

# Amphenol®



## Floating Mate Connector Series

## Company Profile



*Endicott, NY*

### Amphenol Industrial Operations

Amphenol Industrial Operations, headquartered in a 30,000 square foot facility in Endicott, N.Y., provides a full range of high reliability power/signal connectors and interconnection systems specifically for the industrial markets including rail/mass transit, process control, automotive manufacturing, heavy equipment, wireless base stations and petrochemical/power generation.

Products include ruggedized-for-industry cylindrical, rectangular, fiber optic, signal and power, RADSOK power and power-to-board solutions, cable and harness assemblies, as well as industrialized versions of Amphenol's MIL-DTL-5015 cylindrical, MIL-DTL-26482 miniature cylindrical and GT reverse bayonet cylindrical connectors. Amphenol Industrial Operations employs more than 1,400 people globally and is ISO9001, TS96949 and MIL-STD-790 certified.



### Amphenol Technology (Zhuhai) Co., Ltd

Established in 2007, Amphenol Technology (Zhuhai) Co., Ltd. is a manufacturing facility for Amphenol Industrial Operations, which serves a number of industrial markets. Included but not limited to Factory Automation, Transportation, Heavy Equipment, Alternative Energy, Energy Storage. Server/Data Comm and Power Distribution.

Amphenol Technology (Zhuhai) Co., Ltd. covers an area of 276,000 ft<sup>2</sup> and is equipped with CNC, plating, injection molding and assembly workshops. This plant specializes in the design and manufacturing of industrial connectors featuring high power, high density, medium to high voltage electrical properties, and harsh environment applications.

With industry leading engineering, design and manufacturing expertise, Amphenol Technology(Zhuhai) Co., Ltd. has earned more than 60 utility patents on its innovative interconnects. Many of the products produced have been certified by independent standards including UL, IEC/TUV, ATEX, IECEx and MA. The facility is also certified to ISO 9001, ISO 14001 and IATF 16949.

# Floating Mate Connector 2+12 Contacts

## Features and Benefits

- RADSOK® technology: up to 100 A max per power contact
- Finger-proof power interface (IP2XB)
- Optional removal tools for power and signal contacts
- First-mate/last-break capability
- Integral guide pins to correct misalignment during blind mating
- Optional floating mount to reduce connector stress during blind mating
- Flammability: UL 94 V-0
- Durability: 100 mating cycles
- Operating temperature range: -40 to +125 °C



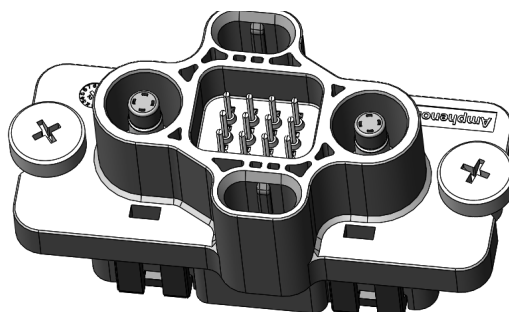
UL# plastic  
copper contact



Voltage level: Power:  
1000VDC  
Signal: 50VDC



Range of power cable  
cross sections:  
25mm<sup>2</sup>/4AWG  
16mm<sup>2</sup>/6AWG  
10mm<sup>2</sup>/8AWG



Range of signal cable  
sections:  
0.5mm<sup>2</sup>/20AWG



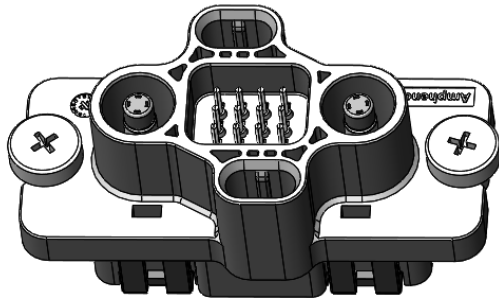
High-quality materials  
long-term stability



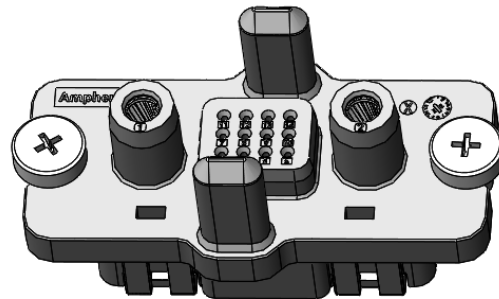
Guide pin  
Advance guide and floating  
design  
Allowing blind insertion

# Floating Mate Connector 2+12 Contacts

## Product Performance Parameters



Plug










Receptacle

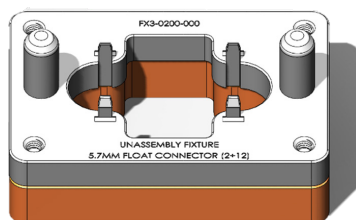
Voltage rating of power	1000VDC
Current rating of power	120A Max
Temperature rise of power	45K
Voltage rating of signal	200VDC
Current rating of signal	3A Max
Pollution degrees	2
Water-proof class	IP2XB
Operation temperature range	-40~125°C
Mating cycles	100
Mounting panel dimensions	NA
Receptacle terminal type	Crimp
Power cables specification	25mm <sup>2</sup> /4AWG 16mm <sup>2</sup> /6AWG 10mm <sup>2</sup> /8AWG
Signal cables specification	0.5mm <sup>2</sup> /20AWG
Certification standards	UL 4128 & TUV 2PfG2740 & IEC 61984
Color	Black
Keyway	Poka-yoke
Floating space	2.4mm

# Floating Mate Connector 2+12 Contacts

## How to Order

	Part No	Description	
Plug housing	C10-792583-1000	2+12, plug housing--black color	
Receptacle Assembly	C10-792584-1000	2+12, receptacle housing--black color	
Float mount screws	C10-781688-000	M4 Floating screw	
Power pin contact (plug)	C10-792385-021	2+12, power pin contact(plug),25SQmm/4AWG,Ag plating	
	C10-792385-011	2+12, power pin contact(plug),16SQmm/6AWG, Ag plating	
	C10-792385-001	2+12, power pin contact(plug),10SQmm/8AWG, Ag plating	
Power socket contact (receptacle)	C10-792386-021	2+12, power socket contact(receptacle), 25SQmm/4AWG,Ag plating	
	C10-792386-011	2+12, power socket contact(receptacle), 16SQmm/6AWG, Ag plating	
	C10-792386-001	2+12, power socket contact(receptacle), 10SQmm/8AWG, Ag plating	
Signal pin contact (Plug)	C10-793748-201	2+12 and 4+12 mini,20# machined signal pin contact, tin plating (recommend)	
Signal socket contact (Receptacle)	C10-780111-201	Socket-20#(tin plating)-3000pcs/real 20AWG	

## Accessories and Tooling



Part No  
FX3-0200-000  
fixture for back-shell(power contact) remove



Part No  
TOOL-738651-020  
Signal contact remove tooling



# Floating Mate Connector 4+12 Contacts

## Features and Benefits

- RADSOK® technology: up to 100 A max per power contact
- Finger-proof power interface (IP2XB)
- Optional removal tools for power and signal contacts
- First-mate/last-break positions to ground/enable power before signal circuits mate
- Integral guide pins to correct misalignment during blind mating
- Optional floating mount to reduce connector stress during blind mating
- Flammability: UL 94 V-0
- Durability: 100 mating cycles
- Operating temperature range: -40 to +125 °C



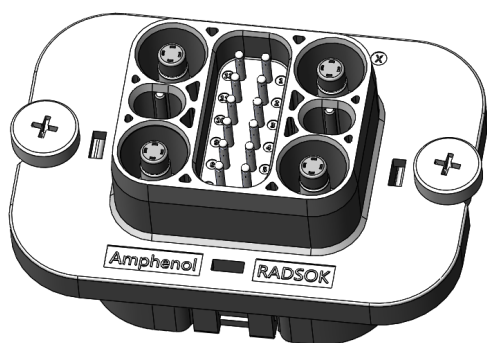
UL# plastic  
copper contact  
5.7mm 120A



Voltage level: Power:  
1000VDC  
Signal: 50VDC



Range of power cable  
cross sections:  
25mm<sup>2</sup>/4AWG  
16mm<sup>2</sup>/6AWG



Range of signal cable  
sections:  
1.5mm<sup>2</sup>/16AWG  
0.5mm<sup>2</sup>/20AWG



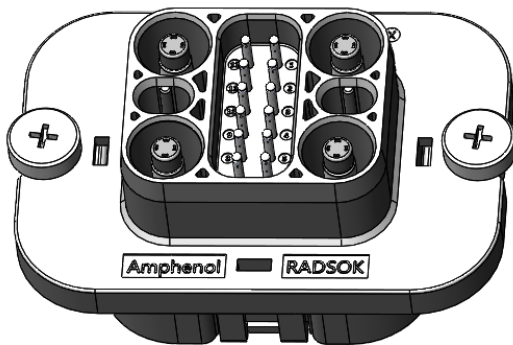
High-quality materials  
long-term stability



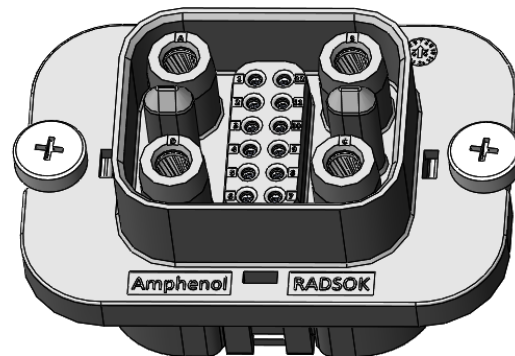
Guide pin  
Advance guide and floating  
design  
Allowing blind insertion

# Floating Mate Connector 4+12 Contacts

## Product Performance Parameters



Plug








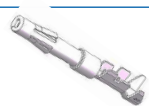


Receptacle

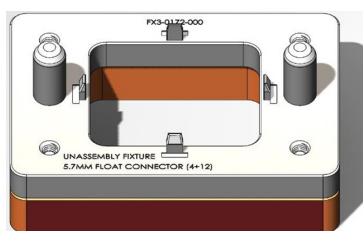
Voltage rating of power	1000VDC
Current rating of power	120A Max
Temperature rise of power	45K
Voltage rating of signal	200VDC
Current rating of signal	5A Max
Pollution degrees	2
Water-proof class	IP2XB
Operation temperature range	-40~125°C
Mating cycles	100
Mounting panel dimensions	NA
Receptacle terminal type	Crimp
Power cables specification	25mm <sup>2</sup> /4AWG 16mm <sup>2</sup> /6AWG
Signal cables specification	1.5mm <sup>2</sup> /16AWG 0.5mm <sup>2</sup> /20AWG
Certification standards	UL 4128 & TUV 2PfG2740 & IEC 61984
Color	Black
Keyway	Poka-yoke
Floating space	2.4mm

# Floating Mate Connector 4+12 Contacts

## How to Order

	Part No	Description	
Plug housing	C10-781650- 1000	4+12, plug housing without PE pin —black color	
	C10-781650- 1010	4+12, plug housing with PE pin —black color	
Receptacle housing	C10-781651- 1000	4+12, Receptacle housing without PE pin —black color	
	C10-781651- 1010	4+12, receptacle housing with PE pin —black color	
Float mount screws	C10-781688-000	M4 floating screw	
Power pin contact (plug)	C10-781685-021	4+12, power pin contact(plug),25SQmm/4AWG,Ag plating	
	C10-781685-011	4+12, power pin contact(plug),16SQmm/6AWG, Ag plating	
PE pin contact (plug)	C10-781683-011	4+12, PE pin contact(plug),16SQmm/6AWG, Ag plating	
Power socket contact (receptacle)	C10-781690-021	4+12, power socket contact(receptacle), 25SQmm/4AWG,Ag plating	
	C10-781690-011	4+12, power socket contact(receptacle), 16SQmm/6AWG, Ag plating	
Signal pin contact (Plug)	ZH-795850-161	4+12, 16AWG machined signal pin contact, tin plating (recommend)	
	ZH-795850-201	4+12, 20AWG machined signal pin contact, tin plating (recommend)	
Signal socket contact (Receptacle)	C10-780107-161	Socket-16#(tin plating)-3000pcs/real 16AWG	
	C10-780107-201	Socket-20#(tin plating)-3000pcs/real 20AWG	

## Accessories and Tooling



Part No  
FX3-0172-000  
fixture for back-shell(power contact) remove



Part No  
TOOL-738651-016  
Signal contact remove tooling



Part No  
TOOL-738651-020  
Signal contact remove tooling



Part No  
C10-798039-100



## Floating Mate Connector 4+12mini Contacts

### Features and Benefits

- Power contacts: up to 100 A max
- Optional removal tools for power and signal contacts
- First-mate/last-break positions to ground and power the system before signal circuits mate
- Integral guide pins to correct misalignment during blind mating
- Optional floating mount to reduce connector stress during blind mating
- Flammability: UL 94 V-0
- Durability: 50/100 mating cycles
- Operating temperature range: -40 to +125 °C



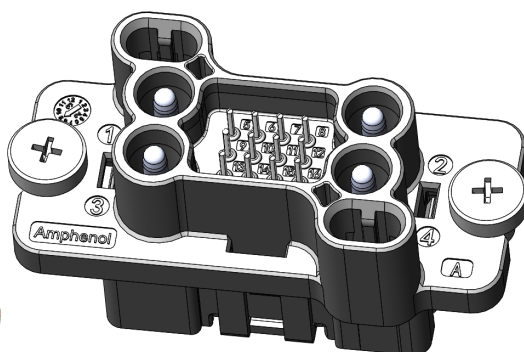
UL# plastic  
copper contact  
5.7mm 120A



Voltage level: Power:  
1500VDC  
Signal: 200VDC



Range of power cable  
cross sections:  
10mm<sup>2</sup>/8AWG  
6mm<sup>2</sup>/10AWG  
4mm<sup>2</sup>/12AWG



Range of signal cable  
sections:  
0.5mm<sup>2</sup>/20AWG



High-quality materials  
long-term stability



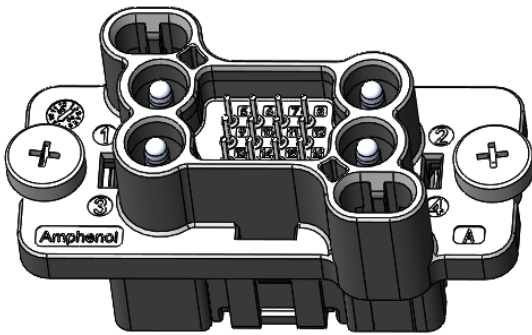
Guide pin  
Advance guide and floating  
design  
Allowing blind insertion

\*50 mating cycle C10-792425-XXX, C10-792426-XXX

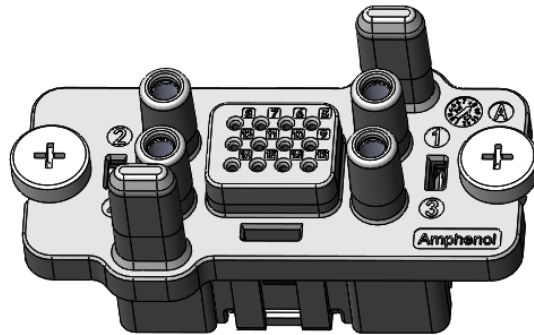
\*100 mating cycle ZH-794120-XXX, ZH-794121-XXX

# Floating Mate Connector 4+12 mini Contacts

## Product Performance Parameters



Plug



Receptacle










Voltage rating of power	1500VDC
Current rating of power	65A Max
Temperature rise of power	45K
Voltage rating of signal	300VDC
Current rating of signal	3A Max
Pollution degrees	2
Operation temperature range	-40~125°C
Mating cycles	100
Mounting panel dimensions	NA
Receptacle terminal type	Crimp
Power cables specification	10mm <sup>2</sup> /8AWG 6mm <sup>2</sup> /10AWG 4mm <sup>2</sup> /12AWG
Signal cables specification	0.5mm <sup>2</sup> /20AWG
Certification standards	UL 4128 & TUV 2PfG2740 & IEC 61984
Color	Black
Keyway	Poka-yoke
Floating space	2.4mm

\*50 mating cycle C10-792425-XXX, C10-792426-XXX

\*100 mating cycle ZH-794120-XXX, ZH-794121-XXX

# Floating Mate Connector 4+12 mini Contacts

## How to Order

	Part No	Description	
Plug housing	C10-792420- 1000	4+12mini, Plug housing—black color	
Receptacle housing	C10-792421-1000	4+12mini, receptacle housing—black color	
Float mount screws	C10-781688-000	M4 Floating screw	
Power pin contact A(Plug)	C10-792425-013	4+12mini, power pin contact(plug),10SQmm/8AWG,Tin plating	
	C10-792425-023	4+12mini, power pin contact(plug),6SQmm/10AWG,Tin plating	
	C10-792425-033	4+12mini, power pin contact(plug),4SQmm/12AWG,Tin plating	
Power socket contact A (receptacle)	C10-792426-013	4+12mini, power socket contact(receptacle),10SQmm/8AWG,Tin plating	
	C10-792426-023	4+12mini, power socket contact(receptacle),6SQmm/10AWG,Tin plating	
	C10-792426-033	4+12mini, power socket contact(receptacle),4SQmm/12AWG,Tin plating	
Power pin contact B (Plug)	ZH-794120-011	3.6 radsok power pin contact(plug),10SQmm/8AWG,Silver plating	
	ZH-794120-021	3.6 radsok power pin contact(plug),6SQmm/8AWG,Silver plating	
	ZH-794120-031	3.6 radsok power pin contact(plug),4SQmm/8AWG,Silver plating	
Power socket contact B (receptacle)	ZH-794121-011	3.6 radsok power socket contact(receptacle),10SQmm/8AWG,Silver plating	
	ZH-794121-021	3.6 radsok power socket contact(receptacle),6SQmm/8AWG,Silver plating	
	ZH-794121-031	3.6 radsok power socket contact(receptacle),4SQmm/8AWG,Silver plating	
Signal pin contact (Plug)	C10-793748-201	Pin-20#(tin plating)-3000pcs/real 20-22AWG	
Signal socket contact (Receptacle)	C10-780111-201	Socket-20#(tin plating)-3000pcs/real 20-22AWG	

## Accessories and Tooling



Part No  
FX3-0200-001  
fixture for back-shell(power contact) remove



Part No  
TOOL-738651-020  
Signal contact remove tooling



Part No  
C10-793963-000  
Dust cap



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**Amphenol Industrial**  
**Operations**

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