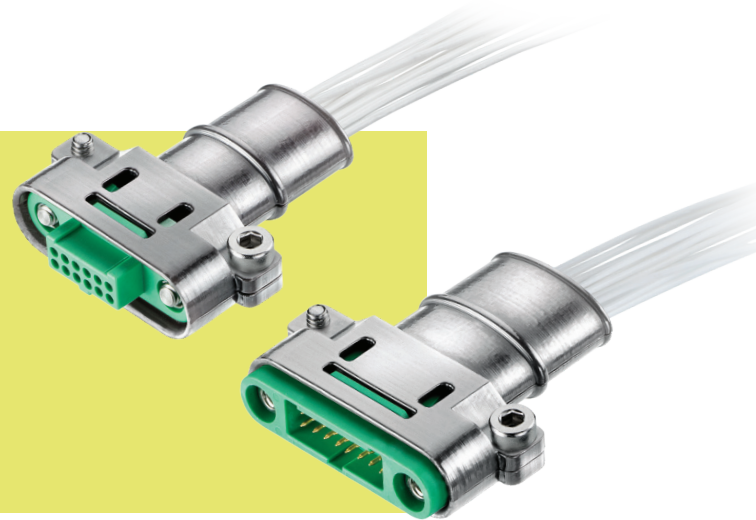
Patent Published

Gecko-SL Connectors

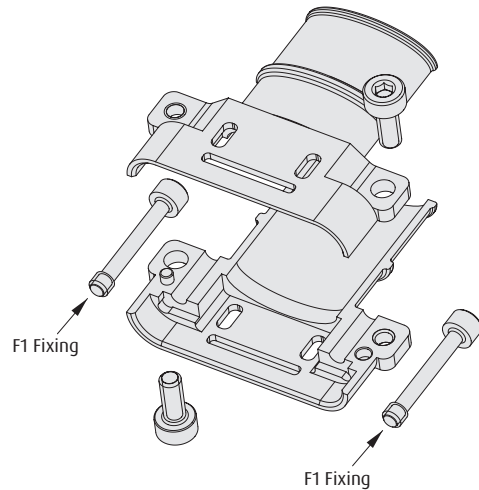
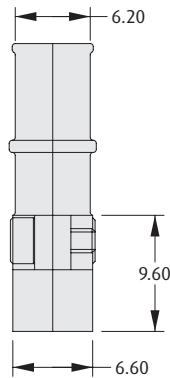
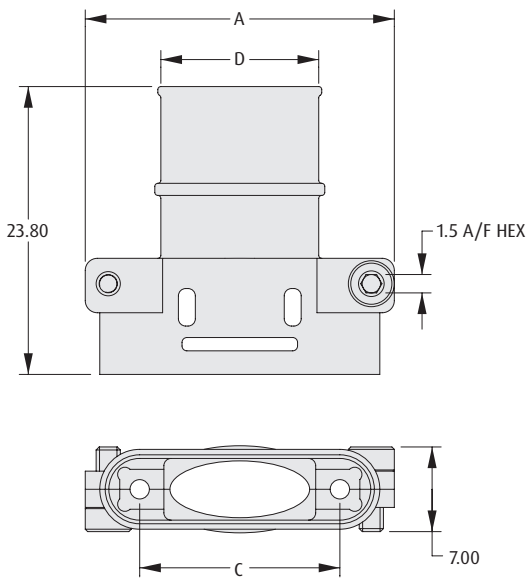
GECKO-SL

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

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

HOW TO ORDER

G125 - 964 XX XX

SERIES CODE

SCREW-LOK

00	Use with G125-324xx96M1 male housings
F1	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

M80-9470000	Length = 206.8mm
M80-9480000	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.

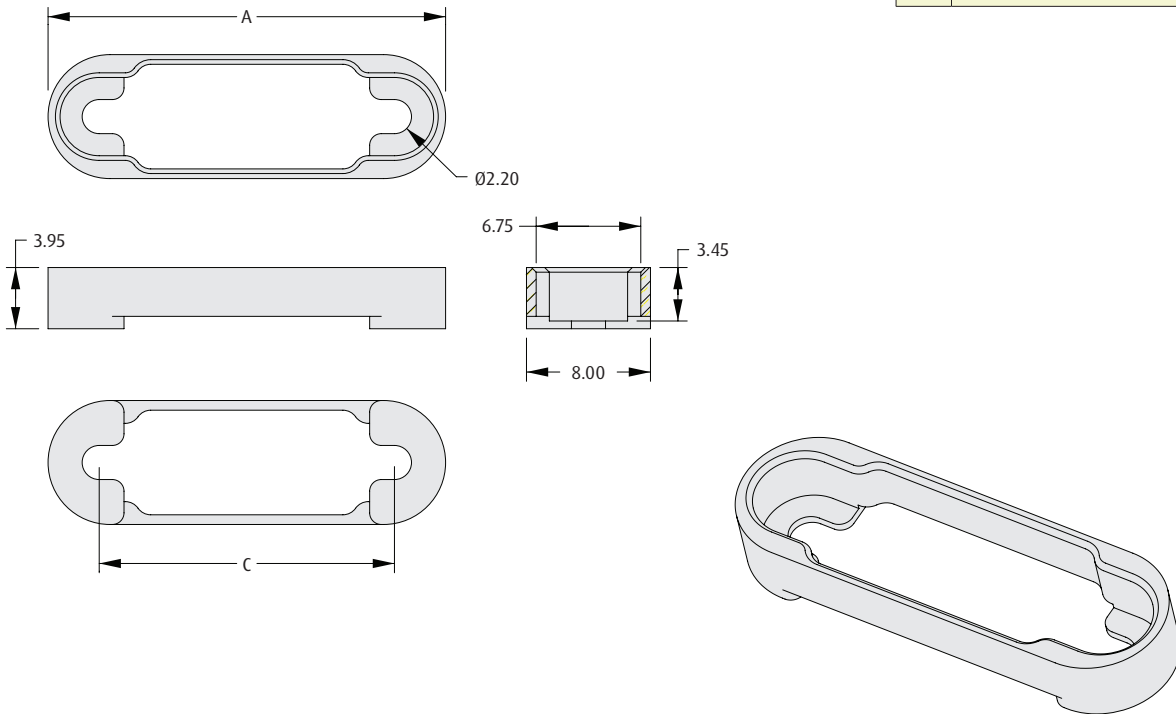


GECKO-SL

HOOD / BACKSHELL

CALCULATION

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



HOW TO ORDER

G125 - 960 XX 02

SERIES CODE

TOTAL NO. OF CONTACTS

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

All dimensions in mm.

Patent Published

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

Current	
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)
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
Contact resistance	
Initial:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	10GΩ min at 500V DC
After conditioning:	>1GΩ min at 500V DC

Mechanical

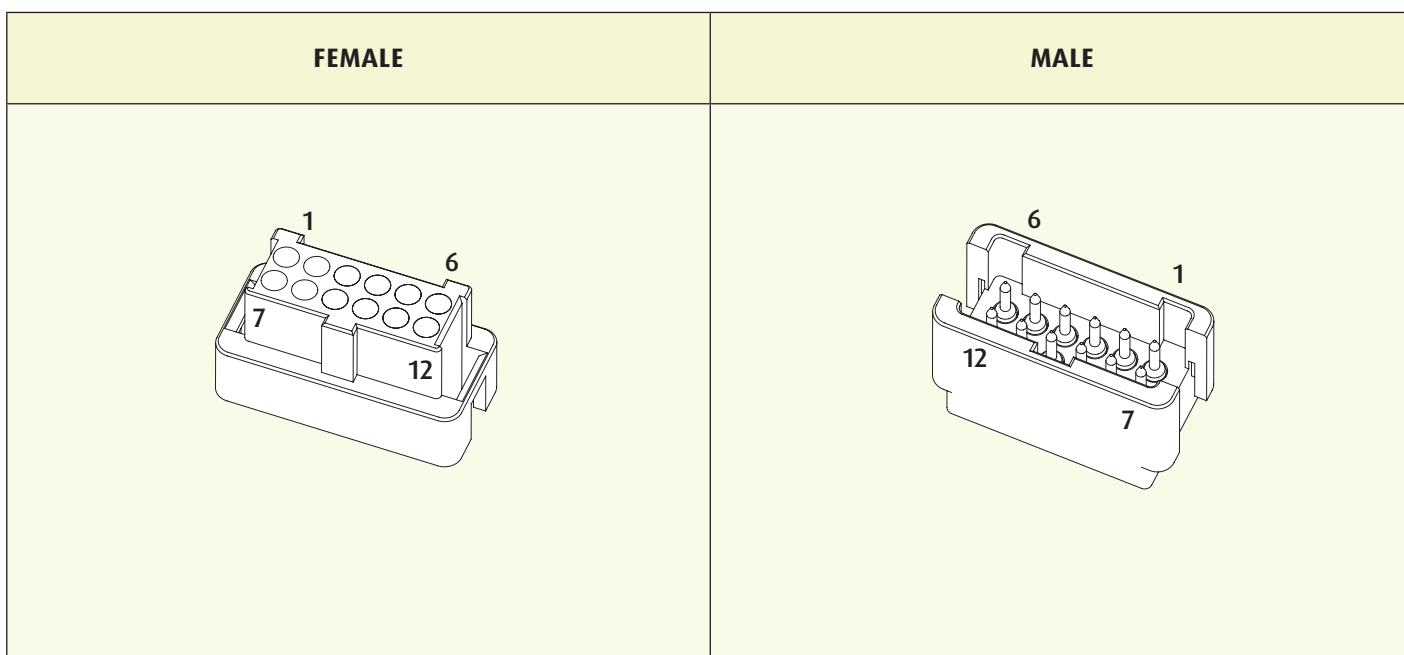
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in housing:	6N min

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 ² (20G) duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms in Z axis 490m/s ² (50G) for 11ms in X & Y axes
*Acceleration severity:	490m/s ² (50G)

* Tested with latched connectors.

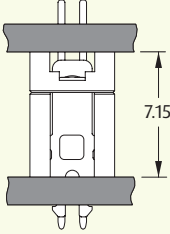
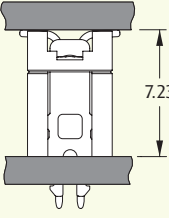
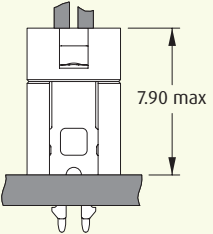
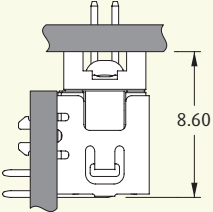
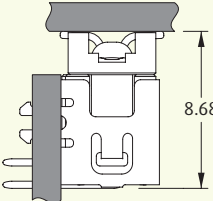
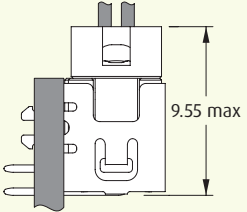
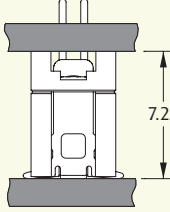
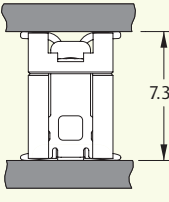
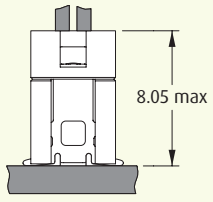
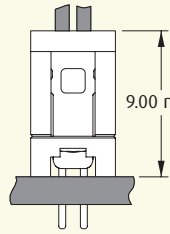
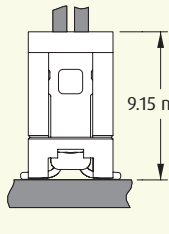
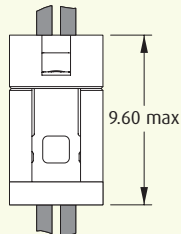
Pin Numbering



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

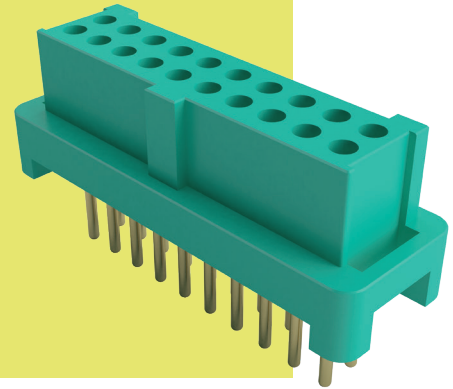
All dimensions in mm.

Patent Published

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	4.5mm THROUGHBOARD										
<table border="1" style="margin: auto;"> <thead> <tr style="background-color: #e6f2ff;"> <th colspan="2">CALCULATION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>$B + 3.8$</td> </tr> <tr> <td>B</td> <td>$0.625 \times (\text{Total No. of contacts} - 2)$</td> </tr> <tr> <td>C</td> <td>$B + 1.8$</td> </tr> </tbody> </table>		CALCULATION		A	$B + 3.8$	B	$0.625 \times (\text{Total No. of contacts} - 2)$	C	$B + 1.8$		
CALCULATION											
A	$B + 3.8$										
B	$0.625 \times (\text{Total No. of contacts} - 2)$										
C	$B + 1.8$										
Recommended PC Board Pattern	Recommended PC Board Pattern										
HOW TO ORDER											
G125 - F VX XX 05 L0 X											
<table border="1" style="width: 100%;"> <thead> <tr style="background-color: #e6f2ff;"> <th colspan="2">SERIES CODE</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </tbody> </table>	SERIES CODE				<table border="1" style="width: 100%;"> <thead> <tr style="background-color: #e6f2ff;"> <th colspan="2">PACKAGING</th> </tr> </thead> <tbody> <tr> <td style="width: 50%; text-align: center;">R</td> <td>Tape & Reeled</td> </tr> <tr> <td style="width: 50%; text-align: center;">P</td> <td>Tape & Reel strips</td> </tr> </tbody> </table>	PACKAGING		R	Tape & Reeled	P	Tape & Reel strips
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FINISH											
05	Gold										
<table border="1" style="width: 100%;"> <thead> <tr style="background-color: #e6f2ff;"> <th>TOTAL NO. OF CONTACTS</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">06, 10, 12, 16, 20, 26, 34, 50</td> </tr> </tbody> </table>		TOTAL NO. OF CONTACTS	06, 10, 12, 16, 20, 26, 34, 50								
TOTAL NO. OF CONTACTS											
06, 10, 12, 16, 20, 26, 34, 50											

All dimensions in mm.

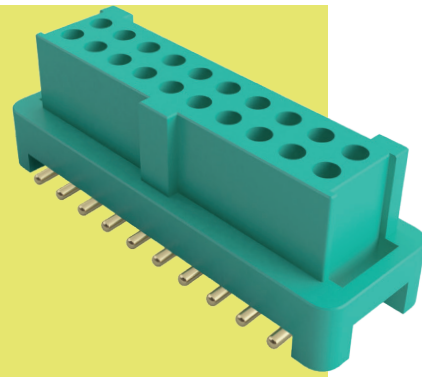
Patent Published

Gecko with Latches Connectors

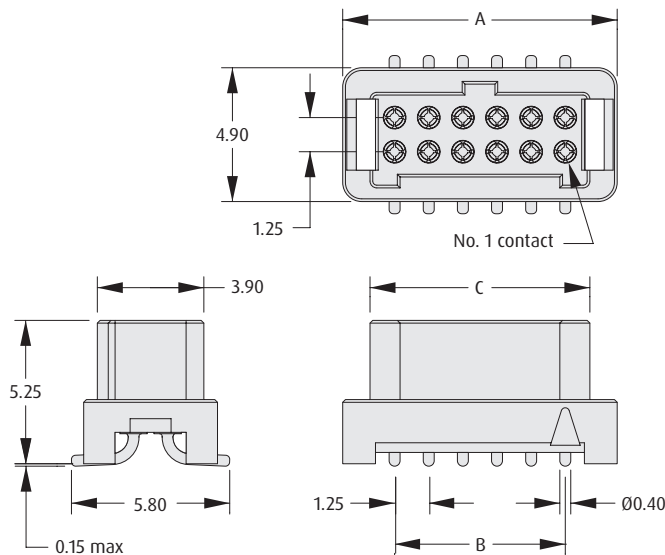
GECKO WITH LATCHES

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.

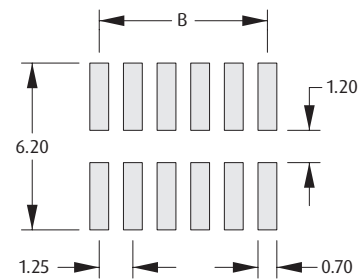


SURFACE MOUNT



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - F S1 XX 05 L0 X

SERIES CODE

TYPE

S1 Surface Mount

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FINISH

05 Gold

TOTAL NO. OF CONTACTS

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

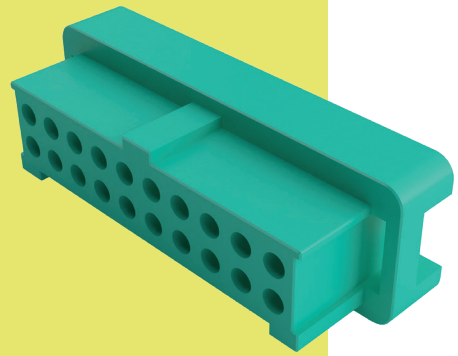
All dimensions in mm.

Patent Published

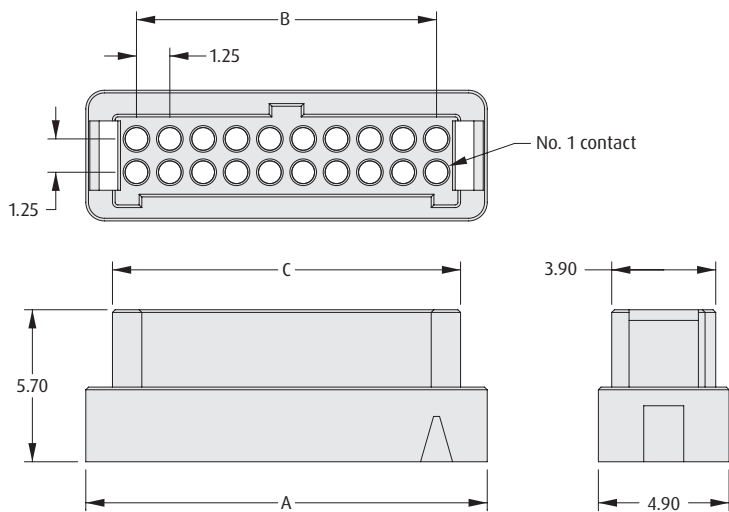
Gecko with Latches Connectors

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

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

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.

HOW TO ORDER

G125 - 204 XX 96 L0

SERIES CODE

TYPE

204 Female Housing

LATCHES

L0 No Latches

FINISH

96 Housing

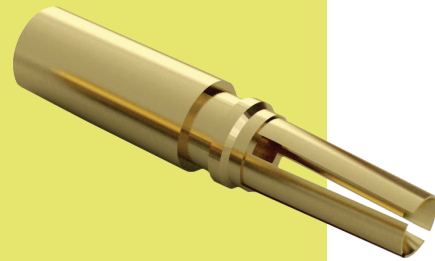
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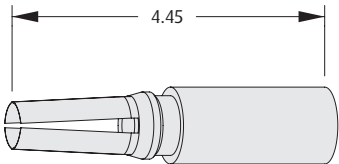
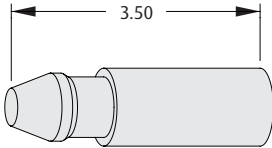
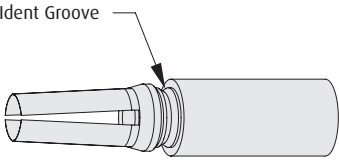
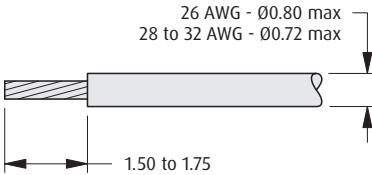
06, 10, 12, 16, 20, 26, 34, 50

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



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

HOW TO ORDER

G125 – F WX XXXX X 94

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

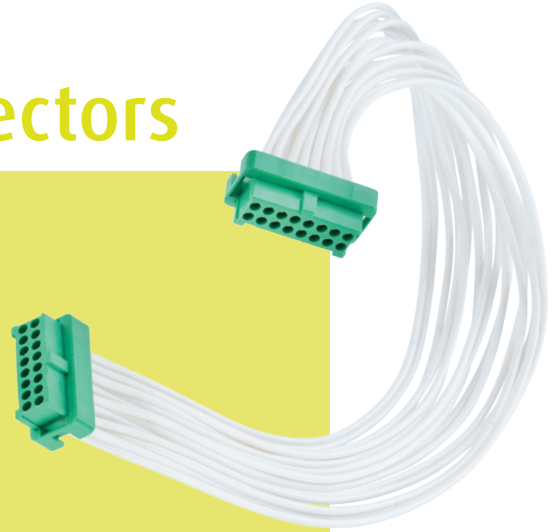
All dimensions in mm.

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

F	Female
----------	--------

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

CABLE LENGTH

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

LATCHES

LO	No Latches
-----------	------------

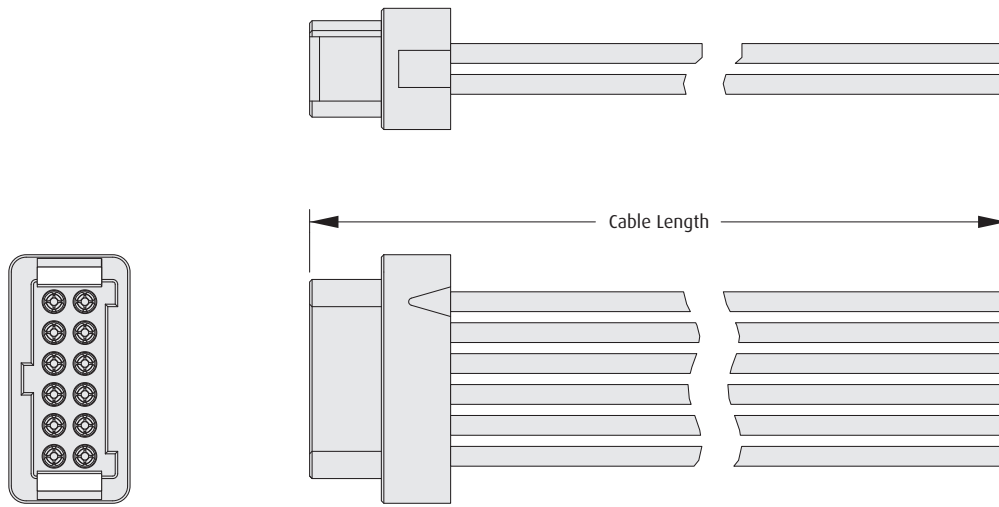
CABLE COLOR

05	White cable
68	Multicolor cable (single-ended)

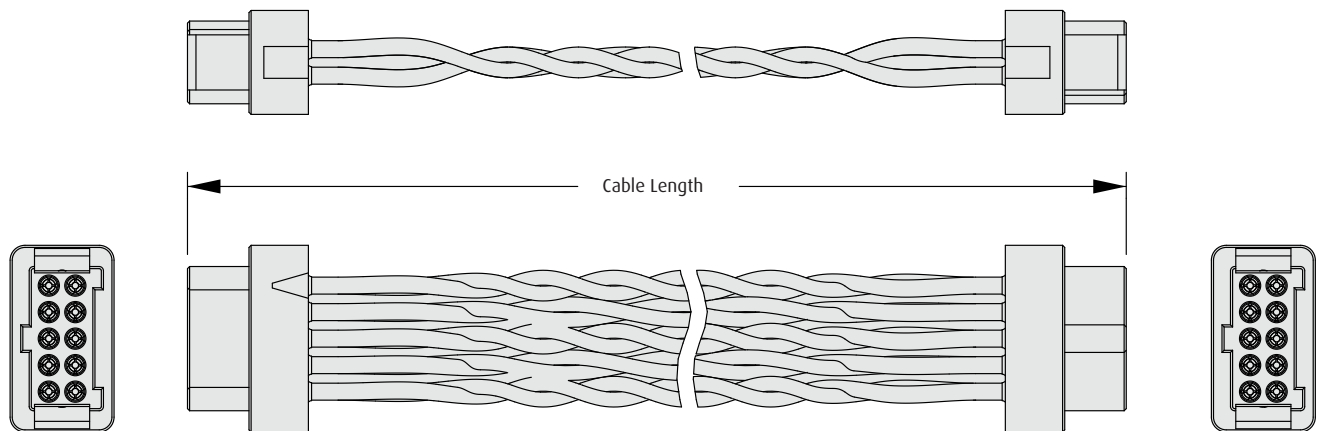
Gecko with Latches Connectors

- ❖ 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.

FEMALE SINGLE ENDED



FEMALE - FEMALE WITH TWISTED PAIRS



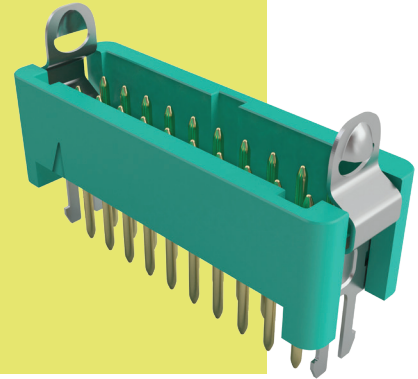
All dimensions in mm.

Patent Published

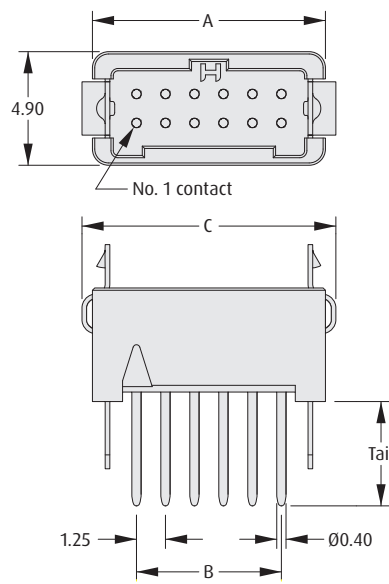
Gecko with Latches Connectors

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.

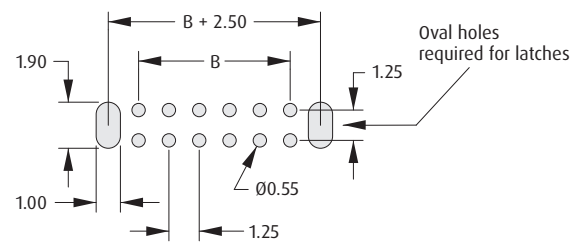


THROUGHBOARD



CALCULATION

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



Recommended PC Board Pattern

HOW TO ORDER

G125 - M VX XX 05 LX X

SERIES CODE

TYPE

V1	3mm Throughboard Tail
V2	4.5mm Throughboard Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

LATCH

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

FINISH

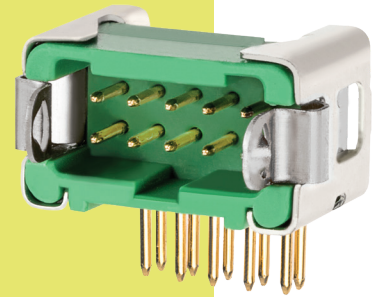
05 Gold

Gecko with Latches Connectors

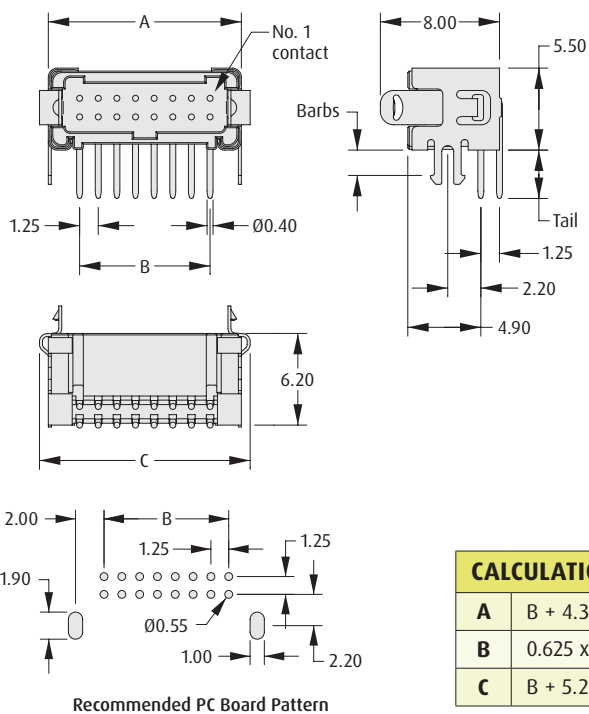
G125 WITH LATCHES

Male Horizontal Throughboard - Latched

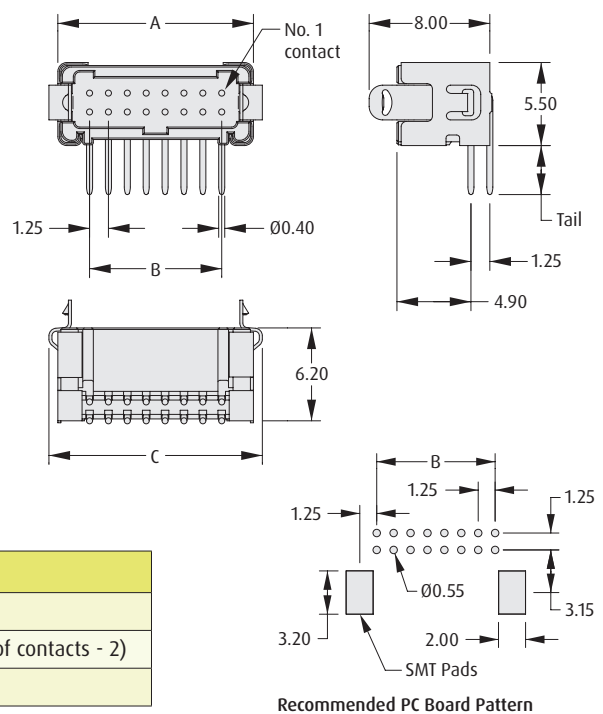
- Secure fixing to the PCB via retention bars for through hole.
- Surface mount option for automated assembly.
- Easy-to-release latches - tooling available for additional assistance with releasing latches - see part numbers **Z125-926xx00**.
- 2A current capacity, resists high vibration and shock.
-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



THROUGHBOARD LATCH



SURFACE MOUNT LATCH



CALCULATION	
A	B + 4.3
B	0.625 x (Total No. of contacts - 2)
C	B + 5.2

HOW TO ORDER

G125 - M HX XX 05 LX X

SERIES CODE

TYPE

H1	3.3mm Throughboard Tail
H2	4.8mm Throughboard Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

LATCH

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

FINISH

05 Gold

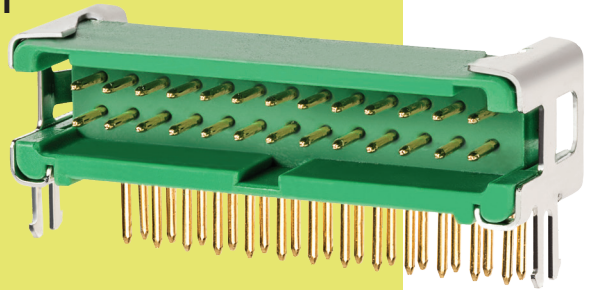
All dimensions in mm.

Patent Published

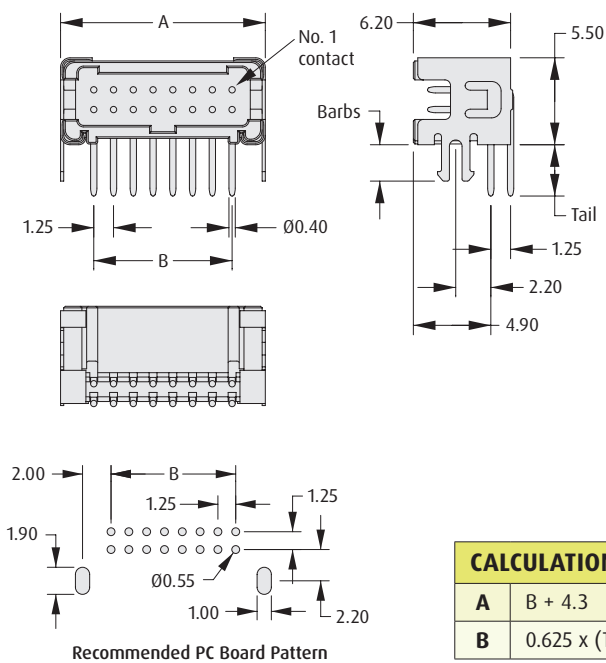
Gecko with Latches Connectors

Male Horizontal Throughboard - Without Latch

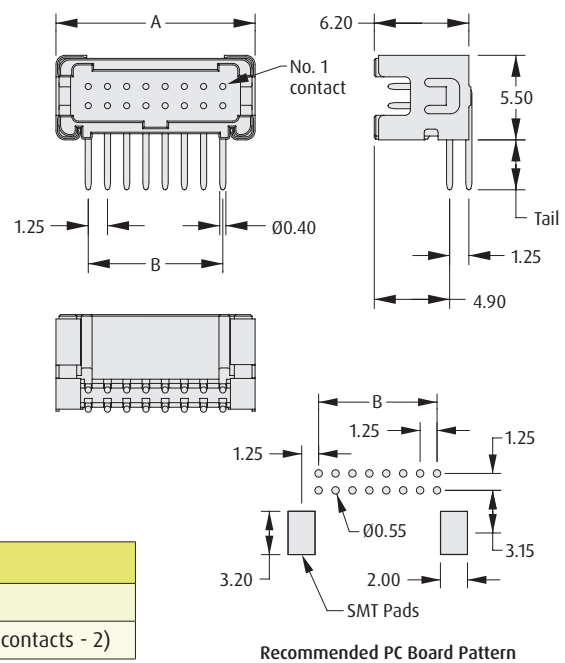
- Secure fixing to the PCB via retention bars for through hole.
- Surface mount option for automated assembly.
- 2A current capacity.
- Withstands extremes of temperature: -65°C to +150°C.



THROUGHBOARD FIXING



SURFACE MOUNT FIXING



CALCULATION

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

HOW TO ORDER

G125 - M HX XX 05 LX X

SERIES CODE

TYPE

H1	3.3mm Throughboard Tail
H2	4.8mm Throughboard Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Tape & Reel strips

FIXING

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

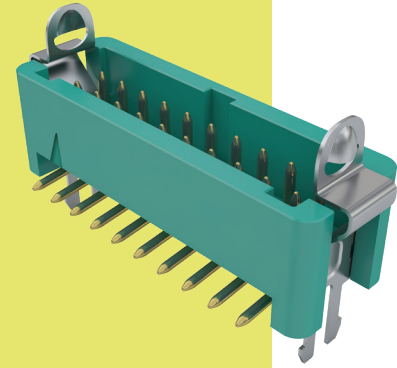
FINISH

05	Gold
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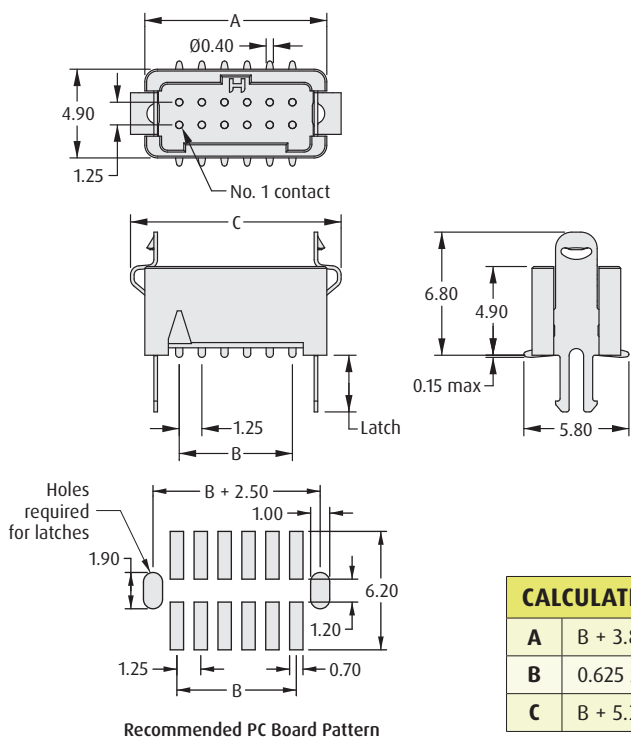
Gecko with Latches Connectors

Male Vertical Surface Mount

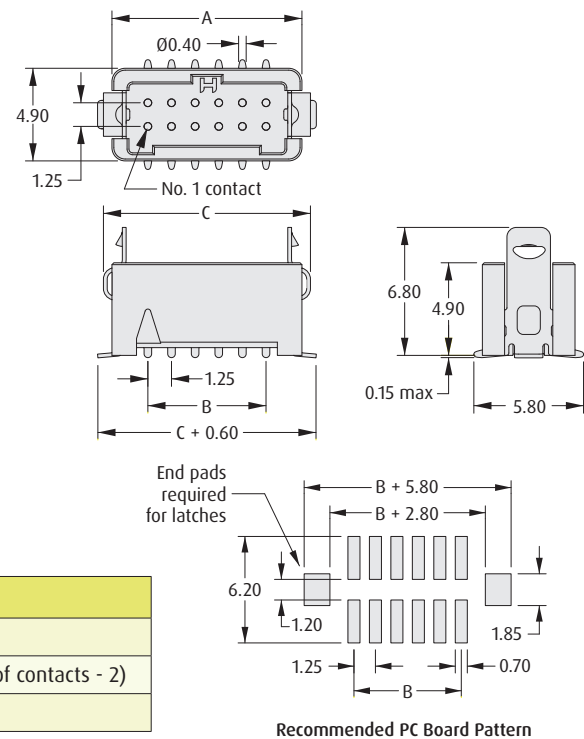
- Secure fixing to the PCB via hold-down tabs (SMT).
- Easy-to-release latches require no tooling.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



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

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

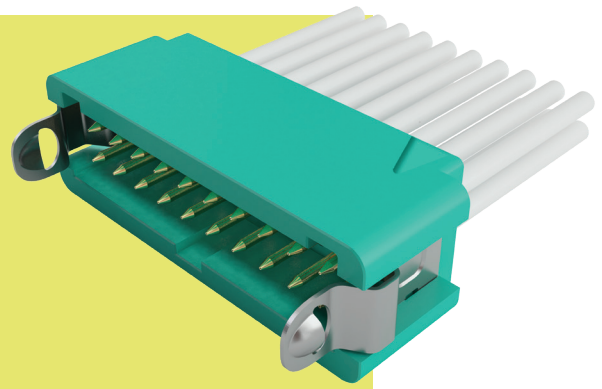
All dimensions in mm.

Patent Published

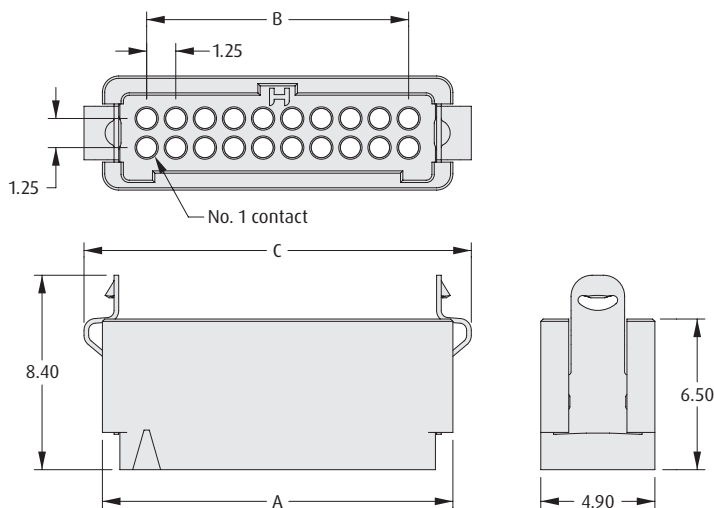
Gecko with Latches Connectors

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

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

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.

HOW TO ORDER

G125 - 304 XX 96 LX

SERIES CODE

TYPE

304 Male Housing

LATCH

L0	No Latches
L4	Latches (Male Only)

FINISH

96 Housing

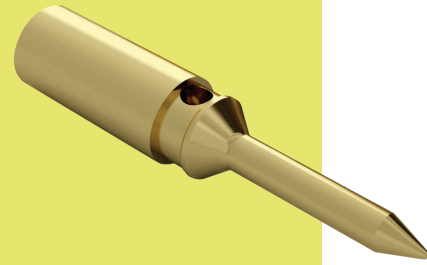
TOTAL NO. OF CONTACTS

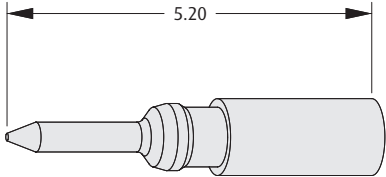
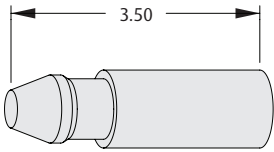
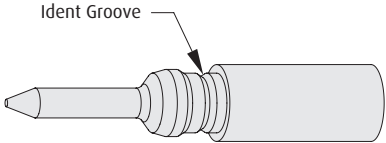
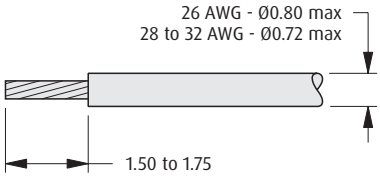
06, 10, 12, 16, 20, 26, 34, 50

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.
- ❖ Dummy Contact can be used for additional polarization of keying of multiple connectors. Also called Blanking Plug.



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

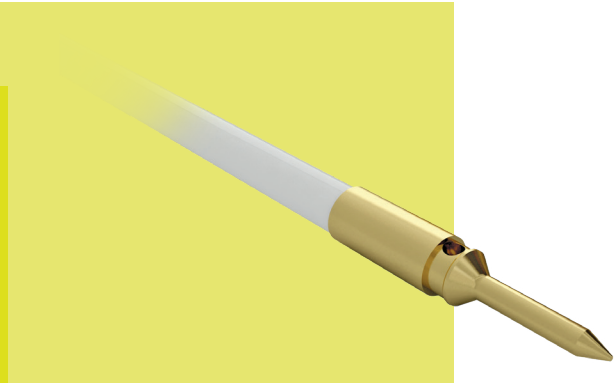
All dimensions in mm.

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.



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

HOW TO ORDER

G125 – M WX XXXX X 94

SERIES CODE G125	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)

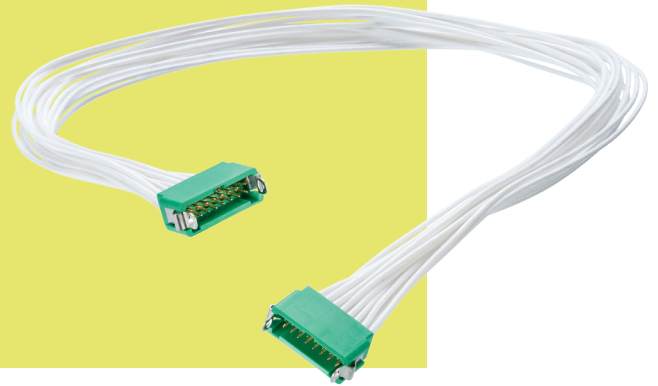
All dimensions in mm.

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

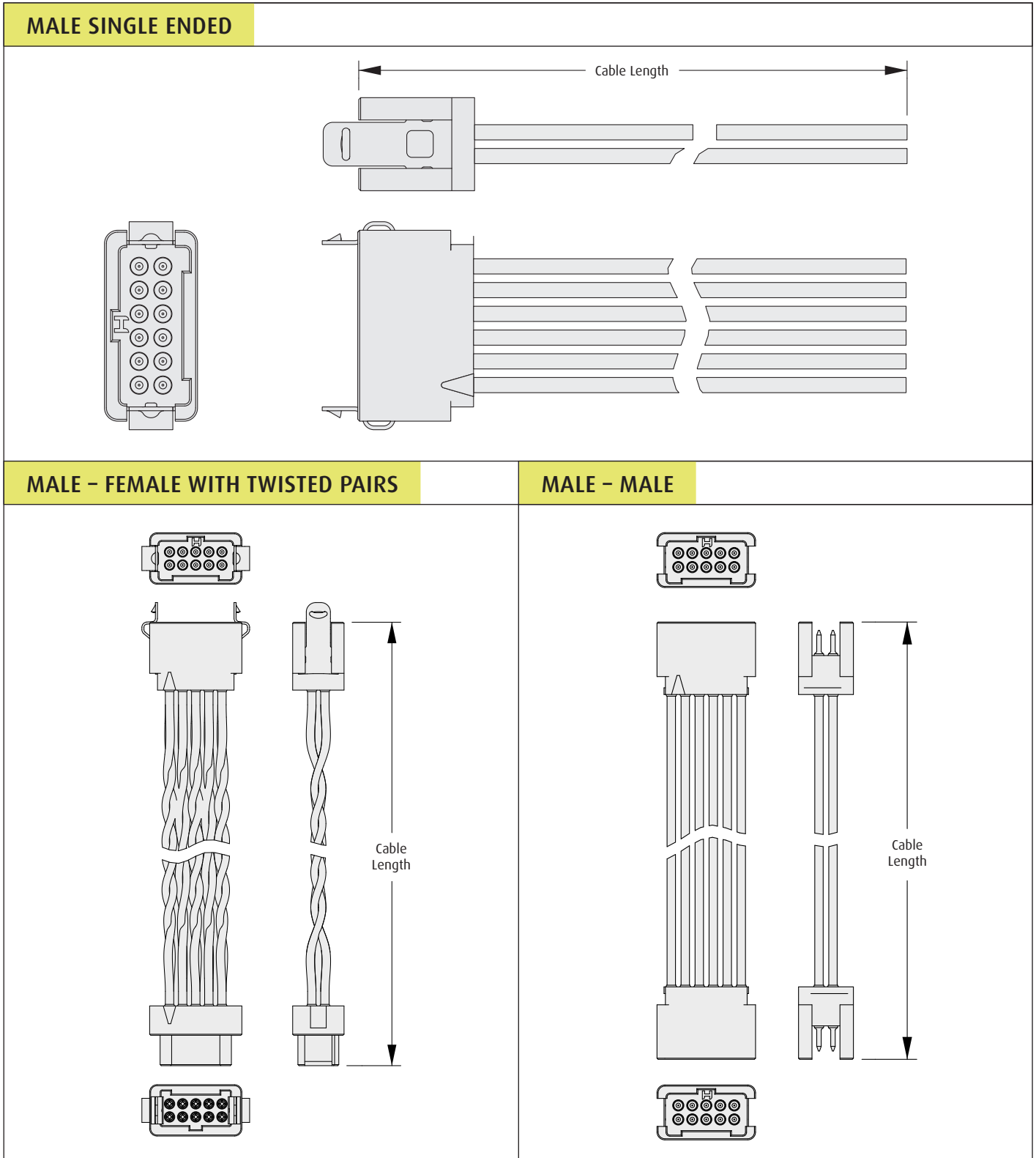
L0	No Latches
L4	Latches (male connectors only)

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.



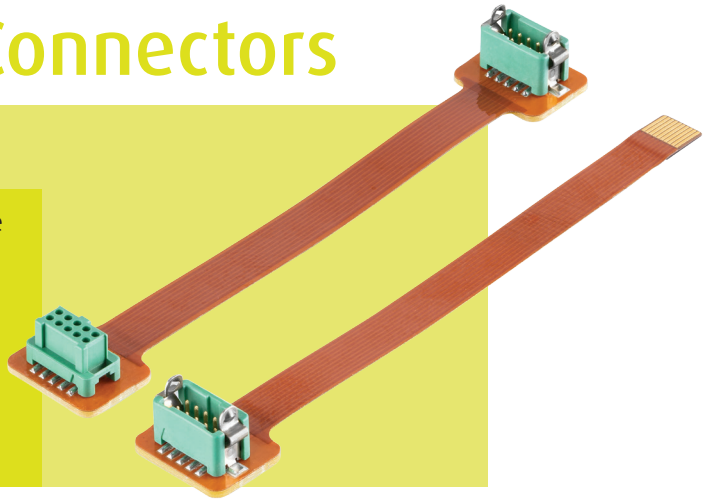
All dimensions in mm.

Patent Published

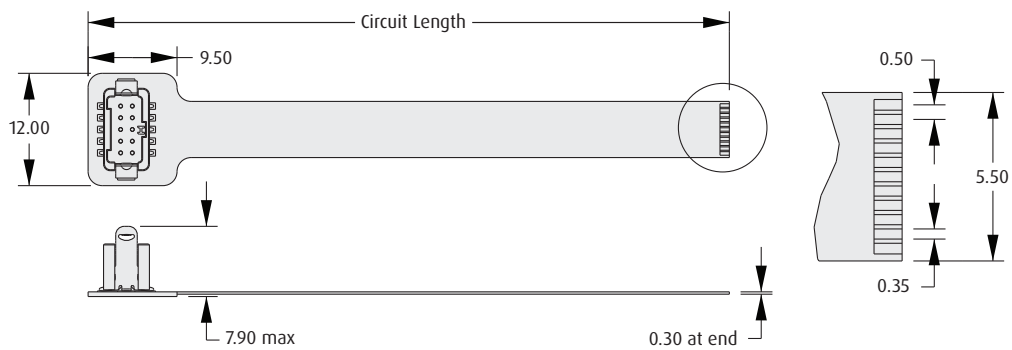
Gecko with Latches Connectors

Flexible Circuit Assemblies

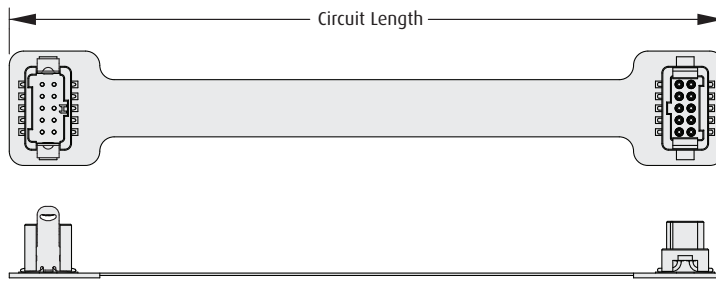
- ❖ Surface mount connectors with latches assembled to flexible printed circuit for an alternative to cable connection.
- ❖ Improved bend radius and lower mated height than equivalent cable assemblies.
- ❖ The free end of the single-ended assembly is compatible with 0.5mm pitch FPC connectors.
- ❖ Contact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

L	Free End (Single Ended)
FS1	Female compatible with Latches

CIRCUIT LENGTH

075 75mm

All dimensions in mm.

Patent Published

Gecko Connectors Tooling

- ❖ Instruction sheets can be accessed at www.harwin.com/instructions.
- ❖ A Gecko Crimping Instruction video is available at www.harwin.com/harwintv.

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

Patent Published

Gecko Connectors Tooling

❖ Instruction sheets can be accessed at www.harwin.com/instructions.

GECKO

<p>HEX DRIVE BIT</p> <ul style="list-style-type: none"> ❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings. ❖ For use with torque tooling or similar equipment.  <p>ORDER CODE Z9950-00</p>	<p>BALL HEX DRIVER</p> <ul style="list-style-type: none"> ❖ 1.5mm A/F Hex end for Gecko Screw-Lok Hex Socket fixings. ❖ Ball-shaped end can be used at a wide range of angles.  <p>ORDER CODE Z9952-00</p>
<p>SCREWDRIVER</p> <ul style="list-style-type: none"> ❖ For use with Gecko Screw-Lok board mount nuts. ❖ Board mount nuts to be tightened to a torque of 21 ± 2cmN.  <p>ORDER CODE Z80-298</p>	<p>DELATCH TOOL</p> <ul style="list-style-type: none"> ❖ For assisting with unmating latched connectors.  <p>ORDER CODE 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