

M12 Circular Connector,S-code



- [Cable Connector](#)
- crimp terminal
- Installable series and cast cable series
- M12 locking according to DIN EN 61076-2-111
- Cable length 1.5m and 5m
- Other cable length upon request, minimum order quantity 200 pieces
- Cable material can be customized according to requirements
- Protection grade IP67
- Assembled installation angle with 4 adjustable directions

M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	4-pole
Rated current (40°C)	12A
Rated voltage	630V
Rated impulse voltage	6kV
Pollution degree	3
Contact resistance	≤ 3 mΩ
Connector locking system	screw M12x1
Termination	crimp
Wire gauge	max.1.5mm ² (max.AWG16)
Cable outlet	4-6,6-8 mm
Degree of protection	IP67
Mechanical operation	≥ 500
Limiting temperature	-25°C ...+85°C
Material group	III
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Straight cable connectors

Male cable connector

crimp terminal,

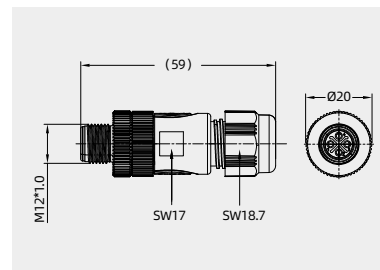
Order crimp contacts separately

S-Code



Remark: SPQ is 5pcs

Contacts	Cable outlet	Designation	Order No.
4(3+PE)	4-6 mm	M12-MC04S-T-D6	163 004 410 3501
	6-8 mm	M12-MC04S-T-D8	163 004 410 3500



Female cable connector

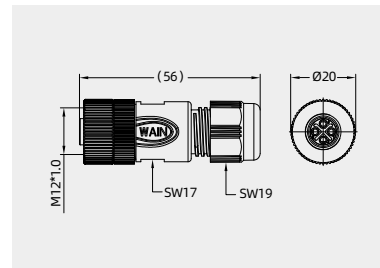
crimp terminal,

Order crimp contacts separately

S-Code



Contacts	Cable outlet	Designation	Order No.
4(3+PE)	4-6 mm	M12-FC04S-T-D6	163 004 420 3501
	6-8 mm	M12-FC04S-T-D8	163 004 420 3500



Crimp contacts

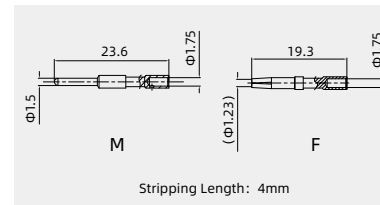
Crimp contacts 12A

Contact resistance ≤ 3mΩ
gold plated



Remark: SPQ is 100pcs

Wire gauge(mm ²)	Male	Order No.
0.75-1.5	M12-MC12G-1.5	101 036 210 0950
Wire gauge(mm ²)	Female	Order No.
0.75-1.5	M12-FC12G-1.5	101 036 220 0950



Tools

Crimping tool



Remark: SPQ is 1pc

Wire gauge	Designation	Order No.
0.14-4 mm ²	TL28-2	198 001 001 0039

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

M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	4-pole
Rated current (40°C)	12A
Rated voltage	630V
Rated impulse voltage	6kV
Pollution degree	3
Contact resistance	≤ 3 mΩ
Connector locking system	screw M12x1
Termination	crimp
Wire gauge	max.1.5mm ² (max.AWG16)
Cable outlet	4-6,6-8 mm
Degree of protection	IP67
Mechanical operation	≥ 500
Limiting temperature	-25°C ...+85°C
Material group	III
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Angled cable connectors

Remark: SPQ is 1pc

Male cable connector

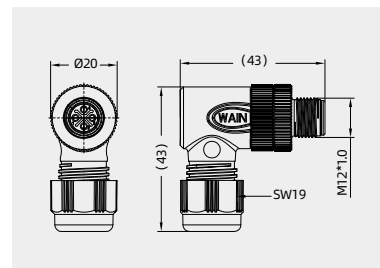
crimp terminal,

Order crimp contacts separately

S-Code



Contacts	Cable outlet	Designation	Order No.
4(3+PE)	4-6 mm	M12-MC04S-S-D6	163 004 510 3501
	6-8 mm	M12-MC04S-S-D8	163 004 510 3500



Female cable connector

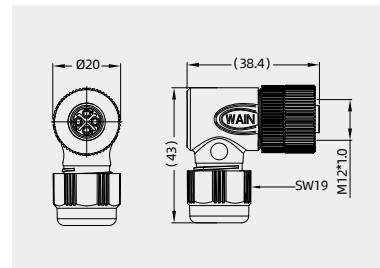
crimp terminal,

Order crimp contacts separately

S-Code



Contacts	Cable outlet	Designation	Order No.
4(3+PE)	4-6 mm	M12-FC04S-S-D6	163 004 520 3501
	6-8 mm	M12-FC04S-S-D8	163 004 520 3500



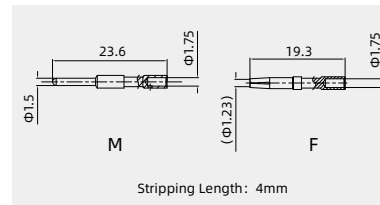
Crimp contacts

Crimp contacts 12A

Contact resistance ≤ 3mΩ
gold plated

Remark: SPQ is 100pcs

Wire gauge(mm ²)	Male	Order No.
0.75-1.5	M12-MC12G-1.5	101 036 210 0950
Wire gauge(mm ²)	Female	Order No.
0.75-1.5	M12-FC12G-1.5	101 036 220 0950



Tools

Crimping tool



Remark: SPQ is 1pc

Wire gauge	Designation	Order No.
0.14-4 mm ²	TL28-2	198 001 001 0039

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

M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded
Wire gauge	max.1.5mm ² (max.AWG16)	max.1.5mm ² (max.AWG16)
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-25°C ...+85°C	-25°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PC+ABS	PC+ABS
Material of housing	TPU	TPU

Straight cable connectors, cable Remark: SPQ is 1pc

Male cable connector moulded, screw



Contacts	Cable	Cable length	Designation	Order No.
3(2+PE)	3x1.5PVC	1.5 m	M12-M03S-T-1.5-PVC	163 003 410 4501
		5.0 m	M12-M03S-T-5.0-PVC	163 003 410 4502
	3x1.5PUR	1.5 m	M12-M03S-T-1.5-PUR	163 003 410 4500
		5.0 m	M12-M03S-T-5.0-PUR	163 003 410 4503
4(3+PE)	4x1.5PVC	1.5 m	M12-M04S-T-1.5-PVC	163 004 410 4504
		5.0 m	M12-M04S-T-5.0-PVC	163 004 410 4505
	4x1.5PUR	1.5 m	M12-M04S-T-1.5-PUR	163 004 410 4503
		5.0 m	M12-M04S-T-5.0-PUR	163 004 410 4506

S-Code

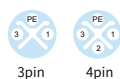


Female cable connector moulded, screw

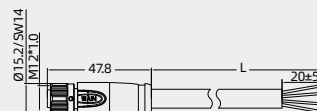
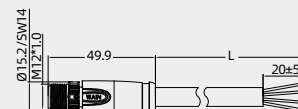


Contacts	Cable	Cable length	Designation	Order No.
3(2+PE)	3x1.5PVC	1.5 m	M12-F03S-T-1.5-PVC	163 003 420 4502
		5.0 m	M12-F03S-T-5.0-PVC	163 003 420 4504
	3x1.5PUR	1.5 m	M12-F03S-T-1.5-PUR	163 003 420 4501
		5.0 m	M12-F03S-T-5.0-PUR	163 003 420 4503
4(3+PE)	4x1.5PVC	1.5 m	M12-F04S-T-1.5-PVC	163 004 420 4501
		5.0 m	M12-F04S-T-5.0-PVC	163 004 420 4504
	4x1.5PUR	1.5 m	M12-F04S-T-1.5-PUR	163 004 420 4500
		5.0 m	M12-F04S-T-5.0-PUR	163 004 420 4503

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•Further cable length upon request.



M12-S Circular Connector

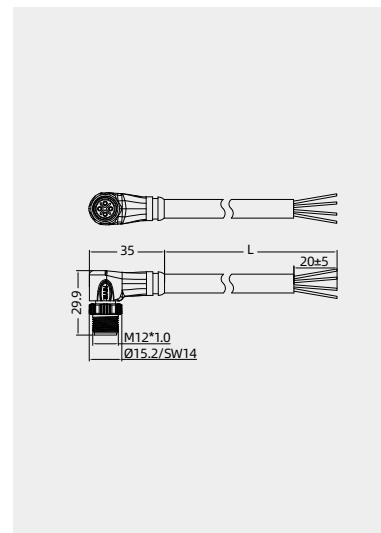
630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded
Wire gauge	max.1.5mm ² (max.AWG16)	max.1.5mm ² (max.AWG16)
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-25°C ...+85°C	-25°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PC+ABS	PC+ABS
Material of housing	TPU	TPU

Angled cable connectors, cable Remark: SPQ is 1pcMale angled connector moulded,
screw

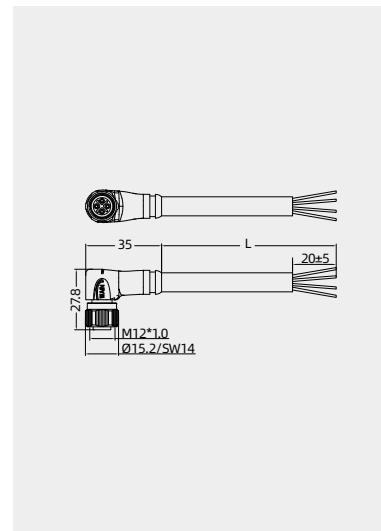
Contacts	Cable	Cable length	Designation	Order No.
3(2+PE)	3x1.5PVC	1.5 m	M12-M03S-S-1.5-PVC	163 003 510 4501
		5.0 m	M12-M03S-S-5.0-PVC	163 003 510 4502
	3x1.5PUR	1.5 m	M12-M03S-S-1.5-PUR	163 003 510 4500
		5.0 m	M12-M03S-S-5.0-PUR	163 003 510 4503
4(3+PE)	4x1.5PVC	1.5 m	M12-M04S-S-1.5-PVC	163 004 510 4501
		5.0 m	M12-M04S-S-5.0-PVC	163 004 510 4502
	4x1.5PUR	1.5 m	M12-M04S-S-1.5-PUR	163 004 510 4500
		5.0 m	M12-M04S-S-5.0-PUR	163 004 510 4503



S-Code

Female angled connector moulded,
screw

Contacts	Cable	Cable length	Designation	Order No.
3(2+PE)	3x1.5PVC	1.5 m	M12-F03S-S-1.5-PVC	163 003 520 4501
		5.0 m	M12-F03S-S-5.0-PVC	163 003 520 4503
	3x1.5PUR	1.5 m	M12-F03S-S-1.5-PUR	163 003 520 4500
		5.0 m	M12-F03S-S-5.0-PUR	163 003 520 4502
4(3+PE)	4x1.5PVC	1.5 m	M12-F04S-S-1.5-PVC	163 004 520 4501
		5.0 m	M12-F04S-S-5.0-PVC	163 004 520 4503
	4x1.5PUR	1.5 m	M12-F04S-S-1.5-PUR	163 004 520 4500
		5.0 m	M12-F04S-S-5.0-PUR	163 004 520 4502



S-Code



•Further cable length upon request.

19S-05 WAIN ELECTRICAL

M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	single-strand wires	single-strand wires
Wire gauge	max.1.5mm ² (max.AWG16)	max.1.5mm ² (max.AWG16)
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-40°C ...+85°C	-40°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Remark: SPQ is 1pc

Male panel mount connector
with single wires, 1.5mm²
length 0.2m

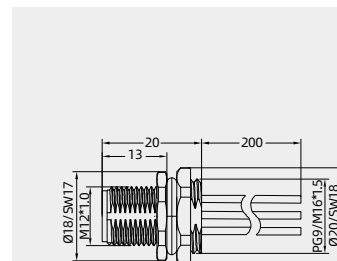


S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-M03S-BK-PG9-W1.5	163 003 310 4502
	M16x1.5	M12-M03S-BK-M16-W1.5	163 003 310 4503
4(3+PE)	PG9	M12-M04S-BK-PG9-W1.5	163 004 310 4500
	M16x1.5	M12-M04S-BK-M16-W1.5	163 004 310 4501

Customized cable length upon request



Female panel mount connector
with single wires, 1.5mm²
length 0.2m

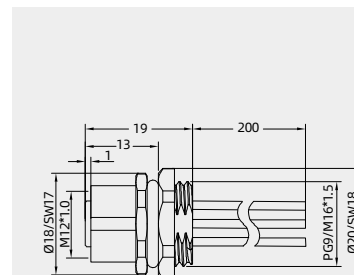


S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-F03S-BK-PG9-W1.5	163 003 320 4500
	M16x1.5	M12-F03S-BK-M16-W1.5	163 003 320 4501
4(3+PE)	PG9	M12-F04S-BK-PG9-W1.5	163 004 320 4501
	M16x1.5	M12-F04S-BK-M16-W1.5	163 004 320 4502

Customized cable length upon request



M12-S

M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	solder	solder
Wire gauge	max.1.5mm ² (max.AWG16)	max.1.5mm ² (max.AWG16)
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-40°C ...+85°C	-40°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Remark: SPQ is 10pcs

Male panel mount connector, solder
PG9/M16x1.5



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-M03S-BK-PG9-C	163 003 313 2500
	M16x1.5	M12-M03S-BK-M16-C	163 003 313 2501
4(3+PE)	PG9	M12-M04S-BK-PG9-C	163 004 313 2500
	M16x1.5	M12-M04S-BK-M16-C	163 004 313 2501

S-Code

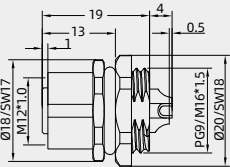
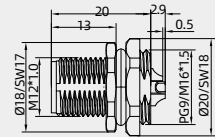
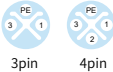


Female panel mount connector, solder
PG9/M16x1.5



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-F03S-BK-PG9-C	163 003 323 2500
	M16x1.5	M12-F03S-BK-M16-C	163 003 323 2501
4(3+PE)	PG9	M12-F04S-BK-PG9-C	163 004 323 2500
	M16x1.5	M12-F04S-BK-M16-C	163 004 323 2501

S-Code



M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	wire	wire
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-40°C ...+85°C	-40°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Remark: SPQ is 1pc

Male panel mount connector,
front fastened, with single wires,
1.5mm²/length 0.2m

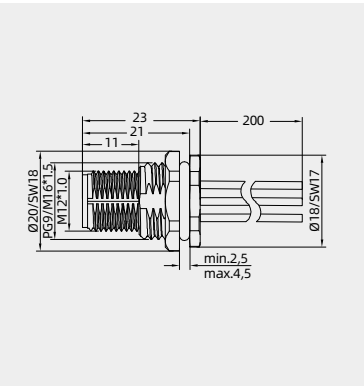


S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-M03S-BKR-PG9-W1.5	163 003 310 4504
	M16x1.5	M12-M03S-BKR-M16-W1.5	163 003 310 4505
4(3+PE)	PG9	M12-M04S-BKR-PG9-W1.5	163 004 310 4502
	M16x1.5	M12-M04S-BKR-M16-W1.5	163 004 310 4503

Customized cable length upon request



Female panel mount connector,
front fastened, with single wires,
1.5mm²/length 0.2m

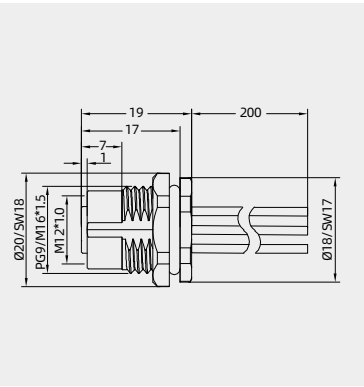


S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-F03S-BKR-PG9-W1.5	163 003 320 4502
	M16x1.5	M12-F03S-BKR-M16-W1.5	163 003 320 4503
4(3+PE)	PG9	M12-F04S-BKR-PG9-W1.5	163 004 320 4503
	M16x1.5	M12-F04S-BKR-M16-W1.5	163 004 320 4504

Customized cable length upon request



M12-S Circular Connector

630V 12A

Technical characteristics

Number of contacts	3-pole	4-pole
Rated current (40°C)	12A	12A
Rated voltage	630V	630V
Rated impulse voltage	6kV	6kV
Pollution degree	3	3
Contact resistance	≤ 10 mΩ	≤ 10 mΩ
Connector locking system	dip solder	dip solder
Cable outlet	-	-
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	-40°C ...+85°C	-40°C ...+85°C
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Remark: SPQ is 10pcs

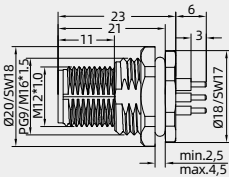
Male panel mount connector, dip solder, front fastened



S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-M03S-BKR-PG9-D	163 003 314 2502
	M16x1.5	M12-M03S-BKR-M16-D	163 003 314 2503
4(3+PE)	PG9	M12-M04S-BKR-PG9-D	163 004 314 2502
	M16x1.5	M12-M04S-BKR-M16-D	163 004 314 2503



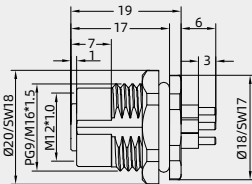
Female panel mount connector, dip solder, front fastened



S-Code



Contacts	screw	Designation	Order No.
3(2+PE)	PG9	M12-F03S-BKR-PG9-D	163 003 324 2502
	M16x1.5	M12-F03S-BKR-M16-D	163 003 324 2503
4(3+PE)	PG9	M12-F04S-BKR-PG9-D	163 004 324 2502
	M16x1.5	M12-F04S-BKR-M16-D	163 004 324 2503



Accessories

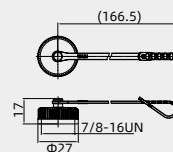
Protection covers IP67

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

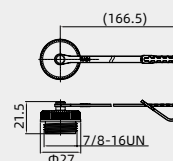


Protection cover
for female cable connector



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

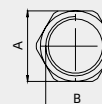


Hexagonal nut for fixing thread



Remark: SPQ is 1pc

screw	Designation	Order No.
PG9	WNA-PG9/S	102 105 002 1101
M16X1.5	WNA-M16/S	102 105 013 1101



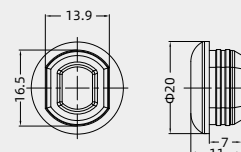
A	B
SW18	PG9
SW19	M16x1,5

Protection covers, for flange
mount panel



Remark: SPQ is 10pcs

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

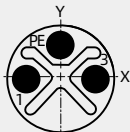


M12-S

• Contact arrangements

• Male insert (mating side)

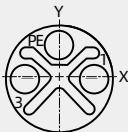
3 contacts



	X	Y	
1	-2.55	0.00	1. brown
3	2.55	0.00	2. blue
PE	0.00	2.55	PE. yellow green

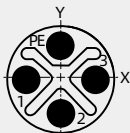
• Female insert (mating side)

3 contacts



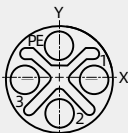
	X	Y	
1	2.55	0.00	1. brown
3	-2.55	0.00	2. blue
PE	0.00	2.55	PE. yellow green

4 contacts



	X	Y	
1	-2.55	0.00	1. brown
2	0.00	-2.55	2. white
3	2.55	0.00	3. blue
PE	0.00	2.55	PE. yellow green

4 contacts

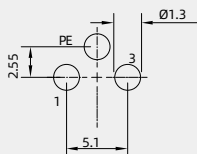


	X	Y	
1	2.55	0.00	1. brown
2	0.00	-2.55	2. white
3	-2.55	0.00	3. blue
PE	0.00	2.55	PE. yellow green

- Panel cut out

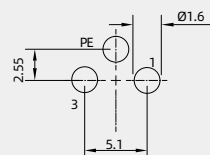
- Opening hole drawing male insert(PCB),
Panel mount connectors

3 contacts

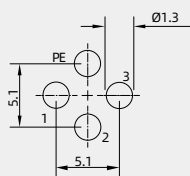


- Opening hole drawing female insert(PCB),
Panel mount connectors

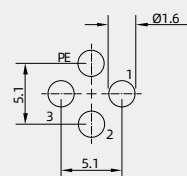
3 contacts



4 contacts



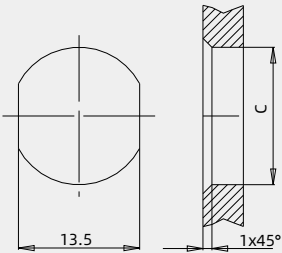
4 contacts



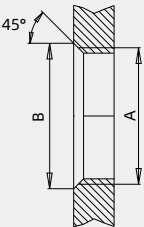
• Panel cut out

• Panel mount connectors

• Through-hole mounting



• Screw mounting

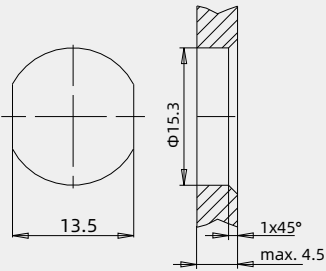


	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

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

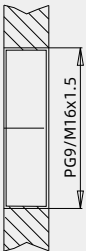
• Panel mount connectors
Rear panel mounting,
front tighten

• Through-hole mounting



• Panel mount connectors
front tighten

• With bore hole



Tightening torque 6,25 Nm



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