

M12 Circular Connector,X-code



- Cable Connector
- Degree of protection IP67
- With nut locking spring
- Gigabit transmission
- Shieldable/360° shield connection
- Anti-loose spring with nut

M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	$\leq 10 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ m}\Omega$
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ... +85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors Remark: SPQ is 5pcs

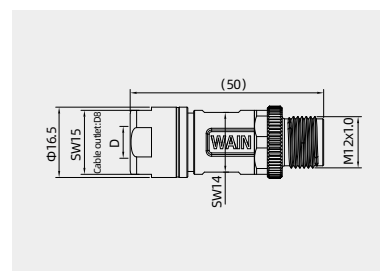
Male cable connector, Cat.6a

Order crimp contacts separately

X-Code



Contacts	Cable outlet	Designation	Order No.
8	6-8mm	M12-MC08X-T-D8-SH	163 008 010 2001



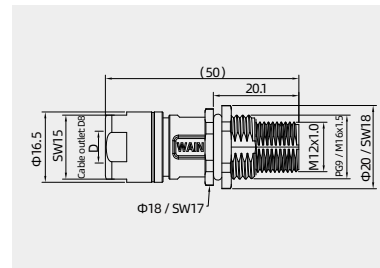
Male cable connector, Cat.6a

Order crimp contacts separately

X-Code



Contacts	Cable outlet	Designation	Order No.
8	6-8mm	M12-MC08X-CCT/R-M16-D8-SH	163 008 710 2001



Crimp contacts

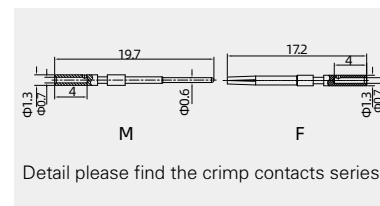
Crimp contacts 5A

Contact resistance $\leq 3 \text{ m}\Omega$
gold plated



Remark: SPQ is 200pcs

Wire gauge(mm ²)	Male	Order No.
0.09-0.25	M12-MC0.5G-0.25	101 038 210 0101
Wire gauge(mm ²)	Female	Order No.
0.09-0.25	M12-FC0.5G-0.25	101 038 220 0101



Detail please find the crimp contacts series

Tools

Crimping tool



Remark: SPQ is 1pc

Wire gauge	Designation	Order No.
0.09-0.25mm ²	TL27	198 001 001 0037

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

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Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors Remark: SPQ is 5pcs

Female cable connector, Cat.6a

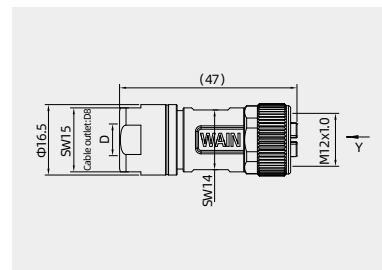
Order crimp contacts separately



X-Code



Contacts	Cable outlet	Designation	Order No.
8	6-8mm	M12-FC08X-T-D8-SH	163 008 020 0001



Female cable connector, Cat.6a

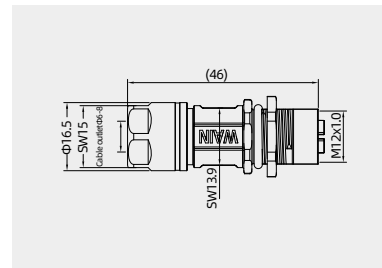
Order crimp contacts separately



X-Code



Contacts	Cable outlet	Designation	Order No.
8	6-8mm	M12-FC08X-CCT/R-M16-D8-SH	163 008 720 2001



Crimp contacts

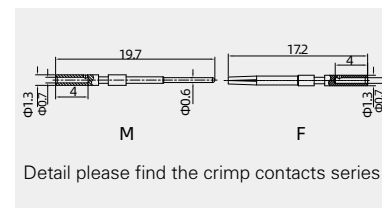
Crimp contacts 5A

Contact resistance ≤ 3mΩ
gold plated



Remark: SPQ is 200pcs

Wire gauge(mm ²)	Male	Order No.
0.09-0.25	M12-MC0.5G-0.25	101 038 210 0101
Wire gauge(mm ²)	Female	Order No.
0.09-0.25	M12-FC0.5G-0.25	101 038 220 0101



Detail please find the crimp contacts series

Tools

Crimping tool



Remark: SPQ is 1pc

Wire gauge	Designation	Order No.
0.09-0.25mm ²	TL27	198 001 001 0037

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

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Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Remark: SPQ is 5pcs

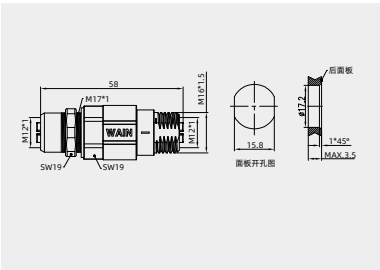
Female cable connector,
Cat.6a, shield



X-Code



Contacts	Cable outlet	Designation	Order No.
8		M12-F08X/F08X-BKR-M17	163 008 324 2501



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Remark: SPQ is 1pc

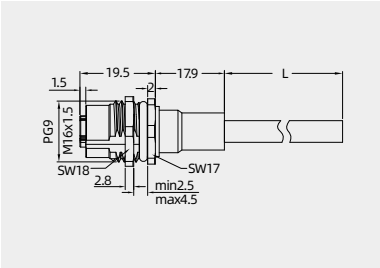
Female panel mount connector , shielded



X-Code



Contacts	Cable length	screw	Designation	Order No.
8	0.5m	PG9	M12-F08X-BKR-PG9-Cat.6a	163 008 302 4003
	0.5m	M16x1.5	M12-F08X-BKR-M16-0.5-PUR-Cat.6a	163 008 302 4005



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

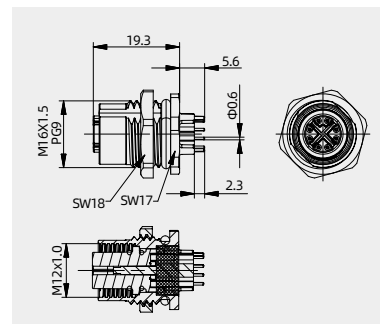
Remark: SPQ is 10pcs

Female panel mount connector ,
shielded

X-Code



Contacts	Cable length	screw	Designation	Order No.
8	0.5m	M16x1.5	M12-F08X-BKR-M16-D	163 008 324 1004



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

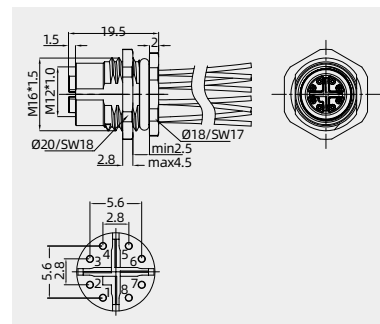
Remark: SPQ is 1pc

Female panel mount connector ,
shielded



Contacts	Cable length	screw	Designation	Order No.
8	0.5m	M16x1.5	M12-F08X-BKR-M16-W0.14	163 008 302 4006

X-Code



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors, cable Remark: SPQ is 1pc

Male cable connector

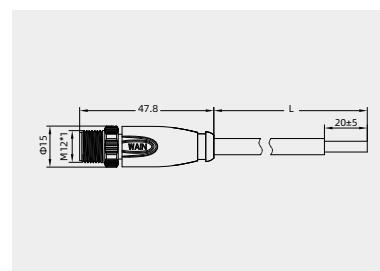


X-Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-M08X-T-1.5-PUR-Cat.6a	163 008 401 4001
	5.0 m	M12-M08X-T-5.0-PUR-Cat.6a	163 008 401 4002



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Angled cable connectors

Remark: SPQ is 1pc

Male cable connector

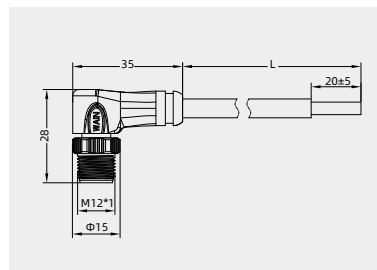


X-Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-M08X-S-1.5-PUR-Cat.6a	163 008 501 4001
	5.0 m	M12-M08X-S-5.0-PUR-Cat.6a	163 008 501 4002



Male cable connector

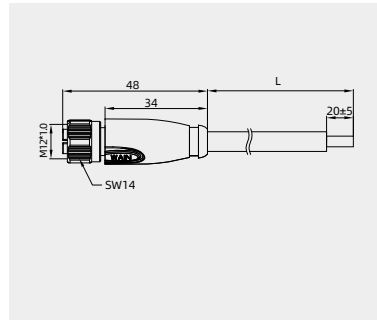


X-Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-F08X-T-1.5-PUR-Cat.6a	163 008 402 4541
	5.0 m	M12-F08X-T-5.0-PUR-Cat.6a	163 008 402 4542



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors, cable Remark: SPQ is 1pc

Male cable connector

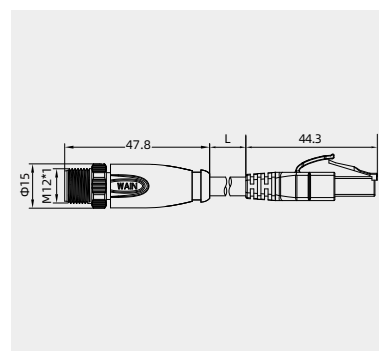


X-Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-M08X-T/RJ45-T-1.5-PUR-Cat.6a	163 008 402 4040
	5.0 m	M12-M08X-T/RJ45-T-5.0-PUR-Cat.6a	163 008 401 4015



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40°C)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤ 10 mΩ
Insulation resistance	≥ 100 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm ² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥ 100
Limiting temperature	-40°C ...+85°C
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Angled cable connectors Remark: SPQ is 1pc

Male cable connector

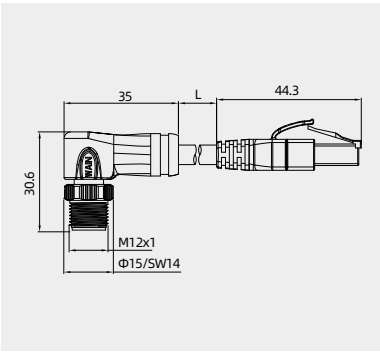
Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-M08X-S/RJ45-T-1.5-PUR-Cat.6a	163 008 001 4002
	5.0 m	M12-M08X-S/RJ45-T-5.0-PUR-Cat.6a	163 008 001 4003



X-Code



8pin



Male cable connector

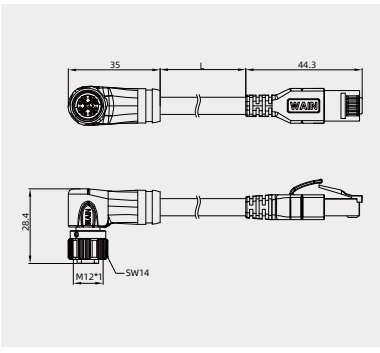
Contacts	Cable length	Designation	Order No.
8	1.5 m	M12-F08X-S/RJ45-T-1.5-PUR-Cat.6a	163 008 402 4543
	5.0 m	M12-F08X-S/RJ45-T-5.0-PUR-Cat.6a	163 008 402 4544



A-Code



8pin



Accessories

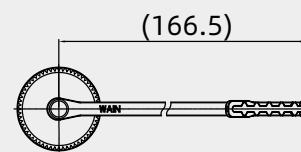
Protection cap IP67

Protection cover
for male cable connector



Remark: SPQ is 10pcs

Description	Designation	Order No.
Without cord	M12-MCV	163 000 001 9003
With cord	M12-MCV/1	163 000 001 9001

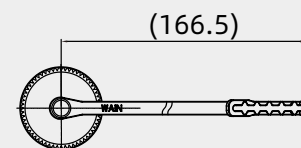


Protection cover
for female cable connector



Remark: SPQ is 10pcs

Description	Designation	Order No.
Without cord	M12-FCV	163 000 002 9003
With cord	M12-FCV/1	163 000 002 9001

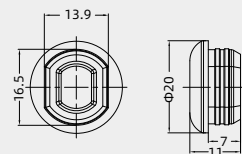


Protection covers, for flange mount
panel



Remark: SPQ is 10pcs

Description	Designation	Order No.
Dust-proof	M12-WNPP-M16/BK	163 000 000 9001



Contact arrangements

Contact arrangements

Male insert (mating side)

8 contacts



	X	Y
1	1.40	-2.80
2	0.00	-1.40
3	2.80	1.40
4	1.40	2.80
5	-1.40	2.80
6	2.80	1.40
7	-2.80	-1.40
8	-1.40	-2.80

- 568A
- 1 white/green
2 green
3 white/Orange
4 Orange
5 white/brown
6 brown
7 white/blue
8 blue
- 568B
- 1white/Orange
2 Orange
3 white/green
4 green
5 white/brown
6 brown
7 white/blue
8 blue

Female insert (mating side)

8 contacts



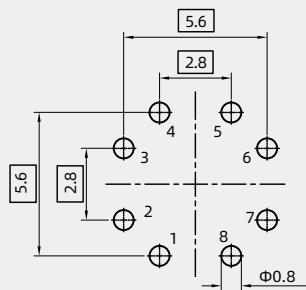
	X	Y
1	-1.40	-2.80
2	-2.80	-1.40
3	-2.80	1.40
4	-1.40	2.80
5	1.40	2.80
6	2.80	1.40
7	2.80	-1.40
8	1.40	-2.80

- 568A
- 1 white/green
2 green
3 white/Orange
4 Orange
5 white/brown
6 brown
7 white/blue
8 blue
- 568B
- 1white/Orange
2 Orange
3 white/green
4 green
5 white/brown
6 brown
7 white/blue
8 blue

PCB cut out

- Opening hole drawing female insert(PCB), Panel mount connectors

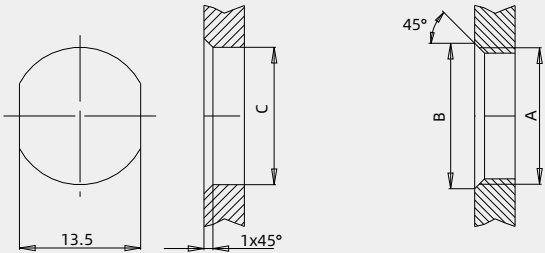
8 contacts



Panel cut out

- Panel mount connectors

- Through-hole mounting
- Screw mounting

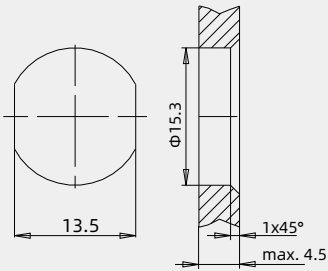


	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

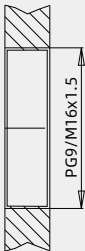
Tightening torque according to DIN VDE 0619
Metal housing 6,25 Nm
Plastic housing 3,75 Nm

Panel mount connectors
Rear panel mounting,
front tighten

- Through-hole mounting



- Panel mount connectors
front tighten



Tightening torque 6,25 Nm

PCB cut out

- Assembly instruction

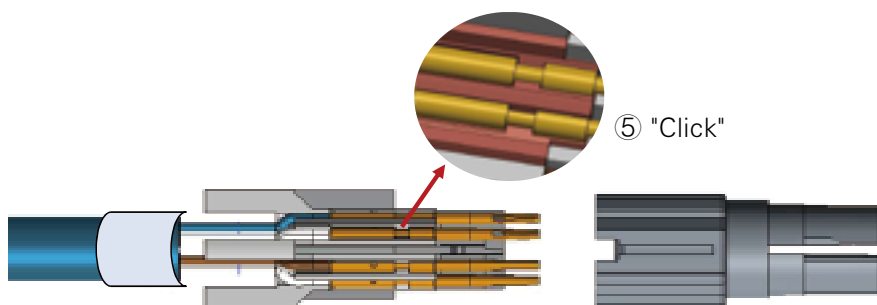
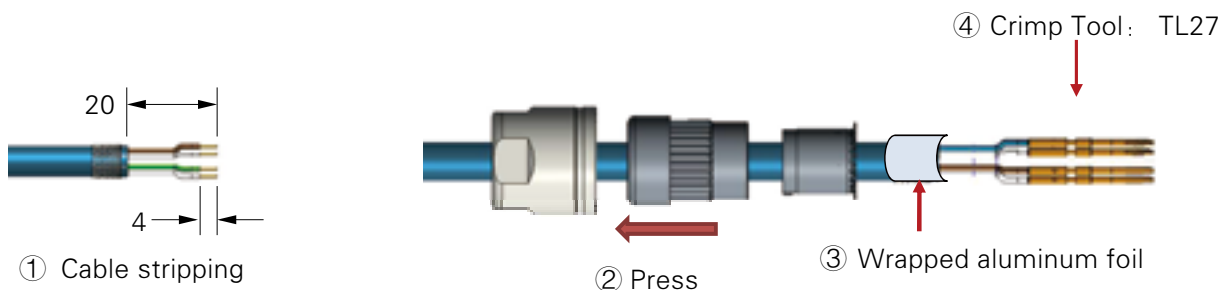
M12-MC08X-T-D8-SH

M12-FC08X-T-D8-SH

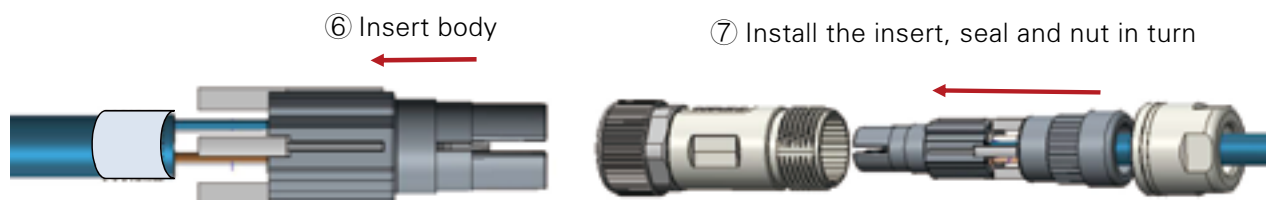
M12-MC08X-CCT/R-M16-D8-SH

M12-FC08X-CCT/R-M16-D8-SH)

- Installation Step



Insert the pin according to the wiring diagram



⑧ Installation complete



M12-X