

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 - 0.3µm (8 - 12µ") Gold, over 1.5 - 2.0µm (60 - 80µ") Nickel
Power Contacts:	0.8 - 1.0µm (30 - 40µ") Gold, over 1.5 - 2.5µm (60 - 100µ") 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:	20mΩ max
After conditioning:	25mΩ max
Insulation resistance	
Initial:	10GΩ min at 500V DC
After conditioning:	>1GΩ min at 500V DC

Mechanical

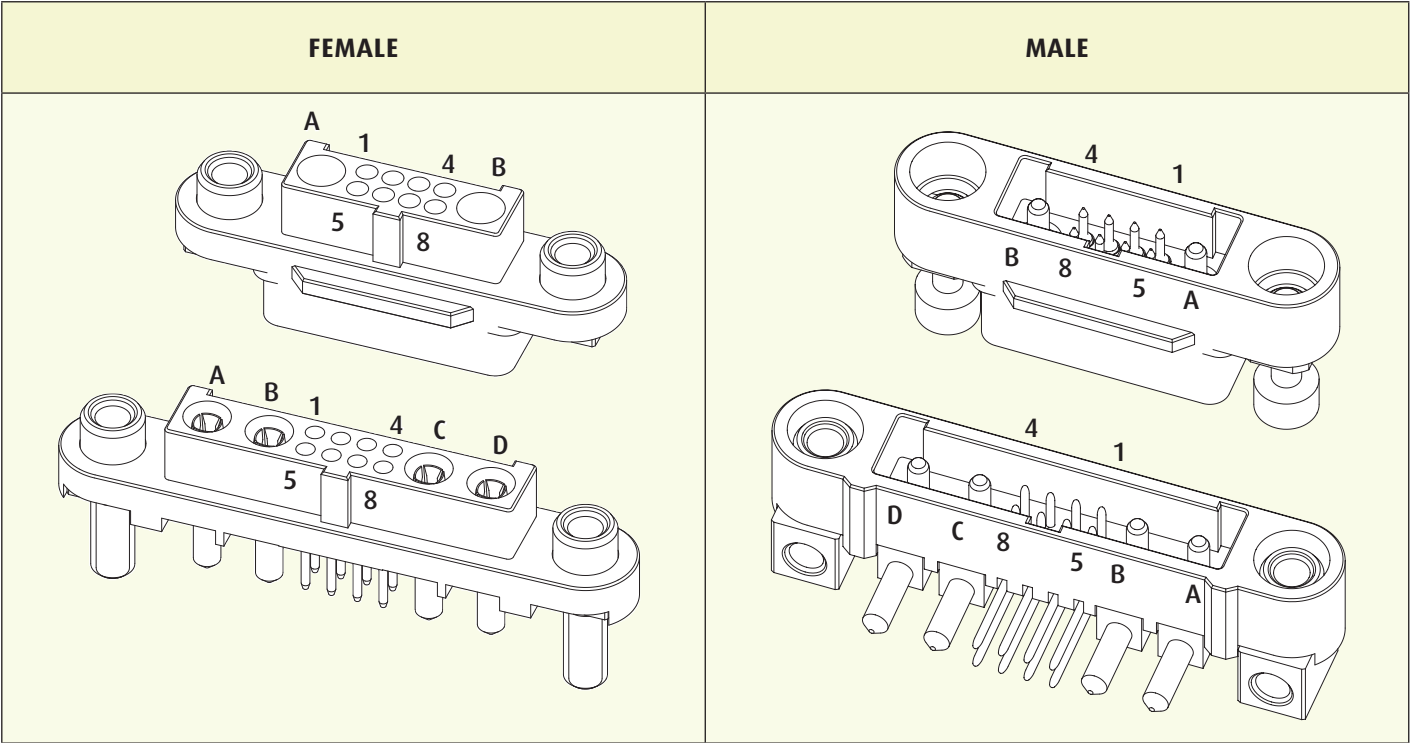
Contact durability:	1000 operations
Mating forces (per contact pair)	
Insertion force (signal):	2.8N max
Insertion force (power):	7.0N max
Withdrawal force:	0.2N min
Contact retention in housing:	6.0N max

Environmental

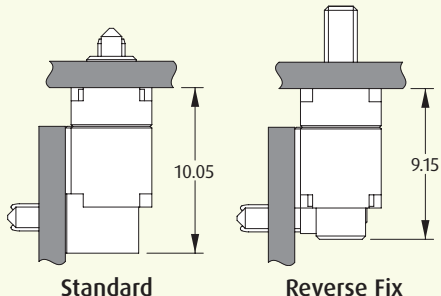
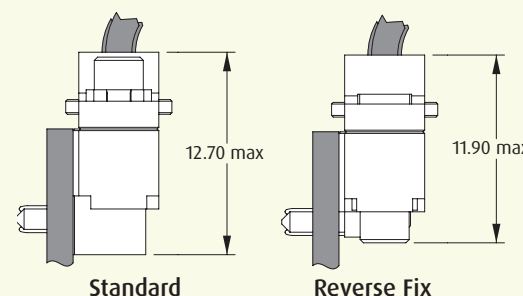
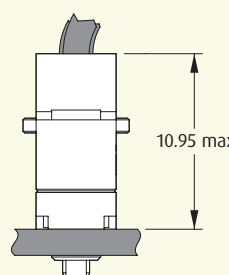
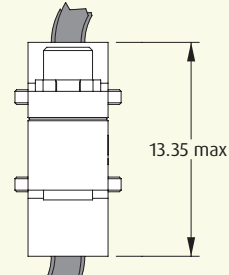
Environmental classification:	65/150/56 days at 93% RH
Operating temperature:	-65°C to +150°C
*Vibration sensitivity:	10Hz to 2000Hz, 1.5mm, 198m/s ² (20G) duration 6 hours
*Bump severity:	390m/s ² (40G), 4000 ±10 bumps
*Shock severity:	981m/s ² (100G) for 6ms in Z axis 490m/s ² (50G) for 11ms in X &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

* Tested with latched connectors.

Gecko-MT Pin Numbering



Gecko-MT Mating Profiles

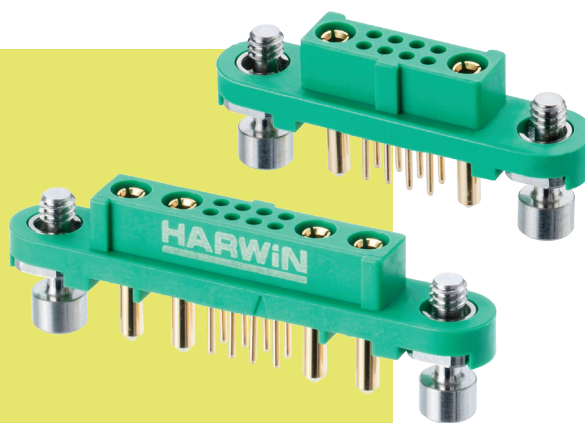
		FEMALE	
		VERTICAL THROUGHBOARD	CABLE
MALE	HORIZONTAL THROUGH-BOARD	 <div>Standard: 10.05 Reverse Fix: 9.15</div>	 <div>Standard: 12.70 max Reverse Fix: 11.90 max</div>
	CABLE	 <div>10.95 max</div>	 <div>13.35 max</div>

All dimensions in mm. Patent Published

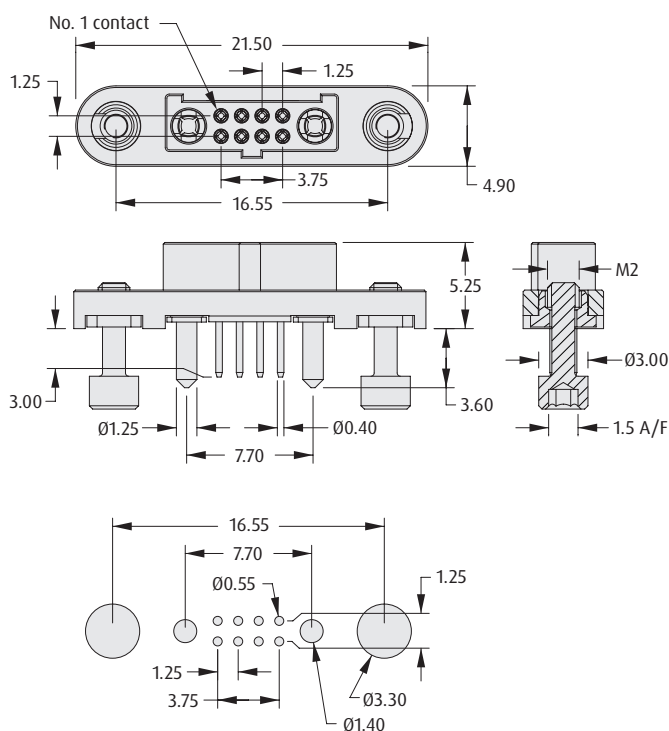
Gecko-MT Connectors

Female Vertical Throughboard

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



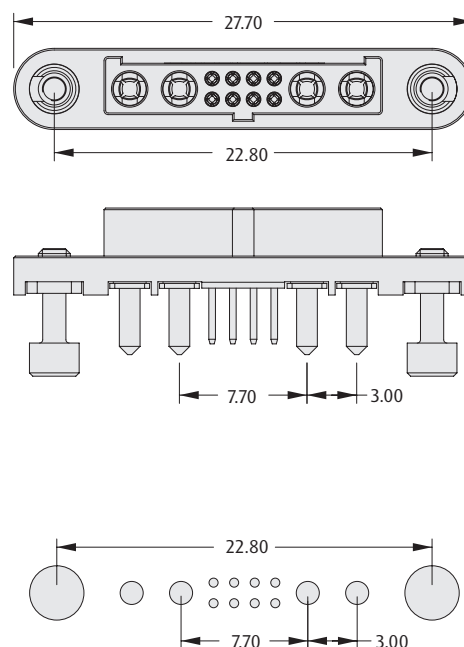
1+8+1



Recommended PC Board Pattern

2+8+2

All other dimensions as 1+8+1



Recommended PC Board Pattern

HOW TO ORDER

G125 - FV1 08 05 F1 - XABXAB P

SERIES CODE

TOTAL NO. OF SIGNAL CONTACTS

08

SCREW-LOK

F1 Floating Hex Socket

PACKAGING

P Tape & Reel strips

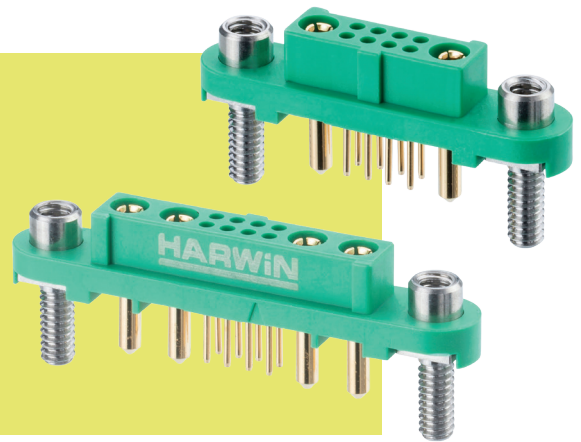
POWER CONTACTS

1AB1AB	1+8+1 Configuration
2AB2AB	2+8+2 Configuration

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

1+8+1	2+8+2	All other dimensions as 1+8+1
<p>Recommended PC Board Pattern</p>	<p>Recommended PC Board Pattern</p>	

HOW TO ORDER

G125 - FV1 08 05 F3 - XABXAB P

SERIES CODE

TOTAL NO. OF SIGNAL CONTACTS

8

SCREW-LOK

F3 Reverse Fix

PACKAGING

P Tape & Reel strips

POWER CONTACTS

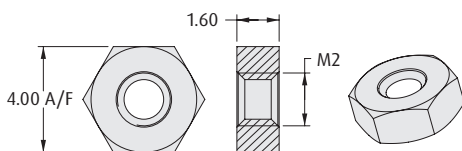
1AB1AB 1+8+1 Configuration

2AB2AB 2+8+2 Configuration

REQUIRED HARDWARE

Order separately from connector

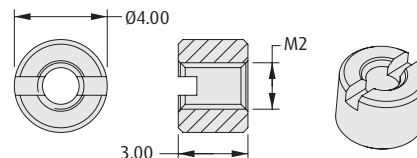
Hexagonal Board Mount Nut



ORDER CODE

G125-4500000B

Slotted Board Mount Nut



ORDER CODE

G125-4510000B

All dimensions in mm.

Patent Published

Gecko-MT Connectors

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.
- ❖ Use with female crimp contacts shown on a following page.



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

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.
- ❖ Use with female crimp contacts shown on following page.



GECKO-MT

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

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

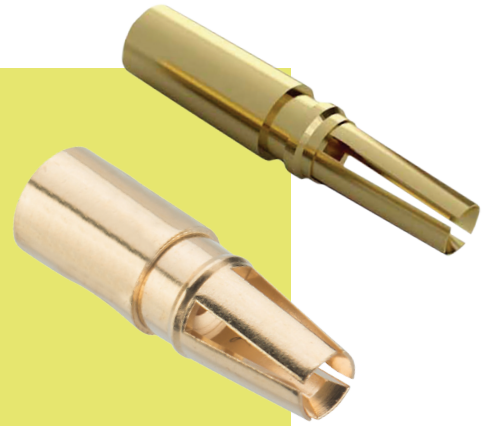
All dimensions in mm.

Patent Published

Gecko-MT Connectors

Female 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.



CONTACTS		POWER CONTACT											
<div>26 AWG</div> <div></div>		<div>18 AWG</div> <div></div>											
<div>28 – 32 AWG</div> <div></div>		<div>WIRE STRIPPING DETAILS</div> <div></div>											
TOOLS													
<div>Recommended Crimp Tools – Z125-900 (signal), Z125-903 (power)</div> <div>Positioner – Z125-901 (signal), Z125-904 (power)</div> <div>Contact Insertion/Removal Tool – Z125-902 (signal), Z125-905 (power)</div>		<div>❖ Female crimp housings shown on previous pages.</div> <div>❖ Instruction sheets available at www.harwin.com/instructions.</div>											
HOW TO ORDER													
<div>G125 – 0XX 00 05</div>													
<div>SERIES CODE</div>		<div>FINISH</div>											
<table><tr><th>TYPE</th><td></td></tr><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></table>		TYPE		001	Female 26 AWG crimp contact	002	Female 28-32 AWG crimp contact	050	Female power crimp contact	<table><tr><td>05</td><td>Gold</td></tr></table>		05	Gold
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05	Gold												

All dimensions in mm.

Patent Published

Gecko-MT Connectors

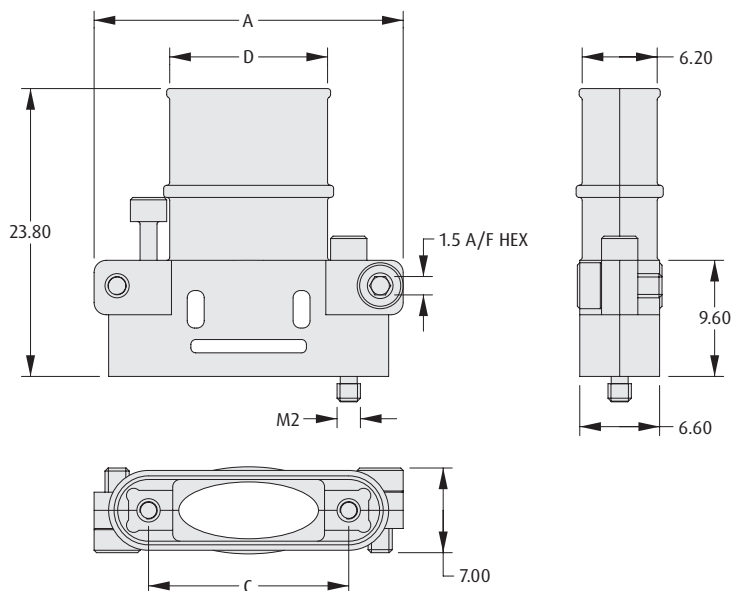
Female Metal Hood / Backshell

- ❖ Supplied as a kit, including 2 metal hood halves, extended fixing screws for female connectors, and short screws to join the two hood halves together.
- ❖ Use with G125-2249600-xx-08-xx female crimp housings without fixings - fixings are supplied with these hoods.
- ❖ Tie-band can be used to attach external braid, to construct a shielded cable assembly.



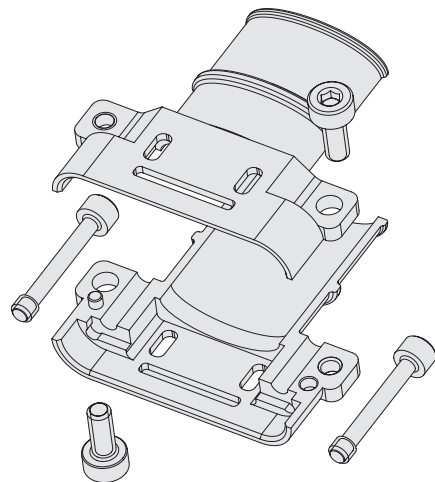
GECKO-MT

HOOD / BACKSHELL



CALCULATION

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



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

HOW TO ORDER

G125 - 964 XX F1

SERIES CODE

TOTAL NO. OF CONTACTS

16	Use with G125-2249600-01-08-01
26	Use with G125-2249600-02-08-02

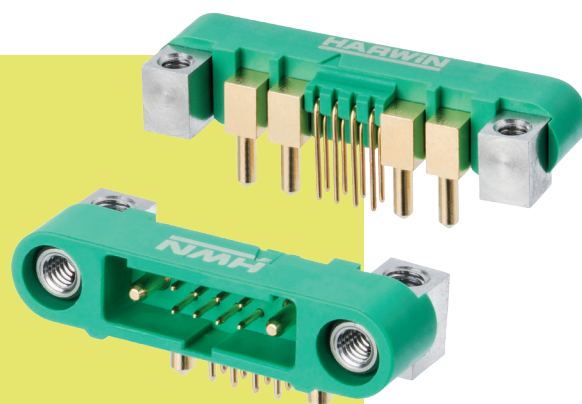
All dimensions in mm.

Patent Published

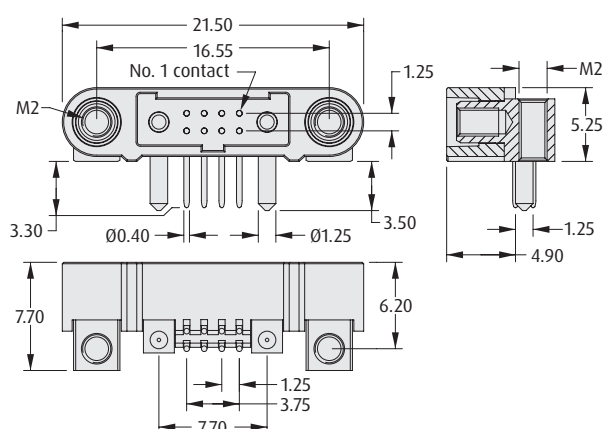
Gecko-MT Connectors

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 – see bottom of page.
- ❖ 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.

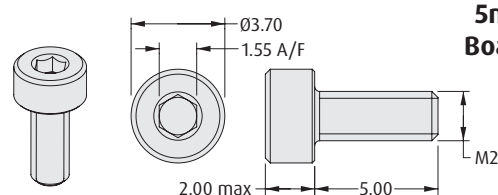


1+8+1



REQUIRED HARDWARE

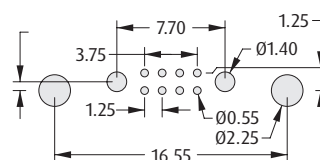
Order separately from connector



**5mm Hex Socket
Board Mount Bolt**

ORDER CODE

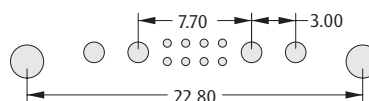
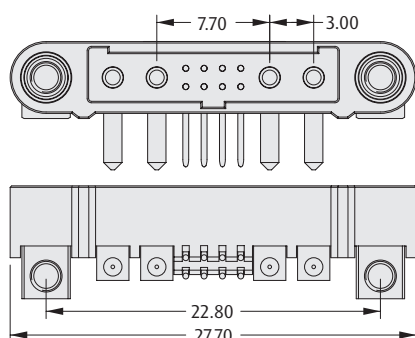
G125-4520000B



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 - XAD XAD 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

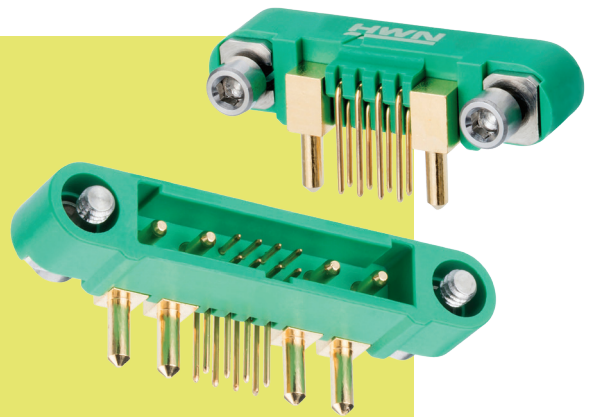
All dimensions in mm.

Patent Published

Gecko-MT Connectors

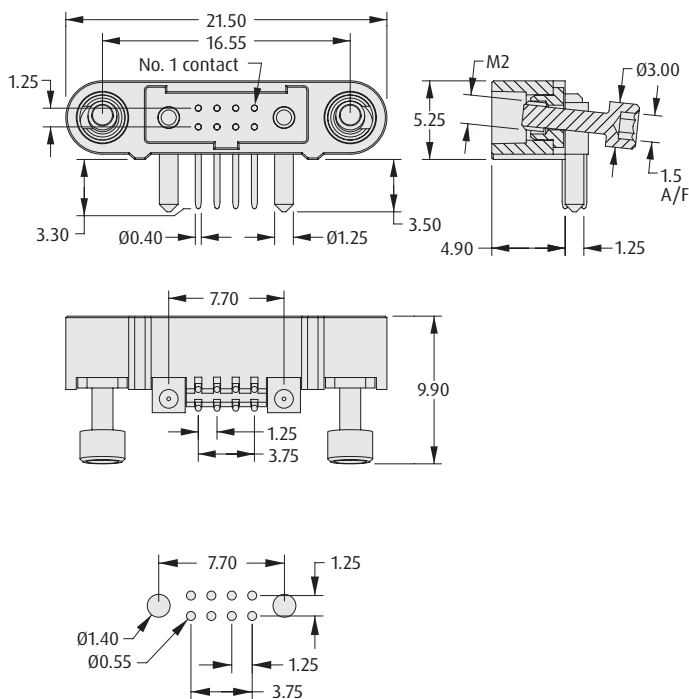
Male Horizontal Throughboard – Reverse Fix

- 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

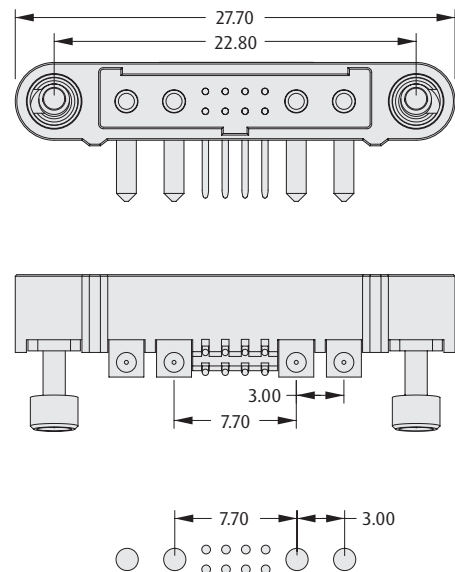
1+8+1



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 M3 - XAD XAD P

SERIES CODE

TOTAL NO. OF SIGNAL CONTACTS

08

SCREW-LOK

M3 Reverse Fix Floating Hex Socket

PACKAGING

P Tape & Reel strips

POWER CONTACTS

1AD1AD 1+8+1 Configuration

2AD2AD 2+8+2 Configuration

All dimensions in mm.

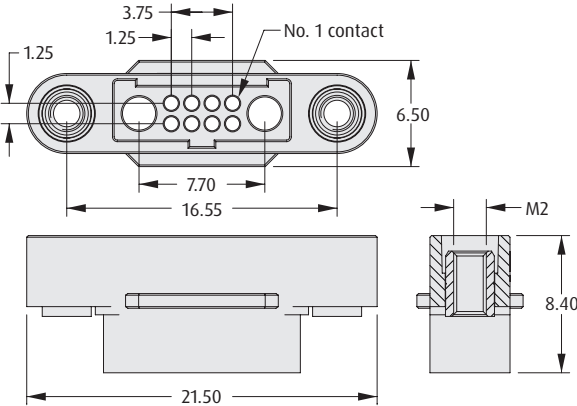
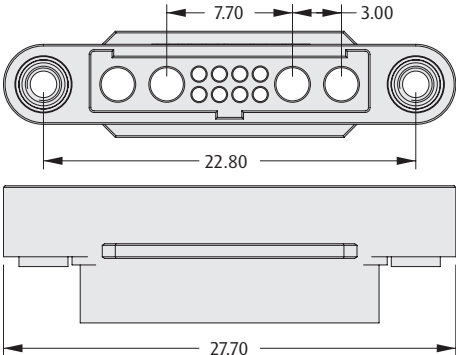
Patent Published

Gecko-MT Connectors

Male 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.
- ❖ Use with male crimp contacts shown on a following page.



1+8+1		2+8+2	All other dimensions as 1+8+1	
				
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>			<p>❖ Male contacts shown on a following page.</p> <p>❖ Instruction sheets available at www.harwin.com/instructions.</p>	
HOW TO ORDER				
<div><div><div>G125</div><div>-</div><div>32496</div><div>M1</div><div>-</div><div>0X</div><div>-</div><div>08</div><div>-</div><div>0X</div></div><div><div>SERIES CODE</div><div>SCREW-LOK</div><div>M1 Internal Thread</div></div><div><div>NO. OF CONTACTS</div><div>01-08-01 1+8+1 Configuration</div><div>02-08-02 2+8+2 Configuration</div></div></div>				

All dimensions in mm.

Patent Published

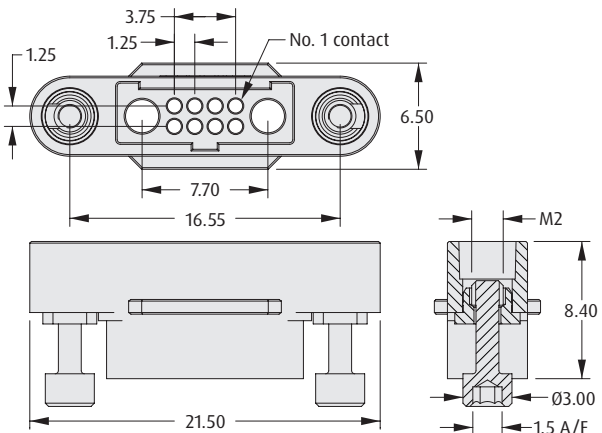
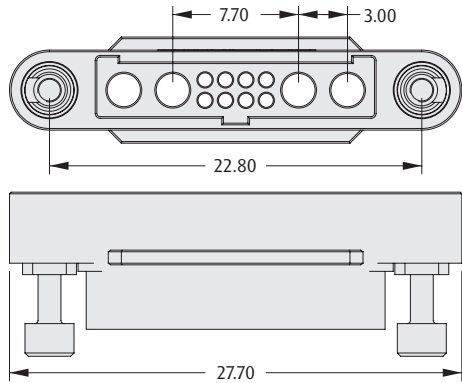
Gecko-MT Connectors

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.
- ❖ Use with male crimp contacts shown on following page.



GECKO-MT

1+8+1	2+8+2	All other dimensions as 1+8+1
		
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HOW TO ORDER		
<div><div><div><div><div>G125</div><div>-</div><div>32496</div></div><div><div>M3</div><div>-</div><div>0X</div></div><div><div>-</div><div>08</div><div>-</div><div>0X</div></div></div><div><div><div><div><div>SERIES CODE</div><div>SCREW-LOK</div><div>M3 Reverse Fix Floating Hex Socket</div></div><div></div><div></div></div><div><div><div>NO. OF CONTACTS</div><div>01-08-01 1+8+1 Configuration</div><div>02-08-02 2+8+2 Configuration</div></div></div></div></div></div></div>		

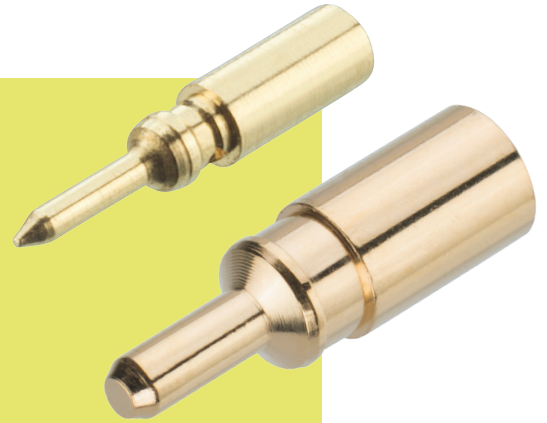
All dimensions in mm.

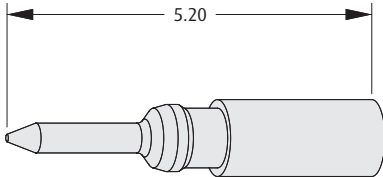
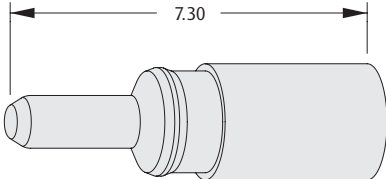
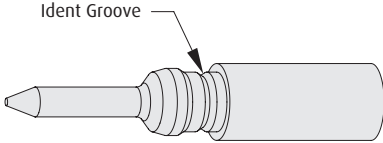
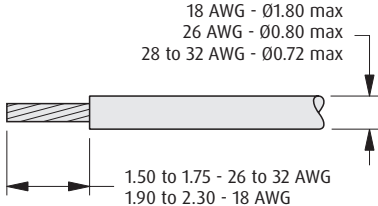
Patent Published

Gecko-MT Connectors

Male Crimp Contacts

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



CONTACTS		POWER CONTACT											
<div>26 AWG</div> 		<div>18 AWG</div> 											
<div>28 - 32 AWG</div> 		<div>WIRE STRIPPING DETAILS</div> 											
TOOLS													
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<div>G125 - 1XX 00 05</div>													
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All dimensions in mm.

Patent Published

Gecko-MT Connectors

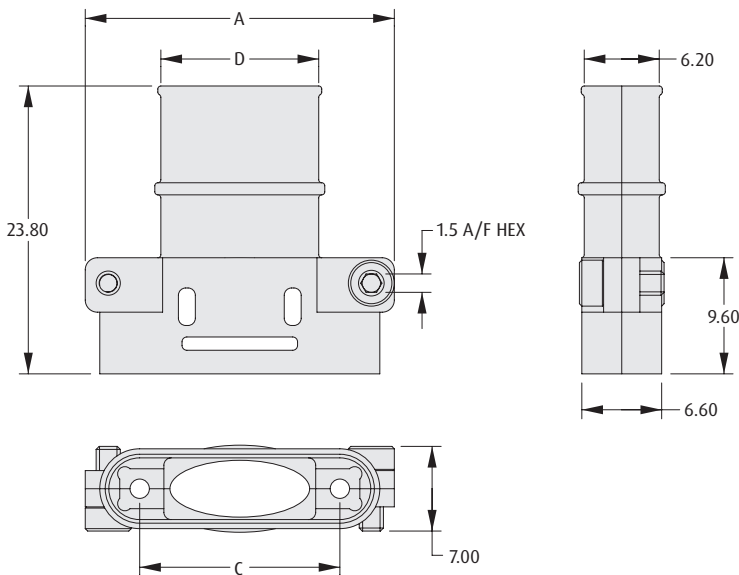
Male Metal Hood / Backshell

- ❖ Supplied as a kit, including 2 metal hood halves and short screws to join the two hood halves together.
- ❖ Use with G125-32496M1-xx-08-xx male crimp housings.
- ❖ Tie-band can be used to attach external braid, to construct a shielded cable assembly.



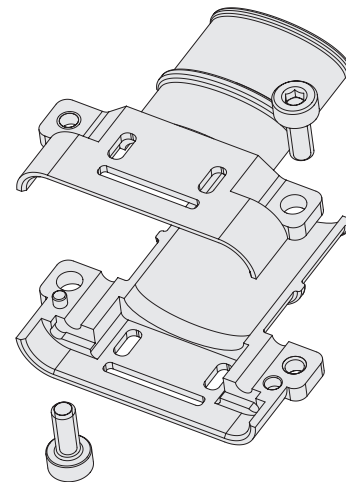
GECKO-MT

HOOD / BACKSHELL



CALCULATION

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



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

HOW TO ORDER

G125 - 964 XX 00

SERIES CODE

TOTAL NO. OF CONTACTS

16	Use with G125-32496M1-01-08-01
26	Use with G125-32496M1-02-08-02

All dimensions in mm.

Patent Published