HMS31-K Reverse-Bayonet Circular Connectors, Solder Contacts

Reverse bayonet · solder contacts · IP65 · UL94 V-0



Coupling	Reverse bayonet
Shell sizes	8S to 40
Current rating	13–150 A
Test voltage	Up to 7000 V
Temperature	–55 to +125 °C
Protection	IP65

Key features

- Reverse-bayonet coupling for fast mating and unmating
- Solder contacts from size 16 (13 A) to size 0 (150 A)
- Mates with our HMS31-KY crimp connectors
- IP65; UL94 V-0 flame rating
- Resistant to petrol, mineral oil, acids and alkalis
- Dry heat +100 °C for 96 h

Specifications

Electrical

Parameter	Value	Condition
Test voltage	1000–7000 V	By service rating — see service ratings
Insulation resistance	≥ 5000 MΩ	

Mechanical and environmental

Parameter	Value	Condition
Ingress protection	IP65	
Flame rating	UL94 V-0	
Fluid resistance	Petrol, mineral oil, acids, alkalis	
Dry heat	+100 °C, 96 h	
Operating temperature	–55 to +125 °C	
Durability	500 mating cycles	
Vibration	Sine 10–100 Hz, 20 g	
Shock	30 g	

Versions

Series code	Version	Notes
3100	Wall-mount square-flange receptacle	

Series code	Version	Notes
3101	In-line (cable) receptacle	
3102	Box-mount square-flange receptacle	
3106	Straight plug	
3108	90° plug	

Contact sizes and current ratings

Contact size	Engaging diameter	Contact resistance	Current rating	Contact retention
16	1.6 mm	1.05 mΩ	13 A	35 N
12	2.4 mm	0.57 mΩ	23 A	55 N
8	3.6 mm	0.2 mΩ	46 A	80 N
4	5.7 mm	0.1 mΩ	80 A	90 N
0	9.1 mm	0.05 mΩ	150 A	95 N

Service ratings

Each insert arrangement has a service rating that sets its working and test voltage.

Service rating	Test voltage	Working voltage DC	Working voltage AC
Instrument	1000 V	250 V	200 V
A	2000 V	700 V	500 V
D	2800 V	1250 V	900 V
E	3500 V	1750 V	1250 V
B	4500 V	2450 V	1750 V
C	7000 V	4200 V	3000 V

Wire sizes

Contact size	Solder cup Ø	Wire	Cable OD
16	1.8 mm	AWG 22–16 (≤ 1.3 mm²)	1.7–3.3 mm
12	2.9 mm	AWG 14–12 (≤ 3.5 mm²)	2.9–4.3 mm
8	5.3 mm	AWG 10–8 (≤ 8.0 mm²)	4.2–6.4 mm
4	8.5 mm	AWG 6–4 (≤ 22 mm²)	7.0–9.4 mm
0	11.8 mm	AWG 2–0 (≤ 50 mm²)	10.6–14.0 mm

How to order

HMS [type] [backshell] K [shell]-[arrangement] [contact] [key] [insert]

Example: **HMS3106AK20-27PW** — Straight plug, solid backshell, reverse bayonet, shell 20, arrangement 20-27, pin contacts, key W

Code segment	Options
Type	**3100** Wall-mount square-flange receptacle
Type	**3101** In-line (cable) receptacle
Type	**3102** Box-mount square-flange receptacle

Code segment	Options
Type	**3106** Straight plug
Type	**3108** 90° plug
K	**K** Reverse bayonet
Contact	**P / S** Pin / socket
Key	**(none) W X Y Z** Normal / alternate

Standards

- **MIL-DTL-5015 (type)** — Insert arrangements and service ratings follow the MIL-DTL-5015 system.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=HMS31-K