



# MEDICAL TECHNOLOGY

Connectors for medical applications

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[www.binder-connector.de](http://www.binder-connector.de)

# COMPETENCE AND INNOVATIVE STRENGTH FOR MODERN MEDICAL TECHNOLOGY

The highly sensitive environment of healthcare requires a particularly high level of precision and conscientiousness.

We produce a wide range of industrial connectors as well as mounting and cable connectors for automation technology. Our strengths lie in the individual development, design and automated manufacturing of connectors according to customer specifications.

Our product range extends from subminiature connectors to multi-pin machine connectors. binder products are used in agricultural and construction machinery, signal equipment, machine tool construction, medical technology, measuring technology as well as sensor and automation technology.

In the area of medical technology, we draw from a wealth of experience in collaborating with customers. We possess expertise from many years of work in the relevant production and processing technologies, such as plastics injection moulding, soldering, crimping and cable insert moulding.

The sensitive health care environment requires an especially high level of precision and conscientiousness. We meet these demands through support from dedicated contact persons, individually coordinated development steps and modern production standards.

## FEATRURES

- DEHP-free (except contacts)
- Shock and vibration acc. to DIN EN 60601-1-11
- Biocompatibility acc. to DIN EN ISO 10993-5
- Drop test acc. to DIN EN 60601-1
- Disinfectant resistance on request
- FDA compliant for aqueous foods acc. to regulation EG596/2009
- Clearance and creepage distances on request



## SECTORS AND FIELDS OF APPLICATION

- Analysers
- Respirators
- Dialysis machines
- Machines for ultrasound and electrotherapy
- Infusion pumps
- Contrast agent injectors
- Magnifying glasses
- Patient temperature management systems
- Sleep analysis devices
- Dental chairs



# PRODUCT OVERVIEW

## Medical applications Snap-in ELC 570 series

- Snap-in locking system with snap hooks
- 12 contacts
- Degree of protection IP54
- Solder termination
- > 5000 mating cycles
- Colour in greywhite similar to RAL 9002
- Ergonomic design of connector
- DEHP-free <sup>1)</sup>

### SNAP-IN ELC 570 Series



## Medical applications Subminiature connectors Snap-in IP67 620 series

- Snap-in locking system
- 3 – 8 contacts
- Degree of protection IP67
- Solder termination
- Diameter 11,5 mm
- Coloured types
- Moulded versions on request
- Colour in greywhite similar to RAL 9002
- DEHP-free <sup>1)</sup>

### SNAP-IN IP67 620 Series



## Medical applications Miniature connectors Snap-in IP67 720 series

- Snap-in locking system
- 3 – 12 contacts
- Degree of protection IP67
- Solder termination
- Diameter 16 mm
- Coloured types
- Moulded versions on request
- Colour in greywhite similar to RAL 9002
- DEHP-free <sup>1)</sup>

### SNAP-IN IP67 720 Series



## Medical applications Miniature connectors Bayonet NCC 770 series

- Bayonet locking system
- 8 contacts
- Degree of protection IP67
- Solder termination
- > 5000 mating cycles
- Coloured types
- Panel mount connector:  
Degree of protection IP67 even when not connected
- Colour in greywhite similar to RAL 9002
- DEHP-free <sup>1)</sup>

### BAYONET NCC 770 Series



# CONTENTS

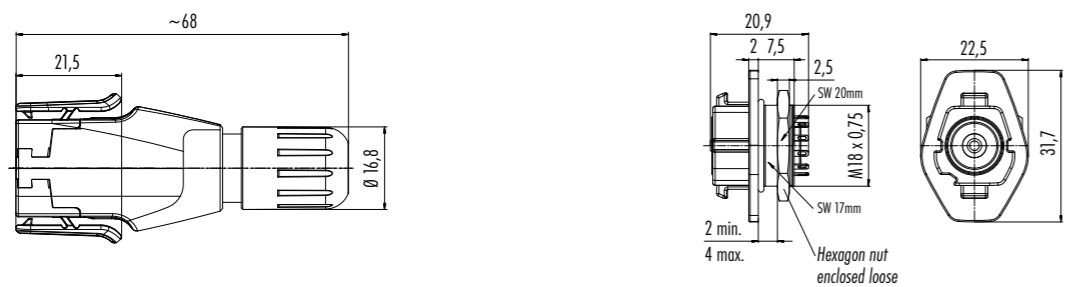
Range	Series	Contacts	Degree of protection	Page
<b>Connectors for medical applications</b>				
Snap-in ELC	<b>570</b>	12	IP54	<b>4–7</b>
Snap-in IP67	<b>620</b>	3–8	IP67	<b>8–15</b>
Snap-in	<b>720</b>	3–12	IP67	<b>16–26</b>
Bayonet NCC	<b>770</b>	8	IP67	<b>27–30</b>
Technical information				<b>31</b>

### Additional information

- Shock and vibration acc. to DIN EN 606011-11
- Drop test acc. to DIN EN 60601-1
- Biocompatibility acc. to DIN EN ISO 10993-5
- FDA compliant for aqueous foods acc. to regulation EG596/2009
- Disinfectant resistance on request
- Clearances and creepage distances on request

Male cable connector

Female panel mount connector, solder

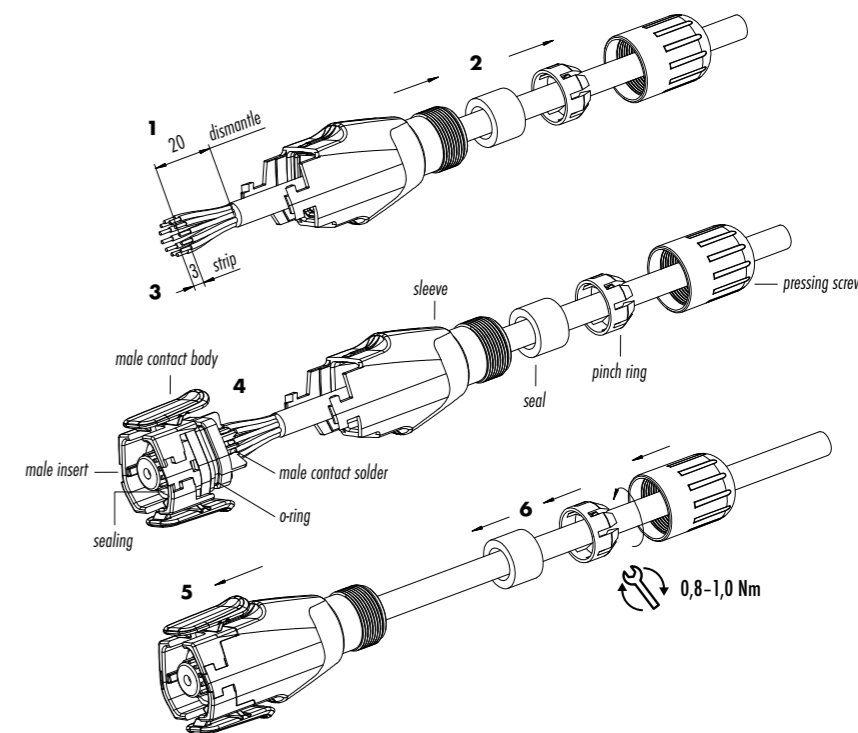


Contacts	Cable outlet	Ordering-No.	Contacts	Ordering-No.
12	4–6 mm	99 1721 002 12	12	09 1724 000 12
	6–8 mm	99 1721 000 12		

<b>Number of contacts</b>	<b>4</b>
Connector locking system	snap-in
Termination	solder
Wire gauge	max. 0,25 mm <sup>2</sup> (max. AWG 24)
Cable outlet	4–6 mm, 6–8 mm / —
Degree of protection	IP54
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	150 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	pin CuZn (brass), socket CuSn (bronze)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	PA

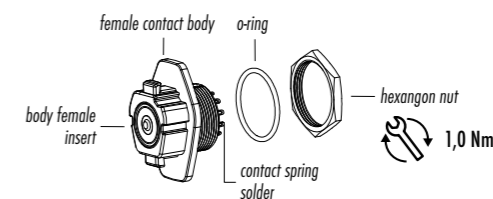
Assembly instruction

- Strip to 9mm length and take off the cable jacket.
- Bead pressing screw, pinch ring, seal and sleeve to cable.
- Strip the insulation off the wires (L = 3mm).
- Solder single wires.
- Align the sleeve and lock it with the contact body. Unlocking only possible with extraction tool 07-0002-000.
- Push pinch ring over sealing ring to block and tighten with the pressing screw against the sleeve.



Component part drawing

Female panel mount connector

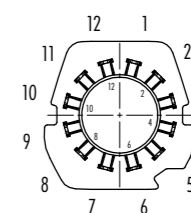
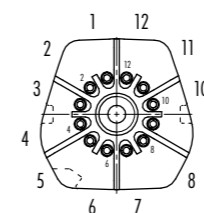


Contact arrangements

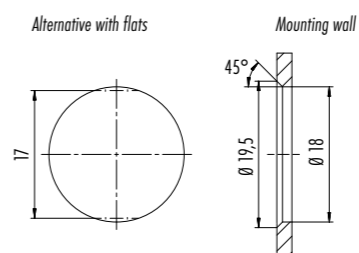
Male insert (termination side)


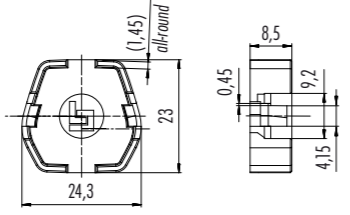

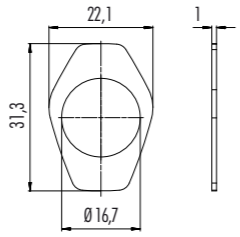
Female insert (termination side)

12 contacts



Panel cut out

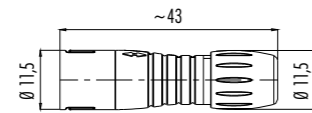


Description	Drawing	Ordering-No.
Extraction tool for male cable connector 		07 0003 000
Flat seal 		16 0334 000



Male cable connector

Male cable connector, red, blue, green

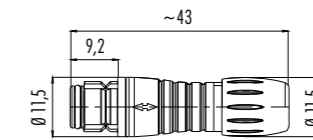


Contacts	Max. cable outlet	Ordering-No.	Contacts	Max. cable Ø	Red	Blue	Green
3	3,5–5 mm	99 9205 400 03	3	3,5–5 mm	99 9205 450 03	99 9205 460 03	99 9205 470 03
4	3,5–5 mm	99 9209 400 04	4	3,5–5 mm	99 9209 450 04	99 9209 460 04	99 9209 470 04
5	3,5–5 mm	99 9213 400 05	5	3,5–5 mm	99 9213 450 05	99 9213 460 05	99 9213 470 05
8	3,5–5 mm	99 9225 400 08	8	3,5–5 mm	99 9225 450 08	99 9225 460 08	99 9225 470 08

Number of contacts	3	4	5	8
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,25 mm <sup>2</sup> (max. AWG 24)			
Cable outlet	3,5–5 mm			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	125 V		63 V	
Rated impulse voltage	1500 V		800 V	
Pollution degree	2			
Overtoltage categorie	II			
Material group	II			
Rated current (40 °C)	3 A	2,5 A	2 A	1 A
Material of contact	CuZn (brass)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Female cable connector

Female cable connector, red, blue, green



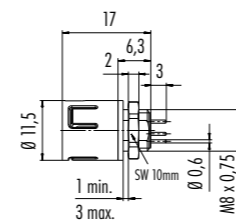
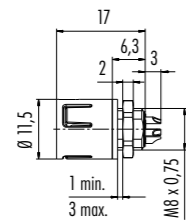
Contacts	Max. cable outlet	Ordering-No.	Contacts	Max. cable Ø	Red	Blue	Green
3	3,5–5 mm	99 9206 400 03	3	3,5–5 mm	99 9206 450 03	99 9206 460 03	99 9206 470 03
4	3,5–5 mm	99 9210 400 04	4	3,5–5 mm	99 9210 450 04	99 9210 460 04	99 9210 470 04
5	3,5–5 mm	99 9214 400 05	5	3,5–5 mm	99 9214 450 05	99 9214 460 05	99 9214 470 05
8	3,5–5 mm	99 9226 400 08	8	3,5–5 mm	99 9226 450 08	99 9226 460 08	99 9226 470 08

Number of contacts	3	4	5	8
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,25 mm <sup>2</sup> (max. AWG 24)			
Cable outlet	3,5–5 mm			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	125 V		63 V	
Rated impulse voltage	1500 V		800 V	
Pollution degree	2			
Overtoltage categorie	II			
Material group	II			
Rated current (40 °C)	3 A	2,5 A	2 A	1 A
Material of contact	CuSn (bronze)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Male panel mount connector    Male panel mount connector, red    Male panel mount connector, blue    Male panel mount connector, green    Male panel mount connector, dip solder



Drilling schemes see page 15



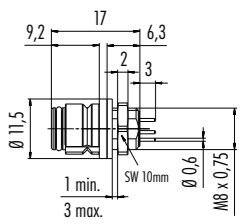
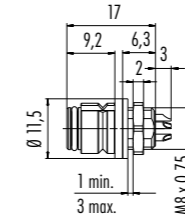
Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
3	99 9207 400 03	3	99 9207 050 03	3	99 9207 060 03	3	99 9207 070 03	3	99 9207 490 03
4	99 9211 400 04	4	99 9211 050 04	4	99 9211 060 04	4	99 9211 070 04	4	99 9211 490 04
5	99 9215 400 05	5	99 9215 050 05	5	99 9215 060 05	5	99 9215 070 05	5	99 9215 490 05
8	99 9227 400 08	8	99 9227 050 08	8	99 9227 060 08	8	99 9227 070 08	8	99 9227 490 08

Number of contacts	3	4	5	8
Connector locking system	snap-in			
Termination	solder/dip solder			
Wire gauge	max. 0,25 mm <sup>2</sup> (max. AWG 24)/ —			
Cable outlet	—			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	- 25 °C			
Rated voltage	125 V		63 V	
Rated impulse voltage	1500 V		800 V	
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	3 A	2,5 A	2 A	1 A
Material of contact	CuZn (brass)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	—			

Female panel mount connector    Female panel mount connector, red    Female panel mount connector, blau    Female panel mount connector, grün    Female panel mount connector, tauchlöten



Drilling schemes see page 15

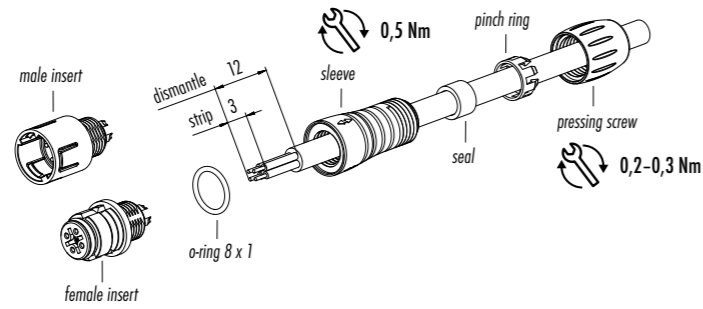


Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
3	99 9208 400 03	3	99 9208 050 03	3	99 9208 060 03	3	99 9208 070 03	3	99 9208 490 03
4	99 9212 400 04	4	99 9212 050 04	4	99 9212 060 04	4	99 9212 070 04	4	99 9212 490 04
5	99 9216 400 05	5	99 9216 050 05	5	99 9216 060 05	5	99 9216 070 05	5	99 9216 490 05
8	99 9228 400 08	8	99 9228 050 08	8	99 9228 060 08	8	99 9228 070 08	8	99 9228 490 08

Number of contacts	3	4	5	8
Connector locking system	snap-in			
Termination	solder/dip solder			
Wire gauge	max. 0,25 mm <sup>2</sup> (max. AWG 24)/ —			
Cable outlet	—			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	- 25 °C			
Rated voltage	125 V		63 V	
Rated impulse voltage	1500 V		800 V	
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	3 A	2,5 A	2 A	1 A
Material of contact	CuSn (bronze)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	—			

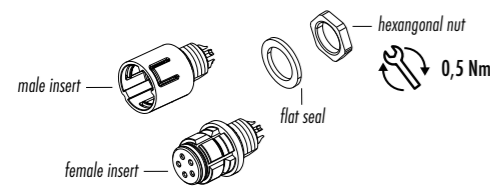
Assembly instruction

1. Dismantle cable to 12 mm length.
2. Bead pressing screw, pinch ring, seal and sleeve to cable.
3. Fit O-ring on the contact insert.
4. Strip and solder single wires.
5. Screw on sleeve.
6. Tighten pressing screw.

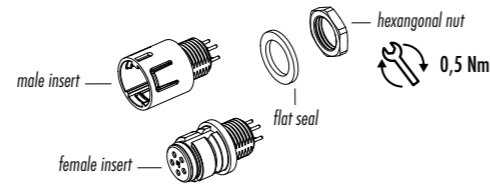


Component part drawing

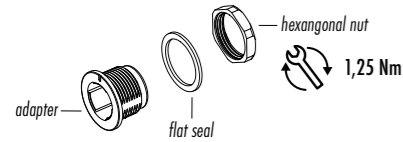
Panel mount connectors, solder



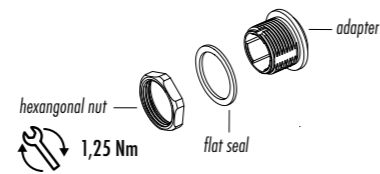
Panel mount connectors, dip solder



Assembly of adapter

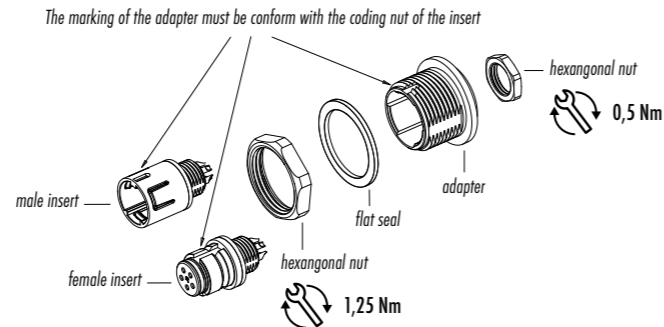
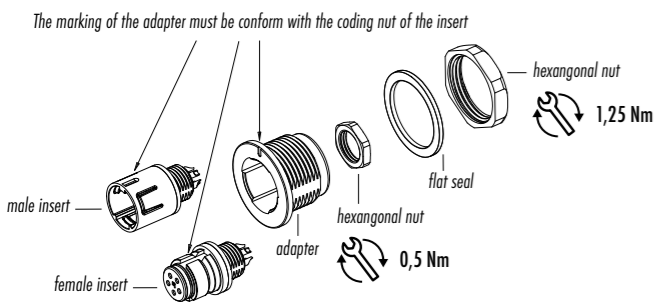


Assembly of adapter, front fastened



Adapter

Adapter, front fastened



Inserts have to be ordered separately

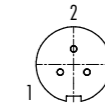
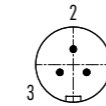
Inserts have to be ordered separately

Contact arrangements

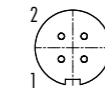
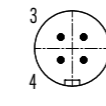
Male insert (termination side)

Female insert (termination side)

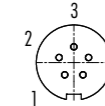
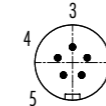
3 contacts



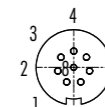
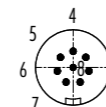
4 contacts



5 contacts



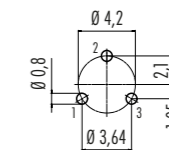
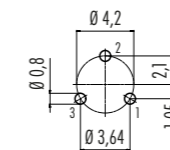
8 contacts



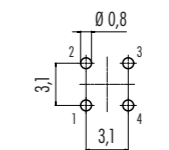
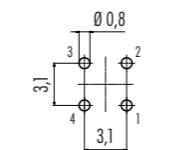
Drilling schemes male insert (PCB)

Drilling schemes female insert (PCB)

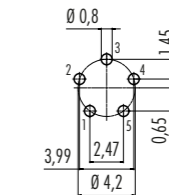
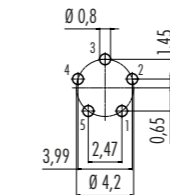
3 contacts



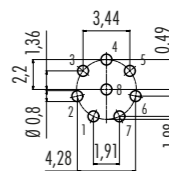
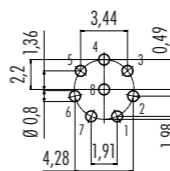
4 contacts



5 contacts



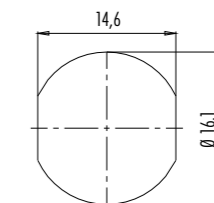
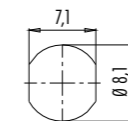
8 contacts



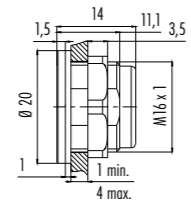
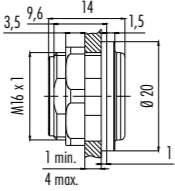
Panel cut out

Panel mount connectors

Adapter





Description	Drawing	Ordering-No.
Adapter for panel mount connectors		08 2636 400 001
Adapter for panel mount connectors, front fastened		08 2629 400 001

**Example for use for adapter**

Male panel mount connector

Female panel mount connector

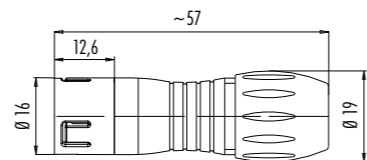
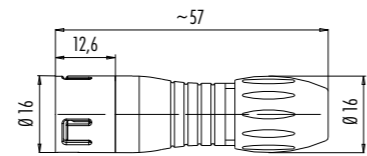
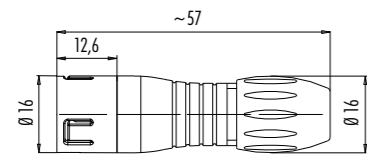
Male panel mount connector with adapter

Female panel mount connector with adapter, front fastened




Male cable connector

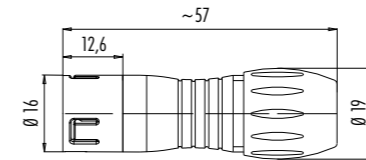
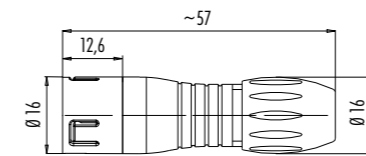
Male cable connector



Contacts	Cable outlet	Ordering-No.	Contacts	Cable outlet	Ordering-No.
3	2,5–4 mm	99 9105 403 03	3	4–6 mm	99 9105 400 03
5	2,5–4 mm	99 9113 403 05	5	4–6 mm	99 9113 400 05
8	2,5–4 mm	99 9125 403 08	8	4–6 mm	99 9125 400 08
12	2,5–4mm	—	12	6–8 mm	99 9133 402 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	2,5–4 mm, 4–6 mm			6–8 mm
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuZn (brass)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Male cable connector, red, blue, green

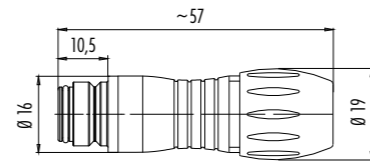
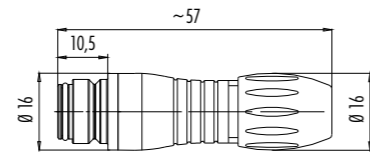
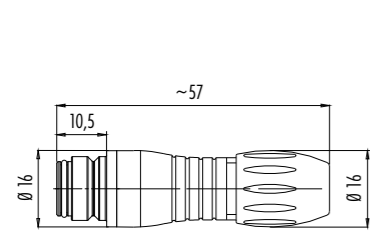


Contacts	Cable outlet	Red	Blue	Green
3	4–6 mm	99 9105 450 03	99 9105 460 03	99 9105 470 03
5	4–6 mm	99 9113 450 05	99 9113 460 05	99 9113 470 05
8	4–6 mm	99 9125 450 08	99 9125 460 08	99 9125 470 08
12	6–8 mm	99 9133 452 12	99 9133 462 12	99 9133 472 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	4–6 mm			6–8 mm
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuZn (brass)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Female cable connector

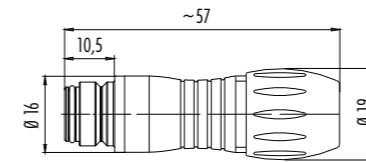
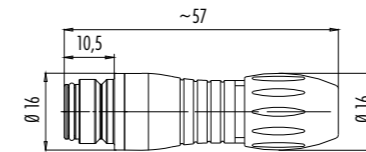
Female cable connector



Contacts	Cable outlet	Ordering-No.	Contacts	Cable outlet	Ordering-No.
3	2,5–4 mm	99 9106 403 03	3	4–6 mm	99 9106 400 03
5	2,5–4 mm	99 9114 403 05	5	4–6 mm	99 9114 400 05
8	2,5–4 mm	99 9126 403 08	8	4–6 mm	99 9126 400 08
12	2,5–4mm	—	12	6–8 mm	99 9134 402 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	2,5–4 mm, 4–6 mm			6–8 mm
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuSn (bronze)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Female cable connector, red, blue, green



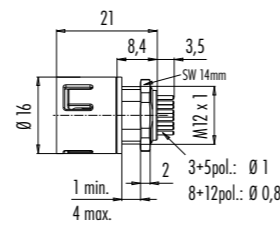
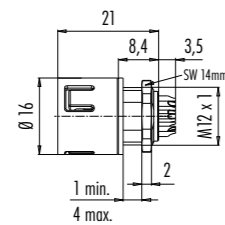
Contacts	Cable outlet	Red	Blue	Green
3	4–6 mm	99 9106 450 03	99 9106 460 03	99 9106 470 03
5	4–6 mm	99 9114 450 05	99 9114 460 05	99 9114 470 05
8	4–6 mm	99 9126 450 08	99 9126 460 08	99 9126 470 08
12	6–8 mm	99 9134 452 12	99 9134 462 12	99 9134 472 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	4–6 mm			6–8 mm
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	– 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuSn (bronze)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	PA			

Male panel mount connector    Male panel mount connector, red    Male panel mount connector, blue    Male panel mount connector, green    Male panel mount connector, dip solder



Drilling schemes see page 25



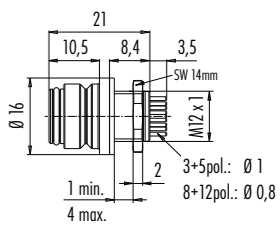
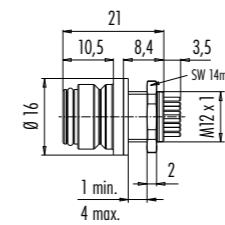
Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
3	99 9107 400 03	3	99 9107 50 03	3	99 9107 60 03	3	99 9107 70 03	3	99 9107 490 03
5	99 9115 400 05	5	99 9115 50 05	5	99 9115 60 05	5	99 9115 70 05	5	99 9115 490 05
8	99 9127 400 08	8	99 9127 50 08	8	99 9127 60 08	8	99 9127 70 08	8	99 9127 490 08
12	99 9135 400 12	12	99 9135 50 12	12	99 9135 60 12	12	99 9135 70 12	12	99 9135 490 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder/dip solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	—			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	- 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuZn (brass)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	—			

Female panel mount connector    Female panel mount connector, red    Female panel mount connector, blau    Female panel mount connector, grün    Female panel mount connector, tauchlöten



Drilling schemes see page 25

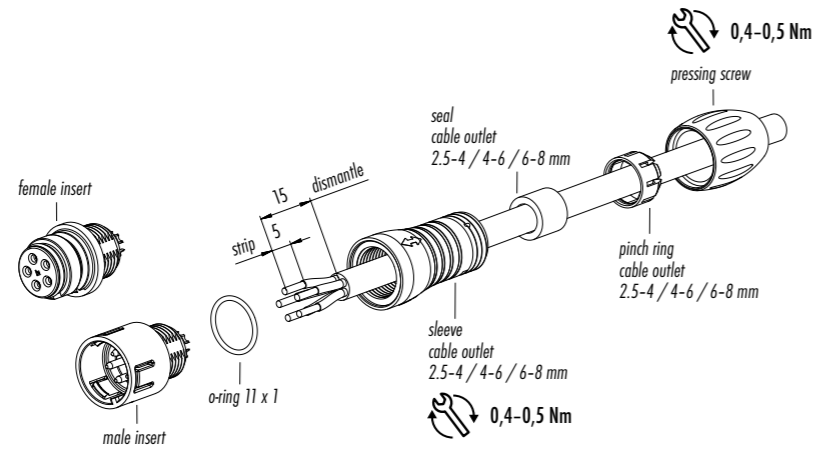


Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
3	99 9108 400 03	3	99 9108 50 03	3	99 9108 60 03	3	99 9108 70 03	3	99 9108 490 03
5	99 9116 400 05	5	99 9116 50 05	5	99 9116 60 05	5	99 9116 70 05	5	99 9116 490 05
8	99 9128 400 08	8	99 9128 50 08	8	99 9128 60 08	8	99 9128 70 08	8	99 9128 490 08
12	99 9136 400 12	12	99 9136 50 12	12	99 9136 60 12	12	99 9136 70 12	12	99 9136 490 12

Number of contacts	3	5	8	12
Connector locking system	snap-in			
Termination	solder/dip solder			
Wire gauge	max. 0,75 mm <sup>2</sup> (max. AWG 18)		max. 0,25 mm <sup>2</sup> (max. AWG 24)	
Cable outlet	—			
Degree of protection	IP67			
Mechanical operation	> 500 mating cycles			
Upper temperature	+ 85 °C			
Lower temperature	- 25 °C			
Rated voltage	250 V	125 V	125 V	60 V
Rated impulse voltage	2500 V	1500 V	1500 V	800 V
Pollution degree	2			
Overvoltage categorie	II			
Material group	II			
Rated current (40 °C)	7 A	5 A	2 A	
Material of contact	CuSn (bronze)			
Contact plating	Au (gold)			
Material of contact body	PA			
Material of housing	PA			
Material of locking	—			

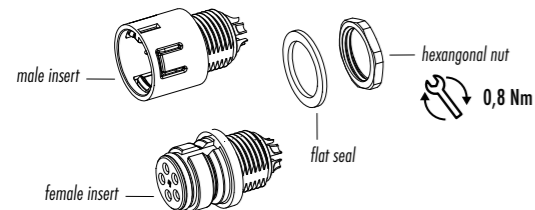
Assembly instruction

1. Bead sleeve, seal, pinch ring and pressing screw to cable.
2. Dismantle cable to 15 mm length.
3. Strip and connect single wires.
4. Screw the sleeve onto the assembled contact insert.
5. Push seal and pinch ring into the sleeve and tighten it with the pressing screw.

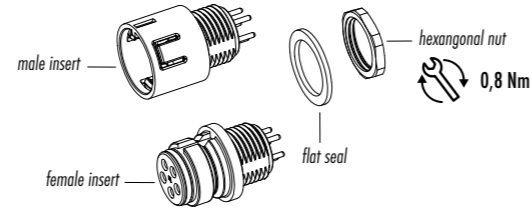


Component part drawing

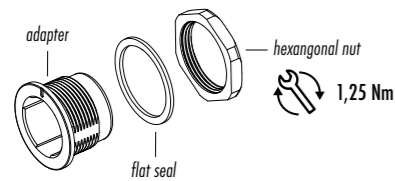
Panel mount connectors, solder



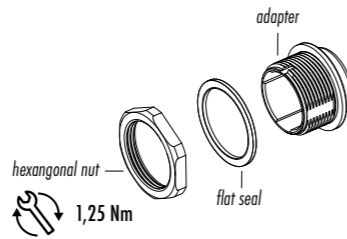
Panel mount connectors, dip solder



Assembly of adapter

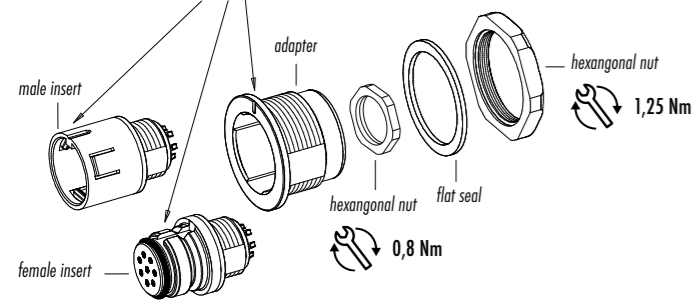


Assembly of adapter, front fastened



Adapter

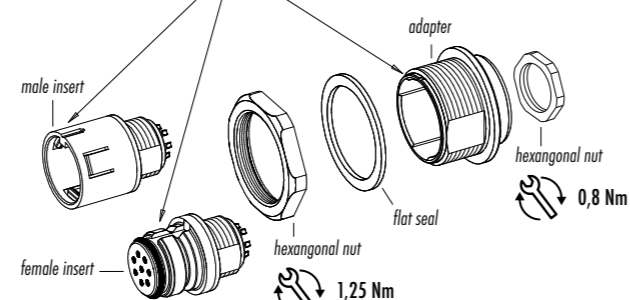
The marking of the adapter must be conform with the coding nut of the insert



Inserts have to be ordered separately

Adapter, front fastened

The marking of the adapter must be conform with the coding nut of the insert



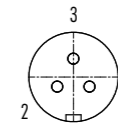
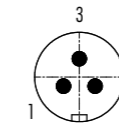
Inserts have to be ordered separately

Contact arrangements

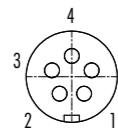
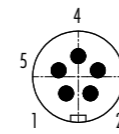
Male insert (termination side)

Female insert (termination side)

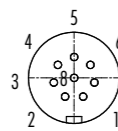
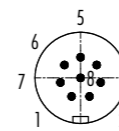
3 contacts



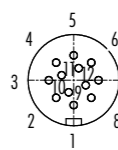
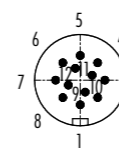
5 contacts



8 contacts



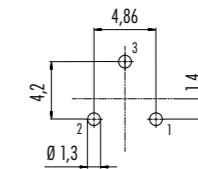
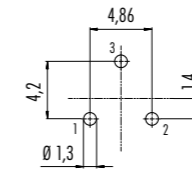
12 contacts



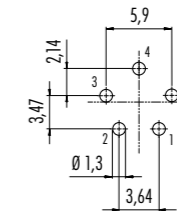
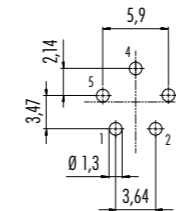
Drilling schemes male insert (PCB), unshielded

Drilling schemes female insert (PCB), unshielded

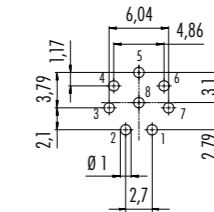
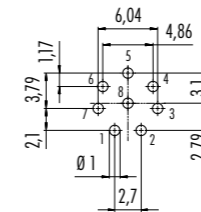
3 contacts



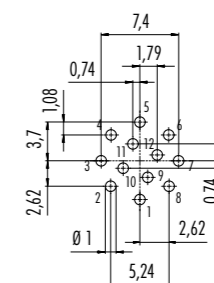
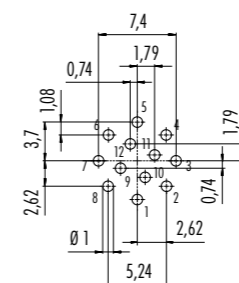
5 contacts



8 contacts



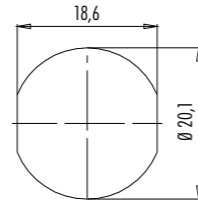
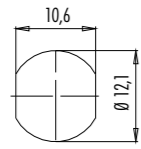
12 contacts



Panel cut out

Panel mount connectors

Adapter

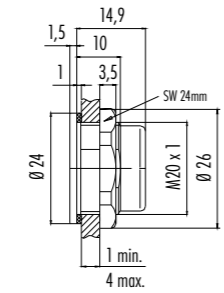


Accessories Connectors for medical applications <sup>1)</sup> **720**

Snap-in IP67

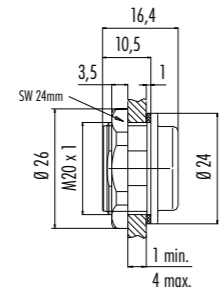
Description	Drawing	Ordering-No.
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Adapter for panel mount connectors



08 2433 400 001

Adapter for panel mount connectors, front fastened



08 2434 400 001

Example for use for adapter

Male panel mount connector



Male panel mount connector with adapter



Female panel mount connector



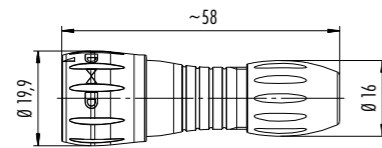
Female panel mount connector with adapter, front fastened



<sup>1)</sup> Additional accessories available in black. See miniature 720 series.

Male cable connector, white

Male cable connector, red, blue, green

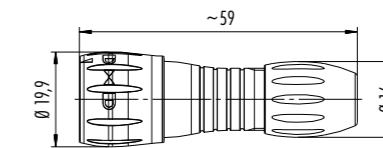


Contacts	Cable outlet	Ordering-No.	Contacts	Cable outlet	Red	Blue	Green
8	2,5–4 mm	99 0771 400 08	8	2,5–4 mm	99 0771 450 08	99 0771 460 08	99 0771 470 08

Number of contacts	8
Connector locking system	bayonet
Termination	solder
Wire gauge	0,25 mm <sup>2</sup> (AWG 24)
Cable outlet	2,5–4 mm
Degree of protection	IP67
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuZn (brass)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	PA

Male cable connector, white

Male cable connector, red, blue, green

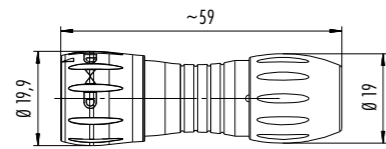


Contacts	Cable outlet	Ordering-No.	Contacts	Cable outlet	Red	Blue	Green
8	4–6 mm	99 0771 401 08	8	4–6 mm	99 0771 451 08	99 0771 461 08	99 0771 471 08

Number of contacts	8
Connector locking system	bayonet
Termination	solder
Wire gauge	0,25 mm <sup>2</sup> (AWG 24)
Cable outlet	4–6 mm
Degree of protection	IP67
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuZn (brass)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	PA

Male cable connector, white

Male cable connector, red, blue, green



Contacts	Cable outlet	Ordering-No.	Contacts	Cable outlet	Red	Blue	Green
8	6–8 mm	99 0771 402 08	8	6–8 mm	99 0771 452 08	99 0771 462 08	99 0771 472 08

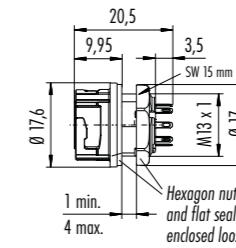
Number of contacts	8
Connector locking system	bayonet
Termination	solder
Wire gauge	0,25 mm <sup>2</sup> (AWG 24)
Cable outlet	6–8 mm
Degree of protection	IP67
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	– 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuZn (brass)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	PA

Female panel mount connector, solder, white

Female panel mount connector, solder, red

Female panel mount connector, solder, blau

Female panel mount connector, solder, green



Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
8	09 0774 400 08	8	09 0774 450 08	8	09 0774 460 08	8	09 0774 470 08

Number of contacts	8
Connector locking system	bayonet
Termination	solder
Wire gauge	0,25 mm <sup>2</sup> (AWG 24)
Cable outlet	—
Degree of protection	IP67 also when not mated
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	– 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuSn (bronze)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	—

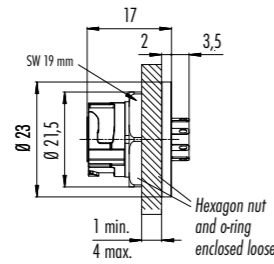


Female panel mount connector, solder, front fastened, white

Female panel mount connector, solder, front fastened, red

Female panel mount connector, solder, front fastened, blau

Female panel mount connector, solder, front fastened, green



Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
8	09 0774 580 08	8	09 0774 585 08	8	09 0774 586 08	8	09 0774 587 08

<b>Number of contacts</b>	<b>8</b>
Connector locking system	bayonet
Termination	solder
Wire gauge	0,25 mm <sup>2</sup> (AWG 24)
Cable outlet	—
Degree of protection	IP67 also when not mated
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuSn (bronze)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	—

Female panel mount connector, dip solder, white

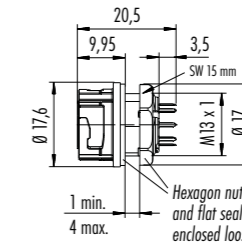
Female panel mount connector, dip solder, red

Female panel mount connector, dip solder, blau

Female panel mount connector, dip solder, green



Drilling scheme see page 35



Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
8	09 0774 490 08	8	09 0774 495 08	8	09 0774 496 08	8	09 0774 497 08

<b>Number of contacts</b>	<b>8</b>
Connector locking system	bayonet
Termination	dip solder
Wire gauge	—
Cable outlet	—
Degree of protection	IP67 also when not mated
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuSn (bronze)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	—

Female panel mount connector, dip solder, front fastened, white

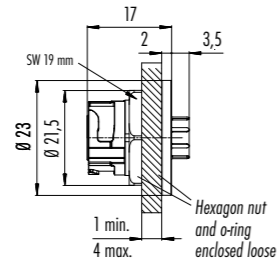
Female panel mount connector, dip solder, front fastened, red

Female panel mount connector, dip solder, front fastened, blau

Female panel mount connector, dip solder, front fastened, green



Drilling scheme see page 35

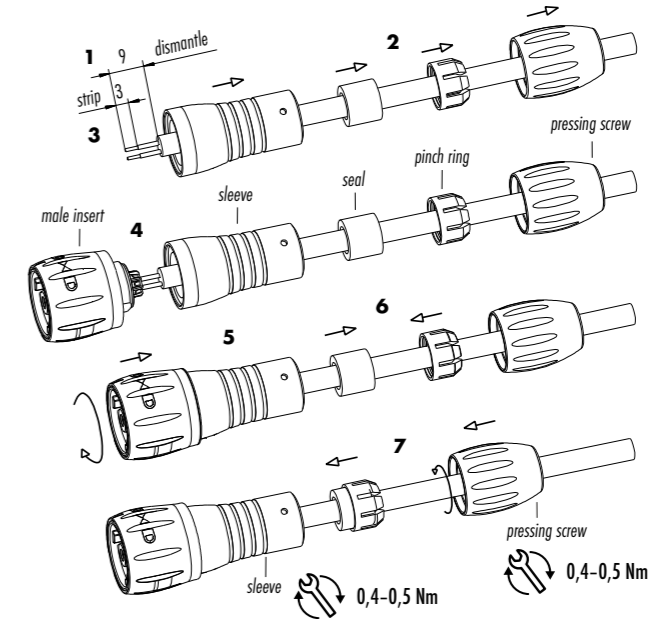


Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.	Contacts	Ordering-No.
8	09 0774 590 08	8	09 0774 595 08	8	09 0774 596 08	8	09 0774 597 08

<b>Number of contacts</b>	<b>8</b>
Connector locking system	bayonet
Termination	dip solder
Wire gauge	—
Cable outlet	—
Degree of protection	IP67 also when not mated
Mechanical operation	> 5000 mating cycles
Upper temperature	+ 85 °C
Lower temperature	- 25 °C
Rated voltage	175 V
Rated impulse voltage	1750 V
Pollution degree	2
Overvoltage categorie	II
Material group	II
Rated current (40 °C)	2 A
Material of contact	CuSn (bronze)
Contact plating	Au (gold)
Material of contact body	PA
Material of housing	PA
Material of locking	—

Assembly instruction

- Strip to 9 mm length and take off the cable jacket.
- Bead pressing screw, pinch ring, seal and distance sleeve to cable.
- Strip the insulation off the wires (L = 3 mm) and tin them.
- Solder inserts.
- Put bayonet adapter to the thread of the distance sleeve and screw it with slight pressure in the direction of the arrow.
- Push pinch ring over sealing ring to block.
- Push pressing screw together with clamp-sealing unit towards distance sleeve and screw tightly.

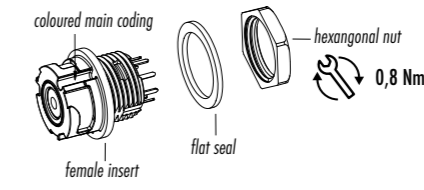
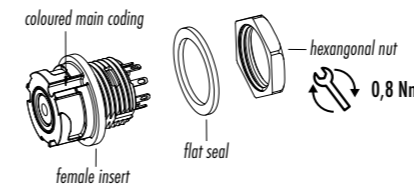


Component part drawing

Female panel mount connector, solder

Female panel mount connector, dip solder

Female panel mount connectors, front fastened

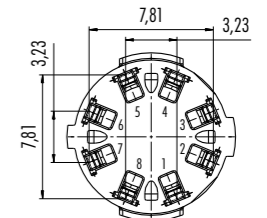
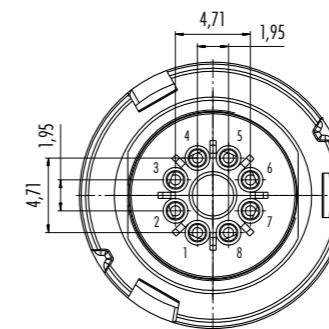


Contact arrangements

Male insert (termination side)

Female insert (termination side)

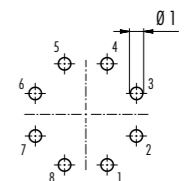
8 pol  
8 contacts



Drilling schemes male insert (PCB)

Drilling schemes female insert (PCB)

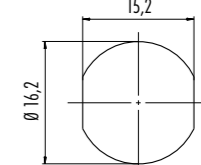
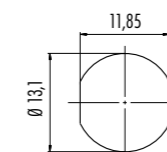
8 contacts



Panel cut out

Panel mount connectors

Panel mount connectors, front fastened



## Disinfectant resistance of the material <sup>1</sup>

	570 Series	620 Series	720 Series	770 Series
Household bleach (100%)	+	○	+	+
Household bleach (10%)	+	+	+	+
2-Phenylphenol (< 5%)	+	+	+	+
Melsitt (10%)	+	+	+	+
Melsept SF (10%)	+	○	○	○
Meliseptol (100%)	+	+	+	○
Meliseptol rapid (100%)	-	+	+	+
Hexaquart plus (10%)	-	+	+	+
Clorox (25%) 50% Danklorix + 50% tap water	○	○	○	○
Isopropanol (100%)	+	+	+	+
Soapy water	+	+	+	+

+ = suitable

○ = partially suitable

- = not suitable

## Biocompatibility according to DIN EN ISO 10993-5

The biocompatibility test is required by law when the product is worn close to or in the body. The ISO 10993 series of standards is applied for the biological assessment of medical devices. The assessment is based on various test methods, including the cytotoxicity test according to EN ISO 10993-5. This test is used to determine whether a product is damaging tissue or cells or inhibiting their growth. To perform the test, fibroblasts (connective tissue cells) are applied to the product or an extract of the product and incubated for several days. The assessment of cytotoxicity is based on the rate of death of the cells.

## FDA compliance with regard to aqueous foods according to Regulation (EC) No. 596/2009

Chemical examination and assessment to ascertain whether the product is allowed to come into contact with food or not. The test determines if the material components of the products are transferred into or onto aqueous foods upon contact.

## DIN EN 60601

The EN 60601 standard series defines safety requirements (such as mechanical requirements) and ergonomic requirements for medical electrical devices and medical systems. It is published in Germany by the German Institute for Standardization as a DIN standard. The standard is based on IEC version IEC 60601. In addition to the basic standard EN 60601-1, there are about ten ancillary standards and approximately 60 standards with special specifications (particulate standards).



# MEDICAL TECHNOLOGY

Connectors for medical applications

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**Franz Binder GmbH & Co.  
Elektrische Bauelemente KG**

Rötelstraße 27  
74172 Neckarsulm  
Germany

Tel. +49 7132 325-0  
Fax +49 7132 325-190

[vk@binder-connector.de](mailto:vk@binder-connector.de)  
[www.binder-connector.de](http://www.binder-connector.de)

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