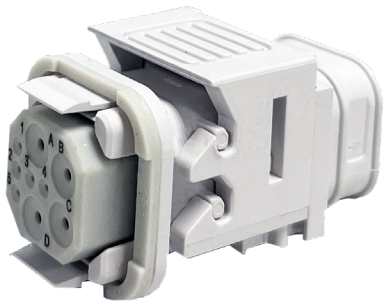
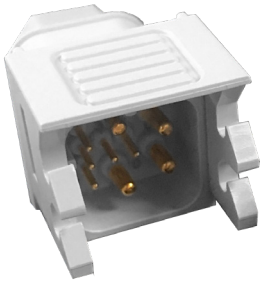
# Velok™

## A quick-mating connector ideal for medium power applications

Velok™ is a small, light-weight, and easy to use rectangular connector designed for low and medium power applications primarily used in aerospace and harsh environments. Its compact design allows for limited space access. Velok's spring-loaded latch makes mating/unmating a snap by simply pushing to lock/unlock connection. The push lock provides convenient single-handed and tool-less mating. Positive lock indicator allows visual confirmation that the connector is properly mated.





# Velok™

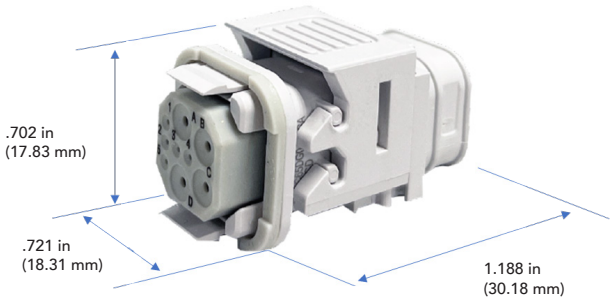
## Features & Benefits

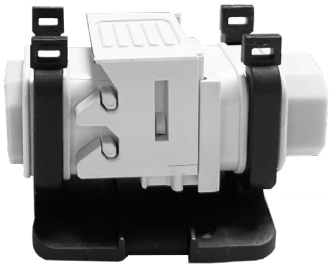
| | |
|---|---|
| Push/Pull Mating | Push-Mate and quick release reduce assembler fatigue |
| Scoop-Proof | Prevents contacts from being bent or electrically shorted during mating |
| Compact Rectangular Form Factor | Ideal where space is limited |
| Positive Lock Indicator | Easy for assembler to see connector is fully mated |
| Polyethermide Housing (Ultem) | Wide operating range and chemical resistance |
| Multiple Keying Positions | Reducing operator errors or mis-mating |
| Boot Ridge | Integrated feature for tying off protective sheathing w/o adding backshells or saddle clamps |

## Materials & Specifications

| Item | Specification |
|---|---|
| Materials | *Connector Thermoplastic Material*<br>*Mechanism*: Polyetherimide<br>*Grommet & Face Seal:* Silicone Rubber<br>*Contact Retainer:* Stainless Steel<br>M*ounting Cradle:* PA 6/6<br>*Latching Mechanism*: PEI |
| Contact Insertion & Removal Force | Size 23: ≥ 10 LBF (EIA-364-05)<br>Size 16: ≥ 15 LBF (EIA-364-05) |
| Connector Coupling & Decoupling Force | Mating: ≥ 10 LBF (EIA-364-13 Method A)<br>Unmating: ≥ 8 LBF (EIA-364-13 Method A) |
| Insulation Resistance | ≥5000 MΩ at 500 VDC (EIA-364-21) |
| Dielectric Withstanding Voltage | Size 23: 1300 VRMS<br>(EIA-364-20 Test Condition I)<br>Size 16: 1500 VRMS<br>(EIA-364-20 Test Condition I) |
| Dielectric Withstanding Voltage (25,000 FT) | Size 23 and 16: 1000 VRMS (EIA-364-20 Test Condition III and IV) |
| Mechanical Durability | 100 Mating Cycles Minimum (EIA-364-09) |
| Altitude Immersion | 5,000 FT (EIA-364-03) |

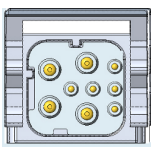
| Item | Specification |
|---|---|
| Thermal Shock | *Connectors:* Test (EIA-364-32)<br>Condition IV, 150°C to -55°C<br>*Cradle:* Test Condition I, 100°C to -55°C (EIA-364-32) |
| Temperature Life | Method A, 1000 hours at 150°C (EIA-364-017) |
| Mechanical Shock | 50g @ 11ms half-sine profile (EIA-364-27)<br>Test Condition A |
| Humidity | 10 cycles @ -10C -65C in 85%-95% RH for 24 hours;<br>EIA-364-31, Method IV, with Cold Shocks |
| Salt Spray | 48 hrs.; Tested to EIA-364-26, Condition B |
| Contact Retention | Size 23: 9.1 LBF (EIA-364-21)<br>Size 16: 25.1 LBF (EIA-364-21) |
| Fluid Resistance | Isopropyl Alcohol (EIA-364-10)<br>Methyl Propyl Ketone (EIA-364-10)<br>Alkaline Detergent (EIA-364-10)<br>Skydrol (EIA-364-10)<br>DOW Frost 60 Heat Transfer Fluid (EIA-364-10) |
| Seal Rating | IP69 |



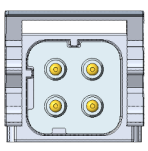



## Insert Arrangements

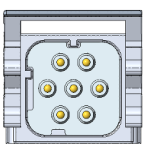
*4 - Size 16*
*5 - Size 23*



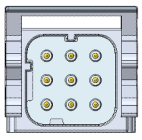
*4 - Size 16*



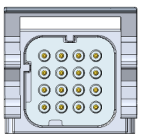
*7 - Size 16*



*9 - Size 23*



*16 - Size 23*



* Contact factory for custom materials, finish and insert arrangements.