

Micro-connectors for extreme environments

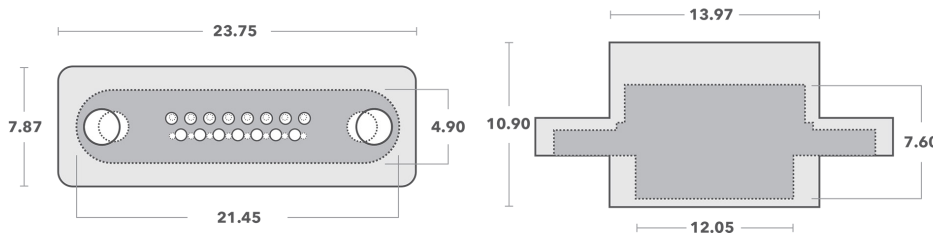
Gecko-SL is a modern alternative to the established Micro-D connection system. This dual-row lightweight connector with a high-reliability contact design is optimized for reliable and durable performance in harsh vibration and temperature conditions.

The female 4-finger contact is at the heart of the Gecko's performance. These machined contacts are manufactured from a solid piece of Beryllium Copper, giving excellent conductivity and long-term spring performance. With a hard gold plating for wear and corrosion resistance, electrical and mechanical performance is assured.

High-performance plastic housings ensure low weight and smaller size connections, compared to metal housing constructions. With the addition of power connections in Gecko-MT, flexibility and reliability are assured.



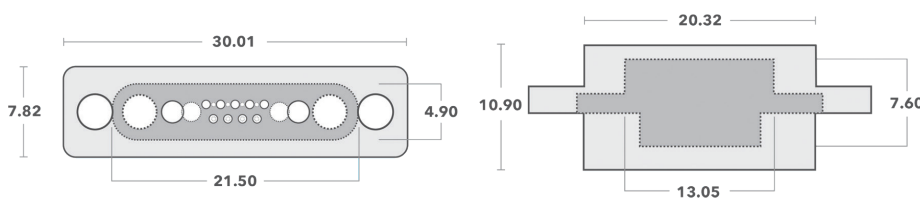
Female Micro-D (right) compared to female Gecko-SL (left)



Size comparisons in top view (left) and side view (right).

A 16-contact Gecko connector (in dark grey) has been overlaid with an equivalent 15-contact Micro-D connector.

A saving of as much as 45% can be achieved when using Gecko.



An 8-signal, 2-power Gecko-MT (in dark grey) has been overlaid with an equivalent 9+2 Combo Micro-D connector.

Gecko-SL: Comparison to Micro-D

Specifications

| | Gecko-SL | Micro-D |
|--|---|---|
| Physical | | |
| Pitch | 1.25mm (0.049") | 1.27mm (0.050") |
| Number of Contacts | 6 to 50 | 9 to 67 (2-row) |
| Size Comparison (L x W x D): (Female cable) | 10 Contact = 17.7 x 6.5 x 7.6mm 26 Contact = 27.7 x 6.5 x 7.6mm 50 Contact = 42.7 x 6.5 x 7.6mm | 9 Contact = 19.9 x 7.8 x 10.9mm 25 Contact = 30.0 x 7.8 x 10.9mm 51 Contact = 46.6 x 7.9 x 10.9mm |
| Weight Comparison | 10 Contact = 0.9g 26 Contact = 1.4g 50 Contact = 2.1g | 9 Contact = 1.7g 25 Contact = 3.0g 51 Contact = 4.7g |

| | | |
|---------------------------|---|---------------------------------|
| Electrical | | |
| Current Rating (25°C) | 2.8A max (contact in isolation) 2.0A max (all contacts simultaneously) | 3.0A max (contact in isolation) |
| Voltage Proof (sea level) | 600V DC or AC peak | 600V AC rms |
| Voltage Proof (70,000ft) | 350V DC or AC peak | 150V AC rms |
| Insulation Resistance | 10GΩ initial, 1GΩ min at 500V | 5GΩ min at 500V |
| Contact Resistance | 25mΩ max | 32mΩ max |

| | | |
|--------------------|------------------------|-----------------------|
| Mechanical | | |
| Contact Durability | 1000 mating operations | 500 mating operations |

| | | |
|-----------------------|---|--|
| Environmental | | |
| Vibration | 10Hz to 2000Hz, 198m/s ² (20G) for 6 hrs | 10Hz to 2000Hz, 198m/s ² (20G) for 12 hrs |
| Shock | 981m/s ² (100G) for 6ms (Z axis) 490m/s ² (50G) for 6ms (X & Y axes) | 490m/s ² (50G) |
| Operating Temperature | -65°C to +150°C | -55°C to +150°C |

| | | |
|------------------|---|-----------------------|
| Materials | | |
| Housings | High Temperature Thermoplastic, UL94V-0 | Aluminium Alloy & LCP |
| Fixings | Stainless Steel | Stainless Steel |
| Female Contacts | Beryllium Copper | Beryllium Copper |
| Contact Finish | 0.2-0.3µm (8-12µ") Gold | 1.27µm (50µ") Gold |

Additional Specifications for Gecko-MT

| | Gecko-MT | Combo Micro-D |
|--|--|---------------------|
| Number of Contacts | 8 signal, 2 or 4 power | 8 signal, 3 power |
| Size Comparison (L x W x D): (Female cable) | 8+2 = 21.5 x 6.5 x 7.6mm 8+4 = 27.7 x 6.5 x 7.6mm | 33.9 x 8.0 x 10.9mm |
| Weights | 8+2 = 1.2g 8+4 = 1.6g | 7.7g |
| Current Rating (25°C) | 10A max | 13A max |