

Male/Female Cable Connectors

C112 series



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anti-vibration coupling nut ... Page 10

Male cable connector, straight, shielded,
anti-vibration coupling nut ... Page 12



Male cable connector, right angled,
anti-vibration coupling nut ... Page 10

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Female cable connector, straight,
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Female cable connector, straight, shielded,
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Female cable connector, right angled,
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Female connector, right angled,
contacts accessible for customer assembly ... Page 14

Description

M12-cables available with male or female connectors, straight or angled housings and cable jacket materials in PVC or PUR.

EMI shielded M12-cables are available with male and female connectors, straight or angled housings and cable jacket materials in PVC or PUR.

Female cable connector for customer assembly available with prewired circuitry.



General characteristics	Standard	Standard Version	Shielded	Customer Assembly
Number of contacts		3 / 4 / 5 ³⁾	3 / 4 / 5 ³⁾	3 / 3+PE

Electrical characteristics

Contact resistance	IEC 60 512-2, test 2 a	≤ 10 mΩ (without cable)		≤ 10 mΩ
Current carrying capacity	IEC 60 512-3, test 5 b	4 A at T _U = 40°C		without LED 7 A at T _U = 40°C with LED 3,5 A at T _U = 40°C
Rated voltage	IEC 60 664-1 ²⁾	3+4 cont. 250 V AC/DC	30 V AC/DC	without LED 250 V AC/DC
	IEC 60 664-1 ²⁾	5 cont. 60 V AC/DC	30 V AC/DC	with LED 36 V DC
Rated impulse voltage	IEC 60 664-1 ²⁾	3+4 cont. 2,5 kV	0,8 kV	without LED 2,5 kV
	IEC 60 664-1 ²⁾	5 cont. 1,5 kV	0,8 kV	–
Insulation resistance	IEC 60 512-2, test 3 a	> 10 ⁸ Ω		> 10 ⁸ Ω
Pollution degree	IEC 60 664-1 ²⁾	3 ¹⁾		3
Material group	IEC 60 664-1 ²⁾	I		II
Test voltage	IEC 60 664-1 ²⁾	3 + 4 cont. 1,4 kV AC 5 cont. 1,0 kV AC	0,5 kV AC	–

Climatic characteristics

Climatic category	IEC 60 068-1	25 / 85 / 21	without LED: 30 / 100 / 56
			with LED: 30 / 80 / 56
Temperature range	IEC 60 512-6, test 11 i+j	–25°C - +85°C –13°F - +185°F	without LED: –30°C - +100°C –22°F - +212°F
			with LED: –30°C - +80°C –22°F - +176°F

Materials

Contact insert		TPU	PA
Contact plating		Au	Ag
Overmolding		TPU	PA
Housing		–	PA
Knurled screw / knurled nut		CuZn nickel plated	PA
O-Ring		Viton	NBR

Mechanical characteristics

Protection class	IEC 60 529	IP 65 and IP 67 when properly mated	IP 65 when properly mated
Mechanical operation	IEC 60 512-5, Test 9 a	≥ 100 mating cycles	≥ 50 mating cycles
Insertion force	IEC 60 512-7, Test 13 b	≤ 25 N	≤ 25 N
Withdrawal force	IEC 60 512-7, Test 13 b	≤ 30 N	≤ 30 N

Other technical characteristics

Type of termination		crimp (overmolded)	screw clamps
Wire size		0,34 mm ² (AWG 22)	0,14 - 0,5 mm ² (AWG 24-20)
Flammability		UL 94 HB	UL 94 V-0
Locking		Screw coupling	Screw coupling

¹⁾ In mated position only

²⁾ IEC 60664-1 corresponds to DIN VDE 0110

³⁾ Contact no. 5 is "first mate – last break" and can be used for grounding purpose. When grounding the customer must mark the wire.

Furthermore the user has to ensure that this connector is not mated with such connectors where contact no 5 is under voltage

Cable construction PVC

- Partly oil and chemical proof
- Especially suited for dry areas

	Color code	Conductors	Cable jacket	
			Ø mm	material
Cable 01	Brown, blue, black	3 x 0,34 mm ² (AWG 22)	5	PVC
Cable 02	Brown, white, blue, black	4 x 0,34 mm ² (AWG 22)	5	PVC
Cable 03	Brown, white, blue, black, grey	5 x 0,34 mm ² (AWG 22)	5	PVC
Cable 07	Brown, blue, black	3 x 0,34 mm ² (AWG 22)	5	PVC shielded
Cable 08	Brown, white, blue, black	4 x 0,34 mm ² (AWG 22)	5	PVC shielded
Cable 09	Brown, white, blue, black, grey	5 x 0,34 mm ² (AWG 22)	5	PVC shielded

Cable construction PUR

- Very good oil and chemical resistance
- Especially suited for applications in the machine and installation area with rough environments, also in the food industry

	Color code	Conductors	Cable jacket	
			Ø mm	material
Cable 04	Brown, blue, black	3 x 0,34 mm ² (AWG 22)	5	PUR
Cable 05	Brown, white, blue, black	4 x 0,34 mm ² (AWG 22)	5	PUR
Cable 06	Brown, white, blue, black, grey	5 x 0,34 mm ² (AWG 22)	5	PUR
Cable 10	Brown, blue, black	3 x 0,34 mm ² (AWG 22)	5	PUR shielded
Cable 11	Brown, white, blue, black	4 x 0,34 mm ² (AWG 22)	5	PUR shielded
Cable 12	Brown, white, blue, black, grey	5 x 0,34 mm ² (AWG 22)	5	PUR shielded

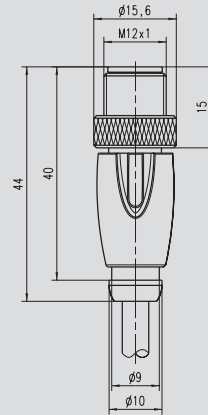
Ordering example for different cable lengths

C 112	10A	013	---	10
	2.0 m		020	
	5.0 m		050	

Standard cable lengths: 2 m and 5 m.
 Non-standard cable lengths upon request. Minimum order quantities will apply.



Male cable connector, straight with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 10A013 ___ 10
	PUR	C112 10A043 ___ 10
4	PVC	C112 10A024 ___ 10
	PUR	C112 10A054 ___ 10
5	PVC	C112 10A035 ___ 10
	PUR	C112 10A065 ___ 10

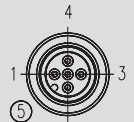
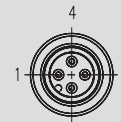
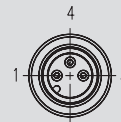
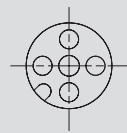
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

4 contacts

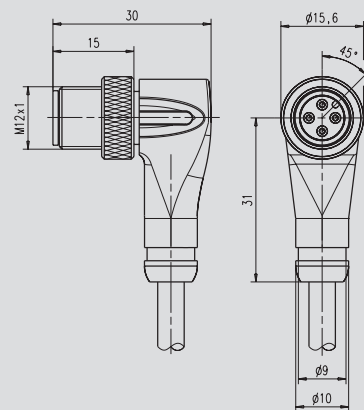
5 contacts



2 first mate – last break 2



Male cable connector, right angled with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 10B013 ___ 10
	PUR	C112 10B043 ___ 10
4	PVC	C112 10B024 ___ 10
	PUR	C112 10B054 ___ 10
5	PVC	C112 10B035 ___ 10
	PUR	C112 10B065 ___ 10

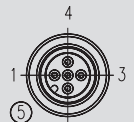
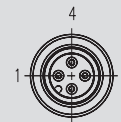
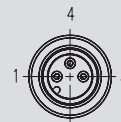
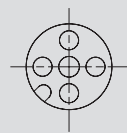
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

4 contacts

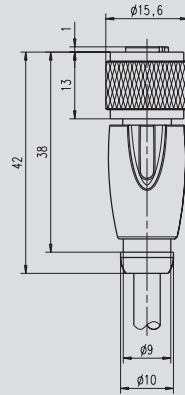
5 contacts



2 first mate – last break 2



Female cable connector, straight
with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 10C013 ___ 10
	PUR	C112 10C043 ___ 10
4	PVC	C112 10C024 ___ 10
	PUR	C112 10C054 ___ 10
5	PVC	C112 10C035 ___ 10
	PUR	C112 10C065 ___ 10

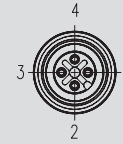
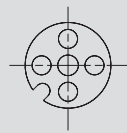
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

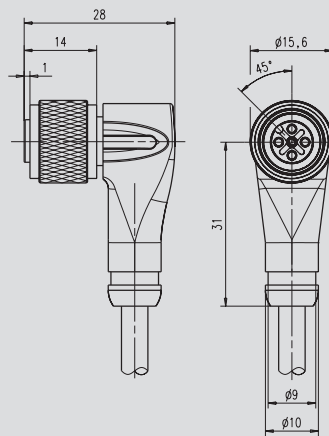
3 contacts

4 contacts

5 contacts



Female cable connector, right angled
with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 10D013 ___ 10
	PUR	C112 10D043 ___ 10
4	PVC	C112 10D024 ___ 10
	PUR	C112 10D054 ___ 10
5	PVC	C112 10D035 ___ 10
	PUR	C112 10D065 ___ 10

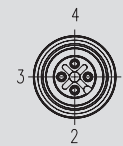
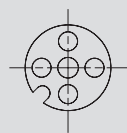
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

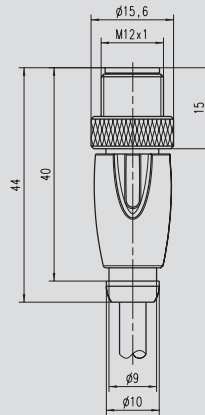
4 contacts

5 contacts





**Male cable connector,
straight, shielded**
with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 11A073 ___ 10
	PUR	C112 11A103 ___ 10
4	PVC	C112 11A084 ___ 10
	PUR	C112 11A114 ___ 10
5	PVC	C112 11A095 ___ 10
	PUR	C112 11A125 ___ 10

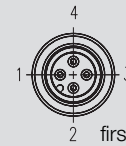
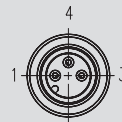
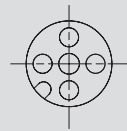
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

4 contacts

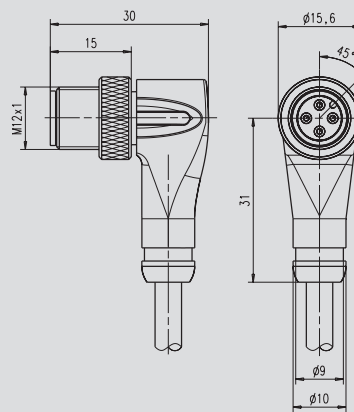
5 contacts



2 first mate – last break 2



**Male cable connector,
right angled, shielded**
with anti-vibration coupling nut



Contacts	Cable jacket	Order No.
3	PVC	C112 11B073 ___ 10
	PUR	C112 11B103 ___ 10
4	PVC	C112 11B084 ___ 10
	PUR	C112 11B114 ___ 10
5	PVC	C112 11B095 ___ 10
	PUR	C112 11B125 ___ 10

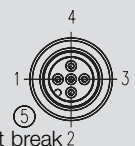
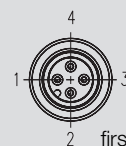
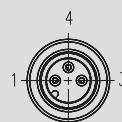
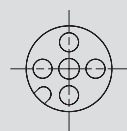
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

4 contacts

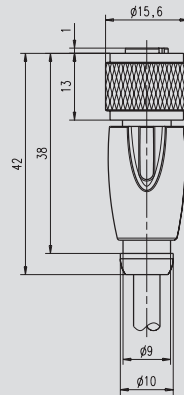
5 contacts



2 first mate – last break 2



**Female cable connector,
straight, shielded
with anti-vibration coupling nut**



Contacts	Cable jacket	Order No.
3	PVC	C112 11C073 ___ 10
	PUR	C112 11C103 ___ 10
4	PVC	C112 11C084 ___ 10
	PUR	C112 11C114 ___ 10
5	PVC	C112 11C095 ___ 10
	PUR	C112 11C125 ___ 10

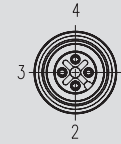
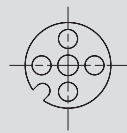
Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

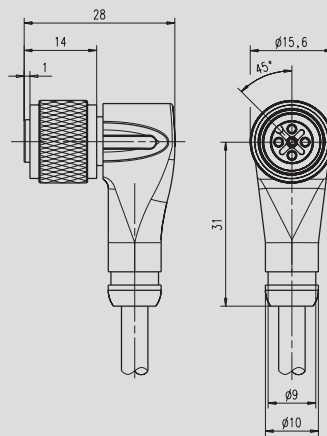
3 contacts

4 contacts

5 contacts



**Female cable connector,
right angled, shielded
with anti-vibration coupling nut**



Contacts	Cable jacket	Order No.
3	PVC	C112 11D073 ___ 10
	PUR	C112 11D103 ___ 10
4	PVC	C112 11D084 ___ 10
	PUR	C112 11D114 ___ 10
5	PVC	C112 11D095 ___ 10
	PUR	C112 11D125 ___ 10

Standard cable lengths: 2 m and 5 m.
Non-standard cable lengths and coding upon request.

Contact arrangement

3 contacts

4 contacts

5 contacts

