XY1 Push-In Miniature Circular Connectors, IP67

IP67 · push-in quick connect · ≈ 50 % lighter than Series III



Coupling	Push-in
Weight saving	≈ 50 % vs. Series III
Shell sizes	07 to 10
Insert arrangements	8
Contact sizes	23 to 12 (5–23 A)
Temperature	–40 to +120 °C (IP67)
Protection	IP67

Key features

- Push-in quick connection — no coupling nut to turn
- IP67 sealing
- About 50 % lighter and 60 % smaller than a GJB 599 Series III connector with the same layout
- Small, light, high contact density; removable crimp or solder contacts
- Three-key polarization with four key positions
- Square-flange, round-flange and adapter receptacles; straight waterproof and potted backshells
- More layouts are being added; contact counts can be customized

Specifications

Electrical

Parameter	Value	Condition
Dielectric withstanding voltage	1000 V	
Insulation resistance	≥ 5000 MΩ	

Mechanical and environmental

Parameter	Value	Condition
Ingress protection	IP67	
Coupling	Push-in	
Durability	500 mating cycles	
Shock	300 g, half-sine, 3 ms	
Random vibration	50–2000 Hz, 1 g²/Hz (100–2000 Hz), 2 × 8 h	
Operating temperature	–40 to +120 °C	Aluminum, with waterproof sealing
Operating temperature	–60 to +200 °C	Stainless steel, unsealed

Versions

Series code	Version	Notes
XY1/26	Plug	Socket contacts
XY1/20	Square-flange receptacle	Pin contacts

Series code	Version	Notes
XY1/22	Round-flange receptacle	
XY1/24	Adapter receptacle	
XY1-FJ/Q3	Straight waterproof backshell	
XY1-FJ/QG	Straight potted backshell	

Shell materials and finishes

Code	Shell material	Finish	Shell conductivity	EMI shielding	Temperature	Salt spray
F	Aluminum alloy	Nickel	—	—	−40 to +120 °C	48 h
K	Stainless steel	Passivated	—	—	−60 to +200 °C	500 h

Contact sizes and current ratings

Contact size	Engaging diameter	Contact resistance	Current rating
23	0.686 mm	≤ 14.6 mΩ	5 A
22D	0.76 mm	≤ 14.6 mΩ	5 A
20	1.02 mm	≤ 7.3 mΩ	7.5 A
20HD	1.02 mm	≤ 7.3 mΩ	7.5 A
16	1.58 mm	≤ 3.7 mΩ	13 A
12	2.41 mm	≤ 1.83 mΩ	23 A

How to order

XY1/ [type] [finish] [shell] - [arrangement] [contact] [key] [termination]

Example: **XY1/26F08-03SN** — Plug, aluminum with nickel, shell 08, arrangement 08-03, socket contacts, key N, crimp

Code segment	Options
Type	**26** Plug (socket contacts only)
Type	**20** Square-flange receptacle (pin contacts only)
Type	**22** Round-flange receptacle
Type	**24** Adapter receptacle
Finish	**F** Aluminum, nickel
Finish	**K** Stainless steel, passivated
Shell	**07 08 09 10** Shell size
Arrangement	**e.g. 03** See the insert arrangement table below
Contact	**S / P** Socket / pin
Key	**N** Normal
Key	**A B C** Alternate
Termination	**(none)** Crimp
Termination	**H** Solder

Backshell example: XY1-FJ/QGF08-01 — straight potted backshell, aluminum nickel, shell 08, for crimp contacts (02 for solder).

Insert arrangements

Arrangement	Contacts	Contact sizes
7-04	4	4 × size 22D
7-07	7	7 × size 23
8-03	3	3 × size 20
8-06	6	6 × size 22D
9-02	2	2 × size 16
9-05	5	5 × size 20
10-09	9	9 × size 20
10-14	14	14 × size 22D

Standards

- **GB 4208 (IEC 60529)** — IP67 degree of protection.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=XY1