

YL11 series circular electrical connector



Conform to Chinese military connector standard GJB101A-1997. YL11 series is designed as bayonet coupling, rain-proof, small size and high density.

Part number

| | | | | | | | | | | | |
|--|------|---|----|---|----|---|---|---|----|------|---|
| | YL11 | H | 16 | R | 12 | 07 | J | A | 01 | 150° | 1 |
| Basic series | | | | | | | | | | | |
| Type between contact and cable | | | | | | | | | | | |
| H = Solder | | | | | | | | | | | |
| B = Solder with PCB | | | | | | | | | | | |
| Type of plug and receptacle | | | | | | | | | | | |
| 10 = Square flange receptacle | | | | | | | | | | | |
| 20 = Shielded square flange receptacle | | | | | | | | | | | |
| 14 = Jam nut receptacle | | | | | | | | | | | |
| 24 = Shielded jam nut receptacle | | | | | | | | | | | |
| 16 = Plug | | | | | | | | | | | |
| 26 = Shielded plug | | | | | | | | | | | |
| 19 = Thru bulkhead square flange receptacle | | | | | | | | | | | |
| 29 = Shielded thru bulkhead square flange receptacle | | | | | | | | | | | |
| Finish | | | | | | | | | | | |
| R = Black anodized | | | | | | | | | | | |
| W = Olive drab anodized | | | | | | | | | | | |
| N = Electroless nickel plating | | | | | | | | | | | |
| B = Cadmium plating | | | | | | | | | | | |
| S = Stainless steel passivated | | | | | | | | | | | |
| Y = Grey anodized | | | | | | | | | | | |
| Shell size | | | | | | | | | | | |
| 06, 08, 10, 12, 14, 16, 18, 20, 22, 24 | | | | | | | | | | | |
| Number of contact | | | | | | | | | | | |
| 4 ~ 61 | | | | | | | | | | | |
| Type of contact | | | | | | | | | | | |
| J = Male pin | | | | | | | | | | | |
| K = Female pin | | | | | | | | | | | |
| Sign of special contact | | | | | | | | | | | |
| A, B, C... (May omit) | | | | | | | | | | | |
| Sign of back shell | | | | | | | | | | | |
| 01 = Straight hermetic cable avoid turn | | | | | | 21 = Shielded straight hermetic cable avoid turn | | | | | |
| 02 = Straight cable clamp | | | | | | 22 = Shielded straight cable clamp | | | | | |
| 03 = Hermetic back with rubber | | | | | | 23 = Shielded hermetic back with rubber | | | | | |
| 04 = 90° elbow hermetic cable avoid turn | | | | | | 24 = Shielded 90° elbow hermetic cable avoid turn | | | | | |
| 05 = 90° elbow cable clamp | | | | | | 25 = Shielded 90° elbow cable clamp | | | | | |
| Orientation | | | | | | | | | | | |
| N, W, X, Y, Z | | | | | | | | | | | |
| Omit = N | | | | | | | | | | | |
| Sign of special shell | | | | | | | | | | | |
| 1, 2, 3, 4, 5 (May omit) | | | | | | | | | | | |

Performance specification

Operating temperature range: -55 °C ~ +125 °C

Operating atmospheric pressure: 4.39 kPa ~ 101.33 kPa

Vibration: 10 Hz ~ 2000 Hz, acceleration 196 m/s²

Relative humidity: 40 ± 2 °C, 90% ~ 95%

Durability: ≥ 1000 cycles

Electrical performance

Contact resistance and rating current:

| Contact diameter (mm) | Contact resistance (mΩ) | Rated current (A) | Max cable diameter (mm) |
|-----------------------|-------------------------|-------------------|-------------------------|
| Φ 1.0 | 5.00 | 7.5 | Φ 0.812 |
| Φ 1.5 | 3.00 | 13.0 | Φ 1.291 |

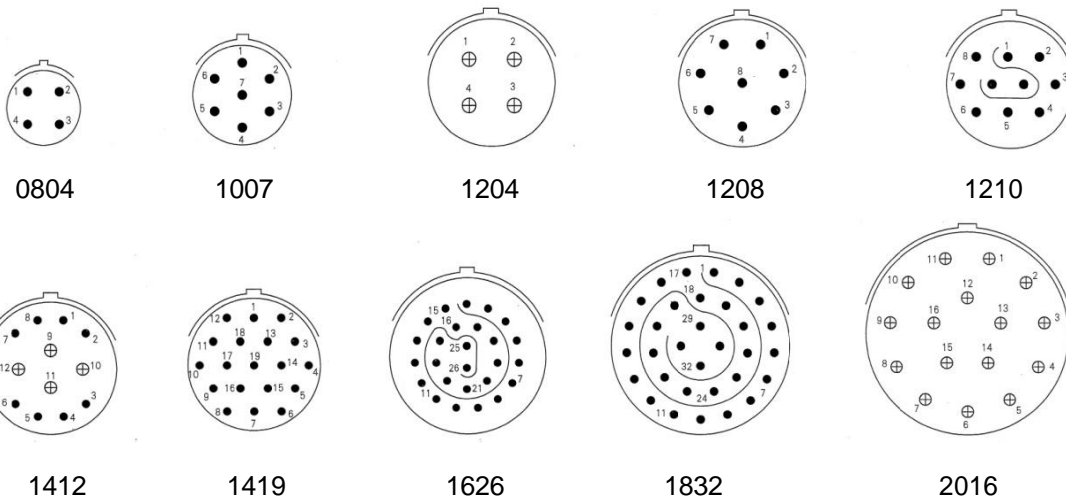
Operating voltage and withstanding voltage

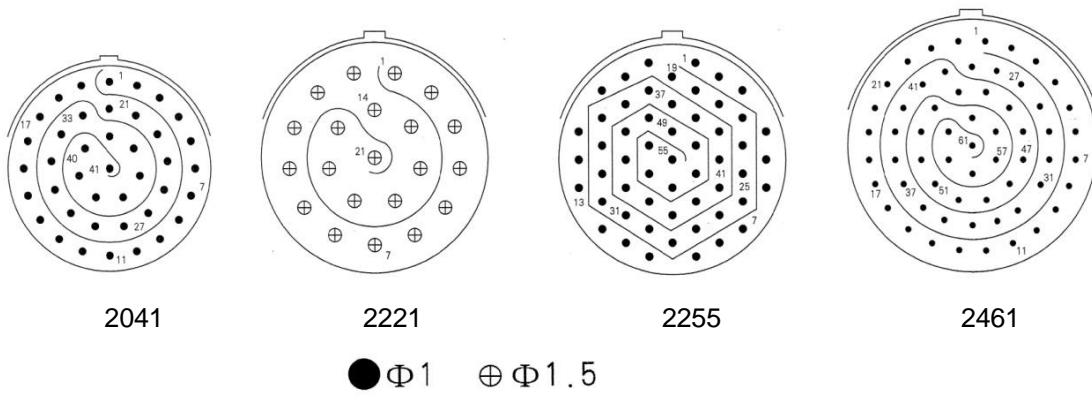
| Sea level | | Low pressure | |
|-----------------------|--------------------------|-----------------------|--------------------------|
| Operating voltage (v) | Withstanding voltage (v) | Operating voltage (v) | Withstanding voltage (v) |
| 600 | 1500 | 150 | 300 |

Insulation resistance

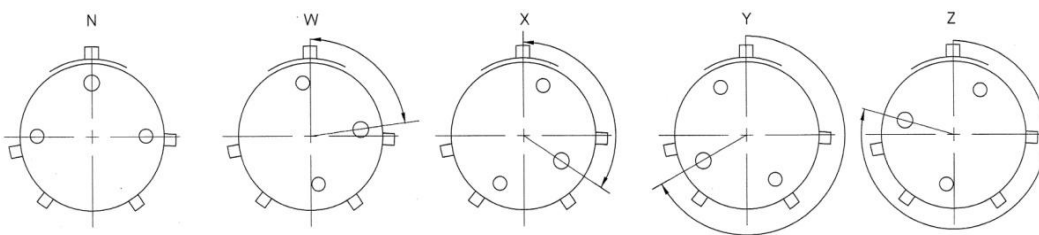
| Normal | Elevated temperature | Humid |
|-------------|----------------------|------------|
| ≥ 5000 (MΩ) | ≥ 500 (MΩ) | ≥ 100 (MΩ) |

Contact layout





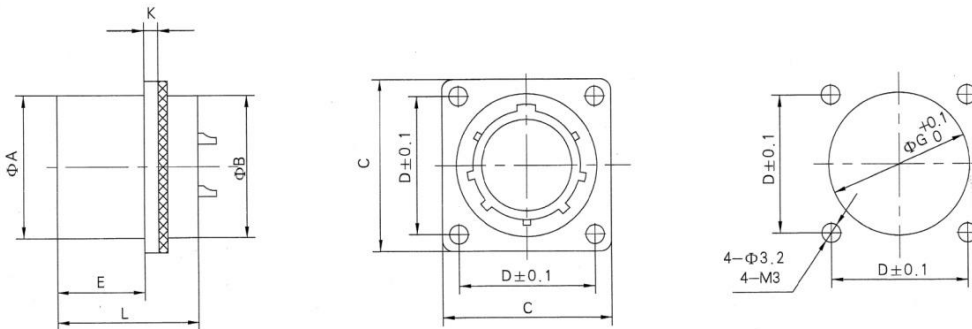
Polarization



| Degree | | | | |
|--------|------|------|------|------|
| I | II | III | IV | V |
| 0° | 100° | 150° | 205° | 265° |

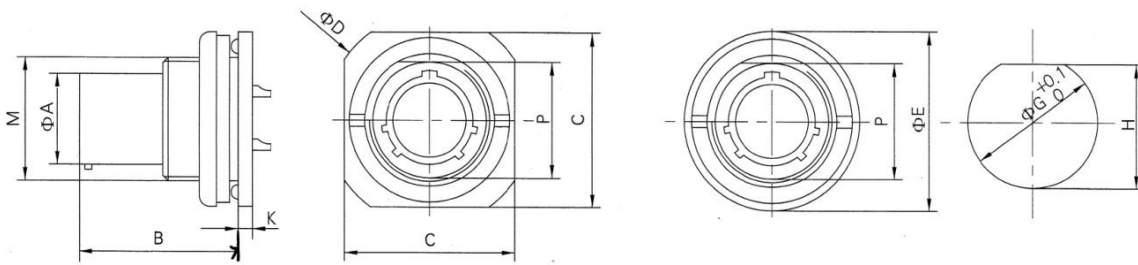
Shell size

Square flange receptacle



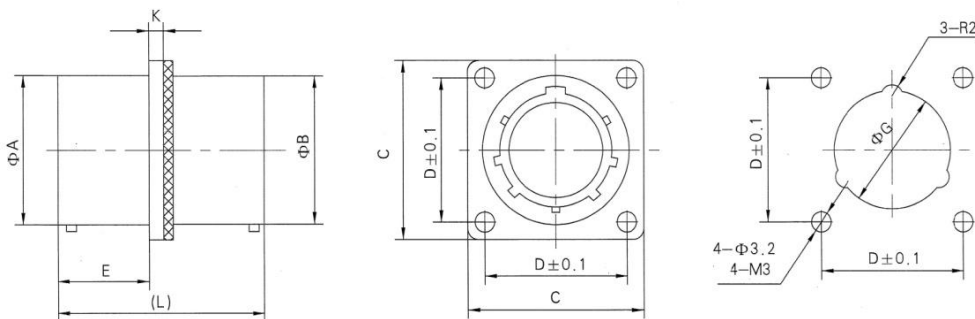
| Shell size | Φ A | Φ B | C | D | E | Φ G | K | L (for reference) |
|------------|-----|-----|----|----|------|------|-----|-------------------|
| 08 | 13 | 13 | 21 | 15 | 14.5 | 13.5 | 1.5 | 21.0 |
| 10 | 16 | 16 | 24 | 18 | 14.5 | 16.5 | 1.5 | 21.0 |
| 12 | 20 | 20 | 27 | 21 | 14.5 | 20.5 | 1.5 | 23.0 |
| 14 | 23 | 23 | 30 | 23 | 14.5 | 23.5 | 1.5 | 21.0 |
| 16 | 26 | 26 | 32 | 25 | 14.5 | 26.5 | 1.5 | 24.0 |
| 18 | 29 | 29 | 36 | 27 | 14.5 | 29.5 | 1.5 | 24.0 |
| 20 | 32 | 32 | 39 | 29 | 14.5 | 32.5 | 2.0 | 25.5 |
| 22 | 35 | 35 | 42 | 32 | 14.5 | 35.5 | 2.0 | 26.5 |
| 24 | 38 | 38 | 45 | 35 | 14.5 | 38.5 | 2.2 | 26.5 |

Jam nut receptacle



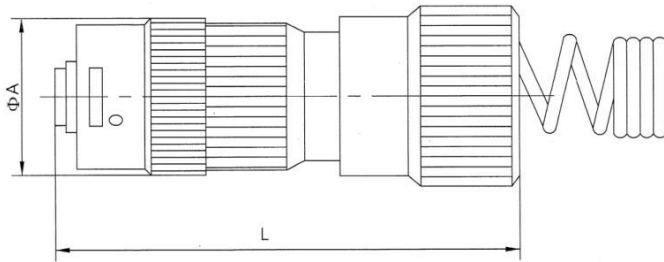
| Shell size | Φ A | B | C | Φ D | Φ E | P | K | Φ G | H | Thread M |
|------------|-----|------|----|------|------|------|-----|------|------|----------|
| 08 | 13 | 18.5 | 24 | 31.2 | 22.0 | 15.0 | 2.5 | 16.2 | 15.2 | M16×1 |
| 10 | 16 | 18.5 | 25 | 30.8 | 23.5 | 16.9 | 2.5 | 18.2 | 17.2 | M18×1 |
| 12 | 20 | 20.5 | 32 | 39 | 32.0 | 22.1 | 2.5 | 24.2 | 22.3 | M24×1 |
| 14 | 23 | 18.5 | 35 | 40 | 34.5 | 25.1 | 2.5 | 27.2 | 25.3 | M27×1.5 |
| 16 | 26 | 21.5 | 38 | 45.2 | 38.0 | 28.1 | 2.5 | 30.2 | 28.3 | M30×1 |
| 18 | 29 | 21.5 | 41 | 47.2 | 41.0 | 31.1 | 2.5 | 33.2 | 31.3 | M33×1.5 |
| 20 | 32 | 21.5 | 46 | 50.2 | 46.0 | 35.0 | 3.0 | 36.2 | 35.2 | M36×1.5 |
| 22 | 35 | 21.5 | 50 | 54.2 | 50.0 | 37.2 | 3.0 | 39.2 | 37.4 | M39×1.5 |
| 24 | 38 | 21.5 | 53 | 56.2 | 53 | 40.2 | 3.0 | 42.2 | 40.4 | M42×1.5 |

Thru bulkhead flange receptacle



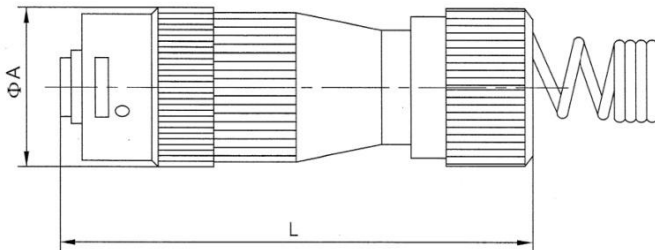
| Shell size | Φ A | Φ B | C | D | E | Φ G | K | L (for reference) |
|------------|-----|-----|----|----|------|------|-----|-------------------|
| 08 | 13 | 13 | 21 | 15 | 16.5 | 13.5 | 2.0 | 31.8 |
| 10 | 16 | 16 | 24 | 18 | 16.5 | 16.5 | 2.0 | 31.8 |
| 12 | 20 | 20 | 27 | 21 | 16.5 | 20.5 | 2.0 | 34 |
| 14 | 23 | 23 | 30 | 23 | 16.5 | 23.5 | 2.0 | 34 |
| 16 | 26 | 26 | 32 | 25 | 16.5 | 26.5 | 2.0 | 34 |
| 18 | 29 | 29 | 36 | 27 | 16.5 | 29.5 | 2.0 | 34 |
| 20 | 32 | 32 | 39 | 29 | 16.5 | 32.5 | 2.5 | 36 |
| 22 | 35 | 35 | 42 | 32 | 16.5 | 35.5 | 2.5 | 36 |
| 24 | 38 | 38 | 45 | 35 | 16.5 | 38.5 | 2.5 | 36 |

Straight hermetic cable avoid turn plug



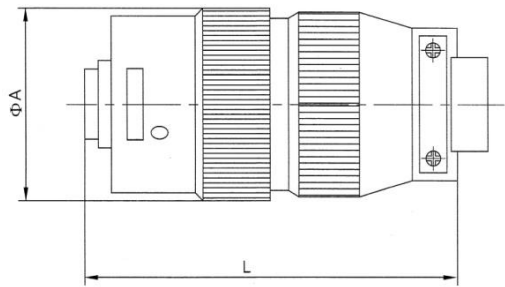
| Shell size | Φ A | Cable diameter | L (for reference) |
|------------|------|----------------|-------------------|
| 08 | 20.0 | 6 | 47 |
| 10 | 24.5 | 6 | 51.5 |
| 12 | 26.5 | 9 | 52.5 |
| 14 | 31.0 | 12 | 57.5 |
| 16 | 32.0 | 14 | 59 |
| 18 | 35.0 | 15 | 58 |
| 20 | 40.0 | 16 | 68 |
| 22 | 42.2 | 16 | 68 |
| 24 | 47.6 | 16 | 75 |

Shielded straight hermetic cable avoid turn plug



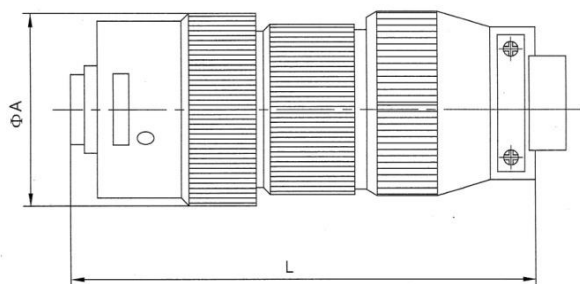
| Shell size | Φ A | Cable diameter | L (for reference) |
|------------|------|----------------|-------------------|
| 08 | 20.0 | 6 | 54.5 |
| 10 | 24.5 | 6 | 58 |
| 12 | 26.5 | 9 | 58 |
| 14 | 31.0 | 12 | 58 |
| 16 | 32.0 | 14 | 59 |
| 18 | 35.0 | 15 | 58 |
| 20 | 40.0 | 16 | 62 |
| 22 | 42.2 | 16 | 76 |
| 24 | 47.6 | 16 | 70 |

Straight cable clamp plug



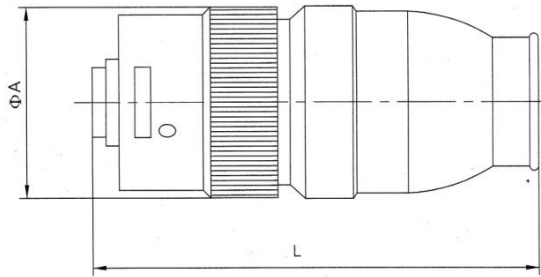
| Shell size | ΦA | Cable diameter | L (for reference) |
|------------|----------|----------------|-------------------|
| 08 | 20.0 | 6 | 37 |
| 10 | 24.5 | 6 | 40 |
| 12 | 26.5 | 9 | 43 |
| 14 | 31.0 | 12 | 47 |
| 16 | 32.0 | 14 | 48 |
| 18 | 35.0 | 15 | 48 |
| 20 | 40.0 | 16 | 52 |
| 22 | 42.2 | 16 | 62 |
| 24 | 47.6 | 16 | 52 |

Shielded straight cable clamp plug



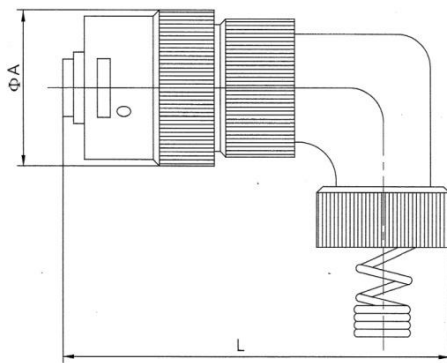
| Shell size | ΦA | Cable diameter | L (for reference) |
|------------|----------|----------------|-------------------|
| 08 | 20 | 6 | 53 |
| 10 | 24.5 | 6 | 53 |
| 12 | 26.5 | 9 | 53 |
| 14 | 31 | 12 | 53 |
| 16 | 32 | 14 | 64.5 |
| 18 | 35 | 15 | 63 |
| 20 | 40 | 16 | 66 |
| 22 | 42.2 | 16 | 66 |
| 24 | 47.6 | 16 | 66 |

Shielded hermetic back with rubber



| Shell size | Φ A | Cable diameter | L (for reference) |
|------------|------|----------------|-------------------|
| 08 | 20 | 6 | 73.5 |
| 10 | 24.5 | 6 | 77 |
| 12 | 26.5 | 9 | 79 |
| 14 | 31 | 12 | 84.5 |
| 16 | 32 | 14 | 85 |
| 18 | 35 | 15 | 90 |
| 20 | 40 | 16 | 91 |
| 22 | 42.2 | 16 | 91 |
| 24 | 47.6 | 16 | 92.1 |

90° elbow hermetic cable avoid turn



| Shell size | Φ A | Cable diameter | L (for reference) |
|------------|------|----------------|-------------------|
| 08 | 20 | 6 | 42 |
| 10 | 24.5 | 6 | 45 |
| 12 | 26.5 | 9 | 50.7 |
| 14 | 31 | 12 | 64.7 |
| 16 | 32 | 14 | 66 |
| 18 | 35 | 15 | 70 |
| 20 | 40 | 16 | 70 |
| 22 | 42.2 | 16 | 74 |
| 24 | 47.6 | 16 | 75.1 |