



IP68

SP  
13.17.21



● SP13/SP17/SP21 IP68 Threaded coupling



Material and spec

| Product type               | Connector                                                                          | Overmolded Cable Assemblies                                             |
|----------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Coupling                   | Threaded coupling                                                                  | Threaded coupling                                                       |
| Shell material             | Nylon66, fire resistance : V-0                                                     | PC、PVC, fire resistance:V-0;<br>Locking nut material: Anodized aluminum |
| Insert material            | PPS max temperature 260℃, fire resistance : V-0                                    | PPS max temperature 260℃, fire resistance : V-0                         |
| Contact material           | Brass with gold plating                                                            | Brass with gold plating                                                 |
| Termination                | SP13: solder, SP17: solder/crimp, SP21: solder / screw/crimp                       |                                                                         |
| Cable outer diameter range | SP13 I: 4-6.5mm SP13 II: 5-8mm<br>SP17 : 6-10mm<br>SP21 I: 4.5-7mm SP21 II: 7-12mm |                                                                         |
| IP rating                  | IP68                                                                               | IP66                                                                    |
| Mating cycle               | >500                                                                               | >500                                                                    |
| Temperature range          | -25℃~+85℃                                                                          | -20℃~+85℃                                                               |
| Insulation resistance MΩ   | 2000                                                                               | 2000                                                                    |

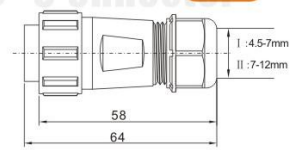
## SP21 Series IP68

**SP  
21**



### Cable connector

Mate with SP2111, SP2112, SP2113



SP2110 / P \_ \_ \_ \_ SP2110 / S \_ \_ \_ \_

C: with cap, N: without cap

1: solder, 2: screw, 3: crimp

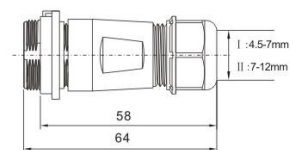
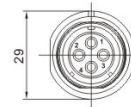
Cable outer diameter I: 4.5-7mm, II: 7-12mm

Number of contact: 2, 3, 4, 5, 5B, 5C, 7, 8, 9, 12



### In-line cable connector

Mate with SP2110

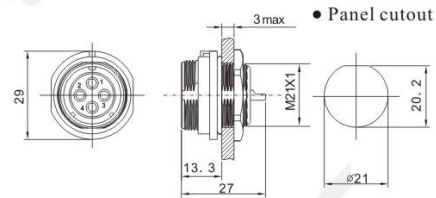


SP2111 / P \_ \_ \_ \_ SP2111 / S \_ \_ \_ \_



### Front mount

Mate with SP2110

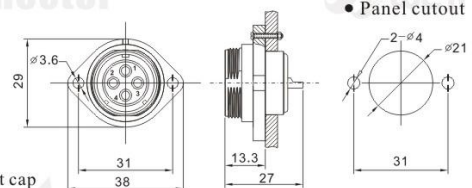


SP2112 / P \_ \_ \_ \_ SP2112 / S \_ \_ \_ \_



### 2-hole flange

Mate with SP2110



SP2113 / P \_ \_ \_ \_ SP2113 / S \_ \_ \_ \_

C: with cap, N: without cap

1: solder, 2: screw, 3: crimp

Number of contact: 2, 3, 4, 5, 5B, 5C, 7, 8, 9, 12

## Contact arrangement and spec for solder/screw

★ For crimp spec see P49-P52

| Number of contact        | 2              | 3              | 4              | 5              | 5B                    | 5C     | 7      | 9         | 12        |
|--------------------------|----------------|----------------|----------------|----------------|-----------------------|--------|--------|-----------|-----------|
| Male contact face view   |                |                |                |                |                       |        |        |           |           |
| Rated current (A)        | 30A            | 30A            | 30A            | 30A            | 5A, 30A               | 15A    | 15A    | 5A        | 5A        |
| Contact diameter         | Ø 3X2          | Ø 3X3          | Ø 3X4          | Ø 3X5          | Ø 1X3<br>Ø 3X2        | Ø 2X5  | Ø 2X7  | Ø 1X9     | Ø 1X12    |
| Termination              | solder / screw | solder / screw | solder / screw | solder / screw | solder / screw        | solder | solder | solder    | solder    |
| Rated voltage (AC.V)     | 500V           | 500V           | 500V           | 500V           | 500V                  | 500V   | 500V   | 500V      | 400V      |
| Test voltage(AC.V) 1 min | 1500V          | 1500V          | 1500V          | 1500V          | 1500V                 | 1500V  | 1500V  | 1500V     | 1200V     |
| Contact resistance mΩ    | 1              | 1              | 1              | 1              | 5, 1                  | 2.5    | 2.5    | 5         | 5         |
| Wire size mm²/AWG        | ≤4.17/11       | ≤4.17/11       | ≤4.17/11       | ≤4.17/11       | ≤0.785/18<br>≤4.17/11 | ≤2/14  | ≤2/14  | ≤0.785/18 | ≤0.785/18 |

★ Crimp contact arrangement and spec for WS,WF,WY,WP,SP,SY series

| WS20、WF20、WY20、WP20<br>SP21、SY21 | 2                                                                                 | 3                                                                                 | 5                                                                                 | 7                                                                                   | 8                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Male contact face view           |  |  |  |  |  |
| Rated current (A)                | 25A                                                                               | 25A                                                                               | 10A                                                                               | 10A                                                                                 | 5A                                                                                  |
| Contact diameter                 | ∅ 2.5X2                                                                           | ∅ 2.5X3                                                                           | ∅ 1.5X5                                                                           | ∅ 1.5X7                                                                             | ∅ 1X8                                                                               |
| Rated voltage (AC.V)             | 500V                                                                              | 500V                                                                              | 500V                                                                              | 500V                                                                                | 500V                                                                                |
| Test voltage(AC.V) 1 min         | 1500V                                                                             | 1500V                                                                             | 1500V                                                                             | 1500V                                                                               | 1500V                                                                               |
| Contact resistance mΩ            | 1                                                                                 | 1                                                                                 | 2.5                                                                               | 2.5                                                                                 | 5                                                                                   |
| Insulation resistanceMΩ          | 2000                                                                              | 2000                                                                              | 2000                                                                              | 2000                                                                                | 2000                                                                                |