

MULTI CONCENTRIC CONTACT CONNECTORS



S and E Series multi concentric contact connectors

A new range of products dedicated to applications in which connectors need to function even in case of rotation. Similar to coaxial or triaxial connectors, these precision engineered connectors are fitted with multiple concentric electrical contacts.

The number of contacts ranges from 4 to 10 contacts. Connectors are available in various shell sizes. For an IP68 connector solution select the E series.

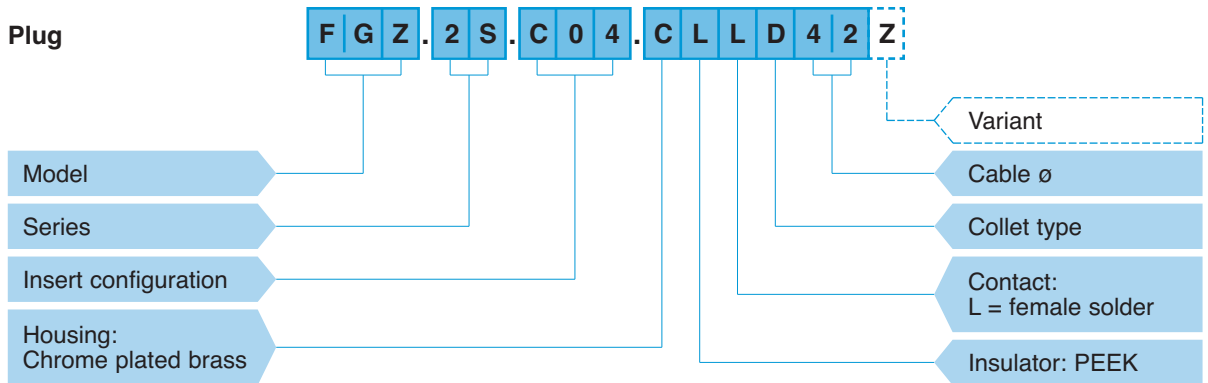
These contacts, designed for low-speed rotation, can last up to 10,000 rotation cycles. Unlike coaxial or triaxial connectors this range is not impedance controlled.

The contacts are recessed and scoop-proof. Applications include petroleum downhole drilling systems and turret applications, in other words, applications where the connection may require free rotation (instrumentation mast).



Part Numbering System

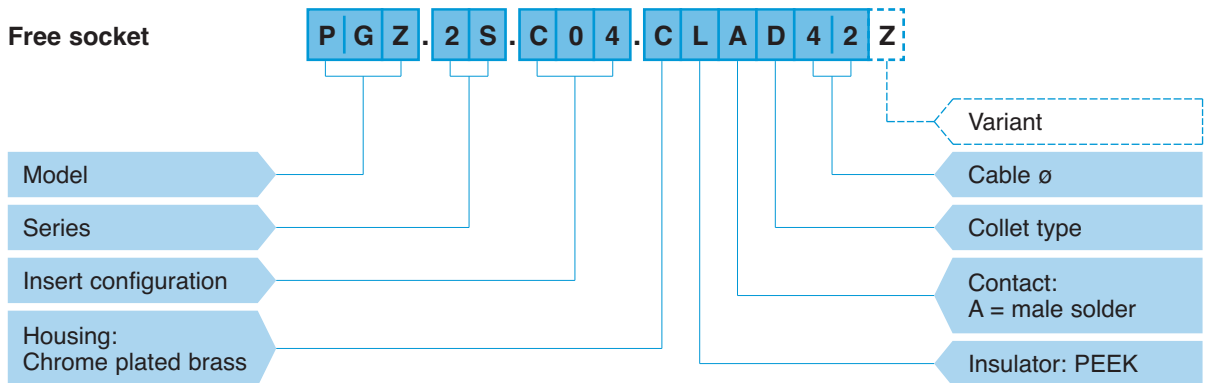
Plug



FGZ.2S.C04.CLLD42Z = Straight plug, cable collet, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for 4.2 mm diameter cable and nut for fitting a bend relief.

FGZ.2E.C04.CLLC50 = Straight plug, cable collet, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 5.0 mm diameter cable.

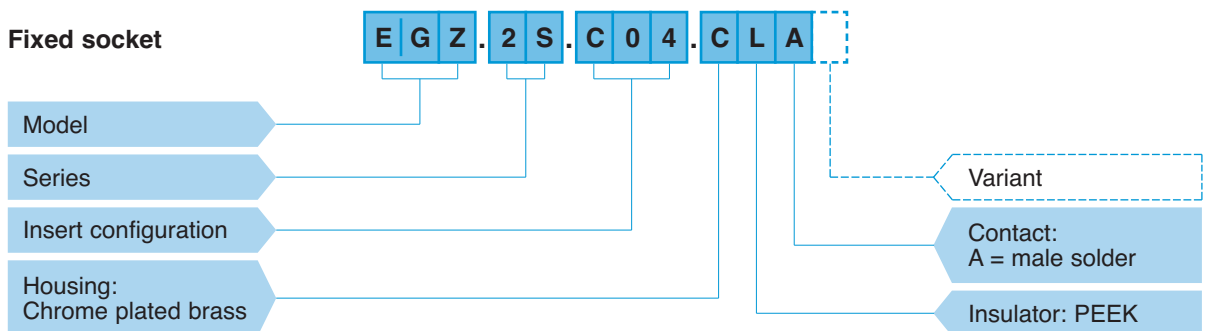
Free socket



PGZ.2S.C04.CLAD42Z = Free socket, cable collet, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 4.2 mm diameter cable and nut for fitting a bend relief.

PGZ.2E.C04.CLAC50 = Free socket, cable collet, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 5.0 mm diameter cable.


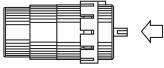




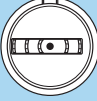





Fixed socket



EGZ.2S.C04.CLA = Fixed socket, nut fixing, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts.

EGZ.2E.C04.CLA = Fixed socket, nut fixing, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts.

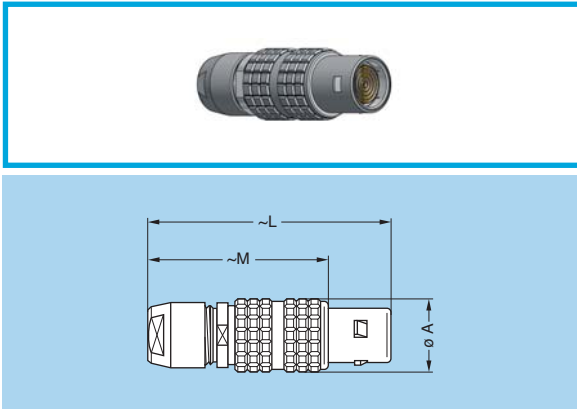
Insert configuration and electrical characteristics

| Number of LV contacts | Male contacts | Female contacts | Reference | Series | | Solder contact | Test voltage (kV rms) | Test voltage (kV dc) | Rated current (A) |
|-----------------------|---|---|------------|----------|------------|----------------|-----------------------|----------------------|-------------------|
| |  |  | | Standard | Watertight | | | | |
| 4 |  |  | C04 | 2S | 2E | ● | 0.60 | 0.85 | 5.5 |
| 5 |  |  | C05 | 3S | 3E | ● | 0.60 | 0.85 | 6.0 |
| 6 |  |  | C06 | 4S | 4E | ● | 0.60 | 0.85 | 6.0 |
| 8 |  |  | C08 | YS | – | ● | 0.60 | 0.85 | 6.5 |
| 10 |  |  | C10 | 5S | 5E | ● | 0.60 | 0.85 | 7.0 |

Note: the YS series is only available for FAA and EHP models.

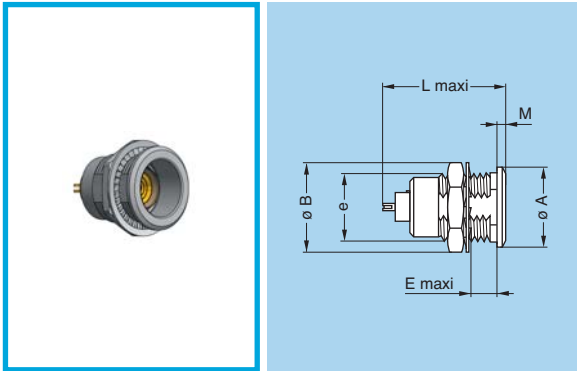
Models (S series)

FGZ Straight plug, cable collet



| Reference | | Dimensions (mm) | | |
|-----------|--------|-----------------|-------|------|
| Model | Series | A | L | M |
| FGZ | 2S | 15.0 | 50.0 | 38.0 |
| FGZ | 3S | 18.8 | 58.0 | 43.0 |
| FGZ | 4S | 25.0 | 75.0 | 57.0 |
| FGZ | 5S | 35.0 | 103.0 | 78.0 |

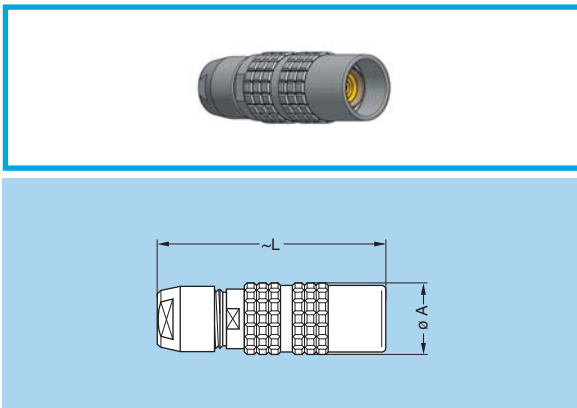
EGZ Fixed socket, nut fixing



| Reference | | Dimensions (mm) | | | | | |
|-----------|--------|-----------------|------|---------|------|------|-----|
| Model | Series | A | B | e | E | L | M |
| EGZ | 2S | 18.0 | 19.2 | M15x1.0 | 8.5 | 25.0 | 1.8 |
| EGZ | 3S | 22.0 | 25.0 | M18x1.0 | 11.5 | 29.2 | 2.0 |
| EGZ | 4S | 28.0 | 34.0 | M25x1.0 | 12.0 | 33.0 | 2.5 |
| EGZ | 5S | 40.0 | 40.0 | M35x1.0 | 11.0 | 40.7 | 3.0 |

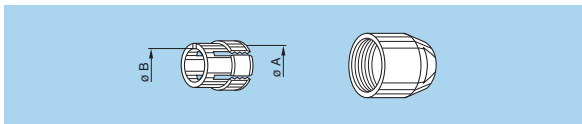
Note: The 5S series is delivered with a tapered washer and a round nut.

PGZ Free socket, cable collet



| Reference | | Dim. (mm) | |
|-----------|--------|-----------|------|
| Model | Series | A | L |
| PGZ | 2S | 16.5 | 47.0 |
| PGZ | 3S | 18.8 | 56.0 |
| PGZ | 4S | 26.0 | 73.0 |
| PGZ | 5S | 36.0 | 99.0 |

Collets (D type)



| | Reference | | Collet ø | | Cable ø | | Notes |
|-----------|-----------|------|----------|------|---------|-------|-------|
| | Type | Code | ø A | ø B | max. | min. | |
| 2S | D | 42 | 4.2 | – | 4.2 | > 3.2 | |
| | D | 52 | 5.2 | – | 5.2 | > 4.2 | |
| | D | 62 | 6.2 | – | 6.2 | > 5.2 | |
| | D | 72 | 7.2 | – | 7.2 | > 6.2 | |
| | D | 82 | 8.2 | – | 8.2 | > 7.2 | |
| | D | 92 | 9.2 | 8.6 | 9.2 | > 8.2 | |
| | D | 99 | 9.9 | 8.6 | 9.9 | > 9.2 | 1) |
| 3S | D | 62 | 6.2 | – | 6.2 | 4.9 | |
| | D | 72 | 7.2 | – | 7.7 | > 6.2 | |
| | D | 92 | 9.2 | – | 9.2 | > 7.7 | |
| | D | 10 | 10.2 | – | 10.0 | > 9.2 | |
| | D | 12 | 12.0 | 10.2 | 11.9 | 10.8 | 1) |

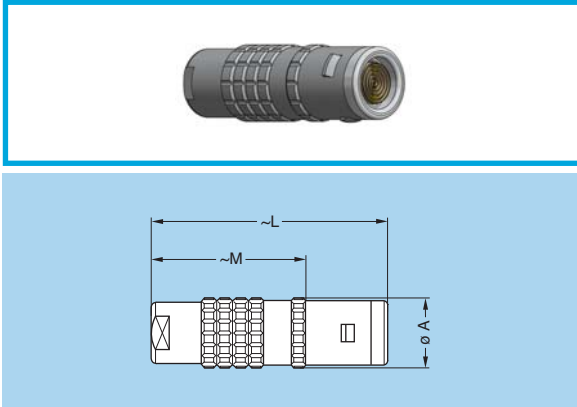
| | Reference | | Collet ø | | Cable ø | | Notes |
|-----------|-----------|------|----------|------|---------|------|-------|
| | Type | Code | ø A | ø B | max. | min. | |
| 4S | D | 10 | 10.8 | – | 10.5 | 9.1 | |
| | D | 12 | 12.3 | – | 12.0 | 10.6 | |
| | D | 13 | 13.8 | 12.5 | 13.5 | 12.1 | |
| | D | 15 | 15.3 | 12.5 | 15.0 | 13.6 | |
| | D | 16 | 16.3 | 12.5 | 16.0 | 15.1 | 1) |
| | D | 11 | 11.8 | – | 11.5 | 9.6 | |
| 5S | D | 13 | 13.8 | – | 13.5 | 11.6 | |
| | D | 15 | 15.8 | – | 15.5 | 13.6 | |
| | D | 17 | 17.8 | – | 17.5 | 15.6 | 1) |
| | D | 19 | 19.8 | – | 19.5 | 17.6 | 1) |
| | D | 21 | 21.8 | – | 21.5 | 19.6 | 1) |
| | D | 23 | 23.8 | 21.8 | 23.5 | 21.6 | 1) |
| | D | 25 | 25.3 | 21.8 | 25.0 | 23.6 | 1) |

Note: all dimensions are in millimetres.

1) these collets cannot be used for connector models with nut for fitting a bend relief.

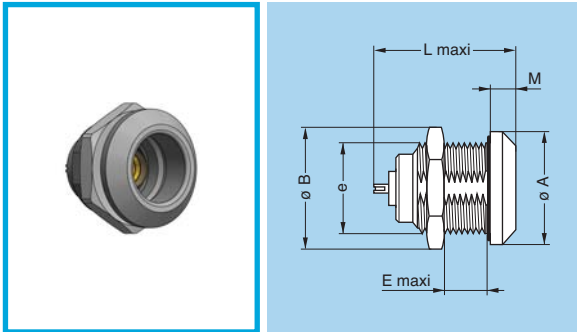
Models (E series)

FGZ Straight plug, cable collet



| Reference | | Dimensions (mm) | | |
|-----------|--------|-----------------|----|------|
| Model | Series | A | L | M |
| FGZ | 2E | 16 | 52 | 36.0 |
| FGZ | 3E | 19 | 61 | 41.0 |
| FGZ | 4E | 25 | 71 | 50.5 |
| FGZ | 5E | 38 | 92 | 67.0 |

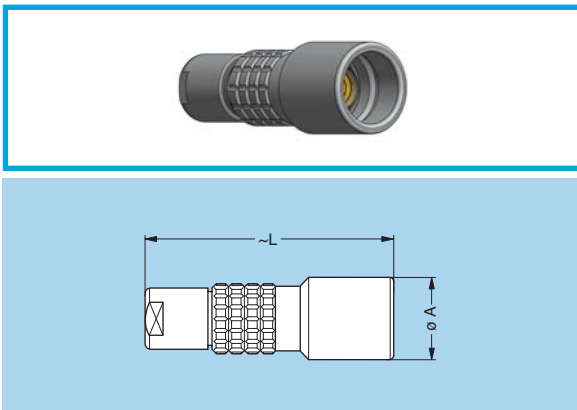
EGZ Fixed socket, nut fixing



| Reference | | Dimensions (mm) | | | | | |
|-----------|--------|-----------------|------|---------|------|------|-----|
| Model | Series | A | B | e | E | L | M |
| EGZ | 2E | 25 | 27.0 | M20x1.0 | 9.0 | 28.5 | 5.0 |
| EGZ | 3E | 31 | 34.0 | M24x1.0 | 11.0 | 34.0 | 6.0 |
| EGZ | 4E | 37 | 40.5 | M30x1.0 | 9.0 | 36.0 | 6.5 |
| EGZ | 5E | 55 | 54.0 | M45x1.5 | 10.0 | 44.5 | 9.0 |

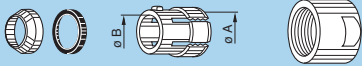
Note: The 5E series is delivered with a round nut.

PGZ Free socket, cable collet



| Reference | | Dim. (mm) | |
|-----------|--------|-----------|------|
| Model | Series | A | L |
| PGZ | 2E | 19 | 54.0 |
| PGZ | 3E | 23 | 65.0 |
| PGZ | 4E | 29 | 75.5 |
| PGZ | 5E | 42 | 95.0 |

Collets (C type)



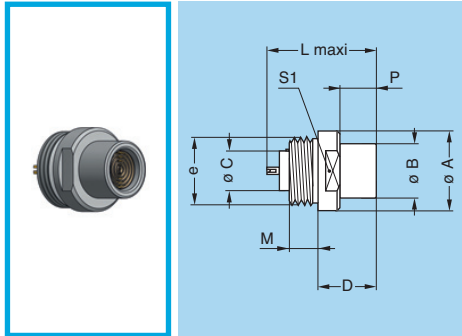
| | Reference | | Collet ø | | Cable ø | |
|-----------|-----------|------|----------|-----|---------|------|
| | Type | Code | ø A | ø B | max. | min. |
| 2E | C | 45 | 5.2 | – | 4.5 | 4.1 |
| | C | 50 | 5.2 | – | 5.0 | 4.6 |
| | C | 55 | 6.2 | – | 5.5 | 5.1 |
| | C | 60 | 6.2 | – | 6.0 | 5.6 |
| | C | 65 | 7.2 | – | 6.5 | 6.1 |
| | C | 70 | 7.2 | – | 7.0 | 6.6 |
| | C | 75 | 8.2 | 8.2 | 7.5 | 7.1 |
| | C | 80 | 8.2 | 8.2 | 8.0 | 7.6 |
| | C | 85 | 9.2 | 8.6 | 8.5 | 8.1 |
| | 3E | C | 45 | 5.2 | – | 4.5 |
| C | | 50 | 5.2 | – | 5.0 | 4.6 |
| C | | 55 | 6.2 | – | 5.5 | 5.1 |
| C | | 60 | 6.2 | – | 6.0 | 5.6 |
| C | | 65 | 7.2 | – | 6.5 | 6.1 |
| C | | 70 | 7.2 | – | 7.0 | 6.6 |
| C | | 75 | 8.2 | – | 7.5 | 7.1 |
| C | | 80 | 8.2 | – | 8.0 | 7.6 |
| C | | 85 | 9.2 | – | 8.5 | 8.1 |
| C | | 90 | 9.2 | – | 9.0 | 8.6 |

| | Reference | | Collet ø | | Cable ø | | |
|-----------|-----------|------|----------|------|---------|------|------|
| | Type | Code | ø A | ø B | max. | min. | |
| 4E | C | 90 | 9.3 | – | 9.0 | 8.6 | |
| | C | 95 | 10.8 | – | 9.5 | 9.1 | |
| | C | 10 | 10.8 | – | 10.5 | 9.6 | |
| | C | 11 | 12.3 | – | 12.0 | 10.6 | |
| | C | 12 | 13.8 | 13.8 | 12.8 | 12.1 | |
| | C | 13 | 13.8 | 13.8 | 13.5 | 12.9 | |
| | C | 14 | 15.3 | 15.3 | 14.0 | 13.6 | |
| | C | 15 | 15.3 | 15.3 | 15.0 | 14.1 | |
| | 5E | C | 10 | 11.8 | – | 10.5 | 9.6 |
| | | C | 11 | 11.8 | – | 11.5 | 10.6 |
| C | | 12 | 13.8 | – | 12.5 | 11.6 | |
| C | | 13 | 13.8 | – | 13.5 | 12.6 | |
| C | | 14 | 15.8 | – | 14.5 | 13.6 | |
| C | | 15 | 15.8 | – | 15.5 | 14.6 | |
| C | | 16 | 17.8 | – | 16.5 | 15.6 | |
| C | | 17 | 17.8 | – | 17.5 | 16.6 | |
| C | | 18 | 19.8 | – | 18.5 | 17.6 | |
| C | | 19 | 19.8 | – | 19.5 | 18.6 | |
| C | 20 | 21.8 | – | 20.5 | 19.6 | | |

Note: all dimensions are in millimetres.

Special reduced shell without latching models, NOT scoop proof

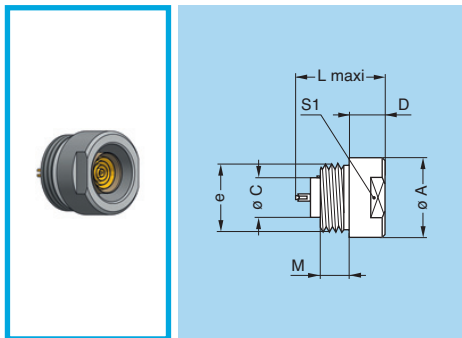
FAA Fixed plug (only compatible with EHP)



| Reference | | Dimensions (mm) | | | | | | | |
|-----------|--------|-----------------|------|-------|---------|------|------|------|------|
| Model | Series | A | B | C | e | D | L | M | P |
| FAA | 2S | 18.0 | 12.0 | 8.95 | M16x1.5 | 12.5 | 26.2 | 7.5 | 8.0 |
| FAA | 3S | 22.0 | 15.0 | 10.95 | M20x1.5 | 16.0 | 30.2 | 8.0 | 10.0 |
| FAA | 4S | 25.0 | 18.0 | 13.95 | M22x1.5 | 17.0 | 33.2 | 10.0 | 10.0 |
| FAA | YS | 30.0 | 23.0 | 18.70 | M27x1.5 | 21.0 | 40.7 | 13.5 | 13.0 |
| FAA | 5S | 35.0 | 27.0 | 22.90 | M32x1.5 | 21.0 | 40.7 | 13.5 | 13.0 |

Part number example: FAA.●S.C●●.YLL

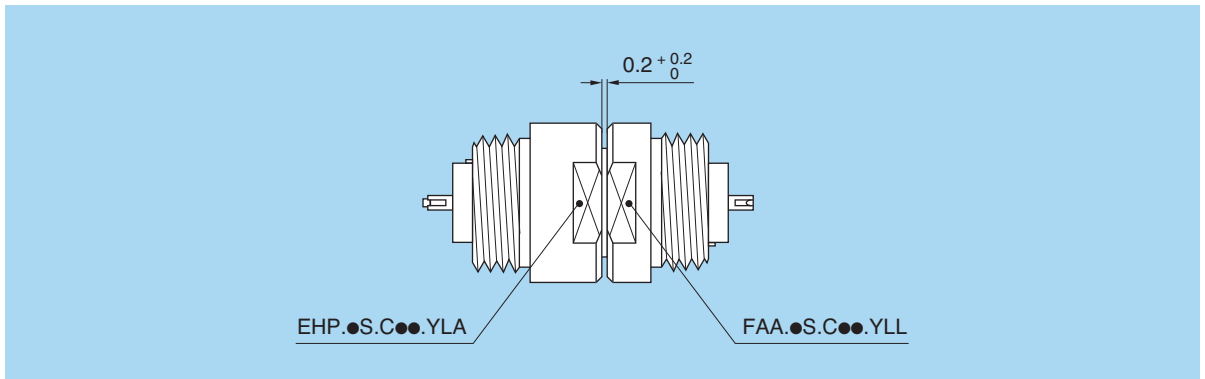
EHP Fixed socket (only compatible with FAA)



| Reference | | Dimensions (mm) | | | | | | |
|-----------|--------|-----------------|-------|---------|------|------|------|------|
| Model | Series | A | C | e | D | L | M | S1 |
| EHP | 2S | 18.0 | 8.95 | M16x1.5 | 8.4 | 18.6 | 7.5 | 17.0 |
| EHP | 3S | 22.0 | 10.95 | M20x1.5 | 9.9 | 24.8 | 8.0 | 19.0 |
| EHP | 4S | 25.0 | 13.95 | M22x1.5 | 10.9 | 27.1 | 10.0 | 21.0 |
| EHP | YS | 30.0 | 18.70 | M27x1.5 | 11.9 | 32.3 | 13.5 | 26.0 |
| EHP | 5S | 35.0 | 22.90 | M32x1.5 | 11.9 | 32.3 | 13.5 | 30.0 |

Part number example: EHP.●S.C●●.YLA

For all the sizes (2S, 3S, 4S, YS, 5S), please respect the gap between plug and socket as shown below.



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