

Gecko

Contents

Introduction

Screw-Lok 1.25mm pitch High-Reliability Connectors

- Specifications

- Mating Profiles

- Female PCB Connectors

- Female Cable Connectors

- Male PCB Connectors

- Male Cable Connectors

Latched 1.25mm pitch High-Reliability Connectors

- Specifications

- Mating Profiles

- Female PCB Connectors

- Female Cable Connectors

- Female Cable Assemblies

- Male PCB Connectors

- Male Cable Connectors

- Male Cable Assemblies

Tooling



Gecko Connectors Introduction

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% CVCM, 0.26 WVR (Water Vapour Recovered)
- ❖ All PCB connectors available in Tape and Reel for automation

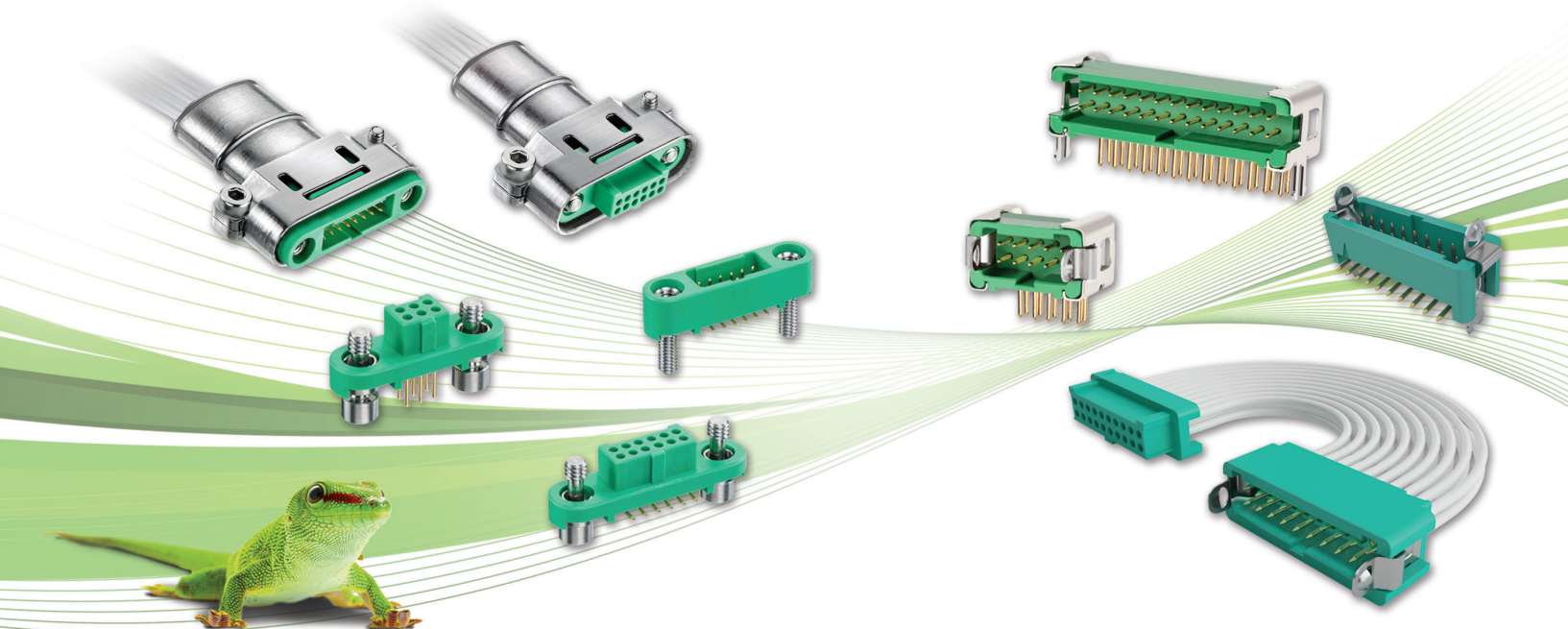
*Granted US9017089, Pending GB2501063, Pending EP2642604

Gecko Screw-Lok

- ❖ Strong stainless-steel screw fixings for maximum strain relief
- ❖ Lightweight hoods for additional cable protection and shielding
- ❖ Pre-wired contacts available for prototyping and pre-production

Gecko with Latches

- ❖ The maximum weight and space saving, designed with lightweight robust latches for minimal PCB real estate
- ❖ Product range includes complete cable assemblies, ideal for prototyping and pre-production



Patent Published

Gecko Connectors Product Features

GECKO

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.



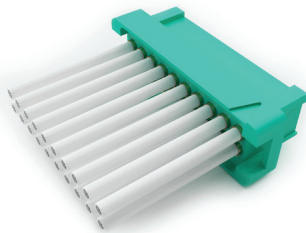
Keyway Polarisation Points

3 polarising points on each component prevent mis-mating.



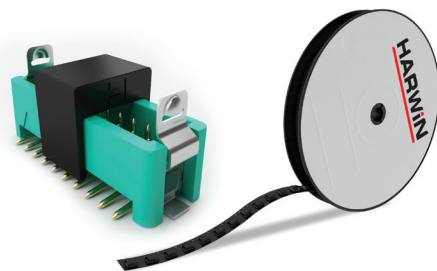
No. 1 Position identified, Potting Wall

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



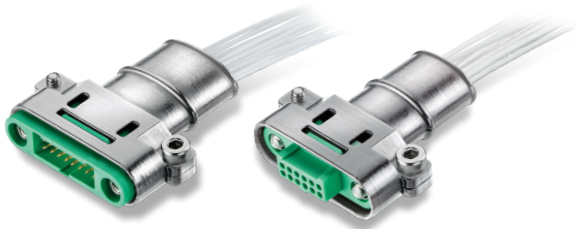
Packaged in Tape & Reel

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



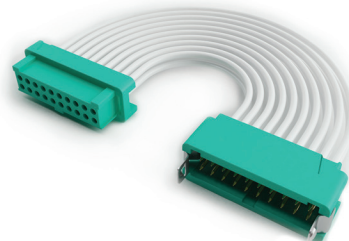
Gecko Screw-Lok - Robust Metal Backshells

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



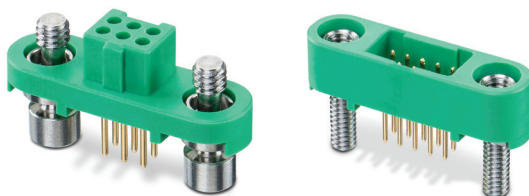
Gecko with Latches - Pre-assembled Cable Configurations

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.



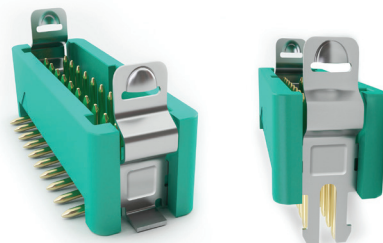
Gecko Screw-Lok - Maximum strain relief

Fixings with 2mm screw thread for maximum board and connection retention or strain relief.



Gecko with Latches - Combined Latching & PCB retention

Optional latches allow simple and fast de-latching and require no special tooling. Solder tabs for SMT and barsbs for PC Tail versions ensure retention to the PCB.



Patent Published

Gecko Connectors Specifications

Materials

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

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

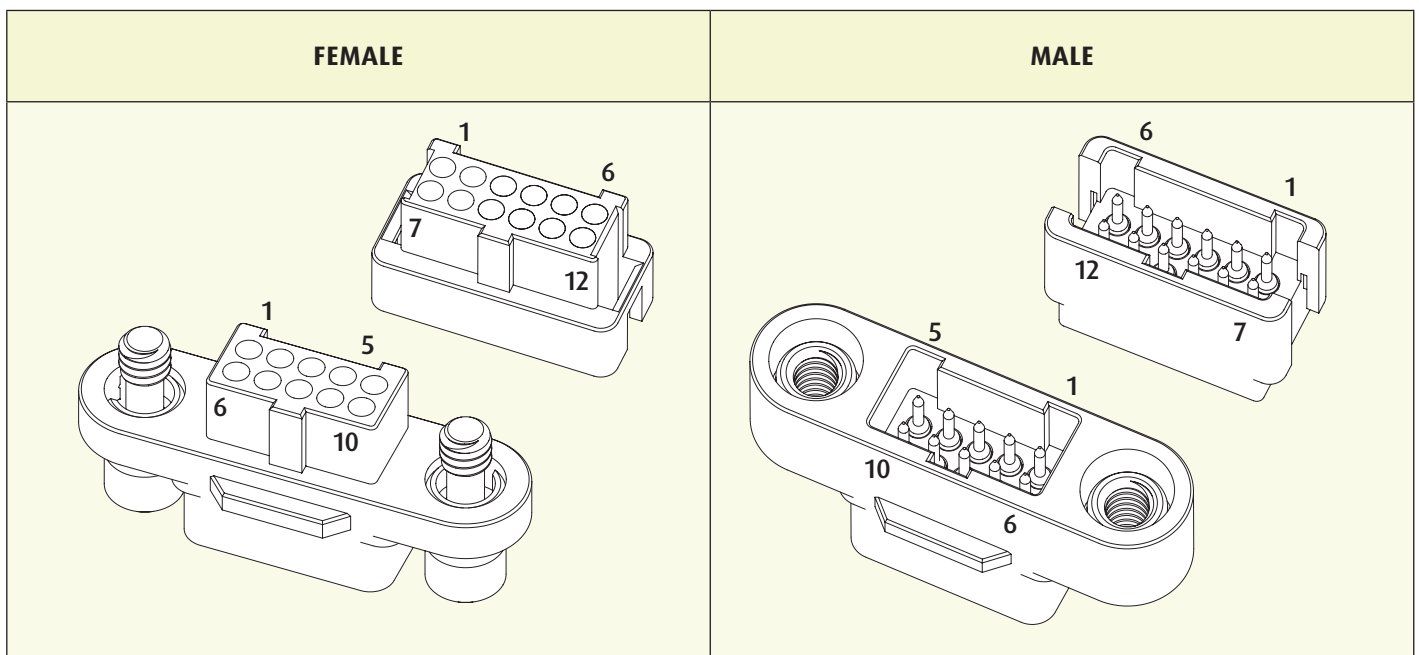
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force:	2.8N max
Withdrawal force:	0.2N min
Contact retention in moulding:	6N min

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)

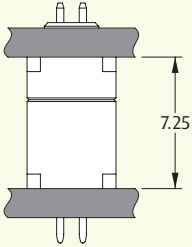
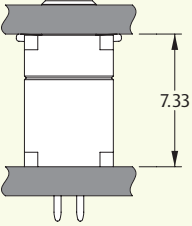
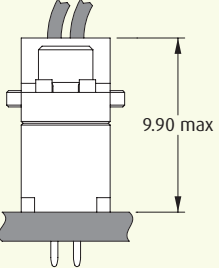
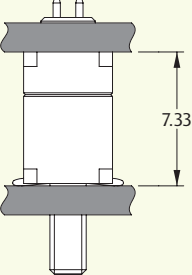
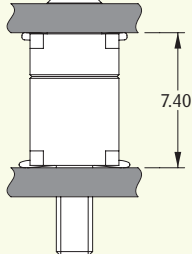
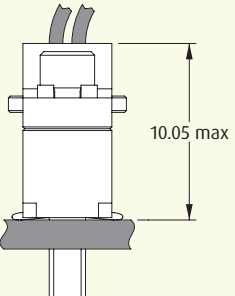
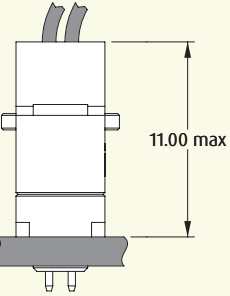
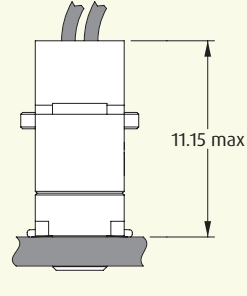
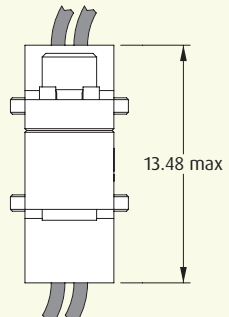
* Tested with latched connectors.

Pin Numbering



Patent Published

Gecko Screw-Lok Mating Profiles

		FEMALE		
		VERTICAL PC TAIL	VERTICAL SMT	CABLE
MALE	VERTICAL PC TAIL	 7.25	 7.33	 9.90 max
	VERTICAL SMT	 7.33	 7.40	 10.05 max
	CABLE	 11.00 max	 11.15 max	 13.48 max

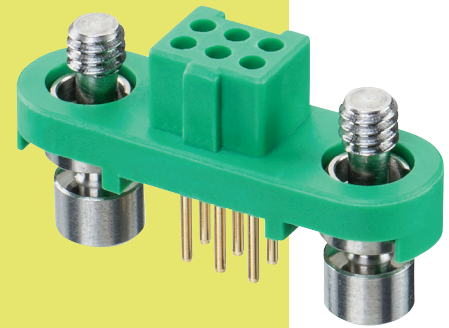
All dimensions in mm.

Patent Published

Gecko Screw-Lok Connectors

Female PC Tail

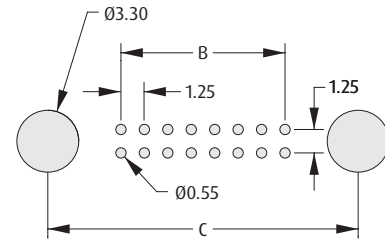
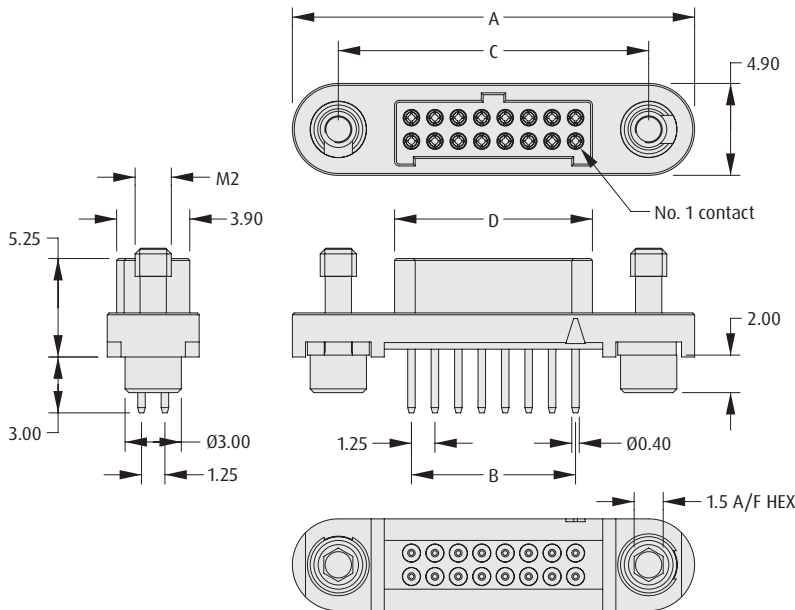
- 4-finger Beryllium Copper contact.
- Stainless steel screw fixing to mate with applicable male connector.
- Positive keyway polarisation features.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



3mm PC TAIL

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 PC Tail

PACKAGING

R

Tape & Reeled

P

Loose

FINISH

05

Gold

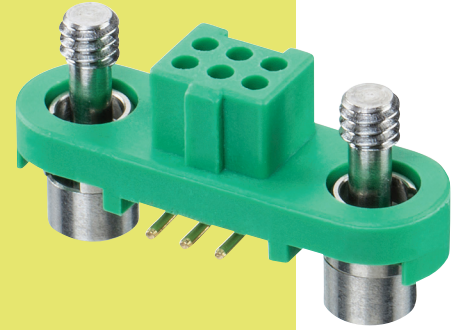
TOTAL NO. OF CONTACTS

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

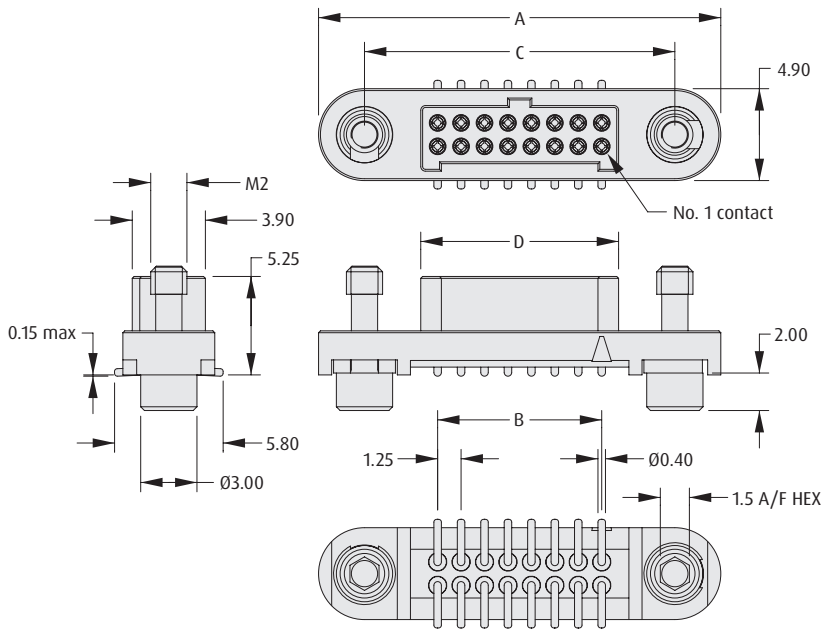
Gecko Screw-Lok Connectors

Female Surface Mount

- ❖ 4-finger Beryllium Copper contact.
- ❖ Stainless steel screw fixing to mate with applicable male connector.
- ❖ Positive keyway polarisation 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.

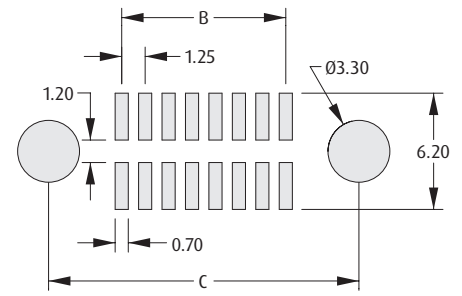


SURFACE MOUNT



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	Loose

FINISH

05 Gold

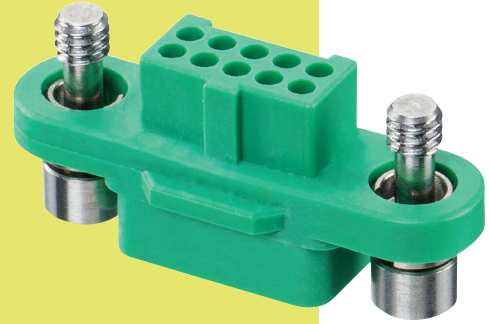
TOTAL NO. OF CONTACTS

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

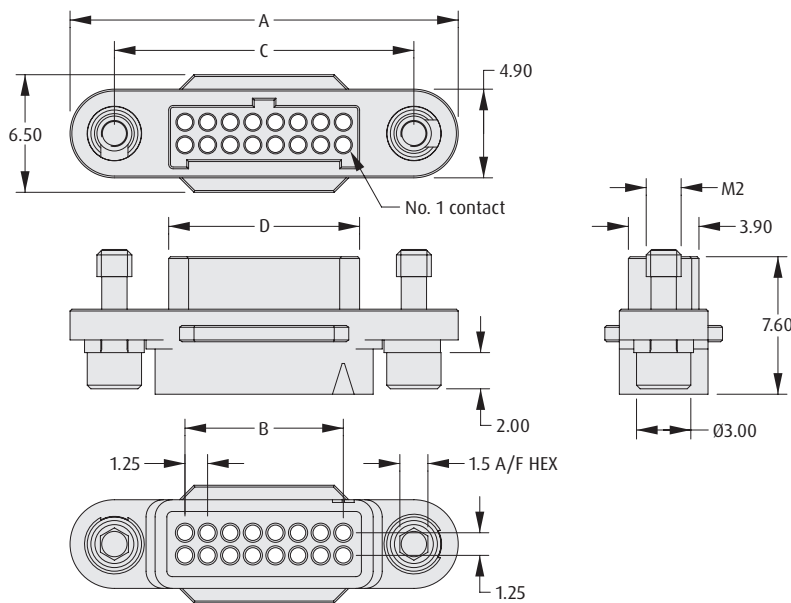
Gecko Screw-Lok Connectors

Female Crimp Housings

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on moulding.
- 3 polarising points on each housing prevent mis-mating.
- Available without fixing screws, for use with metal hoods shown on a following page.
- Use with female crimp contacts and pre-cabled contacts shown on following pages.



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

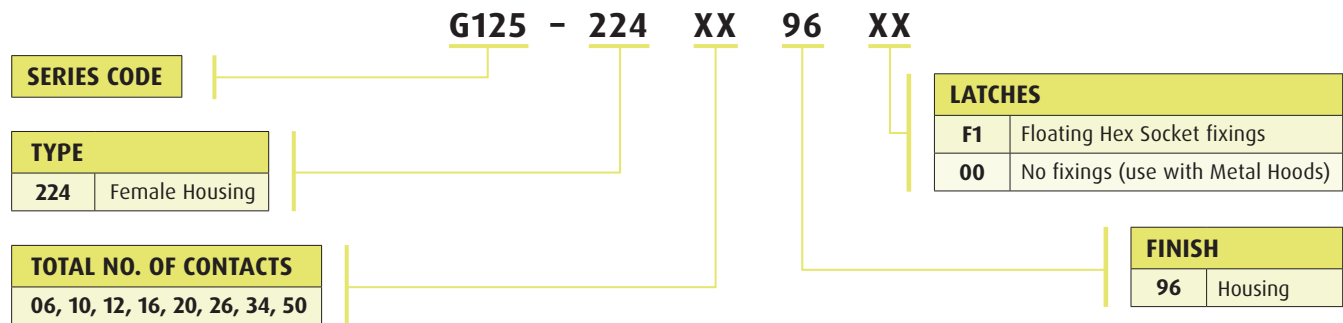
Positioner - Z125-901

Contact Insertion/Removal Tool - Z125-902

Female contacts shown on following pages.

Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER



All dimensions in mm.

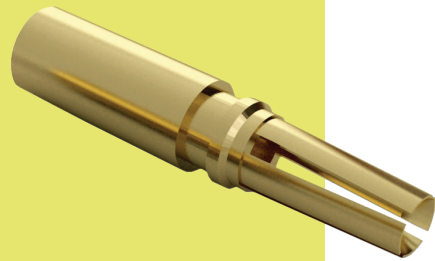
Patent Published

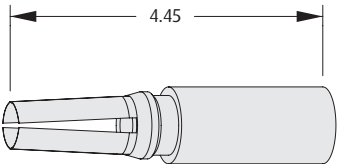
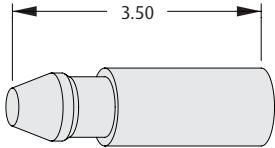
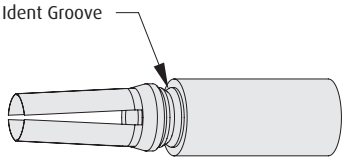
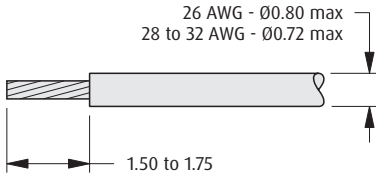
Gecko Screw-Lok Connectors

GECKO SCREW-LOK

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 polarisation 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>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 1627 316 1669"> <p>SERIES CODE</p> </div> <div data-bbox="146 1701 581 1858"> <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="1315 1680 1469 1764"> <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													
001	Female 26 AWG crimp contact												
002	Female 28-32 AWG crimp contact												
020	Dummy Contact (blanking plug)												
FINISH													
05	Gold												

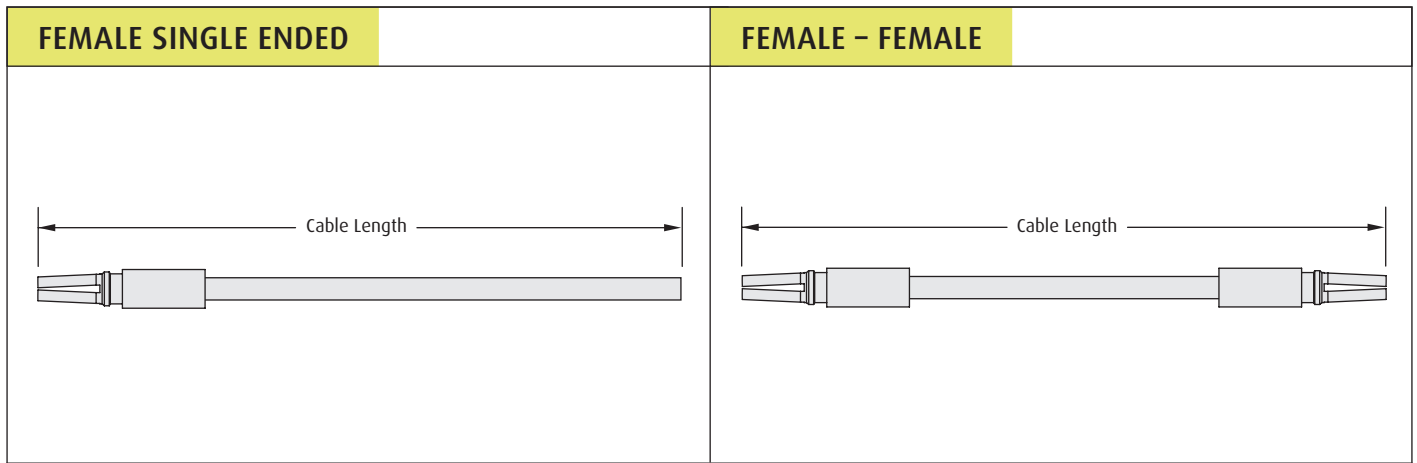
All dimensions in mm.

Patent Published

Gecko Screw-Lok 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.
- ❖ For non-standard cable lengths, please visit www.harwin.com/cable-assemblies and fill in your requirements.



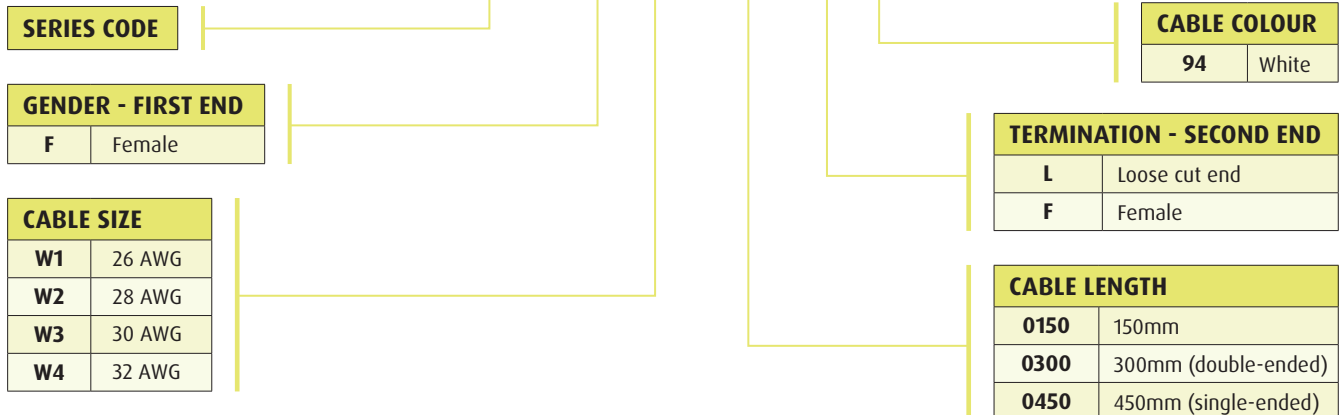
TOOLS

Contact Insertion/Removal Tool – Z125-902

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

HOW TO ORDER

G125 – F WX XXXX X 94



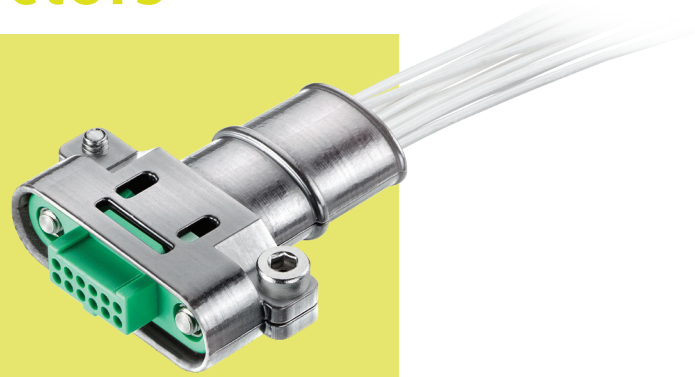
All dimensions in mm.

Patent Published

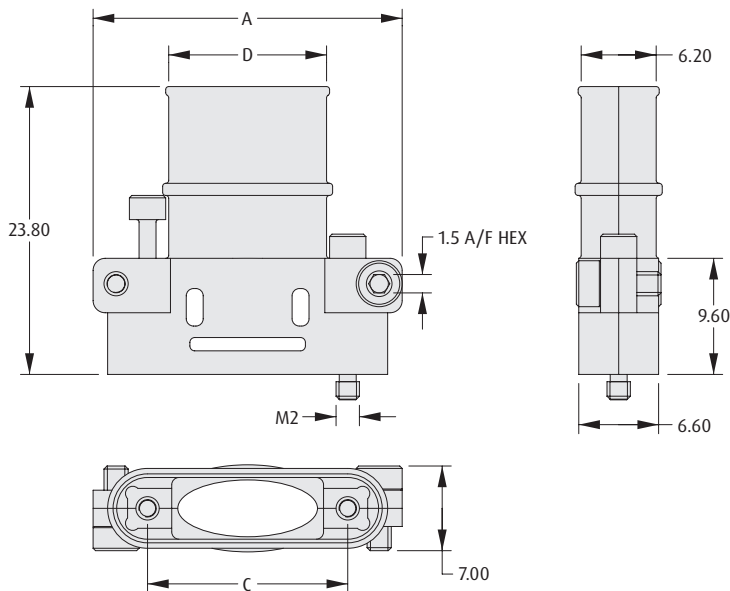
Gecko Screw-Lok Connectors

Female Metal Hood / Backshell

- ❖ Supplied as a kit, including 2 metal hood halves, tie-band (not shown), extended fixing screws for female connectors, and short screws to join the two hood halves together.
- ❖ Use with G125-224xx9600 female crimp housings without fixings - fixings are supplied with these hoods.
- ❖ Tie-band can be used to attached external braid, to construct a shielded cable assembly.

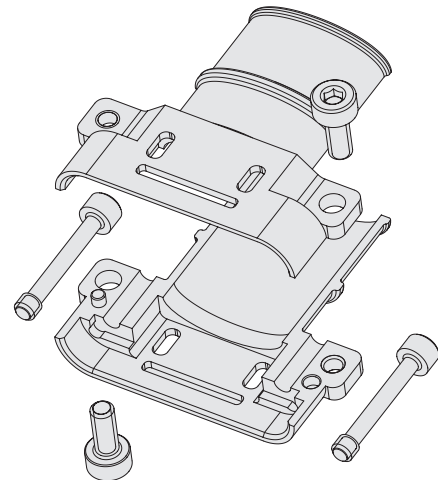


HOOD / BACKSHELL



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 F1

SERIES CODE

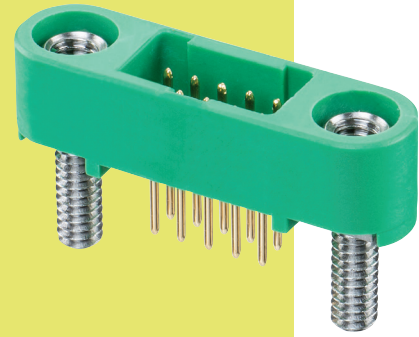
TOTAL NO. OF CONTACTS

06, 10, 12, 16

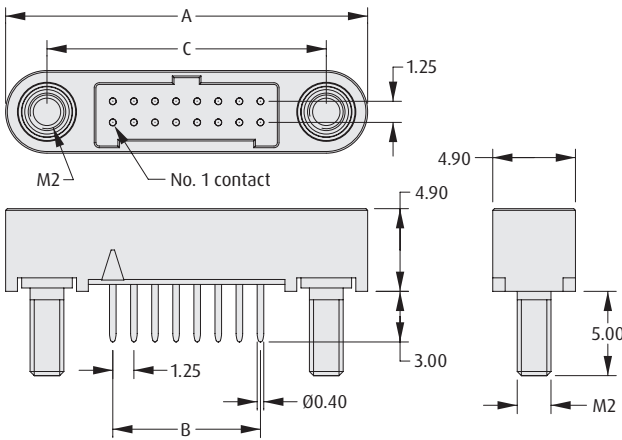
Gecko Screw-Lok Connectors

Male Vertical PC Tail

- 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.

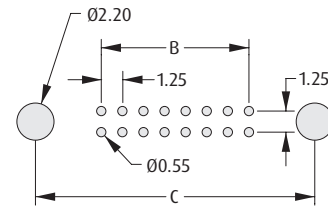


PC TAIL



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 M2 X

SERIES CODE

TYPE

V1 3mm PC Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Loose

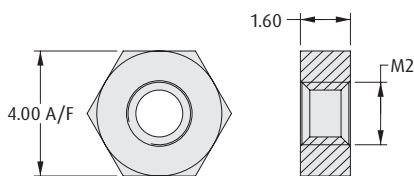
FINISH

05 Gold

REQUIRED HARDWARE

Order separately from connector

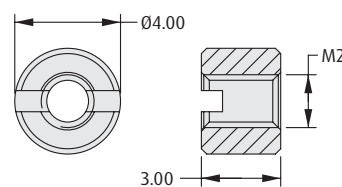
Hexagonal Board Mount Nut



ORDER CODE

G125-450000B

Slotted Board Mount Nut



ORDER CODE

G125-451000B

All dimensions in mm.

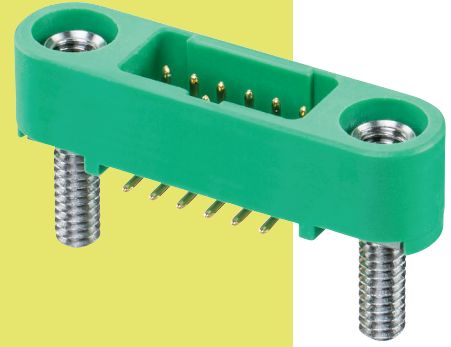
Patent Published

Gecko Screw-Lok Connectors

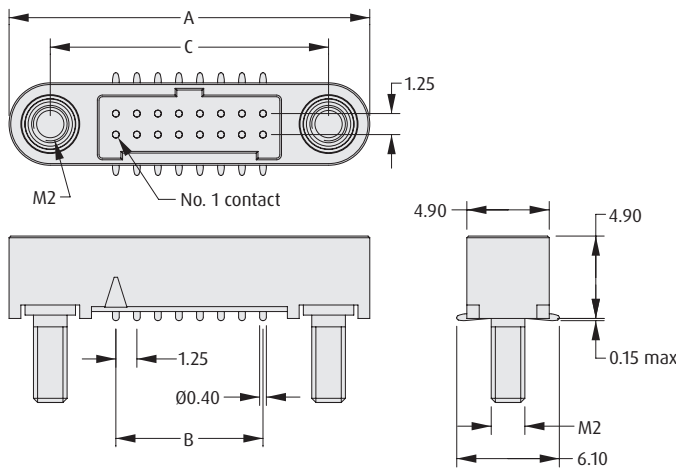
GECKO SCREW-LOK

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.

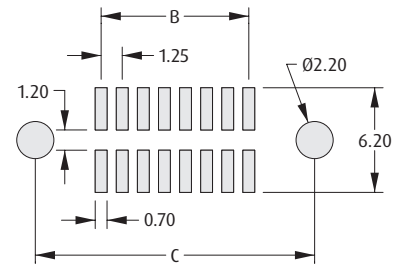


SURFACE MOUNT



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 S1 XX 05 M2 X

SERIES CODE

TYPE

S1 Surface Mount

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Loose

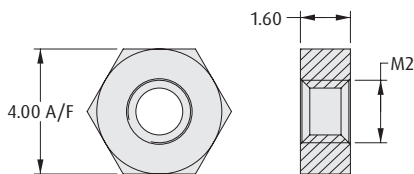
FINISH

05 Gold

REQUIRED HARDWARE

Order separately from connector

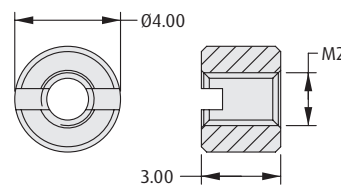
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

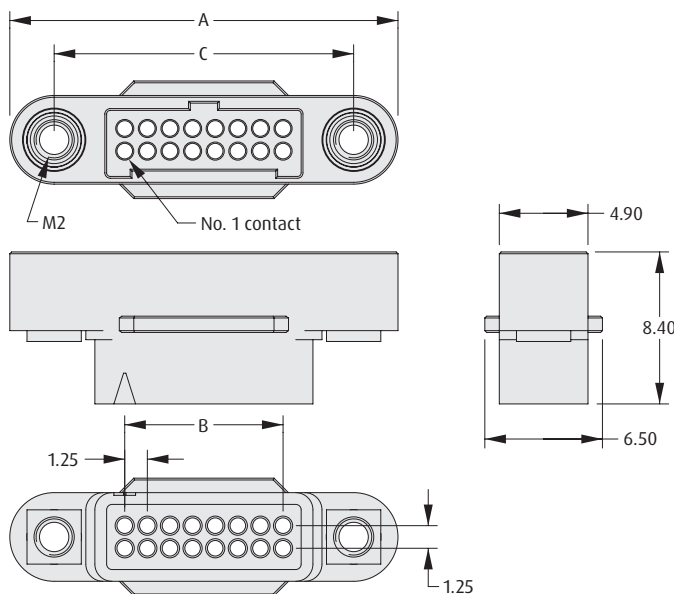
Gecko Screw-Lok Connectors

Male Crimp Housing

- Features 2.5mm potting wall for extra security.
- No. 1 position identified on moulding.
- 3 polarising points on each housing prevent mis-mating.
- Use with male crimp contacts and pre-cabled contacts shown on following pages.



MALE



CALCULATION

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

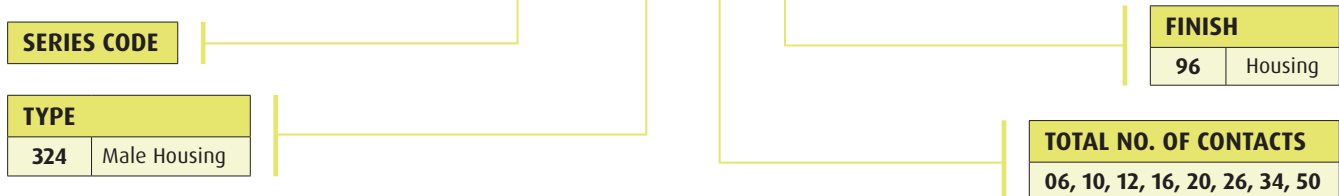
TOOLS

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 - 324 XX 96 M1



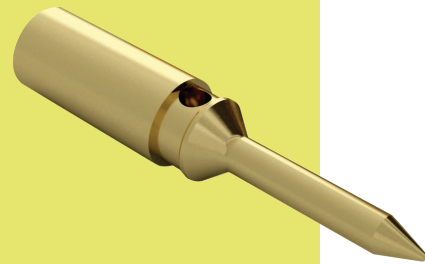
All dimensions in mm.

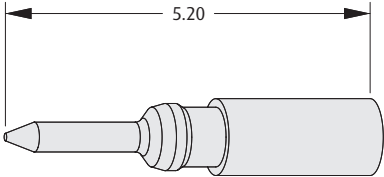
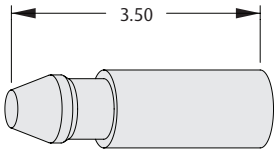
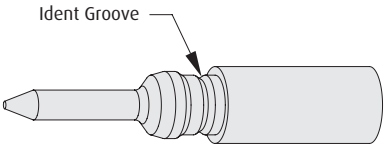
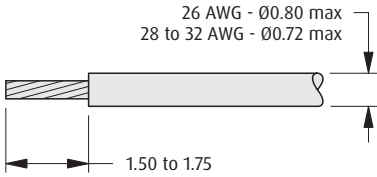
Patent Published

Gecko Screw-Lok Connectors

Male Crimp Contacts, Dummy Contact

- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at www.harwin.com/harwintv.
- ❖ Dummy Contact can be used for additional polarisation 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-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 - XXX 00 05</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="147 1619 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 1682 1474 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
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 Screw-Lok 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.
- For non-standard cable lengths, please visit harwin.com/cable-assemblies and fill in your requirements.



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. ➤ Instruction sheets available at www.harwin.com/instructions.

HOW TO ORDER

G125 – M WX XXXX X 94

SERIES CODE

CABLE COLOUR	
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
W4	32 AWG

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

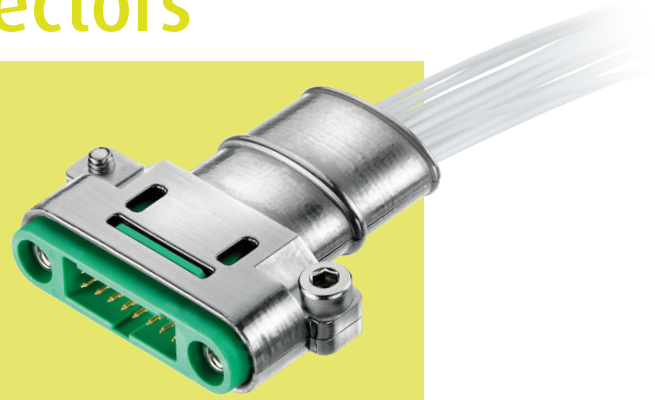
All dimensions in mm.

Patent Published

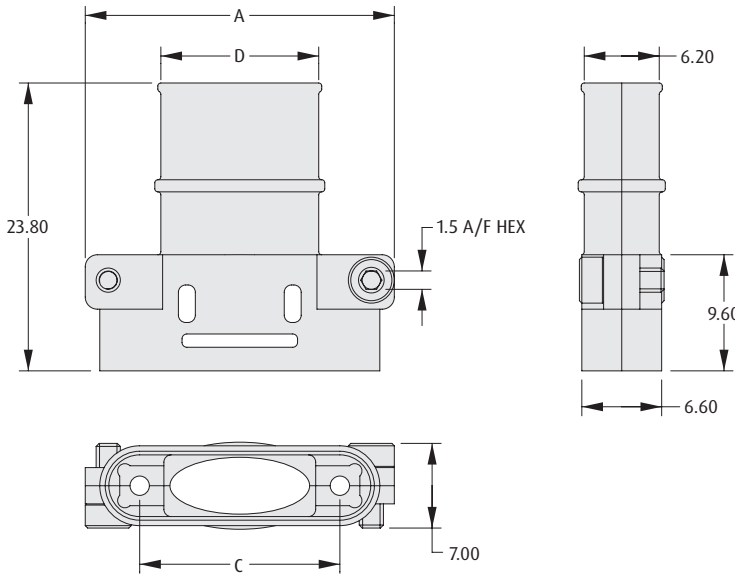
Gecko Screw-Lok Connectors

Male Metal Hood / Backshell

- ❖ Supplied as a kit, including 2 metal hood halves, tie-band (not shown), and short screws to join the two hood halves together.
- ❖ Use with G125-324xx96M1 male crimp housings.
- ❖ Tie-band can be used to attached external braid, to construct a shielded cable assembly.

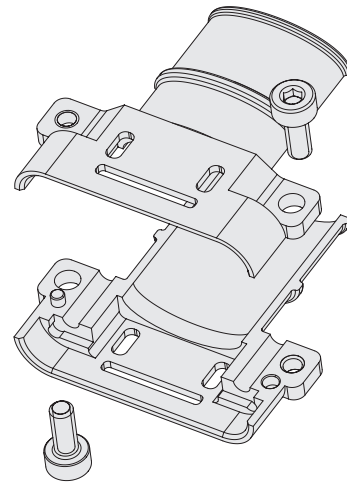


HOOD / BACKSHELL



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

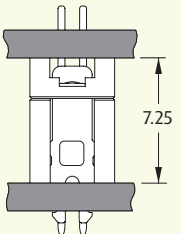
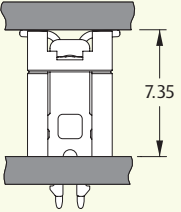
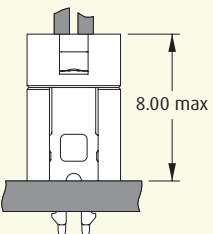
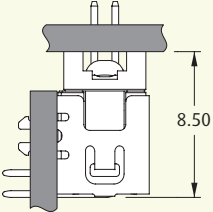
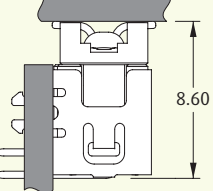
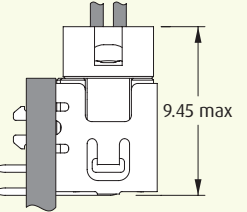
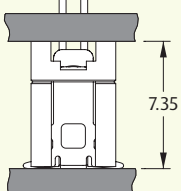
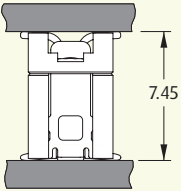
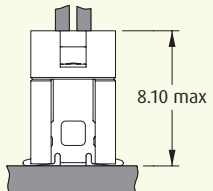
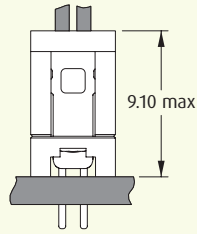
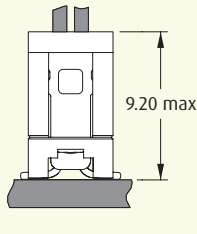
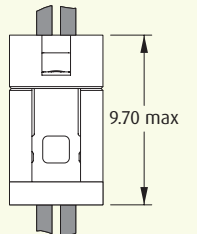
G125 - 964 XX 00

SERIES CODE

TOTAL NO. OF CONTACTS

06, 10, 12, 16

Gecko with Latches Mating Profiles

		FEMALE		
		VERTICAL PC TAIL	VERTICAL SMT	CABLE
MALE	VERTICAL PC TAIL			
	HORIZONTAL PC TAIL			
	VERTICAL SMT			
	CABLE			

GECKO WITH LATCHES

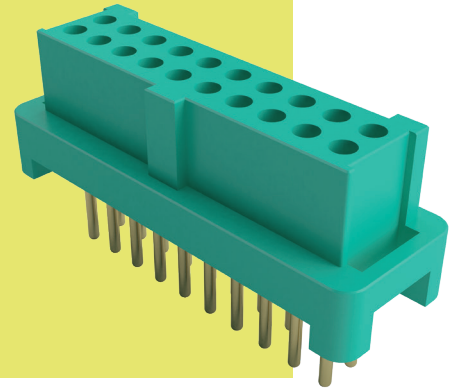
All dimensions in mm.

Patent Published

Gecko with Latches Connectors

Female PC Tail

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



3mm PC TAIL	4.5mm PC TAIL																								
<p style="text-align: center;">No. 1 contact</p> <p style="text-align: center;">Recommended PC Board Pattern</p>	<p style="text-align: center;">No. 1 contact</p> <p style="text-align: center;">Recommended PC Board Pattern</p>																								
<table border="1" style="margin: auto;"> <thead> <tr style="background-color: #f0f0f0;"> <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	$B + 1.8$																
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G125 - F VX XX 05 L0 X																									
<table border="1" style="width: 100%;"> <thead> <tr style="background-color: #f0f0f0;"> <th colspan="2">SERIES CODE</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </tbody> </table> <table border="1" style="width: 100%;"> <thead> <tr style="background-color: #f0f0f0;"> <th colspan="2">TYPE</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">V1</td> <td>3mm PC Tail</td> </tr> <tr> <td>V2</td> <td>4.5mm PC Tail</td> </tr> </tbody> </table>	SERIES CODE				TYPE		V1	3mm PC Tail	V2	4.5mm PC Tail	<table border="1" style="width: 100%;"> <thead> <tr style="background-color: #f0f0f0;"> <th colspan="2">PACKAGING</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">R</td> <td>Tape & Reeled</td> </tr> <tr> <td>P</td> <td>Loose</td> </tr> </tbody> </table> <table border="1" style="width: 100%;"> <thead> <tr style="background-color: #f0f0f0;"> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">05</td> <td>Gold</td> </tr> </tbody> </table> <table border="1" style="width: 100%;"> <thead> <tr style="background-color: #f0f0f0;"> <th colspan="2">TOTAL NO. OF CONTACTS</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="width: 50%;">06, 10, 12, 16, 20, 26, 34, 50</td> </tr> </tbody> </table>	PACKAGING		R	Tape & Reeled	P	Loose	FINISH		05	Gold	TOTAL NO. OF CONTACTS			06, 10, 12, 16, 20, 26, 34, 50
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All dimensions in mm.

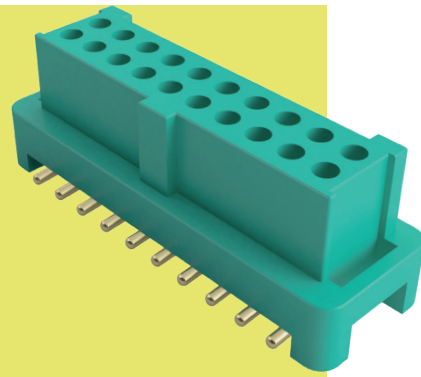
Patent Published

Gecko with Latches Connectors

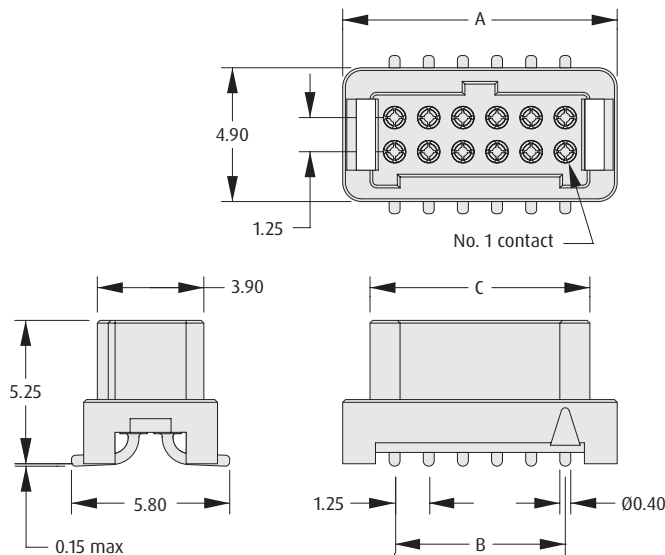
GECKO WITH LATCHES

Female Surface Mount

- ❑ 4-finger Beryllium Copper contact.
- ❑ Positive keyway polarisation 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.

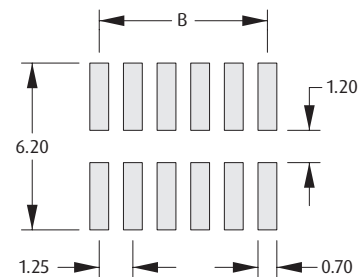


SURFACE MOUNT



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	Loose

FINISH

05 Gold

TOTAL NO. OF CONTACTS

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

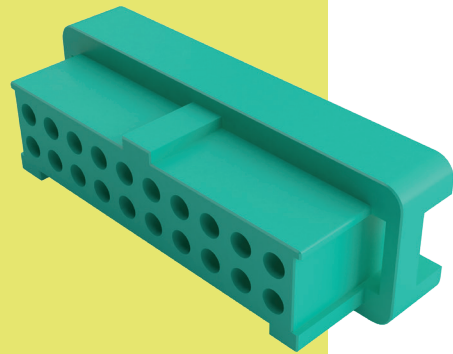
All dimensions in mm.

Patent Published

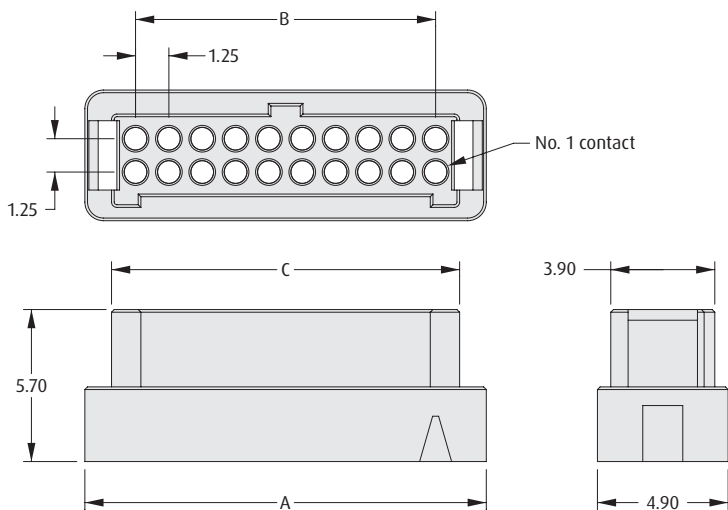
Gecko with Latches Connectors

Female Crimp Housings

- ❖ Features potting wall for extra security.
- ❖ No. 1 position identified on moulding.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ 3 polarising 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

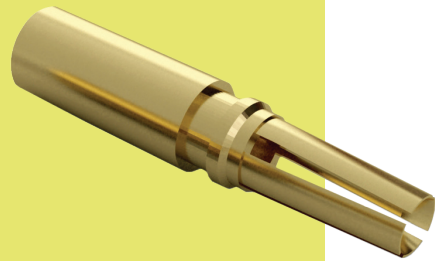
TOTAL NO. OF CONTACTS

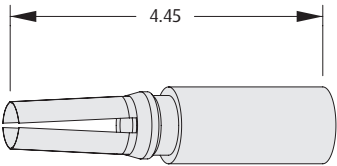
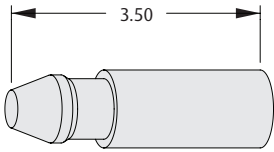
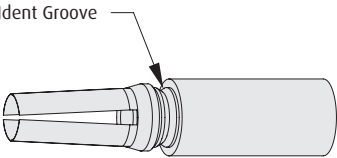
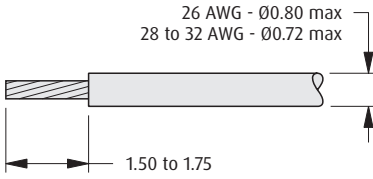
06, 10, 12, 16, 20, 26, 34, 50

Gecko with Latches Connectors

Female Crimp Contacts, Dummy Contact

- ❖ 4-finger Beryllium Copper contact on a female connector.
- ❖ Crimp barrel meets all crimp guidelines and standards.
- ❖ 2A current capacity, resists high vibration and shock.
- ❖ Withstands extremes of temperature: -65°C to +150°C.
- ❖ Instruction video online at www.harwin.com/harwintv.
- ❖ Dummy Contact can be used for additional polarisation 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="146 1625 318 1667" style="border: 1px solid black; padding: 2px;"> <p>SERIES CODE</p> </div> <div data-bbox="146 1703 581 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="1317 1682 1471 1761" style="border: 1px solid black; padding: 2px;"> <table border="1"> <thead> <tr> <th colspan="2">FINISH</th> </tr> </thead> <tbody> <tr> <td>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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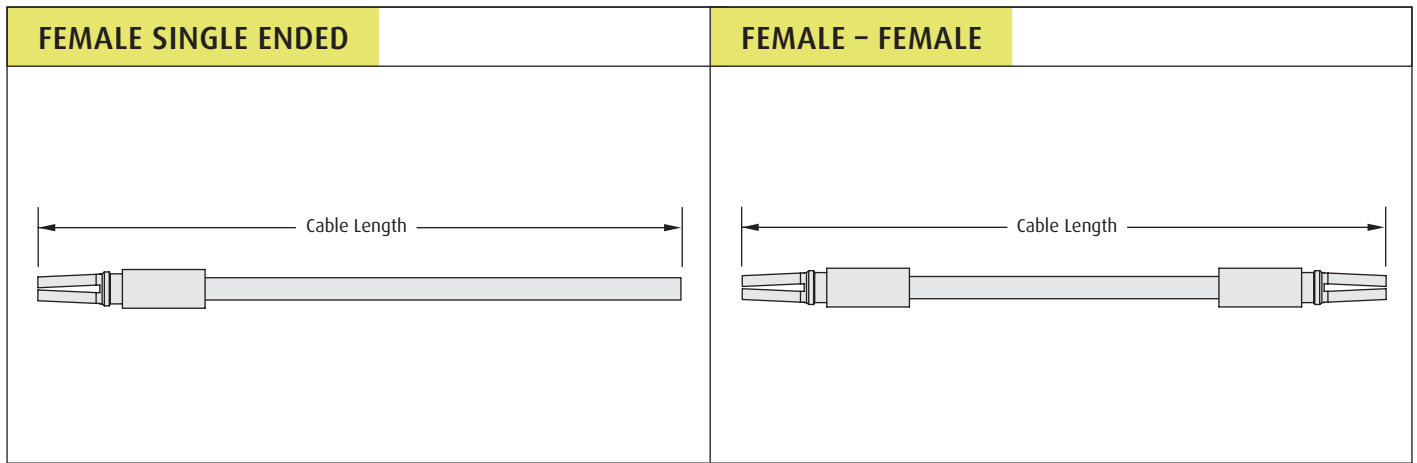
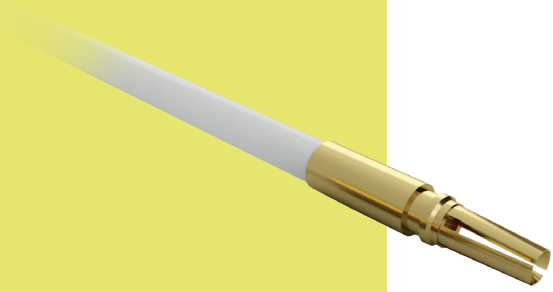
All dimensions in mm.

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.
- ❖ For non-standard cable lengths, please visit www.harwin.com/cable-assemblies and fill in your requirements.



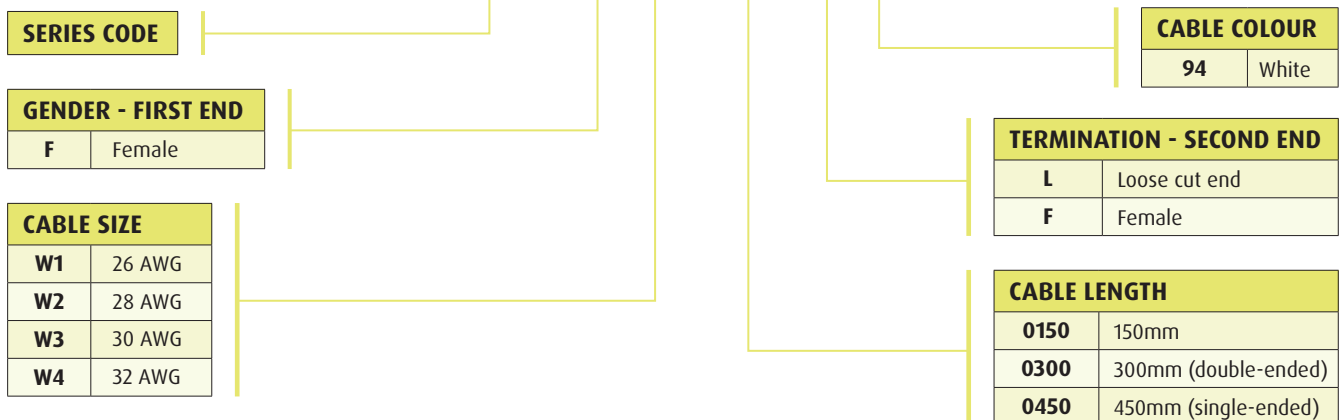
TOOLS

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



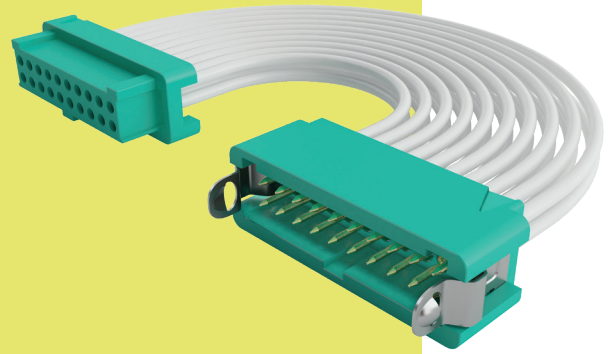
All dimensions in mm.

Patent Published

Gecko with Latches Connectors

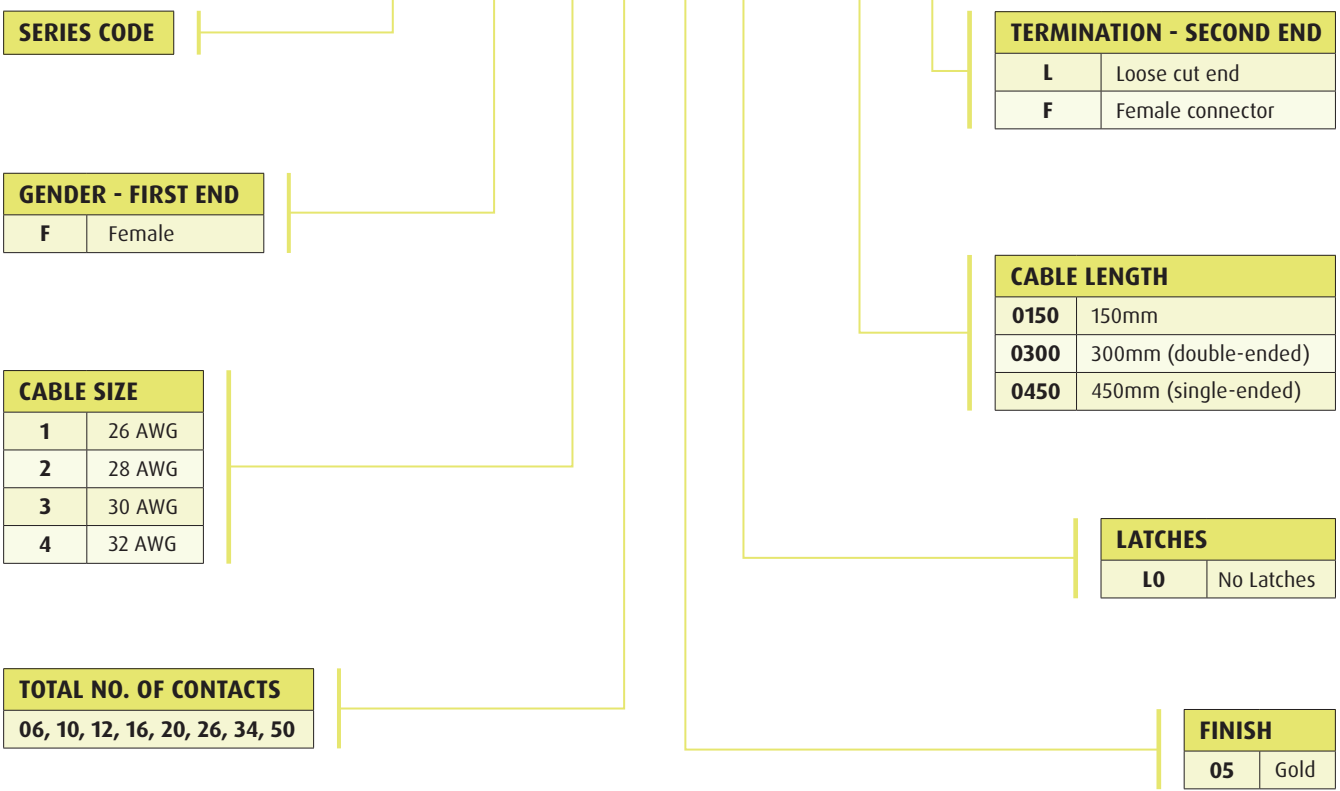
Female Cable Assemblies

- ❏ 4-finger Beryllium Copper contact.
- ❏ No. 1 position identified on moulding.
- ❏ 2A current capacity, resists high vibration and shock.
- ❏ Withstands extremes of temperature: -65°C to +150°C.
- ❏ Back potted for added strain relief.
- ❏ For non-standard cable lengths, please visit harwin.com/cable-assemblies and fill in your requirements.



PART NUMBERING SYSTEM

G125 - F C X XX 05 L0 - XXXX X



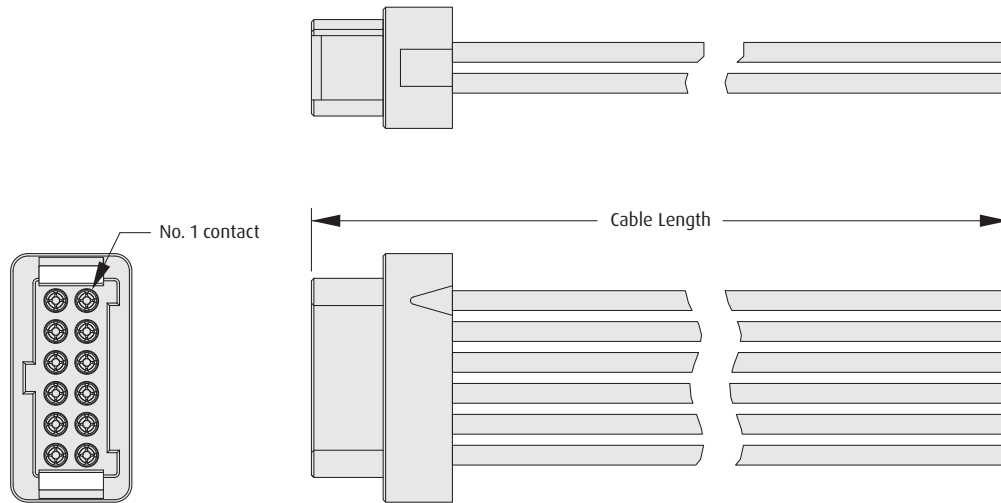
All dimensions in mm.

Patent Published

Female Cable Assemblies

- ❖ See previous page for cable length options.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.

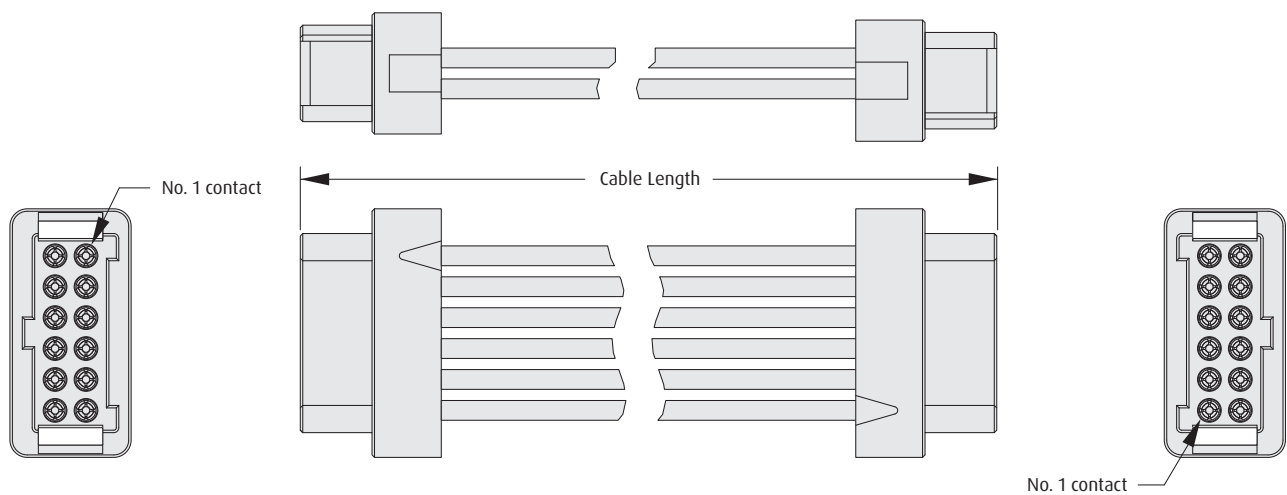
FEMALE SINGLE ENDED



ORDER CODE

G125-FCXXX05L0-XXXXL

FEMALE - FEMALE



ORDER CODE

G125-FCXXX05L0-XXXXF

All dimensions in mm.

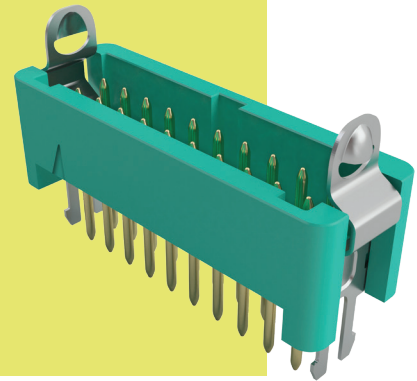
Patent Published

Gecko with Latches Connectors

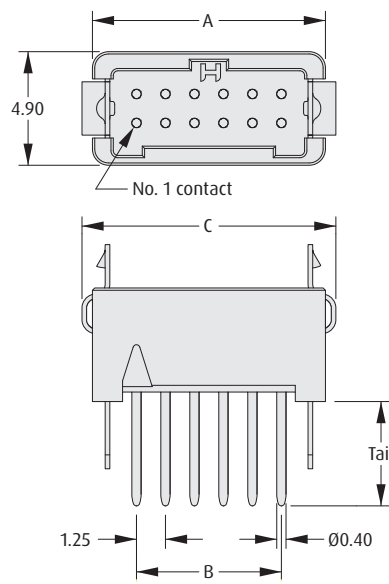
GECKO WITH LATCHES

Male Vertical PC Tail

- 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.

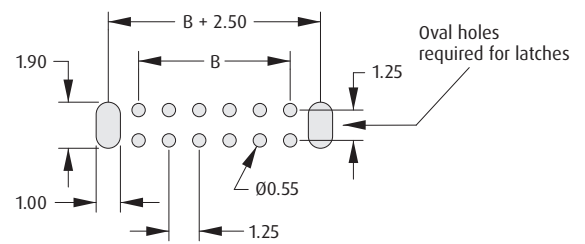


PC TAIL



CALCULATION

A	$B + 3.8$
B	$0.625 \times (\text{Total No. of contacts} - 2)$
C	$B + 5.5$



Recommended PC Board Pattern

HOW TO ORDER

G125 - M VX XX 05 LX X

SERIES CODE

TYPE

V1	3mm PC Tail
V2	4.5mm PC Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Loose

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

All dimensions in mm.

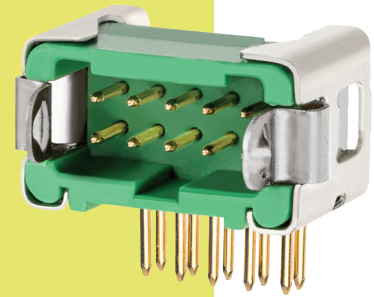
Patent Published

Gecko with Latches Connectors

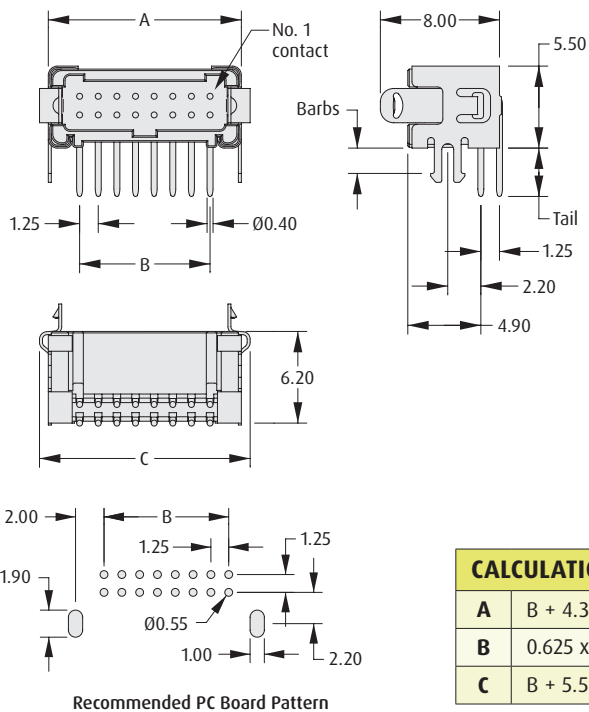
GECKO WITH LATCHES

Male Horizontal PC Tail - Latched

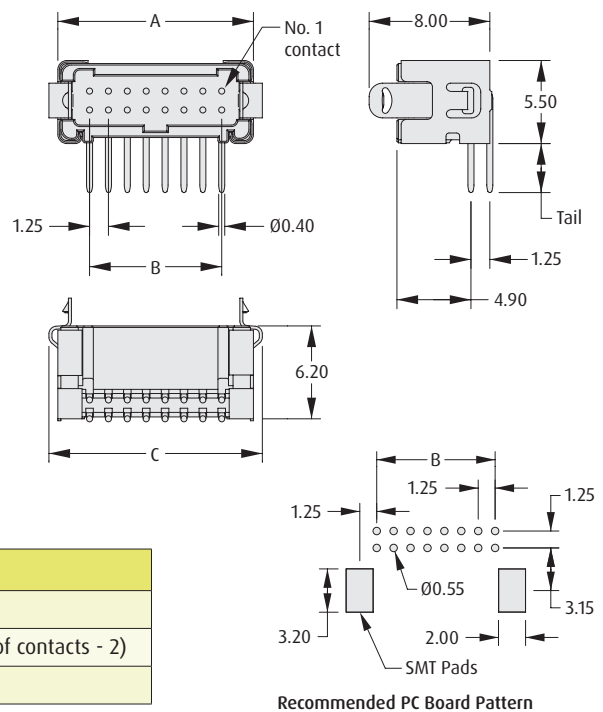
- Secure fixing to the PCB via retention bars for through hole.
- Surface mount option for automated assembly.
- Easy-to-release latches - tooling available for additional assistance with releasing latches - see part numbers **Z125-926xx00**.
- 2A current capacity, resists high vibration and shock.
-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



PC TAIL LATCH



SURFACE MOUNT LATCH



CALCULATION	
A	B + 4.3
B	0.625 x (Total No. of contacts - 2)
C	B + 5.5

HOW TO ORDER

G125 - M HX XX 05 LX X

SERIES CODE

TYPE

H1	3.3mm PC Tail
H2	4.8mm PC Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Loose

LATCH

L1	Barbs for 3.3mm PC Tail
L2	Barbs for 4.8mm PC Tail
L3	Surface Mount Latch

FINISH

05 Gold

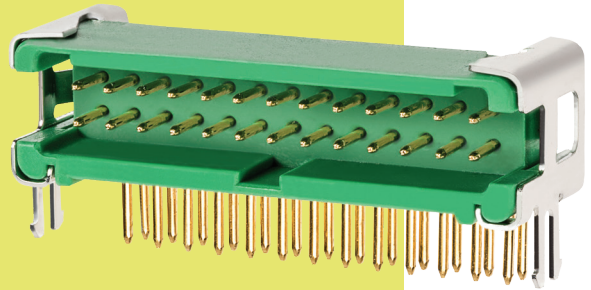
All dimensions in mm.

Patent Published

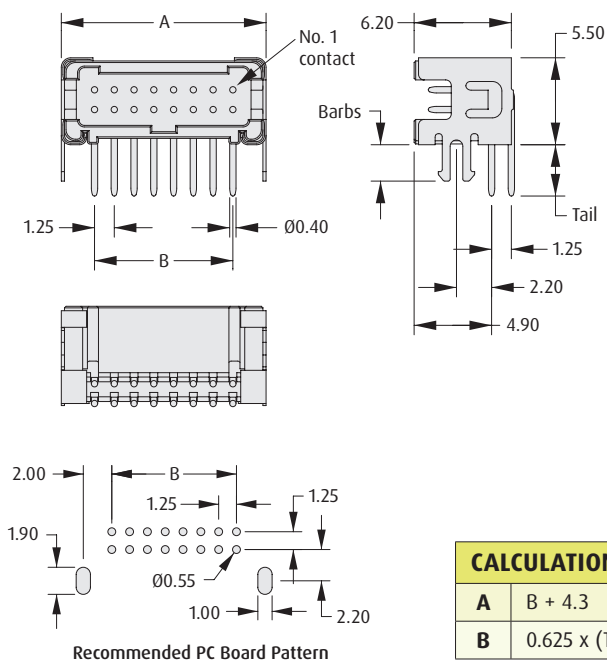
Gecko with Latches Connectors

Male Horizontal PC Tail – Without Latch

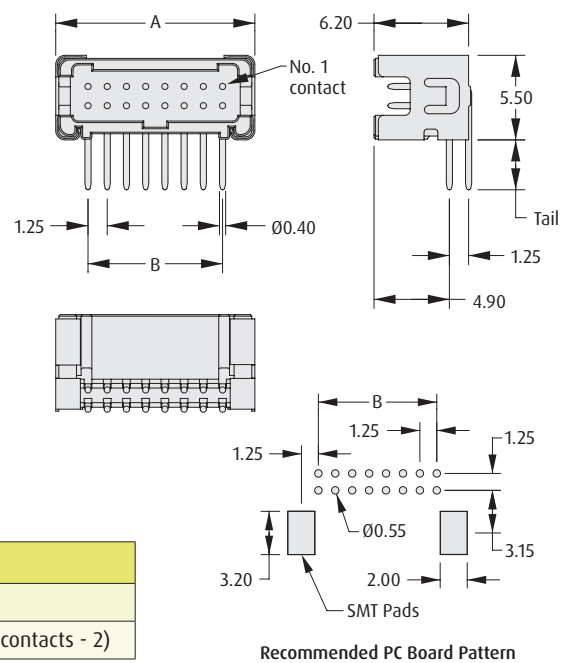
- Secure fixing to the PCB via retention barbs for through hole.
- Surface mount option for automated assembly.
- 2A current capacity.
- Withstands extremes of temperature: -65°C to +150°C.



PC TAIL 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 PC Tail
H2	4.8mm PC Tail

TOTAL NO. OF CONTACTS

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

PACKAGING

R	Tape & Reeled
P	Loose

FIXING

L5	Barbs for 3.3mm PC Tail
L6	Barbs for 4.8mm PC Tail
L7	Surface Mount Fixing

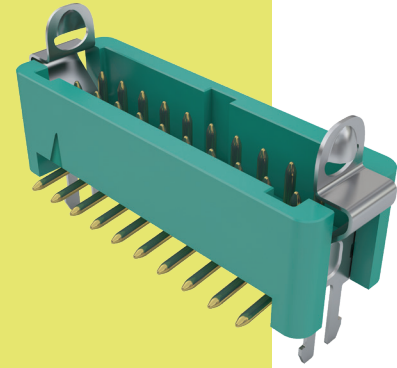
FINISH

05	Gold
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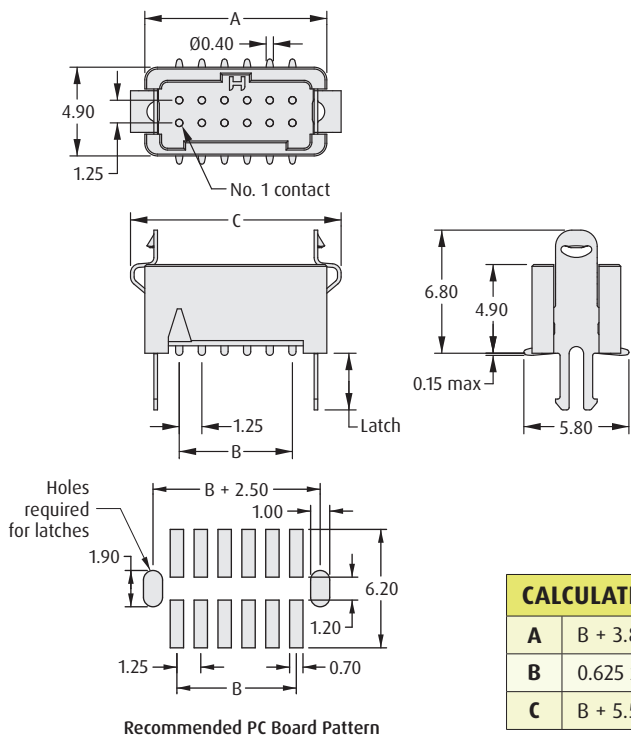
Gecko with Latches Connectors

Male Vertical Surface Mount

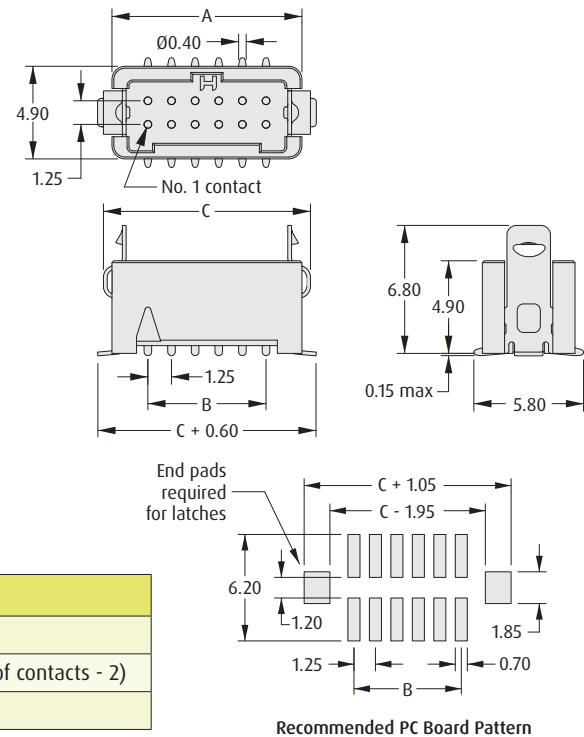
- Secure fixing to the PCB via hold-down tabs (SMT).
- Easy-to-release latches require no tooling.
- 2A current capacity, resists high vibration and shock.
- Withstands extremes of temperature: -65°C to +150°C.



PC TAIL LATCH



SURFACE MOUNT LATCH



CALCULATION	
A	B + 3.8
B	0.625 x (Total No. of contacts - 2)
C	B + 5.5

HOW TO ORDER

G125 - M S1 XX 05 LX X

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

All dimensions in mm.

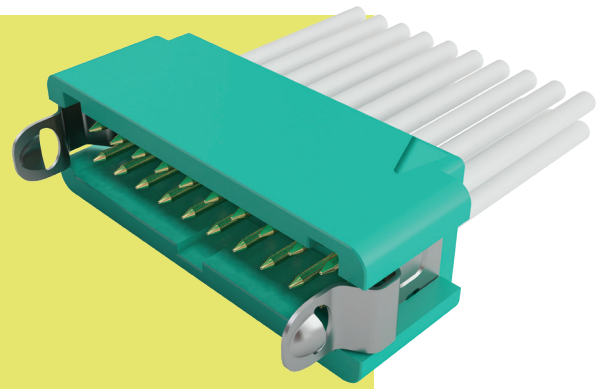
Patent Published

Gecko with Latches Connectors

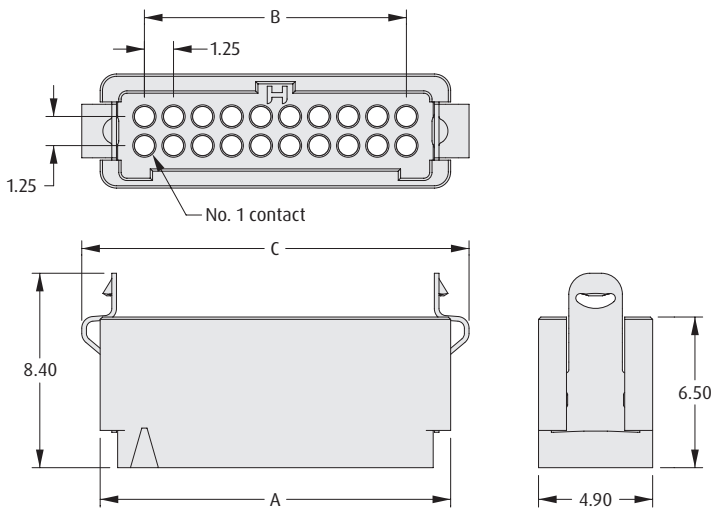
GEEKO WITH LATCHES

Male Crimp Housing

- Features potting wall for extra security.
- No. 1 position identified on moulding.
- Withstands extremes of temperature: -65°C to +150°C.
- 3 polarising 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	$B + 5.5$

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

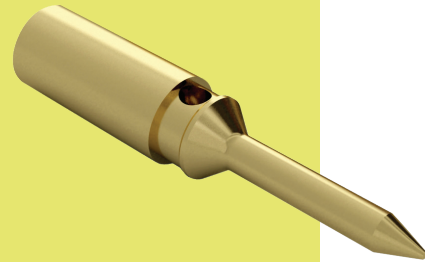
All dimensions in mm.

Patent Published

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 polarisation 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>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 1619 318 1665"> <p>SERIES CODE</p> </div> <div data-bbox="147 1703 548 1860"> <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="1321 1682 1472 1761"> <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 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.
- For non-standard cable lengths, please visit www.harwin.com/cable-assemblies and fill in your requirements.



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 COLOUR 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 W4 32 AWG	CABLE LENGTH 0150 150mm 0300 300mm (double-ended) 0450 450mm (single-ended)

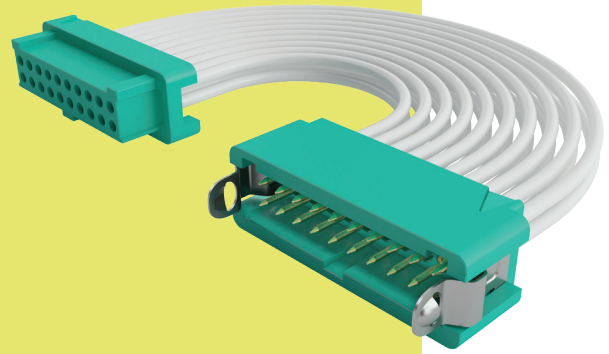
All dimensions in mm.

Patent Published

Gecko with Latches Connectors

Male Cable Assemblies

- ❖ No. 1 position identified on moulding.
- ❖ 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.
- ❖ For non-standard cable lengths, please visit harwin.com/cable-assemblies and fill in your requirements.



PART NUMBERING SYSTEM

G125 - M C X XX 05 LX - XXXX X

SERIES CODE

GENDER - FIRST END

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

CABLE SIZE

1	26 AWG
2	28 AWG
3	30 AWG
4	32 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)

LATCHES

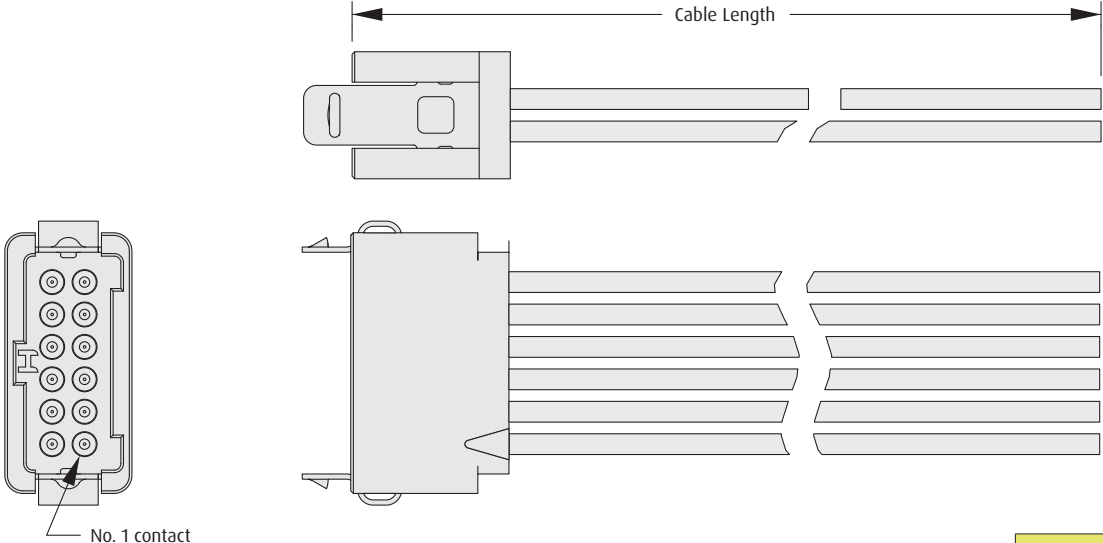
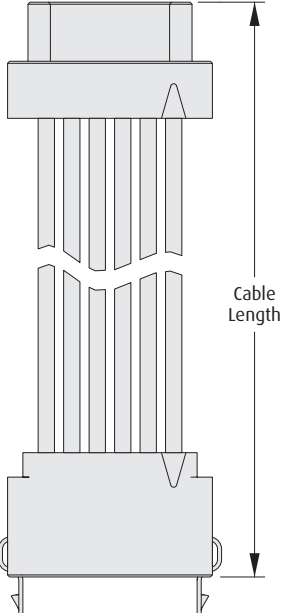
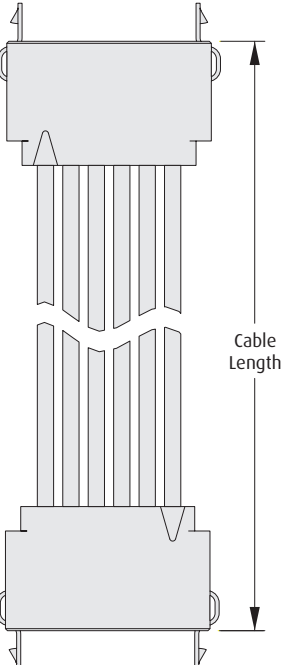
L0	No Latches
L4	Latches (male connectors only)

FINISH

05	Gold
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Male Cable Assemblies

- ❖ See previous page for cable length options.
- ❖ Cable assemblies are constructed with Contact 1 attached to Contact 1, Contact 2 to Contact 2, etc.

MALE SINGLE ENDED	
 <p data-bbox="337 961 440 982">No. 1 contact</p>	<p data-bbox="1268 982 1409 1003">ORDER CODE</p> <p data-bbox="1268 1020 1498 1041">G125-MCXXX05LX-XXXXL</p>
MALE - FEMALE	MALE - MALE
 <p data-bbox="435 1518 488 1560">Cable Length</p> <p data-bbox="573 1833 711 1854">ORDER CODE</p> <p data-bbox="573 1871 800 1892">G125-MCXXX05LX-XXXXF</p>	 <p data-bbox="1166 1518 1219 1560">Cable Length</p> <p data-bbox="1268 1833 1409 1854">ORDER CODE</p> <p data-bbox="1268 1871 1498 1892">G125-MCXXX05LX-XXXXM</p>


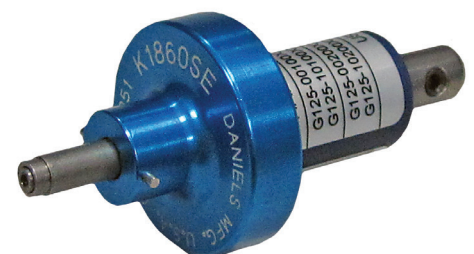


All dimensions in mm.

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.

GECKO

<p>HAND CRIMP TOOL</p> <ul style="list-style-type: none"> ❖ Precision tool with ratchet mechanism and 8-indent form. ❖ Must be used with positioner. ❖ Instruction sheet available.  <p>ORDER CODE Z125-900</p>	<p>POSITIONER</p> <ul style="list-style-type: none"> ❖ Must be used with hand crimp tool.  <p>ORDER CODE Z125-901</p>
<p>INSERTION/REMOVAL TOOL</p> <ul style="list-style-type: none"> ❖ For inserting and removing crimped contacts into the rear of mouldings. ❖ Instruction sheet available.  <p>ORDER CODE Z125-902</p>	<p>DE-LATCH 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>

Gecko Connectors Tooling

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

HEX DRIVE BIT	BALL HEX DRIVER				
<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>A metal hex drive bit with a hexagonal end and a tapered shaft.</p> <table border="1" data-bbox="630 1171 808 1255"><tr><td>ORDER CODE</td></tr><tr><td>Z9950-00</td></tr></table>	ORDER CODE	Z9950-00	<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>A ball hex driver with a black handle featuring green accents and a ball-shaped end.</p> <table border="1" data-bbox="1328 1171 1507 1255"><tr><td>ORDER CODE</td></tr><tr><td>Z9952-00</td></tr></table>	ORDER CODE	Z9952-00
ORDER CODE					
Z9950-00					
ORDER CODE					
Z9952-00					
SCREWDRIVER					
<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 $21 \pm 2\text{cmN}$.  <p>A screwdriver with a knurled metal handle and a flat tip.</p> <table border="1" data-bbox="1328 1810 1507 1894"><tr><td>ORDER CODE</td></tr><tr><td>Z80-298</td></tr></table>		ORDER CODE	Z80-298		
ORDER CODE					
Z80-298					