

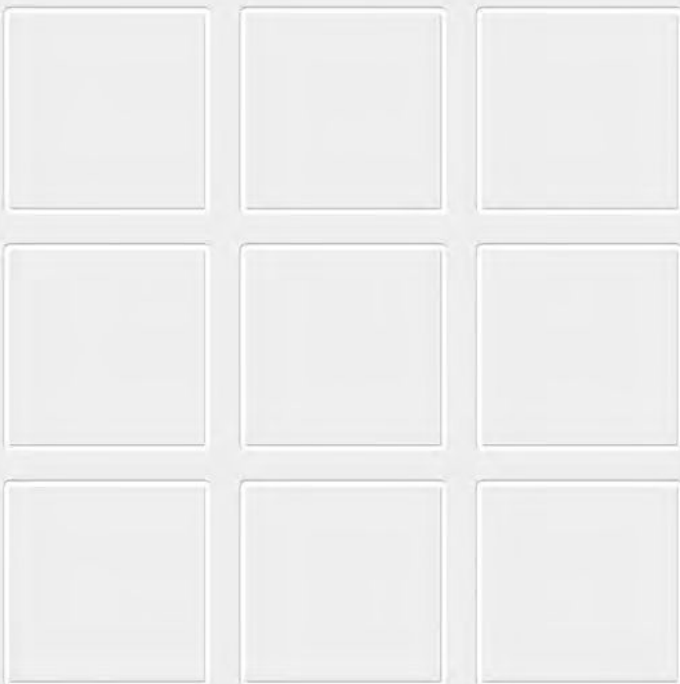
# 1

## Connectors

Series NF07, NF10

Circular Audio  
Miniature Connectors

Catalogue A58.en



More information  
[schaltbau.com](http://schaltbau.com)

## Connectors for audio technology: Series NF07 and NF10

Our well-proven 7- and 10 pole circular audio miniature connectors NF07 and NF10 are especially designed for communication engineering. They provide high reliability under extreme ambient conditions. The

present catalogue describes the watertight connectors with a bayonet groove, covering a wide temperature range. The modular design provides many combinations allowing to suit your particular requirements.

### Features

Series NF

Our 7- and 10 pole circular audio miniature connectors are watertight and locked by a bayonet coupling. Hard gold plated spring-loaded contacts with self-cleaning faces ensure a continuously low contact resistance.

The following series are available:

Series	Description
<ul style="list-style-type: none"> <li>NF07 series: 7 pole standard series</li> </ul>	Page 7
<ul style="list-style-type: none"> <li>NF07 /S series: 7 pole series with enhanced shielding</li> </ul>	Page 16
<ul style="list-style-type: none"> <li>NF10 series: 7 pole series with enhanced shielding</li> </ul>	Page 23

**Important features of our circular audio miniature connectors series NF07 and NF10:**

**General application characteristics:**

- Reliability under extreme ambient conditions
- High protection degree and water-tightness even when unmated
- Application under a wide temperature range.
- Stockable for 10 years in Schaltbau original packing

**Electrical features:**

- Scoop proof:** The design prevents a short-circuit between plug shells and receptacle contacts while mating.
- Spring-loaded contacts:** hard gold plated with self-cleaning faces. High shock and vibration resistance and a very low contact resistance allow high reliability even at low voltages and currents.
- EMP Shielding:** Series NF10 and the shielded NF07 show good attenuation characteristics with regard to electromagnetic influences, HF influences and pulse repetition frequencies.
- Contact termination:** Available as follows:
  - Solder cup for leads
  - Solder pin 3.5 mm for PCB terminal
  - Solder pin 8.0 mm for PCB terminal



Audio connectors to military specification (Photo: SEL Defence Systems)

**Mechanical features:**

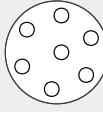
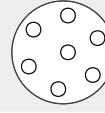
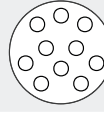
- Shell material:** All shells consist of stainless steel and non magnetic materials. The receptacle shells and the plug shells are black anodised. The finish of the backshells is olive drab or black. The modular design of the connector systems allows many combinations. The following connector backshells are available:
  - for heatshrink boots
  - for cable sleeves
  - for screen termination
  - for potting
- Polarization:** The NF series feature a variety of connector orientations. NF10 series comes with an option of 5 bayonet latch positions, whereas NF07 series connectors are available with 4 max. A marking colour corresponds to each of the different insert positions.

**Optional customized filters:**

- Planar technique:** C-filter
- Modular technique:** C-filter,  $\pi$ -filter
- Tubular technique:** C-filter,  $\pi$ -filter, RFI-filter

## Specifications

Series NF

Series	NF07	NF07 /S	NF10
Number of contacts	7	7	10
Contact arrangement Plug: Front view Receptacle: Rear view			
Contact identification Plug: Front view Receptacle: Rear view	B A F C G E D	B A F C G E D	B A G C H K F D J E
Rated voltage	50 V	50 V	50 V
Connector orientations	3	4	5
Rated current: I min. I max.	6 $\mu$ A 2.5 A *1	6 $\mu$ A 2.5 A *1	6 $\mu$ A 2.5 A *1
Contact resistance	approx. 5 m $\Omega$ *2	approx. 5 m $\Omega$ *2	approx. 5 m $\Omega$ *2
Temperature range	-55°C ... +100°C (10 sec. max. up to +150°C)	-55°C ... +100°C (10 sec. max. up to +150°C)	-55°C ... +100°C (10 sec. max. up to +150°C)
Insulation resistance	$\geq$ 5,000 M $\Omega$	$\geq$ 5,000 M $\Omega$	$\geq$ 5,000 M $\Omega$
Test voltage	500 V <sub>rms</sub> 50 Hz	500 V <sub>rms</sub> 50 Hz	500 V <sub>rms</sub> 50 Hz
EMP-shielding	approx. 60 dB	70 dB *3	70 dB
Sealing mated and unmated	IP68 *4 0.4 bar, 2 hours at 25°C	IP68 *4 0.4 bar, 2 hours at 25°C	IP68 *4 0.4 bar, 2 hours at 25°C
Mechanical life	5,000 couplings	5,000 couplings	5,000 couplings
Shell: Plug: Materials Finish Colours Receptacle: Materials Finish Colours	Stainless steel  Cr 3 <sup>+2</sup> Black Stainless steel  Cr 3 <sup>+2</sup> Black	Aluminium alloy / Stainless steel Ni 3 <sup>+2</sup> Cd 6 <sup>+2</sup> cF / Cr 3 <sup>+2</sup> Olive (RAL6015) / Black Stainless, antimagnetic steel Cr 3 <sup>+2</sup> Black	Aluminium alloy / Stainless steel Ni 3 <sup>+2</sup> Cd 6 <sup>+2</sup> cF / Cr 3 <sup>+2</sup> Olive (RAL6015) / Black Stainless, antimagnetic steel Cr 3 <sup>+2</sup> Black
Contact inserts	Thermoplastic / Duroplast	Thermoplastic / Duroplast	Thermoplastic / Duroplast
Sealing elements	Silicone elastomer / Fluorosilicone elastomer	Silicone elastomer / Fluorosilicone elastomer	Silicone elastomer / Fluorosilicone elastomer
Contact type: Plug Receptacle Material: Finish:	Rigid contacts Spring contacts • Gold Cu: 1.0 / Ni: 2.0 / Au: 5 $\pm$ 1	Rigid contacts Spring contacts • Gold Cu: 1.0 / Ni: 2.0 / Au: 5 $\pm$ 1	Rigid contacts Spring contacts • Gold Cu: 1.0 / Ni: 2.0 / Au: 5 $\pm$ 1



\*1 for any two contacts

\*2 required:  $\leq$  20 m $\Omega$  (VG96934 / VG95351)

\*3 Do not intermate connectors NF07 /S series with enhanced shielding with NF07 series connectors.

\*4 according to VG95319-2, Test-No. 5.9.2.

## Competence of Schaltbau

At the beginning of the seventies Schaltbau developed the 7 pole connector NF07. It was standardized as VG 95351.

In 1982 the procurement authorities of the German armed forces (BWB) placed an order to develop a 10 pole connector. It was standardized as VG 96934.

Schaltbau has been continuously enhancing the series NF07 and NF10. Presently approx. 22 type variants of NF07 and 34 variants of NF10 are available (not including orientations).

Variants with attenuation values exceeding 80dB and completely antimagnetic types are being manufactured.

## Standards

Series NF

### Series NF07:

- 7 pole standard connector: VG95351 meets requirements regarding test and approval.
- 7 pole connector, suitable for shielding: Test according to VG96934

### Series NF10:

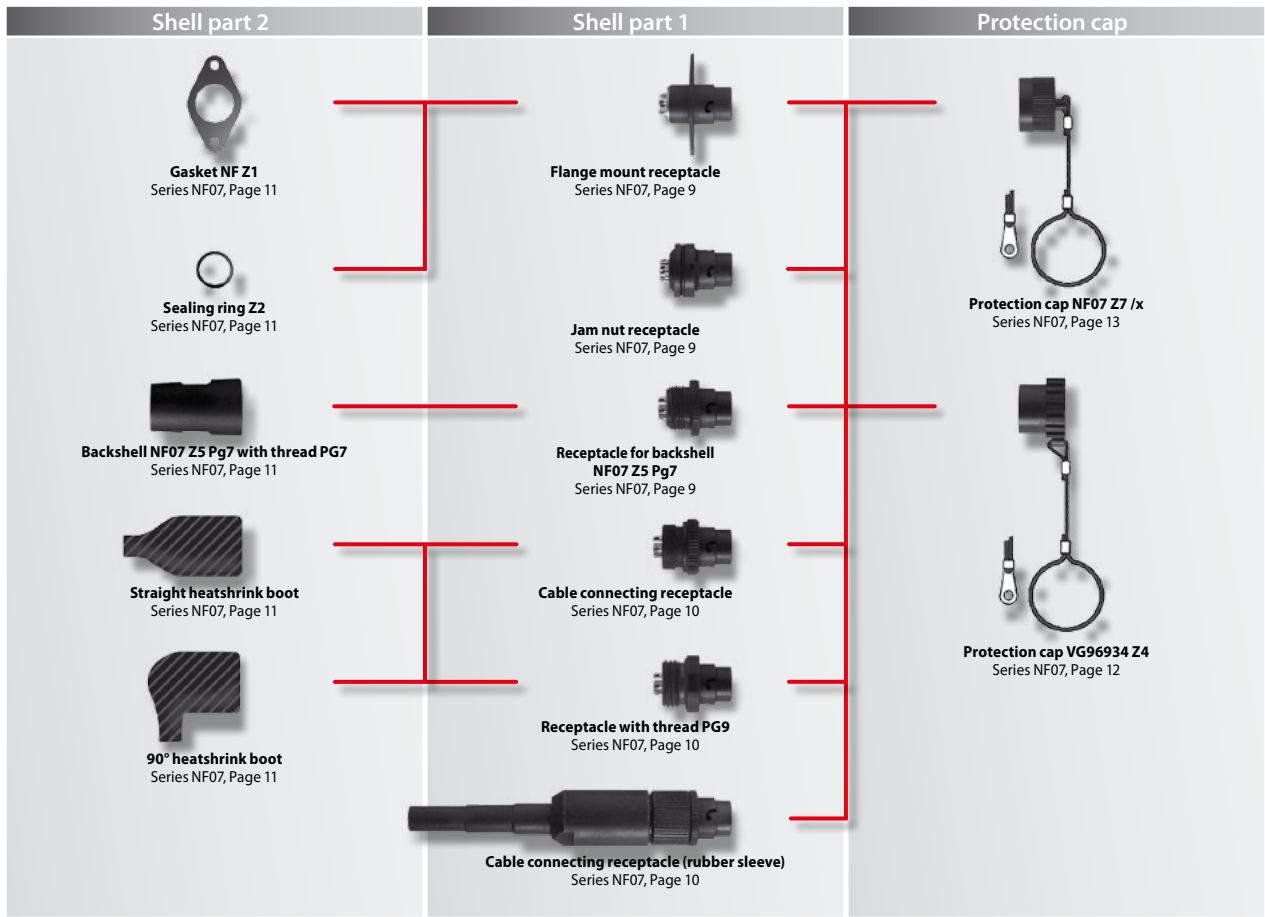
- 10 pole connector, suitable for shielding: VG96934 meets requirements regarding test and approval.



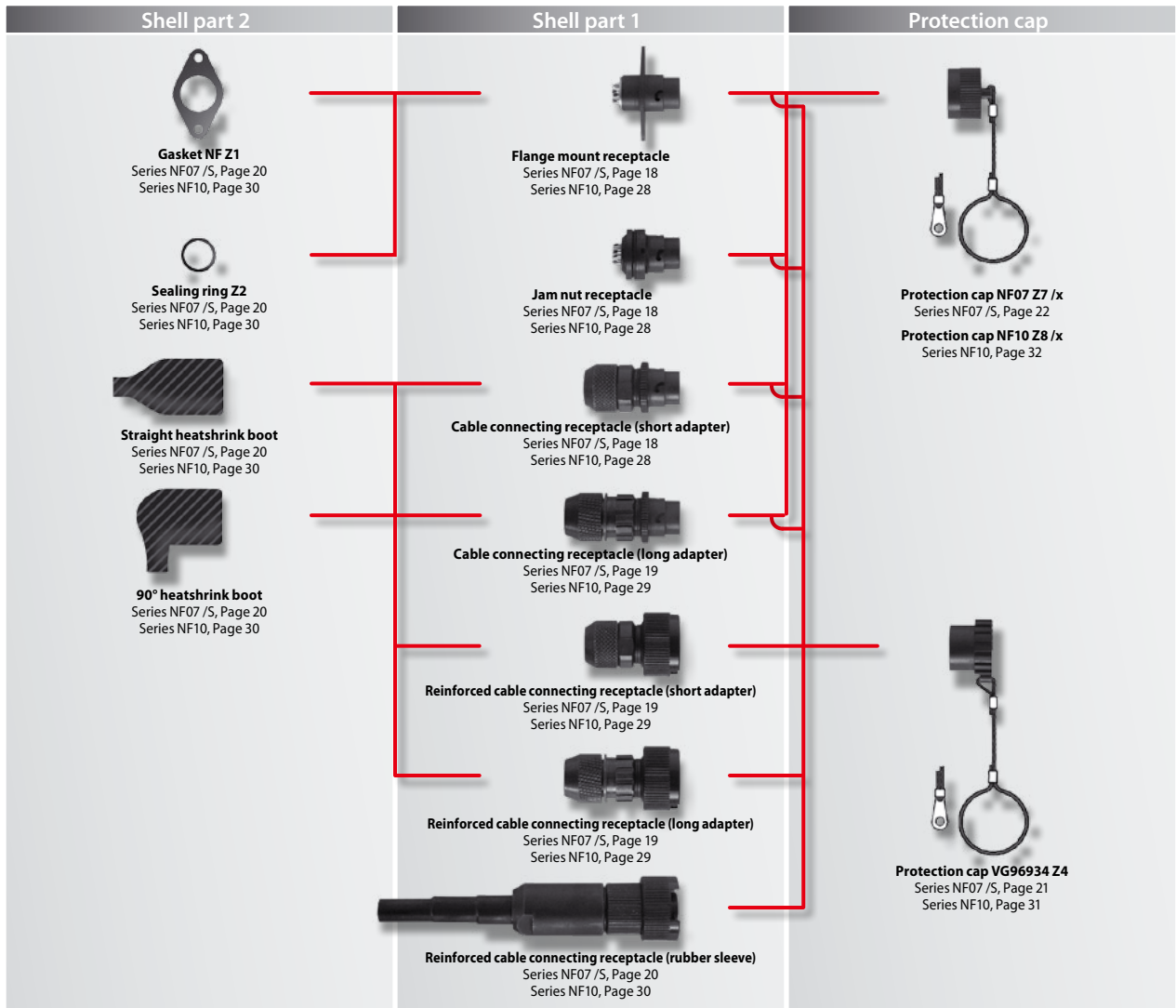
Note:

According to IEC 61984 connectors are devices which in normal use must not be coupled or uncoupled when live or under load.












NF07 Receptacle















NF07 /S, NF10 Receptacle



# NF07 Plug

Protection cap	Shell part 1	Shell part 2
 <b>Protection cap VG96934 Z3</b> Series NF07, Page 12	 <b>90° Cable connecting plug</b> Series NF07, Page 7	 <b>Backshell NF07 Z5 Pg7 with thread PG7</b> Series NF07, Page 11
 <b>Dummy receptacle VG96934 Z6</b> Series NF07, Page 12	 <b>Plug for backshell NF07 Z5 Pg7</b> Series NF07, Page 7	 <b>Straight heatshrink boot</b> Series NF07, Page 11
	 <b>Cable connecting plug (short adapter)</b> Series NF07, Page 7	 <b>90° heatshrink boot</b> Series NF07, Page 11
	 <b>Plug</b> Series NF07, Page 8	
	 <b>Jam nut plug</b> Series NF07, Page 8	
	 <b>Cable connecting plug (rubber sleeve)</b> Series NF07, Page 8	

Protection cap	Shell part 1	Shell part 2
 <b>Protection cap VG96934 Z3</b> Series NF07 /S, Page 21 Series NF10, Page 31	 <b>90° Cable connecting plug</b> Series NF07 /S, Page 16 Series NF10, Page 26	 <b>Straight heatshrink boot</b> Series NF07 /S, Page 20 Series NF10, Page 30
 <b>Dummy receptacle VG96934 Z6</b> Series NF07 /S, Page 21 Series NF10, Page 31	 <b>Cable connecting plug (short adapter)</b> Series NF07 /S, Page 16 Series NF10, Page 26	 <b>90° heatshrink boot</b> Series NF07 /S, Page 20 Series NF10, Page 30
	 <b>Cable connecting plug (long adapter)</b> Series NF07 /S, Page 16 Series NF10, Page 26	
	 <b>Jam nut plug</b> Series NF07 /S, Page 17 Series NF10, Page 27	
	 <b>Flange plug</b> Series NF07 /S, Page 17 Series NF10, Page 27	 <b>Gasket NF Z1</b> Series NF07 /S, Page 20 Series NF10, Page 30
	 <b>Cable connecting plug (rubber sleeve)</b> Series NF07 /S, Page 17 Series NF10, Page 27	 <b>Sealing ring Z2</b> Series NF07 /S, Page 20 Series NF10, Page 30

# NF07 /S, NF10 Plug

## Ordering information

Series NF07

Our NF connector system has a modular structure. Consequently, there are many variation possibilities. You will find the exact ordering code for all variants listed in a chart relating to the corresponding device outline.

We make a difference between an ordering code for our NF series connectors and a separate one for accessories.

### • Series NF07, NF07 /S and NF10

Example:

**NF07 A 1 L0 A7/S**

#### Series ①

NF Connectors to suit the special requirements of communications engineering

#### Number of poles ②

07 7 pole  
10 10 pole

#### Shell styles ③

A Plug (short adapter)  
B Flange mount receptacle  
C Jam nut receptacle  
D Cable connecting receptacle  
E Jam nut plug  
F Flange plug  
H Jam nut receptacle, PG9 \*1  
J Plug (long adapter)  
K Reinforced cable connecting receptacle \*2, \*3  
L Cable connecting plug (rubber sleeve)  
M Cable connecting receptacle (rubber sleeve) \*2, \*3  
N Reinforced cable connecting receptacle (short adapter) \*2, \*3

#### Polarization ④

Series: **NF07 NF07 /S NF10**

/1 Orientation 1:red / red /white  
/2 Orientation 2:yellow /yellow /blue  
/3 Orientation 3:green/ green /violet  
/4 Orientation 4:--- / pink /chrome yellow  
/5 Orientation 5:--- / --- /dark red

#### Terminal styles ⑤

L0 Solder cup  
L1 Solder pin for PCB Ø0.53 / 3.5 mm length  
L2 Solder pin for PCB Ø0.50 / 8.0 mm length \*2, \*3

#### Special designs, beyond VG96934 / VG95351 ⑥

A1 Cable connecting plug (short adapter) \*1, \*2  
A5 Cable connecting plug (rubber sleeve) \*1, \*3  
A6 Jam nut plug M14x1  
A7 Cable connecting plug (long adapter) \*3  
A11 Cable connecting plug for backshell NF07 Z5 PG7 \*1  
A17 90° Cable connecting plug  
D3 Cable connecting receptacle for backshell NF07 Z5 PG7 \*1  
D6 Cable connecting receptacle (rubber sleeve) \*1  
D7 Reinforced cable connecting receptacle (long adapter) \*2, \*3  
/S Enhanced shielding, NF07 /S only \*4

### • Protection caps and dummy receptacles

Example:

**NF07 Z7 /1**

#### Protection caps/dummy receptacles ①

VG96934 Z3 Protection cap (VG96934)  
VG96934 Z4 Protection cap (VG96934)  
VG96934 Z6 Dummy receptacle (VG96934)  
NF07 Z7 NF07: Protection cap for polarization  
NF10 Z8 NF10: Protection cap for polarization

#### Polarization ②

Series	NF07	NF07 /S	NF10
/1	Orientation 1: red	/ red	/ white
/2	Orientation 2: yellow	/ yellow	/ blue
/3	Orientation 3: green	/ green	/ violet
/4	Orientation 4: ---	/ pink	/ chrome yellow
/5	Orientation 5: ---	/ ---	/ dark red

### • Backshells

Example:

**NF07 Z5 Pg7**

#### Backshell ①

NF07 Z5 Pg7 Backshell, PG7  
203W112-30 Straight heatshrink boot\*  
224K012-30 90° heatshrink boot\*

\* Order direct from Raychem or other OEMs

### • Seals

Example:

**Z1**

#### Seals ①

Z1 Gasket  
Z2 O-Ring

### • Tools

Example:

**Z16**

#### Tool ①

Z16 Assembly tool for jam nut receptacle NF07, NF07 /S, NF10



Note:

\*1 Series NF07 only

\*2 Series NF07 /S only

\*3 Series NF10 only

\*4 Unlike the NF07 series, the NF07 /S and NF10 series connectors feature enhanced shielding. The extra parameter /S is not necessary for the NF10 series.



Note:

Presented in this catalogue are only stock items which can be supplied in short delivery time.

For some connectors minimum order quantities may apply.

Please contact us for terms and conditions.

Special variants:

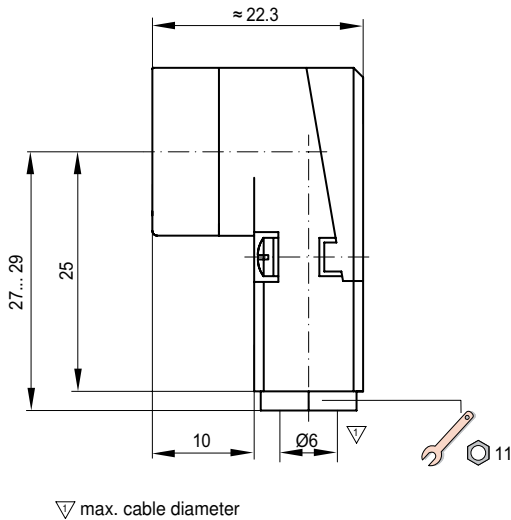
If you need a special variant feel free to contact us. Maybe the type of connector you are looking for is among our many special designs. If not, we can also supply customized designs. In this case, however, minimum order quantities apply.



## 90° cable connecting plug

Series NF07

### Device outline



### Ordering code

Shell part 1

Example:  
See also ordering information on page 6



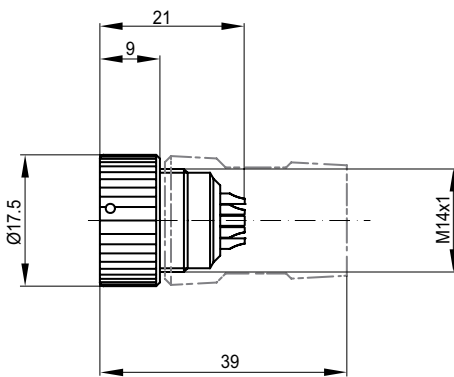
NF	07	A	1	L0	A17
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A17
		A	2	L0	A17
		A	3	L0	A17

**Note:**  
Backshell NF07 Z5 PG7 on page 11  
Terminal styles on page 13

## Plug for backshell NF07 Z5 PG7

Series NF07

### Device outline



### Ordering code

Shell part 1

Example:  
See also ordering information on page 6



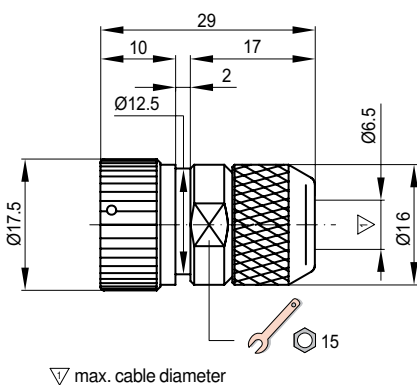
NF	07	A	1	L0	A11
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A11
		A	2	L0	A11
		A	3	L0	A11

**Note:**  
Backshell NF07 Z5 PG7 on page 11  
Terminal styles on page 13

## Cable connecting plug (short adapter)

Series NF07

### Device outline



### Ordering code

Shell part 1

Example:  
See also ordering information on page 6



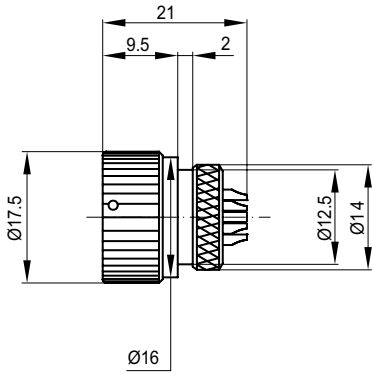
NF	07	A	1	L0	A1
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A1
		A	2	L0	A1
		A	3	L0	A1

**Note:**  
Backshell NF07 Z5 PG7 on page 11  
Terminal styles on page 13

**Plug for heatshrink boot**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



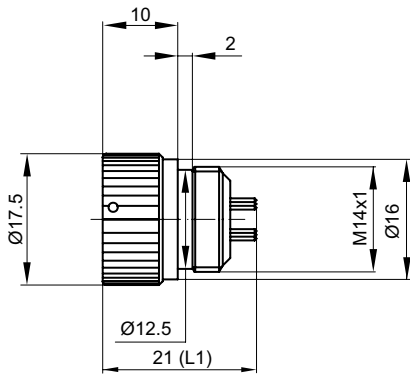
NF	07	A	1	L0	---*2
①	②	③	④	⑤	⑥
NF	07	A	1	L0	---*2
		A	2	L0	---*2
		A	3	L0	---*2

**i** Note:  
Heatshrink boots on page 11  
Terminal styles on page 13  
\*2 Customized designs upon request

**Jam nut plug M14x1**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



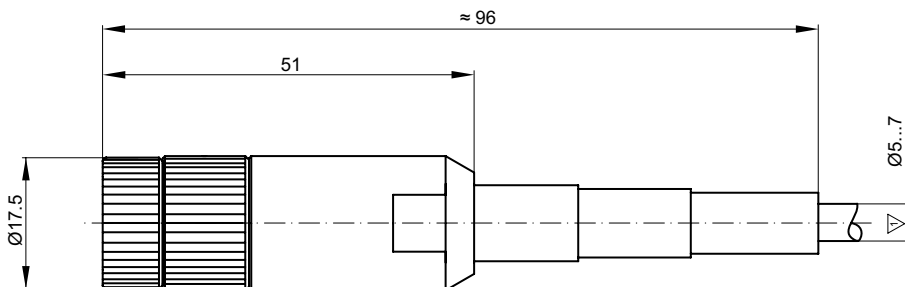
NF	07	A	1	L0	A6 <sup>2</sup>
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A6
		A	2	L0	A6
		A	3	L0	A6

**i** Note:  
Terminal styles on page 13  
\*2 Customized designs upon request

**Cable connecting plug (rubber sleeve)**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

NF	07	A	1	L0	A5
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A5
		A	2	L0	A5
		A	3	L0	A5

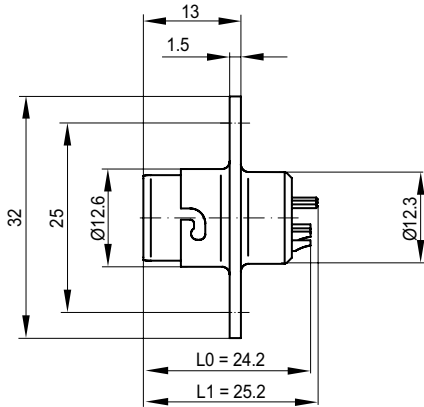
**i** Note:  
Terminal styles on page 13

▽ cable diameter



**Flange mount receptacle** Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

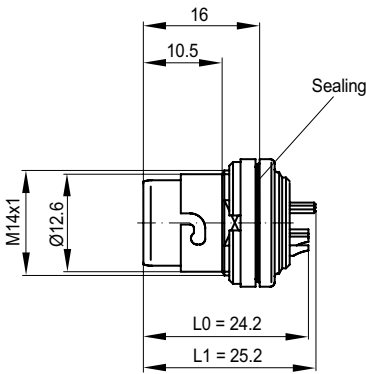


NF	07	B	1	L0	...#2
①	②	③	④	⑤	⑥
NF	07	B	1	L0	...#2
		B	2	L0	...#2
		B	3	L0	...#2
NF	07	B	1	L1	...#2
		B	2	L1	...#2
		B	3	L1	...#2

**i** Note:  
Terminal styles on page 13

**Jam nut receptacle** Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

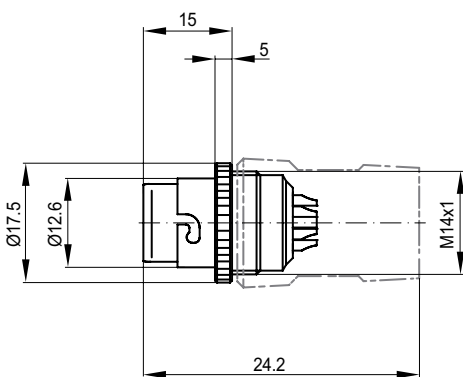


NF	07	C	1	L0	...#2
①	②	③	④	⑤	⑥
NF	07	C	1	L0	...#2
		C	2	L0	...#2
		C	3	L0	...#2
NF	07	C	1	L1	...#2
		C	2	L1	...#2
		C	3	L1	...#2

**i** Note:  
Terminal styles on page 13

**Receptacle for backshell NF07 Z5 Pg7** Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



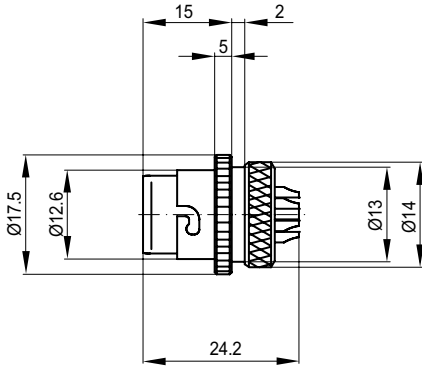
NF	07	D	1	L0	D3
①	②	③	④	⑤	⑥
NF	07	D	1	L0	D3
		D	2	L0	D3
		D	3	L0	D3

**i** Note:  
Backshell NF07 Z5 Pg7 on page 11  
Terminal styles on page 13

**Cable connecting receptacle for heatshrink boot**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



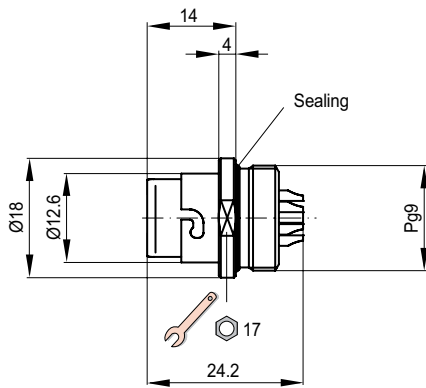
NF	07	D	1	L0	---*2
①	②	③	④	⑤	⑥
NF	07	D	1	L0	---*2
		D	2	L0	---*2
		D	3	L0	---*2

**i** Note:  
Heatshrink boots on page 11  
Terminal styles on page 13  
\*2 Customized designs upon request

**Jam nut receptacle with thread PG9**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



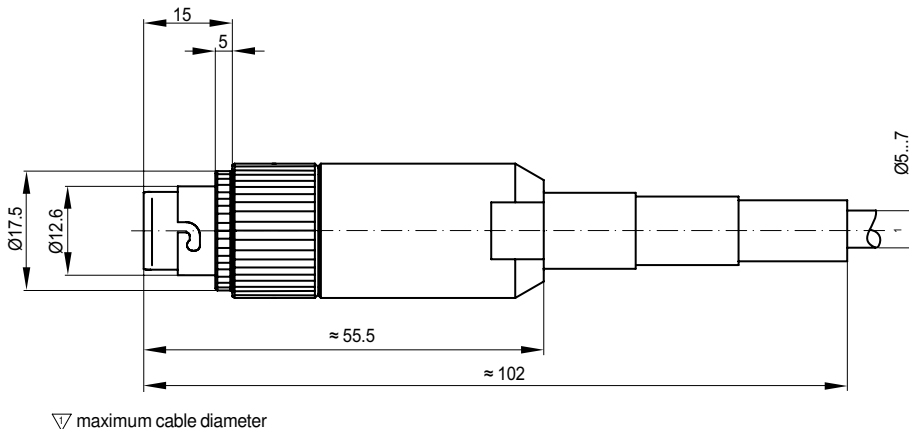
NF	07	H	1	L0	---*2
①	②	③	④	⑤	⑥
NF	07	H	1	L0	---*2
		H	2	L0	---*2
		H	3	L0	---*2

**i** Note:  
Terminal styles on page 13  
\*2 Customized designs upon request

**Cable connecting receptacle (rubber sleeve)**

Series NF07

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

NF	07	D	1	L0	D6
①	②	③	④	⑤	⑥
NF	07	D	1	L0	D6
		D	2	L0	D6
		D	3	L0	D6

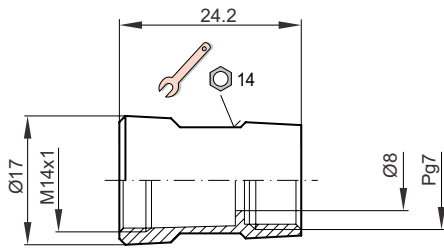
**i** Note:  
Terminal styles on page 13

▽ maximum cable diameter

**Backshell NF07 Z5 Pg7 with thread PG7**

Series NF07

Device outline



▽ cable diameter

Ordering code

Shell part 1

Example:

See also ordering information on page 6

**NF07 Z5 Pg7**



①

Backshell with thread PG7

NF07 Z5 Pg7



Note:

For use with commercially available screw coupling built to DIN 46320

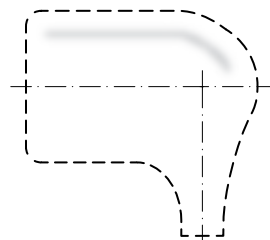
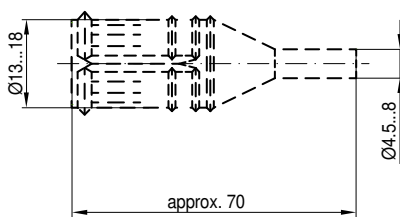
**Heatshrink boots**

Series NF07

Device outline

Heatshrink boot, straight

Heatshrink boot, 90°



Ordering code

Accessories / Shell part 2

Example:

See also ordering information on page 6

**203W 112-30**

①

Heatshrink boot, straight  
203W112-30 \*

Heatshrink boot, 90°  
222K 142-15 \*

Note:

\* Order direct from Raychem or other OEMs

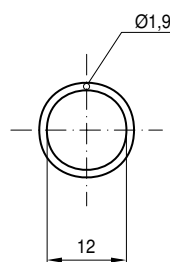
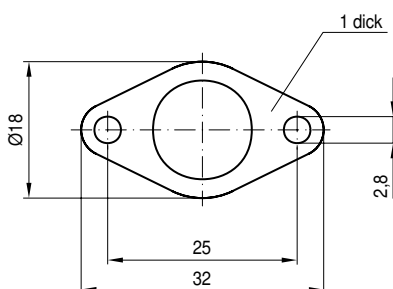
**Seals NF Z1 and NF Z2**

Series NF07

Device outline

Gasket NF Z1  
(Flange seal)

Sealing ring NF Z2  
(O-ring)



Ordering code

Accessories / Shell part 2

Example:

See also ordering information on page 6

**NF Z1**

①

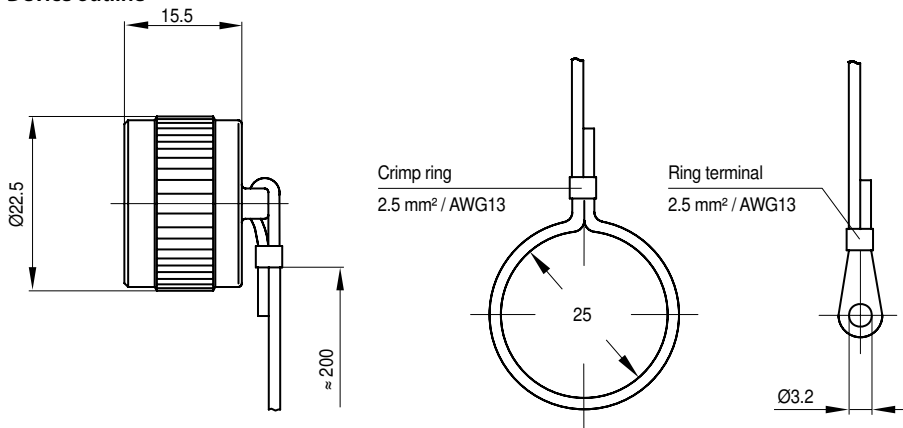
Gasket NF Z1

Sealing ring NF Z2

**Protection cap VG96934 Z3**

Series NF07

Device outline



**Ordering code** Accessories/Protection cap

Example:  
See also ordering information on page 6

**VG96934 Z3**



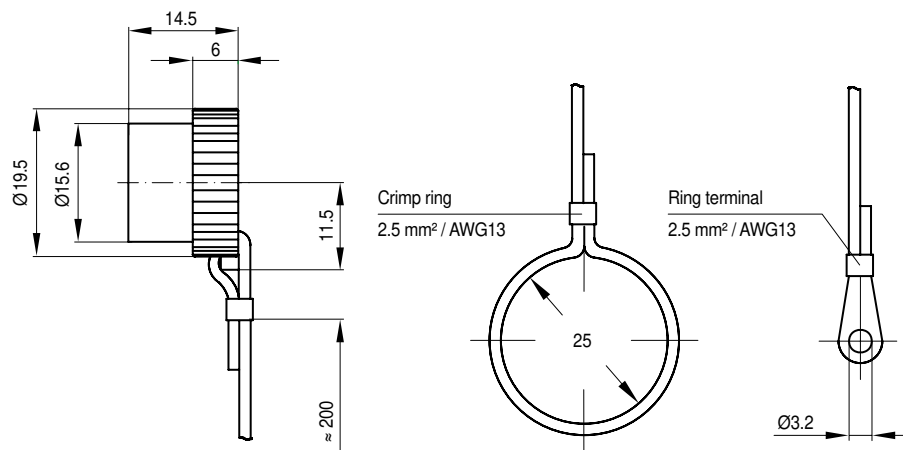
①  
Protection cap  
VG96934 Z3

**i** **Note:**  
It is possible to fit loops or ring terminals (both included)

**Protection cap VG96934 Z4 (rubber)**

Series NF07

Device outline



**Ordering code** Accessories/Protection cap

Example:  
See also ordering information on page 6

**VG96934 Z4**



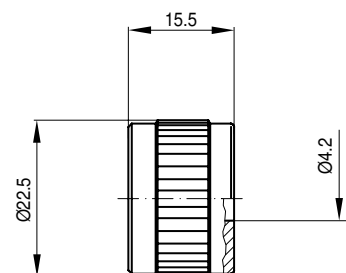
①  
Protection cap  
VG96934 Z4

**i** **Note:**  
It is possible to fit loops or ring terminals (both included)

**Dummy receptacle VG96934 Z6**

Series NF07

Device outline



**Ordering code** Accessories/Protection cap

Example:  
See also ordering information on page 6

**VG96934 Z6**



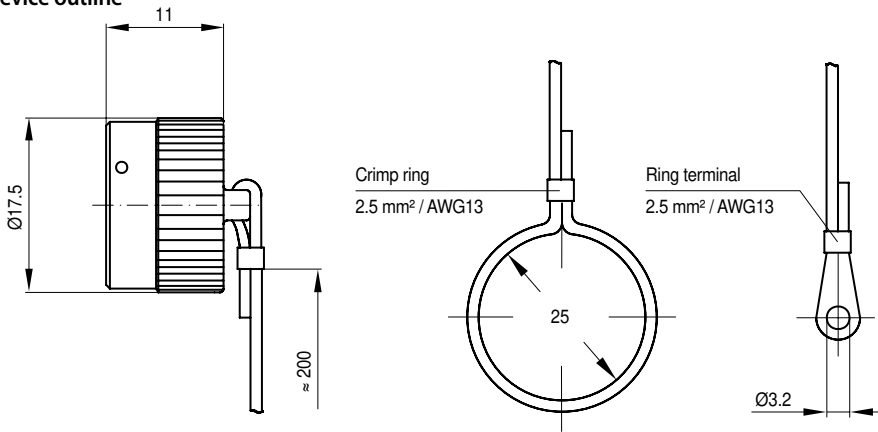
①  
Dummy receptacle  
VG96934 Z6

**i** **Note:**  
Dummy receptacle to be mounted onto the case of a device  
For receiving a free plug cable

**Protection cap for polarization NF07 Z7/x**

Series NF07

Device outline



Ordering code Accessories/Protection cap

Example:  
See also ordering information on page 6

NF07 Z7 / 1

① ②

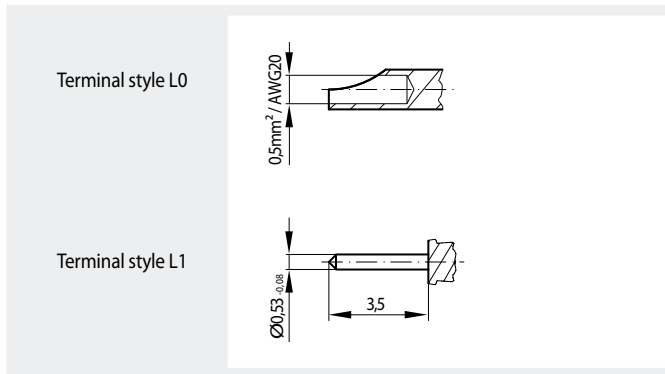
Protection 1  
cap 2  
NF07 Z7 / 3

**i** Note:  
It is possible to fit loops or ring terminals (both included)

**Terminal styles, Assembly tool Z16**

Series NF07

Terminal styles



Assembly tool Z16

Accessories

Assembly tool for  
jam nut receptacles  
NF07 C x xx

Ordering code: Z16

Assembly tool Z16

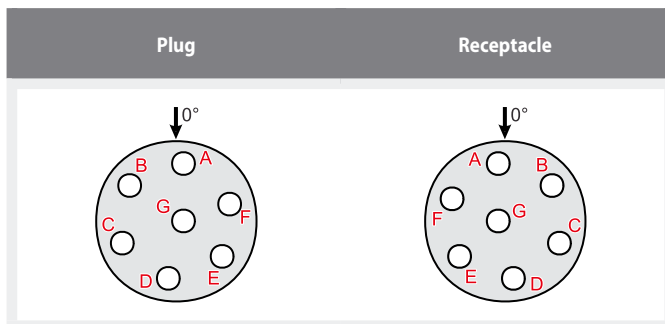
**i** Note:  
Terminals must not be subjected to force or stress

**i** Note:  
Assembly tool for jam nut receptacles NF07 C.x.xx  
Width across flats SW13, use with torque spanner,  
torque 8<sup>-2</sup> Nm max.

**Contact arrangement, Polarization**

Series NF07

Contact arrangement



Polarization

Bayonet latch positions

Polarization NF07 Series

Orientation	α1	α2	Colour
1	90°	120°	red
2	105°	130°	yellow
3	110°	135°	green

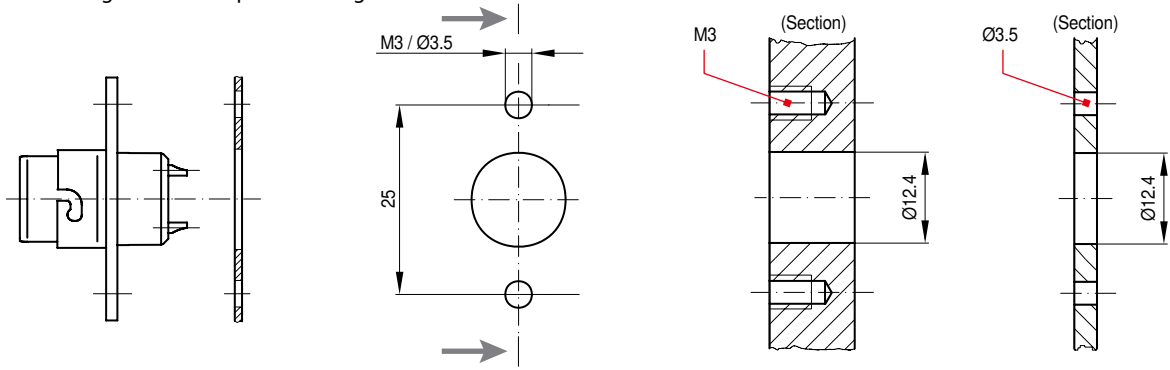
**i** Note:  
Planforms seen from connector face

**Standard mounting borings**

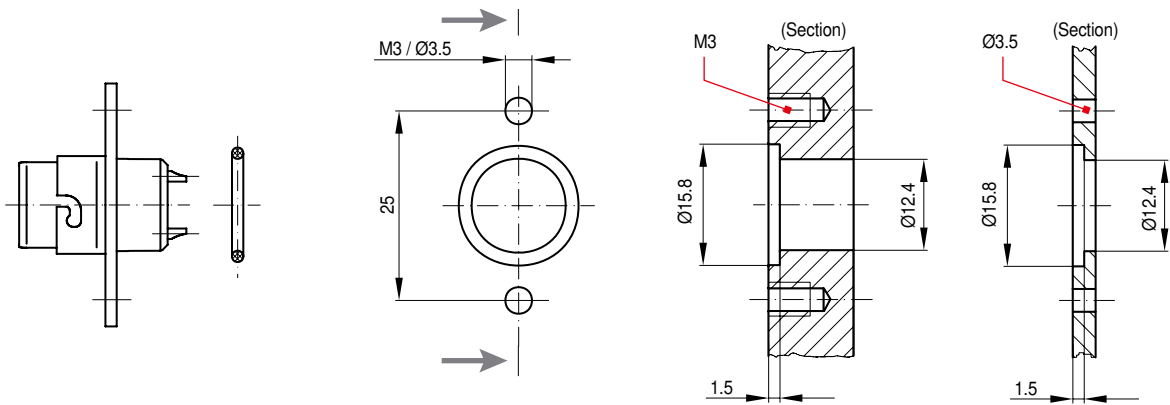
Series NF07

**Flange mount receptacles**

- Panel cutout for flange mount receptacles with gasket NF Z1

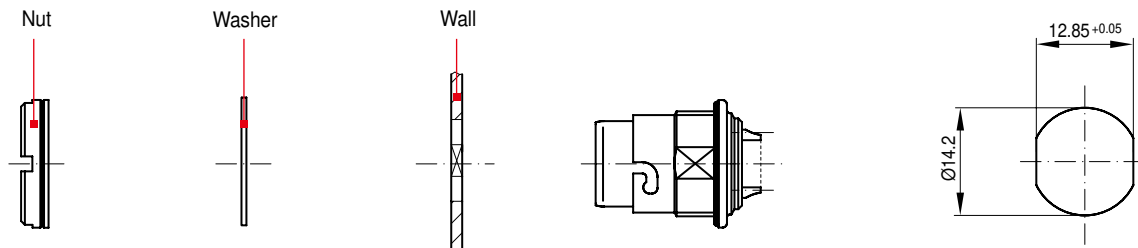


- Panel cutout for flange mount receptacles with sealing ring NF Z2



**Jam nut receptacles**

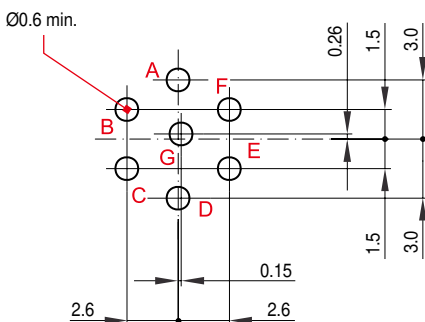
- Panel cutout for jam nut receptacles



**Note:**  
Use mounting tool VG96934 Z10; Torque 2 Nm max.

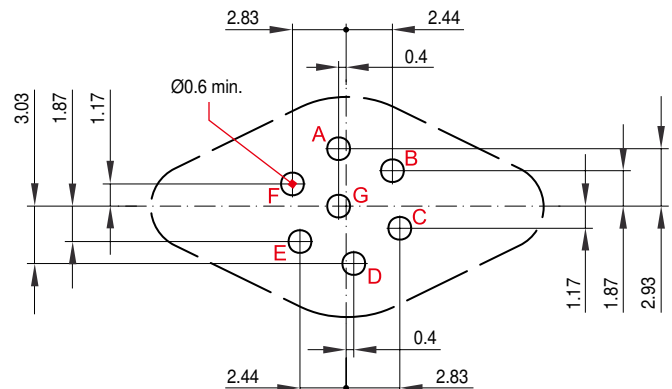
**PCB terminal**

- Panel drilling for plugs



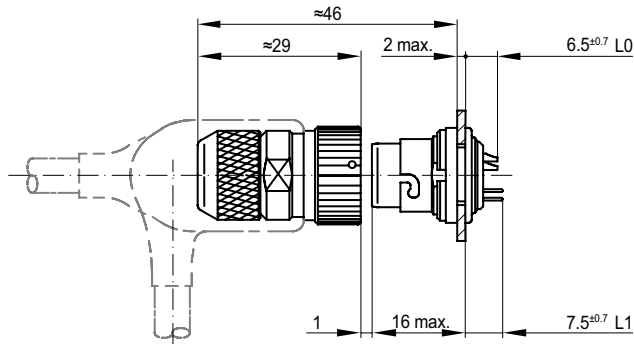
**Note:**  
These mounting borings can also be used for NF07/S Series receptacles

- Panel drilling for receptacles

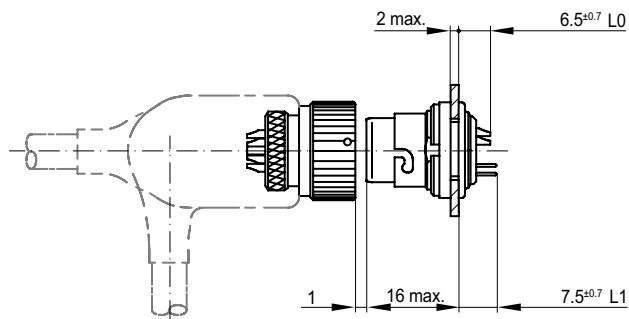


**Standard assembly and installation dimensions** Series NF07

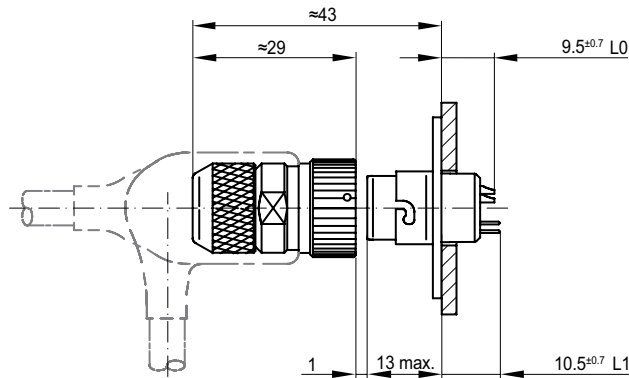
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



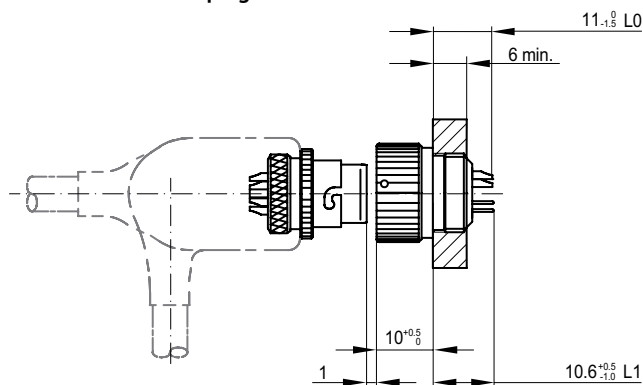
- Plug for heatshrink boot ↔ Jam nut receptacle



- Cable connecting plug (short adapter) ↔ Flange mount receptacle



- Receptacle for heatshrink boot ↔ Jam nut plug

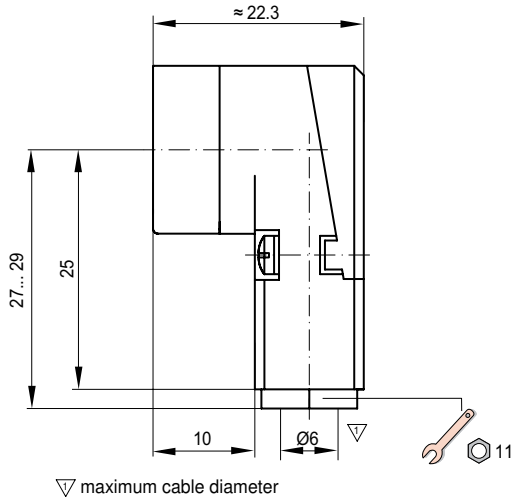




**90° cable connecting plug**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



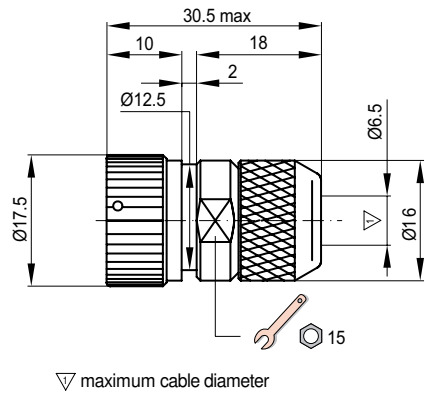
NF	07	A	1	L0	A17/S
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A17/S
		A	2	L0	A17/S
		A	3	L0	A17/S
		A	4	L0	A17/S

**i** Note:  
Terminal styles on page 22

**Cable connecting plug (short adapter)**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



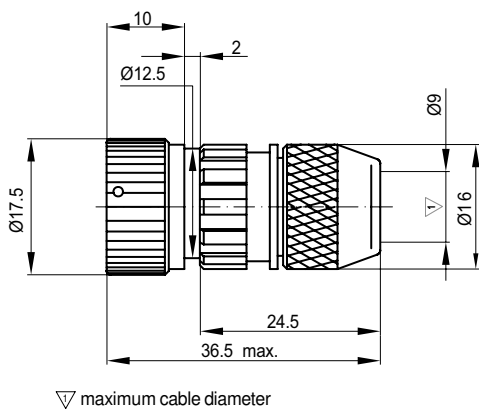
NF	07	A	1	L0	A1/S
①	②	③	④	⑤	⑥
NF	07	A	1	L0	A1/S
		A	2	L0	A1/S
		A	3	L0	A1/S
		A	4	L0	A1/S

**i** Note:  
Terminal styles on page 22

**Cable connecting plug (long adapter)**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



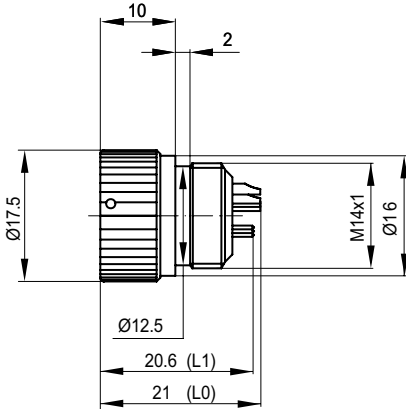
NF	07	A	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	A	1	L0	/S
		A	2	L0	/S
		A	3	L0	/S
		A	4	L0	/S

**i** Note:  
Terminal styles on page 22

**Jam nut plug**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



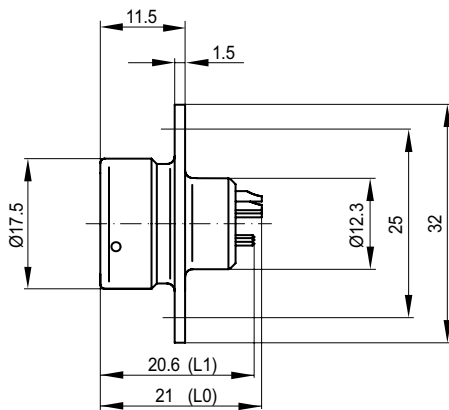
NF	07	E	1	L0	/S
①	②	③	④	⑤	⑥
		E	1	L0	/S
NF	07	E	2	L0	/S
		E	3	L0	/S
		E	4	L0	/S
NF	07	E	1	L1	/S
		E	2	L1	/S
		E	3	L1	/S
		E	4	L1	/S

**i** Note:  
Terminal styles on page 22

**Flange plug**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



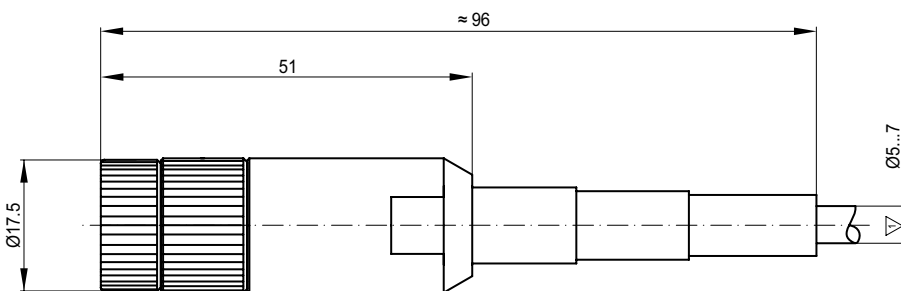
NF	07	F	1	L0	/S
①	②	③	④	⑤	⑥
		F	1	L0	/S
NF	07	F	2	L0	/S
		F	3	L0	/S
		F	4	L0	/S
NF	07	F	1	L1	/S
		F	2	L1	/S
		F	3	L1	/S
		F	4	L1	/S

**i** Note:  
Terminal styles on page 22

**Cable connecting plug (rubber sleeve)**

Series NF07 /S

Device outline



▽ cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6

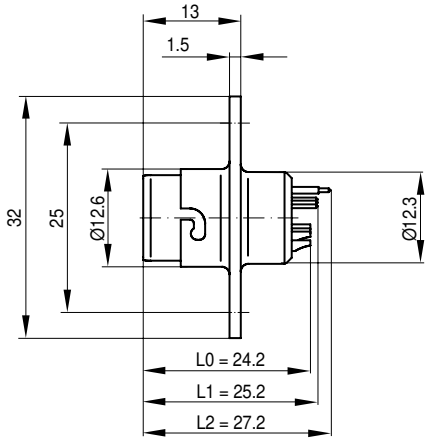
NF	07	L	1	L0	/S
①	②	③	④	⑤	⑥
		L	1	L0	/S
NF	07	L	2	L0	/S
		L	3	L0	/S
		L	4	L0	/S

**i** Note:  
Terminal styles on page 22

**Flange mount receptacle**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



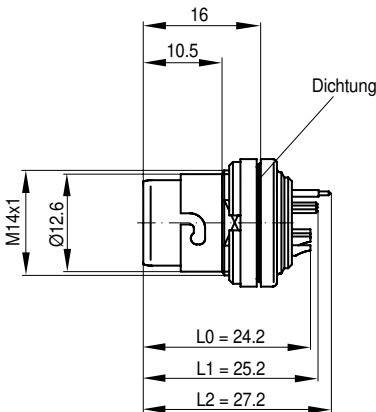
NF	07	B	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	B	1	L0	/S
		B	2	L0	/S
		B	3	L0	/S
		B	4	L0	/S
NF	07	B	1	L1	/S
		B	2	L1	/S
		B	3	L1	/S
		B	4	L1	/S
NF	07	B	1	L2	/S
		B	2	L2	/S
		B	3	L2	/S
		B	4	L2	/S

**i** Note:  
Terminal styles on page 22

**Jam nut receptacle**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



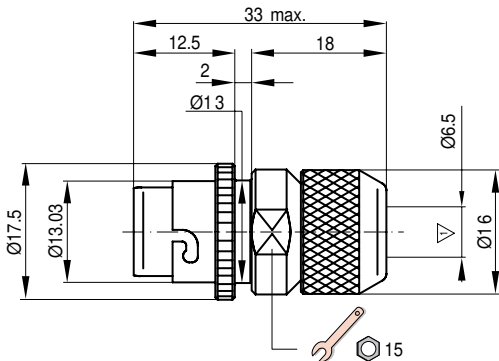
NF	07	C	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	C	1	L0	/S
		C	2	L0	/S
		C	3	L0	/S
		C	4	L0	/S
NF	07	C	1	L1	/S
		C	2	L1	/S
		C	3	L1	/S
		C	4	L1	/S
NF	07	C	1	L2	/S
		C	2	L2	/S
		C	3	L2	/S
		C	4	L2	/S

**i** Note:  
Terminal styles on page 22

**Cable connecting receptacle (short adapter)**

Series NF07 /S

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



NF	07	D	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	D	1	L0	/S
		D	2	L0	/S
		D	3	L0	/S
		D	4	L0	/S

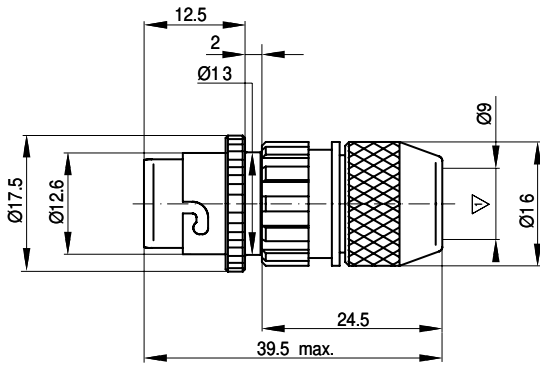
**i** Note:  
Terminal styles on page 22

▽ maximum cable diameter

**Cable connecting receptacle (long adapter)**

Series NF07 /S

Device outline



▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



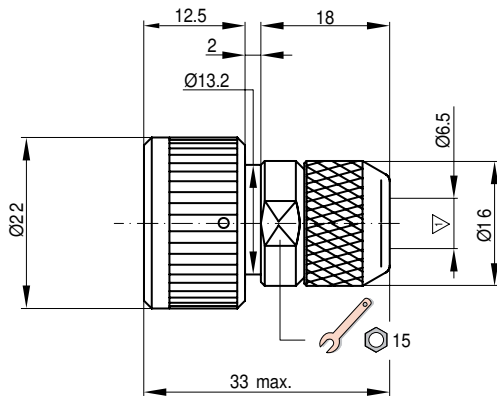
NF	07	D	1	L0	D7/S
①	②	③	④	⑤	⑥
NF	07	D	1	L0	D7/S
		D	2	L0	D7/S
		D	3	L0	D7/S
		D	4	L0	D7/S

**Note:**  
Terminal styles on page 22

**Reinforced cable connecting receptacle (short adapter)**

Series NF07 /S

Device outline



▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



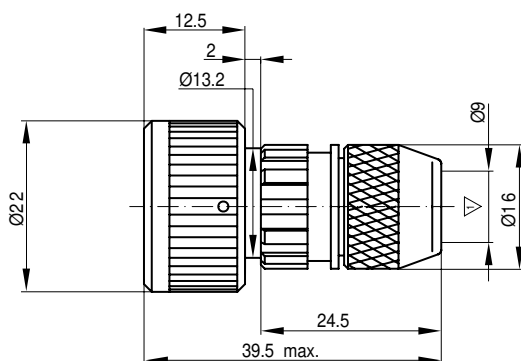
NF	07	N	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	N	1	L0	/S
		N	2	L0	/S
		N	3	L0	/S
		N	4	L0	/S

**Note:**  
Terminal styles on page 22

**Reinforced cable connecting receptacle (long adapter)**

Series NF07 /S

Device outline

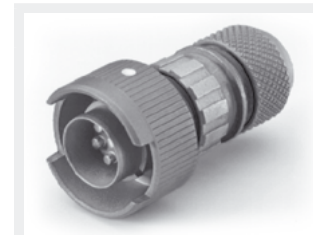


▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



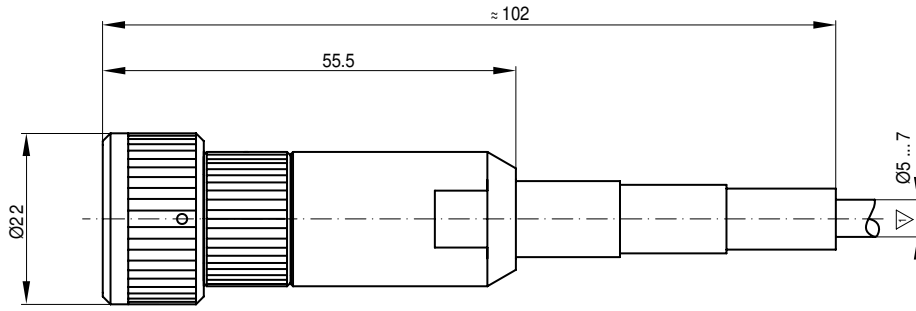
NF	07	K	1	L0	/S
①	②	③	④	⑤	⑥
NF	07	K	1	L0	/S
		K	2	L0	/S
		K	3	L0	/S
		K	4	L0	/S

**Note:**  
Terminal styles on page 22

**Reinforced cable connecting receptacle (rubber sleeve)**

Series NF07 /S

Device outline



▽ cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6

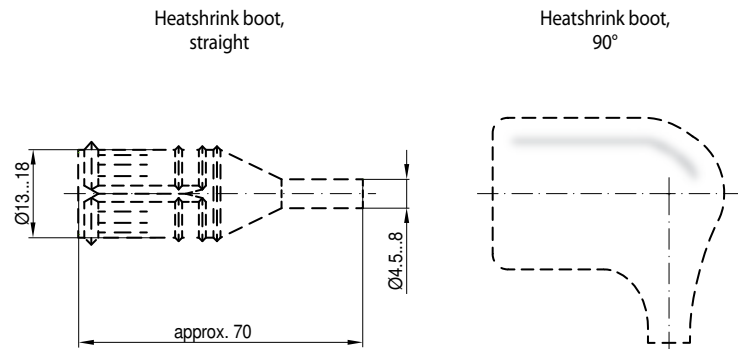
NF	07	M	1	L0	...*2
①	②	③	④	⑤	⑥
NF	07	M	1	L0	...*2
		M	2	L0	...*2
		M	3	L0	...*2
		M	4	L0	...*2

**i** Note:  
Terminal styles on page 32  
\*2 Customized designs upon request

**Heatshrink boots**

Series NF07 /S

Device outline



Ordering code

Accessories / Shell part 2

Example:  
See also ordering information on page 6

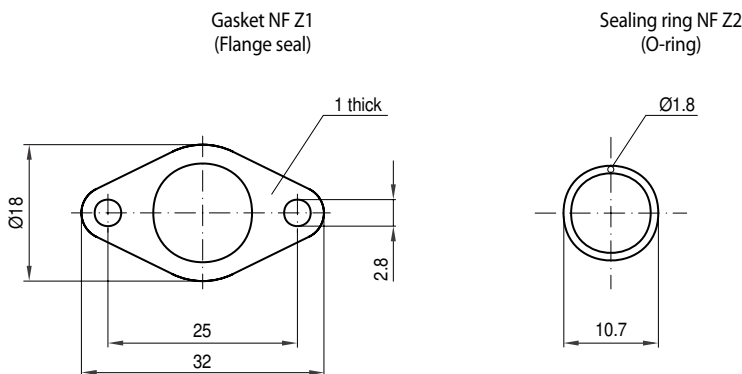
203W 112-30
①
Heatshrink boot, straight 203W112-30 *
Heatshrink boot, 90° 222K 142-15 *

**Note:**  
\* Order direct from Raychem or other OEMs

**Seals NF Z1 and NF Z2**

Series NF07 /S

Device outline



Ordering code

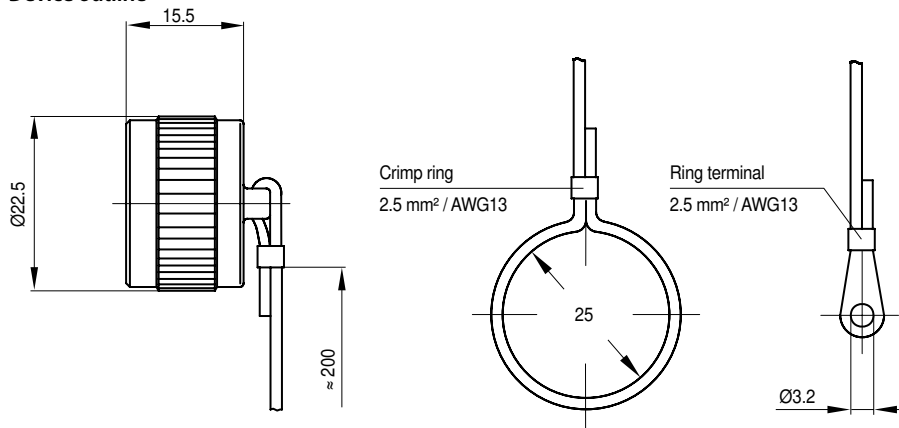
Accessories / Shell part 2

Example:  
See also ordering information on page 6

NF Z1
①
Gasket NF Z1
Sealing ring NF Z2

**Protection cap VG96934 Z3**

Series NF07 /S

**Device outline**

**Ordering code** Accessories/Protection cap

Example:

See also ordering information on page 6

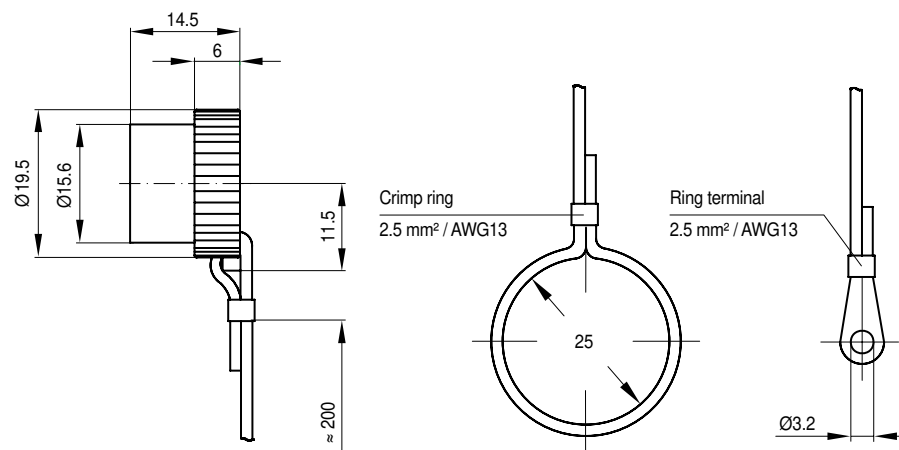
**VG96934 Z3**

 Protection cap  
 VG96934 Z3

**Note:**  
 It is possible to fit loops or ring terminals (both included)

**Protection cap VG96934 Z4 (rubber)**

Series NF07 /S

**Device outline**

**Ordering code** Accessories/Protection cap

Example:

See also ordering information on page 6

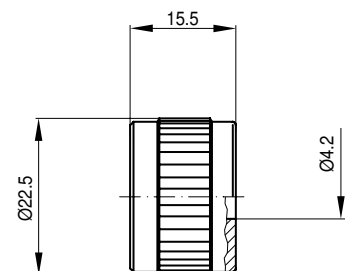
**VG96934 Z4**

 Protection cap  
 VG96934 Z4

**Note:**  
 It is possible to fit loops or ring terminals (both included)

**Dummy receptacle VG96934 Z6**

Series NF07 /S

**Device outline**

**Ordering code** Accessories/Protection cap

Example:

See also ordering information on page 6

**VG96934 Z6**

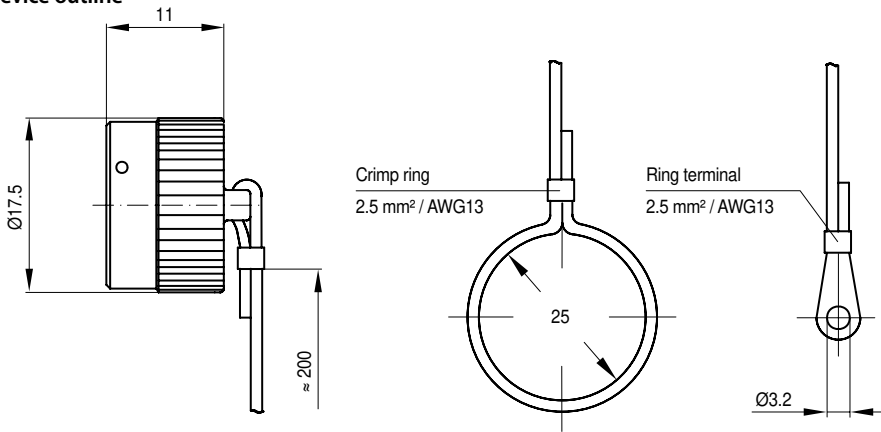
 Dummy receptacle  
 VG96934 Z6

**Note:**  
 Dummy receptacle to be mounted onto the case of a device  
 For receiving a free plug cable

**Protection cap for polarization NF07 Z7/x**

Series NF07 /S

Device outline



**Ordering code** Accessories/Protection cap

Example:  
See also ordering information on page 6

**NF07 Z7 / 1**

①
②



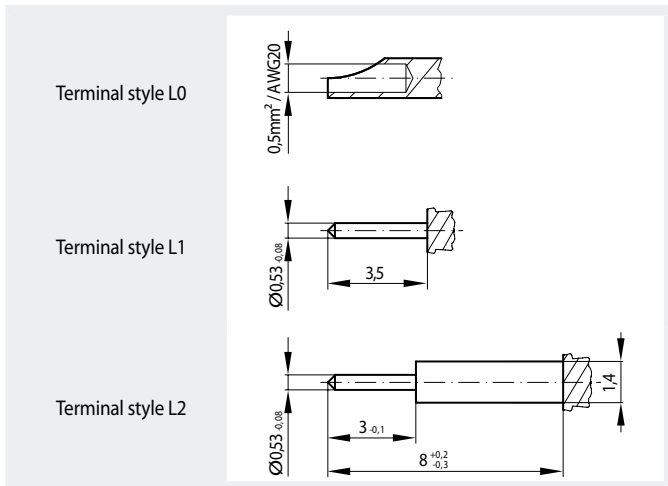
Protection cap	1
NF07 Z7 /	2
	3
	4

**i** Note:  
It is possible to fit loops or ring terminals (both included)

**Terminal styles, Assembly tool Z16**

Series NF07 /S

Terminal styles



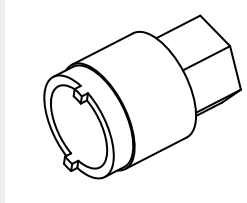
**i** Note:  
Terminals must not be subjected to force or stress.

**Assembly tool Z16**

Accessories

Assembly tool for  
jam nut receptacles  
NF07 C x xx / S

Ordering code: **Z16**



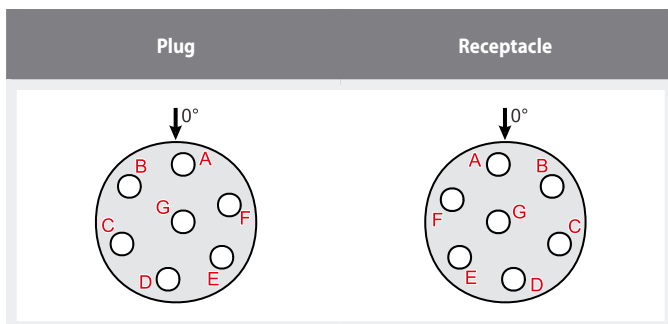
**Assembly tool Z16**

**i** Note:  
Assembly tool for jam nut receptacles NF07 C x xx / S  
Width across flats SW13, use with torque spanner,  
torque 8+2 Nm max.

**Contact arrangement, Polarization**

Series NF07 /S

Contact arrangement



**i** Note:  
Planforms seen from connector face

Polarization

Bayonet latch positions	Polarization NF07/S Series			
	Orientation	α1	α2	Colour
1	90°	120°		red
2	105°	130°		yellow
3	110°	135°		green
4	100°	165°		pink

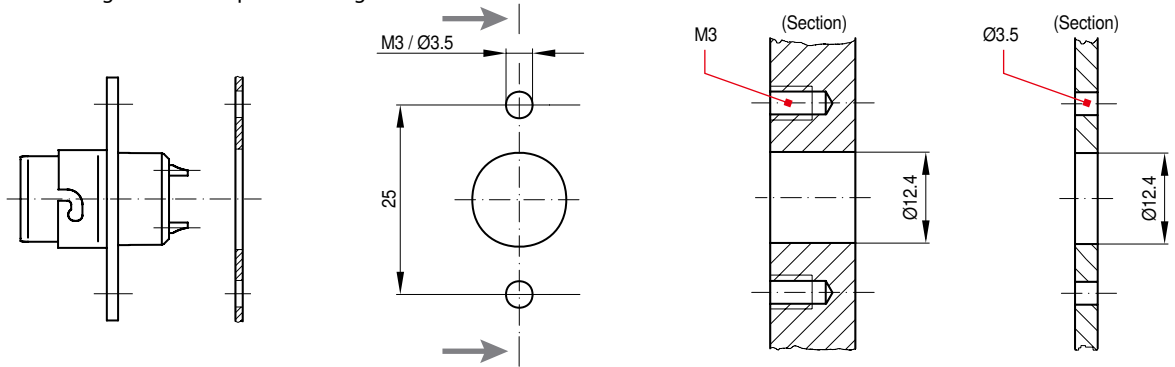


**Mounting borings**

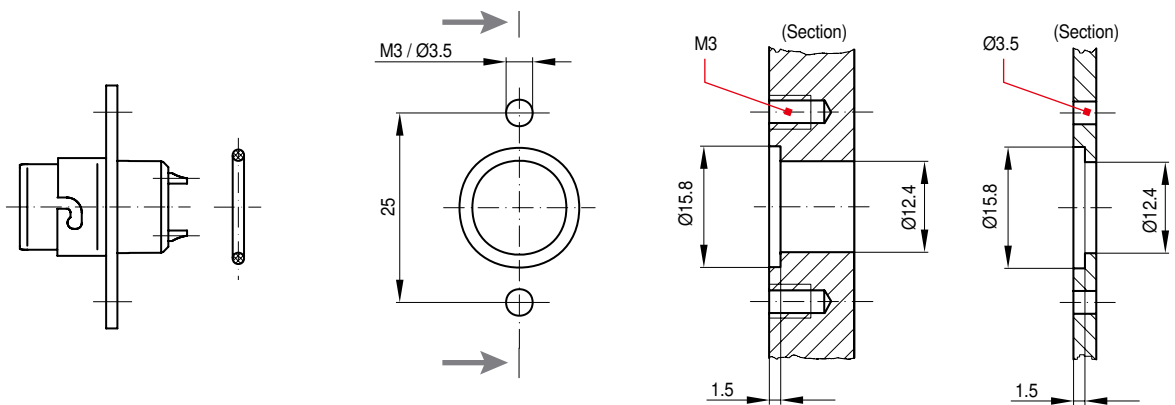
Series NF07 /S

**Flange mount receptacles**

- Panel cutout for flange mount receptacles with gasket NF Z1

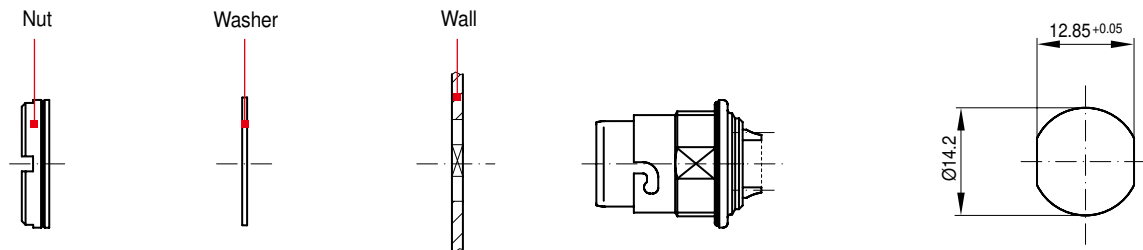


- Panel cutout for flange mount receptacles with sealing ring NF Z2



**Jam nut receptacles**

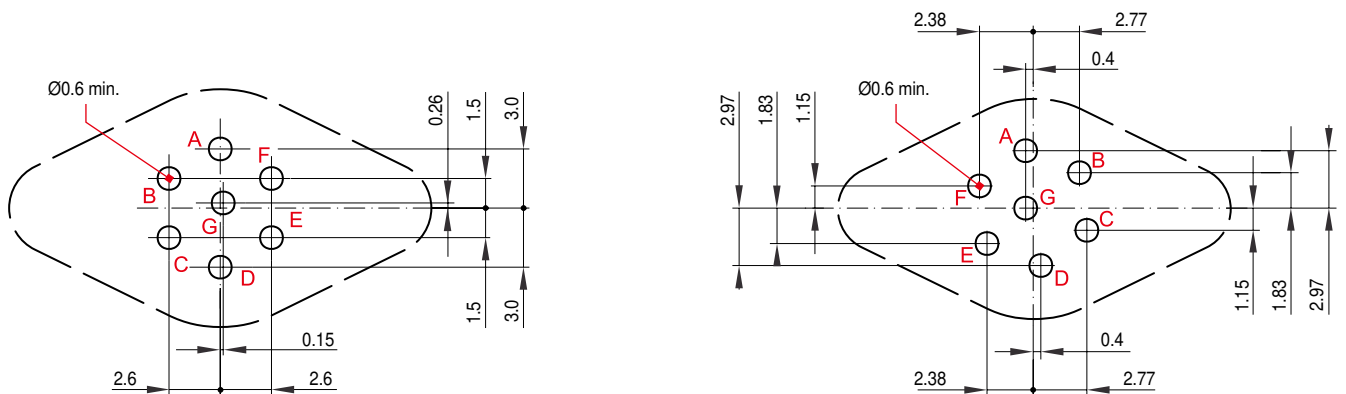
- Panel cutout for jam nut receptacles



**Note:**  
Use mounting tool VG96934 Z10; Torque 2 Nm max.

**PCB terminal**

- Panel drilling for plugs
- Panel drilling for receptacles

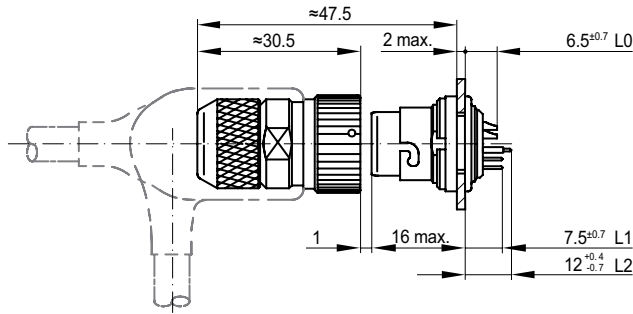


**Note:**  
These mounting borings can also be used for NF07 Series receptacles

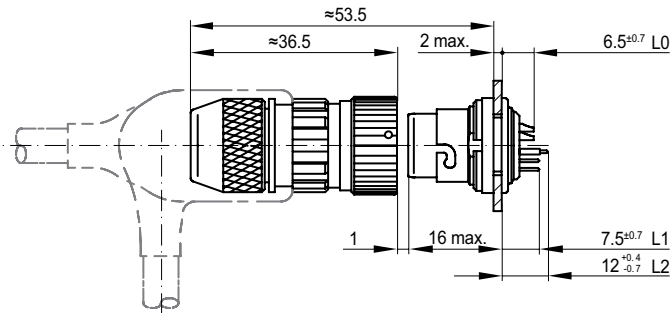
**Assembly and installation dimensions**

Series NF07 /S

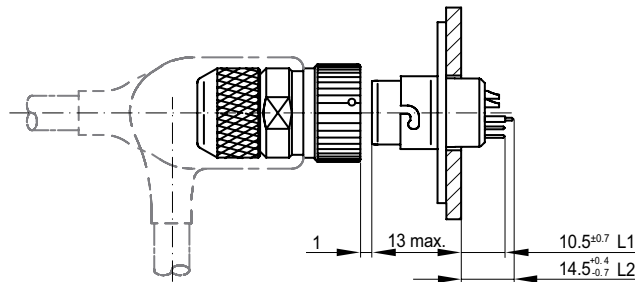
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



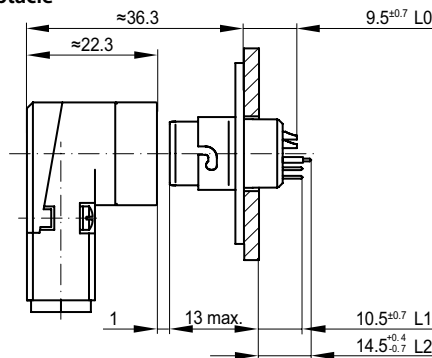
- Cable connecting plug (long adapter) ↔ Jam nut receptacle



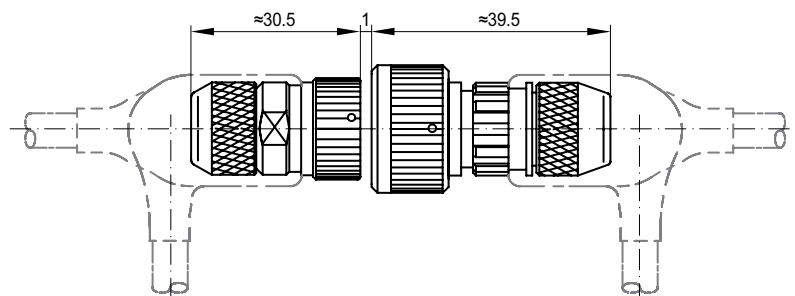
- Cable connecting plug (short adapter) ↔ Flange mount receptacle



- 90° Cable connecting plug ↔ Flange mount receptacle



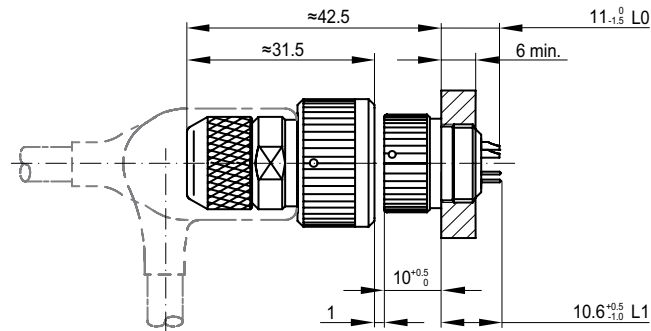
- Cable connecting plug (short adapter) ↔ Reinforced cable connecting receptacle (long adapter)



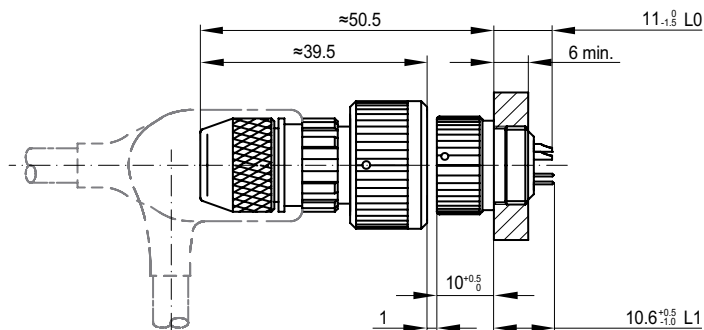
**Assembly and installation dimensions**

Series NF07 / S

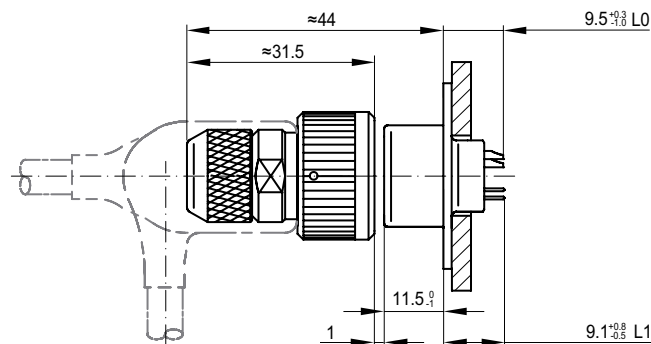
- Reinforced cable connecting receptacle (short adapter) ↔ Jam nut plug



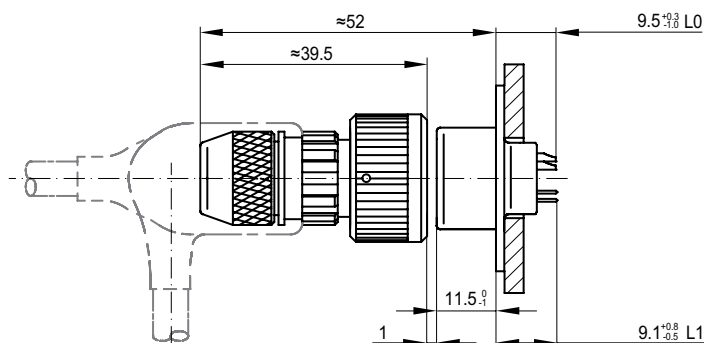
- Reinforced cable connecting receptacle (long adapter) ↔ Jam nut plug



- Reinforced cable connecting receptacle (short adapter) ↔ Flange plug



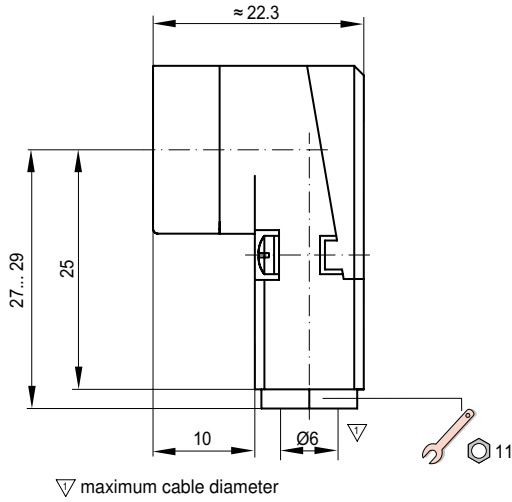
- Reinforced cable connecting receptacle (long adapter) ↔ Flange plug



**90° cable connecting plug**

Series NF10

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



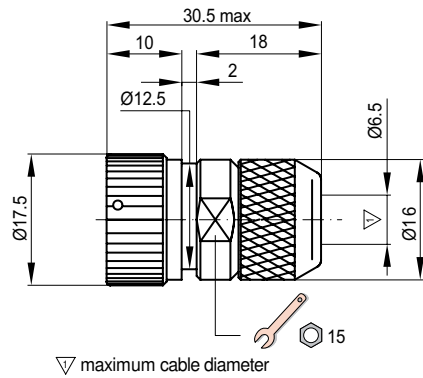
NF	10	A	1	LO	A17/S
①	②	③	④	⑤	⑥
		A	1	LO	A17/S
		A	2	LO	A17/S
NF	10	A	3	LO	A17/S
		A	4	LO	A17/S
		A	5	LO	A17/S

**i** Note:  
Terminal styles on page 32

**Cable connecting plug (short adapter)**

Series NF10

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



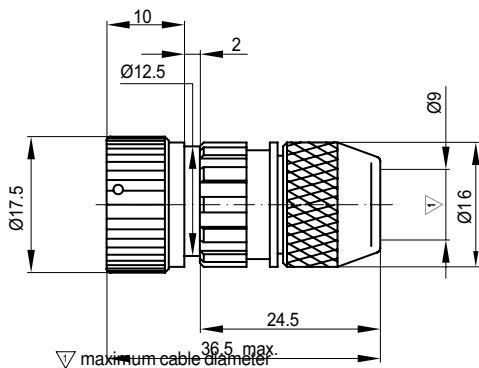
NF	10	A	1	LO	A1/S
①	②	③	④	⑤	⑥
		A	1	LO	A1/S
		A	2	LO	A1/S
NF	10	A	3	LO	A1/S
		A	4	LO	A1/S
		A	5	LO	A1/S

**i** Note:  
Terminal styles on page 32

**Cable connecting plug (long adapter)**

Series NF10

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

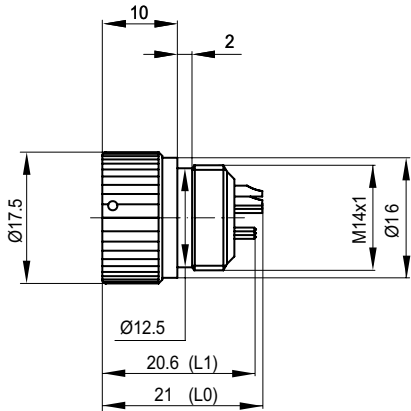


NF	10	A	1	LO	/S
①	②	③	④	⑤	⑥
		A	1	LO	/S
		A	2	LO	/S
NF	10	A	3	LO	/S
		A	4	LO	/S
		A	5	LO	/S

**i** Note:  
Terminal styles on page 32

**Jam nut plug** Series NF10

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6

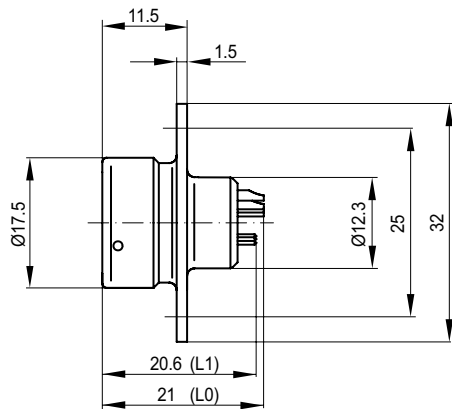


NF	10	E	1	L0	/S
①	②	③	④	⑤	⑥
		E	1	L0	/S
		E	2	L0	/S
NF	10	E	3	L0	/S
		E	4	L0	/S
		E	5	L1	/S
		E	1	L1	/S
		E	2	L1	/S
NF	10	E	3	L1	/S
		E	4	L1	/S
		E	5	L1	/S

**i** Note:  
Terminal styles on page 32

**Flange plug** Series NF10

Device outline



Ordering code

Shell part 1

Example:  
See also ordering information on page 6



NF	10	F	1	L0	/S
①	②	③	④	⑤	⑥
		F	1	L0	/S
		F	2	L0	/S
NF	10	F	3	L0	/S
		F	4	L0	/S
		F	5	L1	/S
		F	1	L1	/S
		F	2	L1	/S
NF	10	F	3	L1	/S
		F	4	L1	/S
		F	5	L1	/S

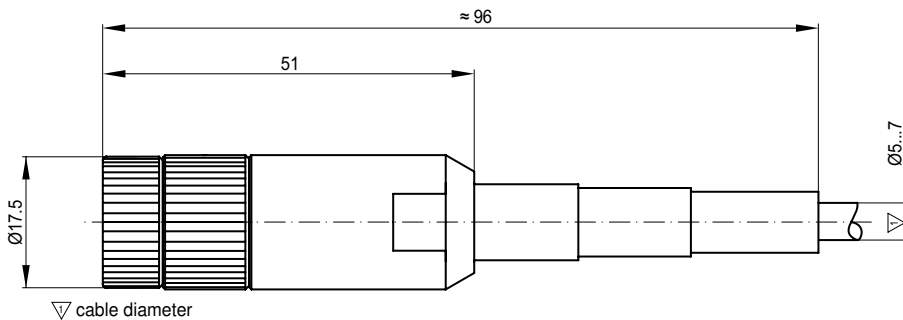
**i** Note:  
Terminal styles on page 32

**Cable connecting plug (rubber sleeve)** Series NF10

Device outline

Ordering code

Shell part 1



Example:  
See also ordering information on page 6

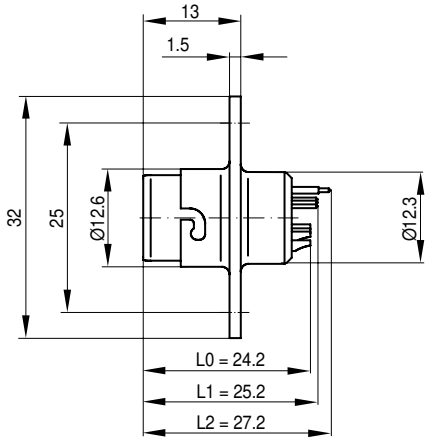
NF	10	L	1	L0	/S
①	②	③	④	⑤	⑥
		L	1	L0	/S
		L	2	L0	/S
NF	10	L	3	L0	/S
		L	4	L0	/S
		L	5	L0	/S

**i** Note:  
Terminal styles on page 32

**Flange mount receptacle**

Series NF10

Device outline



Ordering code

Example:  
See also ordering information on page 6



Shell part 1

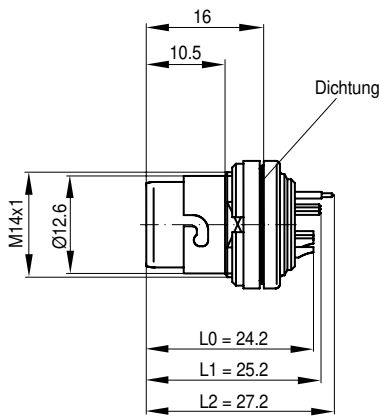
NF	10	B	1	L0	/S
①	②	③	④	⑤	⑥
		B	1	L0	/S
		B	2	L0	/S
NF	10	B	3	L0	/S
		B	4	L0	/S
		B	5	L0	/S
		B	1	L1	/S
		B	2	L1	/S
NF	10	B	3	L1	/S
		B	4	L1	/S
		B	5	L1	/S
		B	1	L2	/S
		B	2	L2	/S
NF	10	B	3	L2	/S
		B	4	L2	/S
		B	5	L2	/S

**i** Note:  
Terminal styles on page 32

**Jam nut receptacle**

Series NF10

Device outline



Ordering code

Example:  
See also ordering information on page 6



Shell part 1

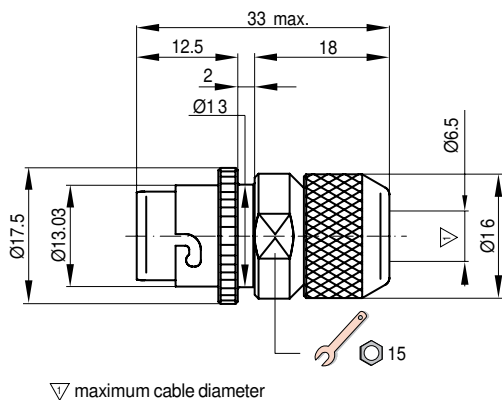
NF	10	C	1	L0	/S
①	②	③	④	⑤	⑥
		C	1	L0	/S
		C	2	L0	/S
NF	10	C	3	L0	/S
		C	4	L0	/S
		C	5	L0	/S
		C	1	L1	/S
		C	2	L1	/S
NF	10	C	3	L1	/S
		C	4	L1	/S
		C	5	L1	/S
		C	1	L2	/S
		C	2	L2	/S
NF	10	C	3	L2	/S
		C	4	L2	/S
		C	5	L2	/S

**i** Note:  
Terminal styles on page 32

**Cable connecting receptacle (short adapter)**

Series NF10

Device outline



Ordering code

Example:  
See also ordering information on page 6



Shell part 1

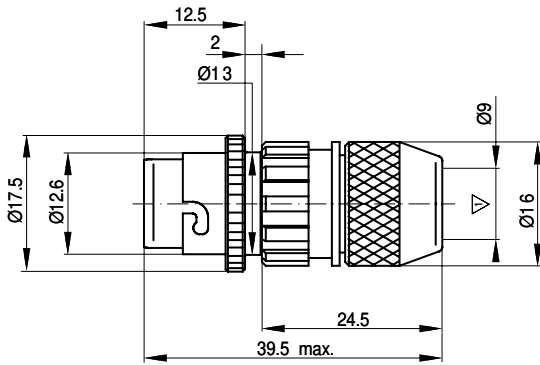
NF	10	D	1	L0	/S
①	②	③	④	⑤	⑥
		D	1	L0	/S
		D	2	L0	/S
NF	10	D	3	L0	/S
		D	4	L0	/S
		D	5	L0	/S

**i** Note:  
Terminal styles on page 32

**Cable connecting receptacle (long adapter)**

Series NF10

Device outline



▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



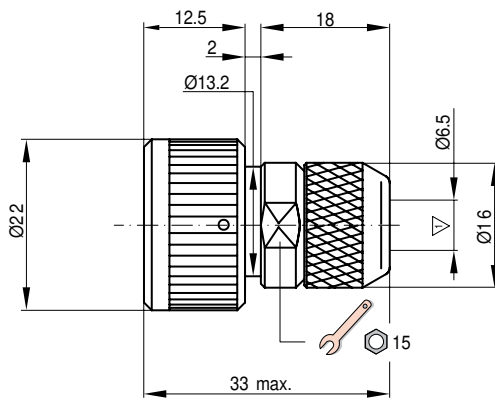
NF	10	D	1	L0	D7/S
①	②	③	④	⑤	⑥
		D	1	L0	D7/S
		D	2	L0	D7/S
NF	07	D	3	L0	D7/S
		D	4	L0	D7/S
		D	5	L0	D7/S

**Note:**  
Terminal styles on page 32

**Reinforced cable connecting receptacle (short adapter)**

Series NF10

Device outline

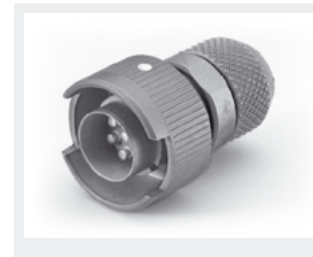


▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



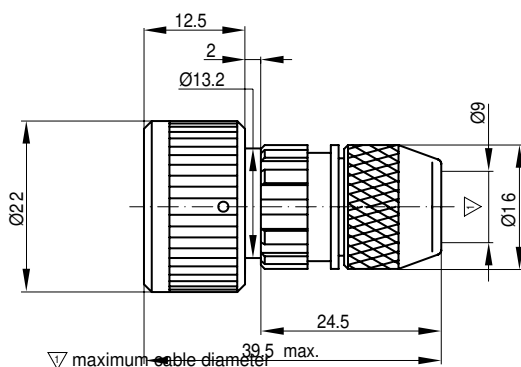
NF	10	N	1	L0	/S
①	②	③	④	⑤	⑥
		N	1	L0	/S
		N	2	L0	/S
NF	10	N	3	L0	/S
		N	4	L0	/S
		N	5	L0	/S

**Note:**  
Terminal styles on page 32

**Reinforced cable connecting receptacle (long adapter)**

Series NF10

Device outline

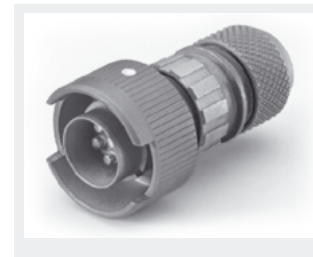


▽ maximum cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6



NF	10	K	1	L0	/S
①	②	③	④	⑤	⑥
		K	1	L0	/S
		K	2	L0	/S
NF	10	K	3	L0	/S
		K	4	L0	/S
		K	5	L0	/S

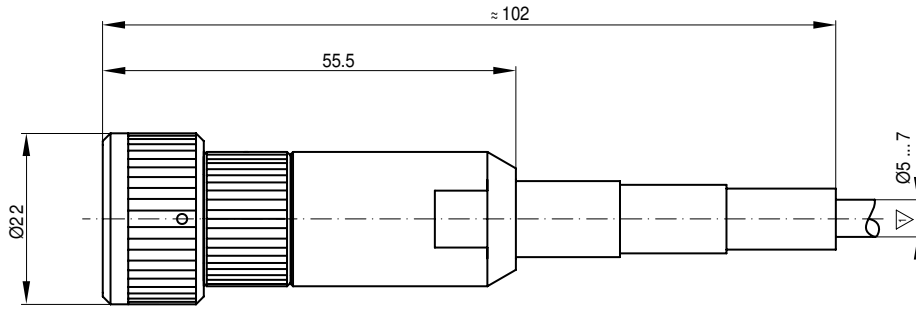
**Note:**  
Terminal styles on page 32



**Reinforced cable connecting receptacle (rubber sleeve)**

Series NF10

Device outline



▽ cable diameter

Ordering code

Shell part 1

Example:  
See also ordering information on page 6

NF	10	M	1	L0	...*2
①	②	③	④	⑤	⑥
		M	1	L0	...*2
		M	2	L0	...*2
NF	10	M	3	L0	...*2
		M	4	L0	...*2
		M	5	L0	...*2

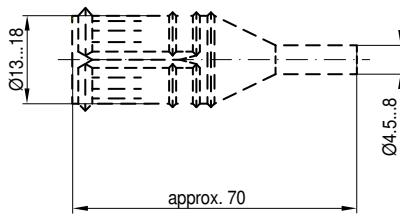
**i** Note:  
Terminal styles on page 32  
\*2 Customized designs upon request

**Heatshrink boots**

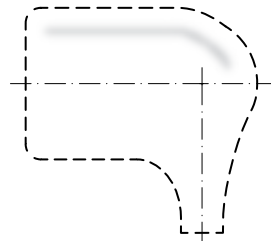
Series NF10

Device outline

Heatshrink boot, straight



Heatshrink boot, 90°



Ordering code

Accessories / Shell part 2

Example:  
See also ordering information on page 6

203W 112-30
①
Heatshrink boot, straight 203W112-30 *
Heatshrink boot, 90° 224K012-30 *

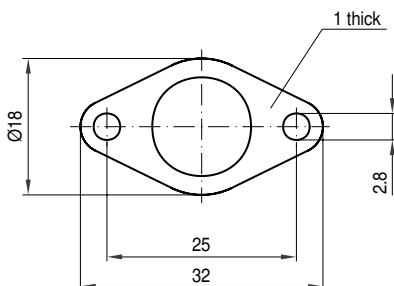
Note:  
\* Order direct from Raychem or other OEMs

**Seals NF Z1 and NF Z2**

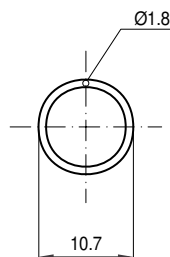
Series NF10

Device outline

Gasket NF Z1  
(Flange seal)



Sealing ring NF Z2  
(O-ring)



Ordering code

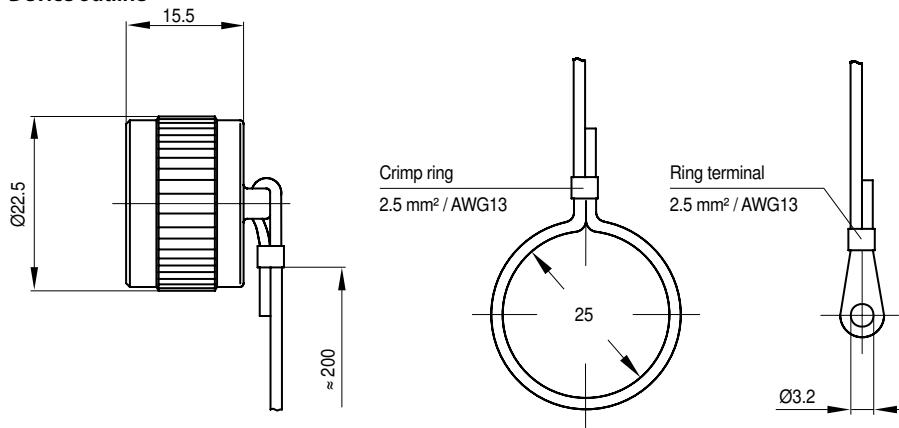
Accessories / Shell part 2

Example:  
See also ordering information on page 6

NF Z1
①
Gasket NF Z1
Sealing ring NF Z2

**Protection cap VG96934 Z3**

Series NF10

**Device outline**

**Ordering code** Accessories/Protection cap

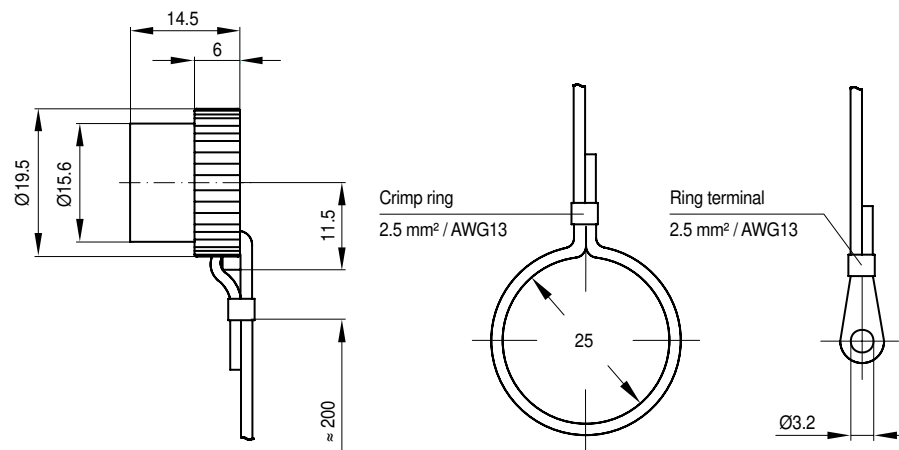
 Example:  
 See also ordering information on page 6

**VG96934 Z3**


**i Note:**  
 It is possible to fit loops or ring terminals (both included)

**Protection cap VG96934 Z4 (rubber)**

Series NF10

**Device outline**

**Ordering code** Accessories/Protection cap

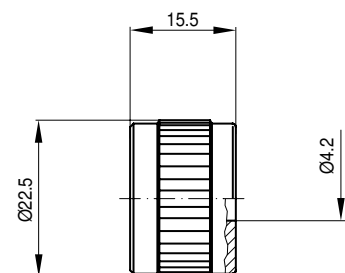
 Example:  
 See also ordering information on page 6

**VG96934 Z4**


**i Note:**  
 It is possible to fit loops or ring terminals (both included)

**Dummy receptacle VG96934 Z6**

Series NF10

**Device outline**

**Ordering code** Accessories/Protection cap

 Example:  
 See also ordering information on page 6

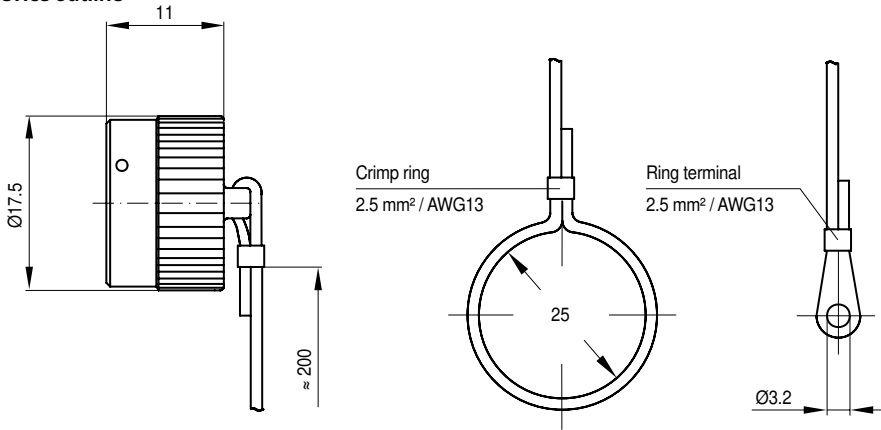
**VG96934 Z6**


**i Note:**  
 Dummy receptacle to be mounted onto the case of a device  
 For receiving a free plug cable

**Protection cap for polarization NF10 Z8/x**

Series NF10

Device outline



**Ordering code** Accessories/Protection cap

Example:  
See also ordering information on page 6

**NF10 Z8 / 1**

① ②

Protection cap NF10 Z8 /

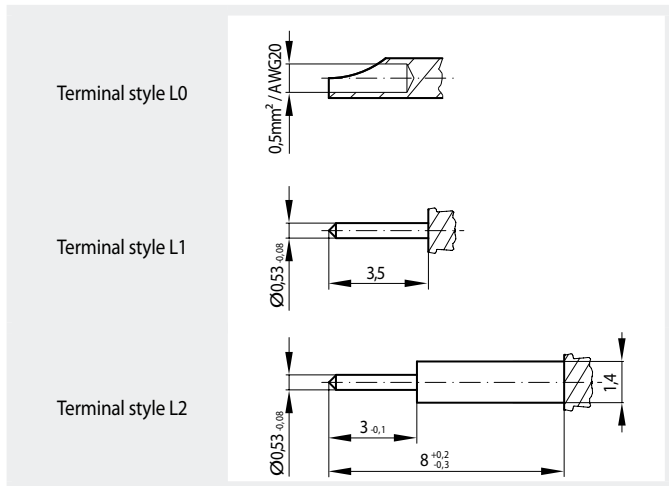
1  
2  
3  
4

**i** Note:  
It is possible to fit loops or ring terminals (both included)

**Terminal styles, Assembly tool Z16**

Series NF10

Terminal styles



**i** Note:  
Terminals must not be subjected to force or stress.

**Assembly tool Z16**

Accessories

Assembly tool for  
jam nut receptacles  
NF10 C x xx

Ordering code: **Z16**

↑

1

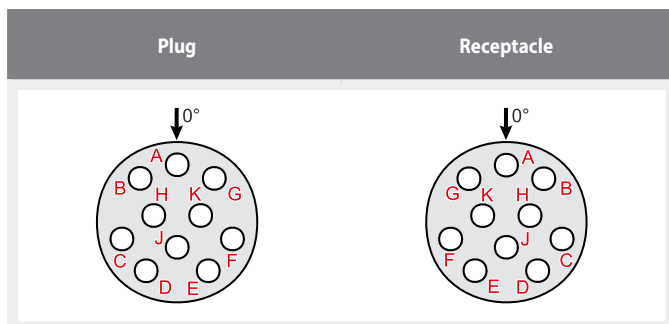
Assembly tool Z16

**i** Note:  
Assembly tool for jam nut receptacles NF10 C x xx  
Width across flats SW13, use with torque spanner,  
torque 8<sup>±2</sup> Nm max.

**Contact arrangement, Polarization**

Series NF10

Contact arrangement



Polarization

Bayonet latch positions	Polarization Series NF10			
	Orientation	α1	α2	Colour
1	95°	140°		white
2	85°	115°		blue
3	100°	105°		violet
4	110°	120°		chrome yellow
5	80°	145°		dark red

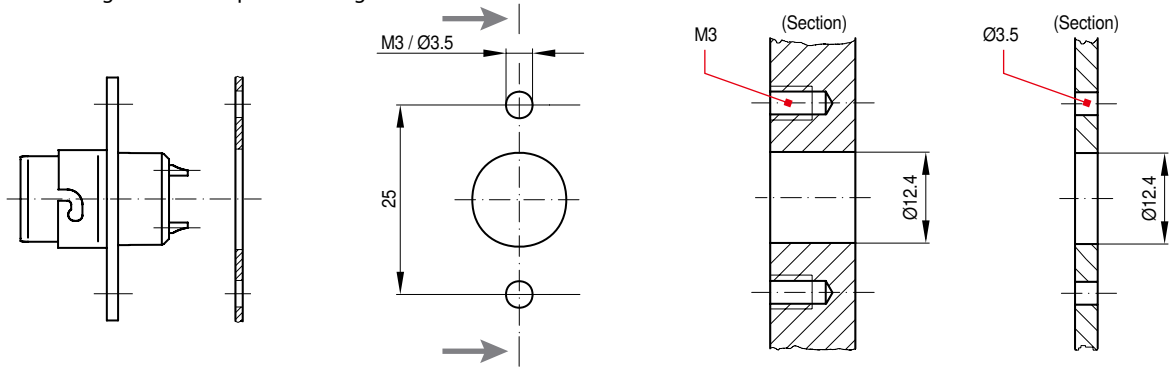
**i** Note:  
Planforms seen from connector face

**Mounting borings**

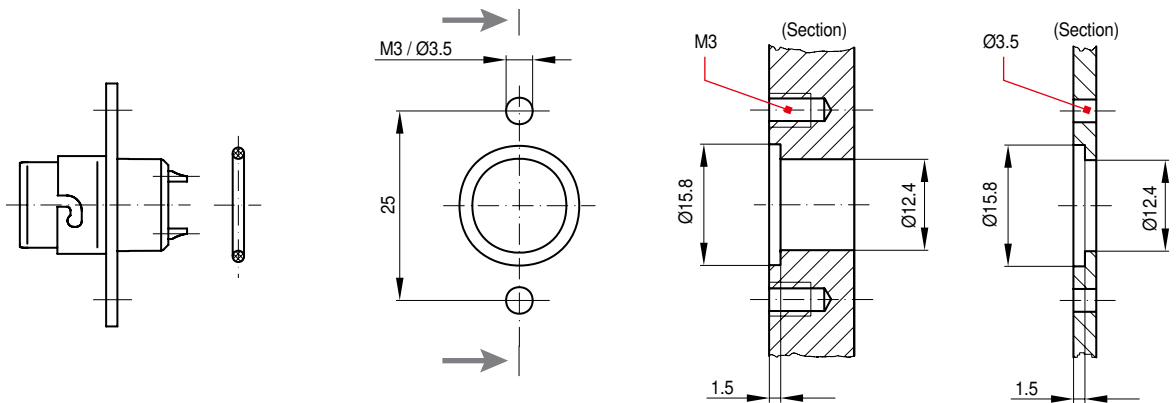
Series NF10

**Flange mount receptacles**

- Panel cutout for flange mount receptacles with gasket NF Z1

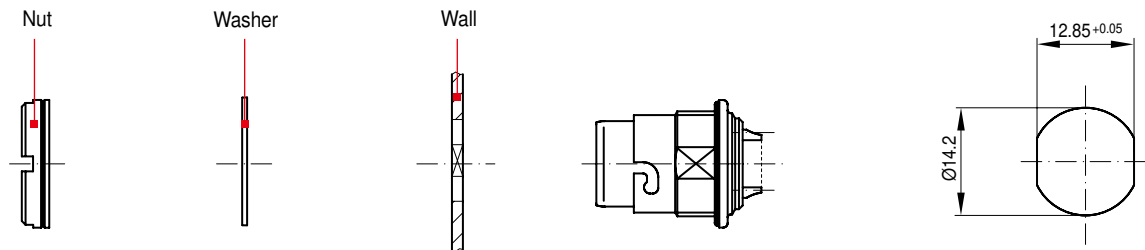


- Panel cutout for flange mount receptacles with sealing ring NF Z2



**Jam nut receptacles**

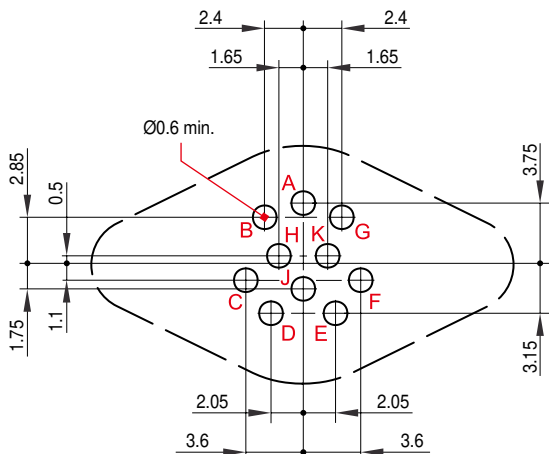
- Panel cutout for jam nut receptacles



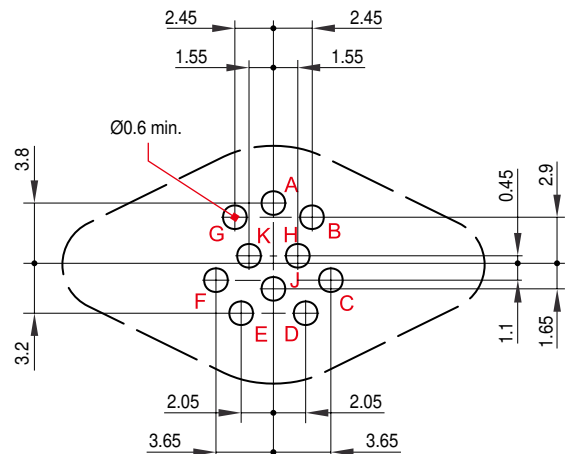
**Note:**  
Use mounting tool VG96934 Z10; Torque 2 Nm max.

**PCB terminal**

- Panel drilling for plugs



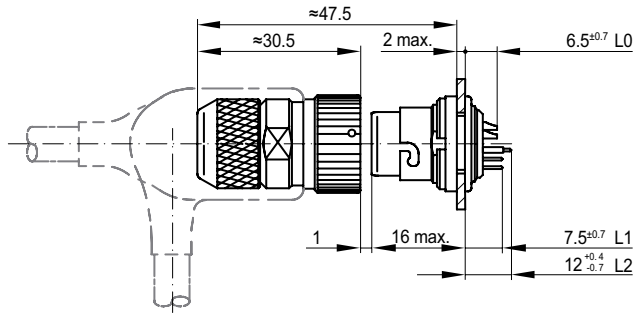
- Panel drilling for receptacles



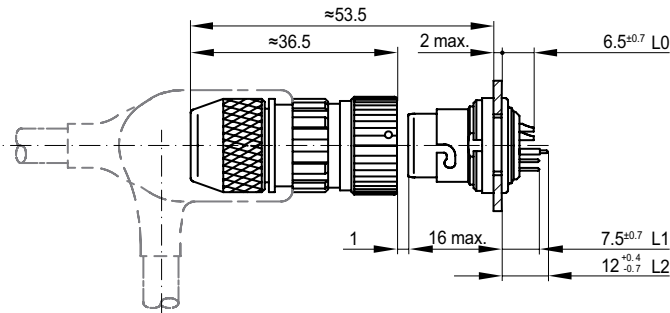
**Assembly and installation dimensions**

Series NF10

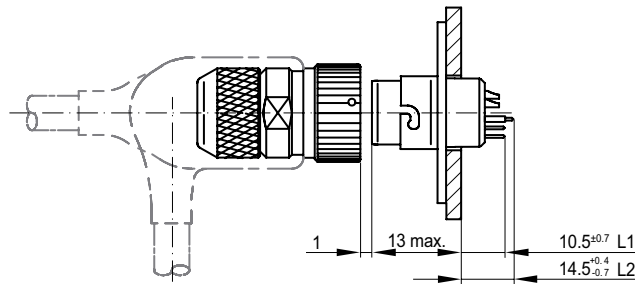
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



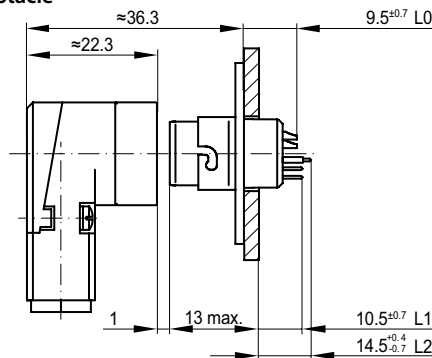
- Cable connecting plug (long adapter) ↔ Jam nut receptacle



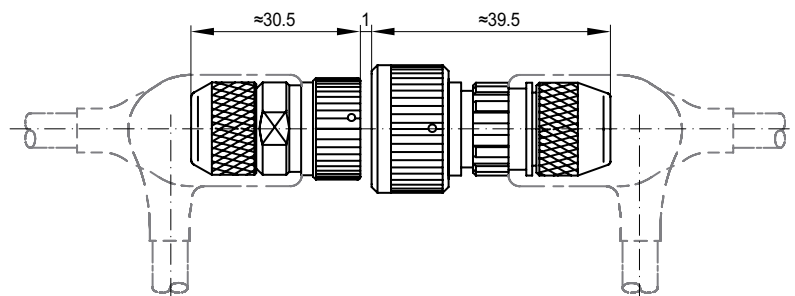
- Cable connecting plug (short adapter) ↔ Flange mount receptacle



- 90° Cable connecting plug ↔ Flange mount receptacle



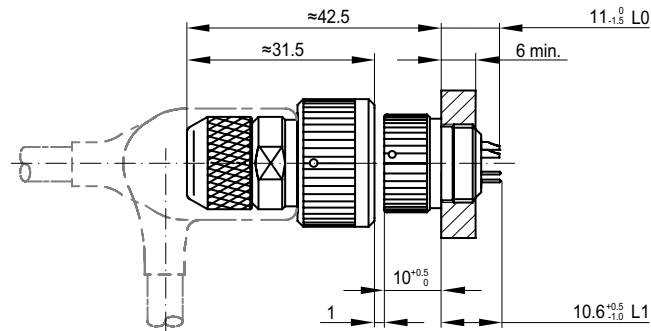
- Cable connecting plug (short adapter) ↔ Reinforced cable connecting receptacle (long adapter)



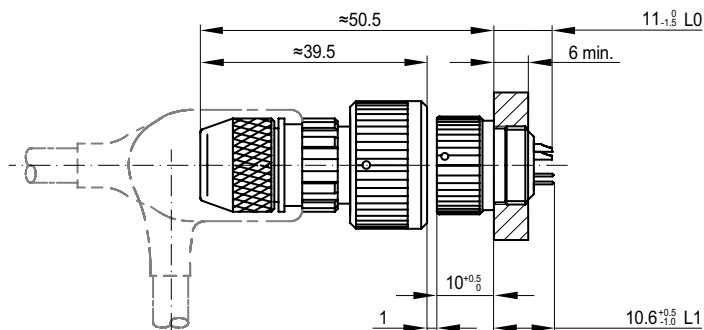
**Assembly and installation dimensions**

Series NF10

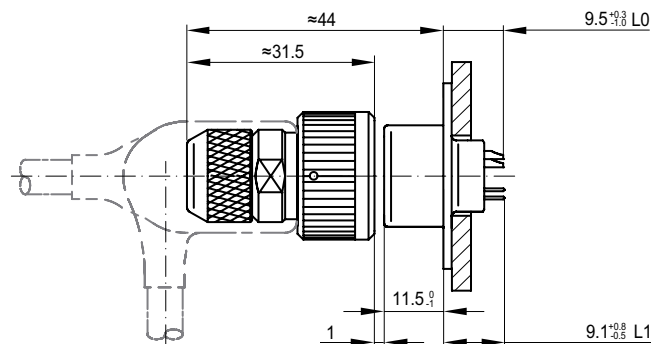
- Reinforced cable connecting receptacle (short adapter) ↔ Jam nut plug



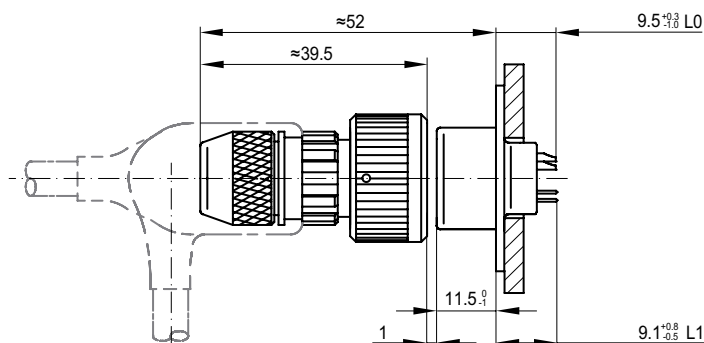
- Reinforced cable connecting receptacle (long adapter) ↔ Jam nut plug



- Reinforced cable connecting receptacle (short adapter) ↔ Flange plug



- Reinforced cable connecting receptacle (long adapter) ↔ Flange plug

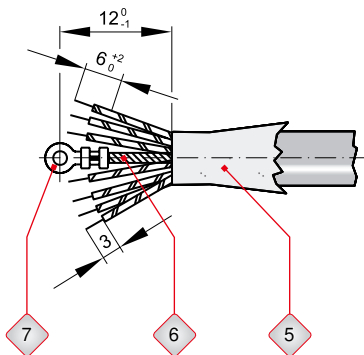
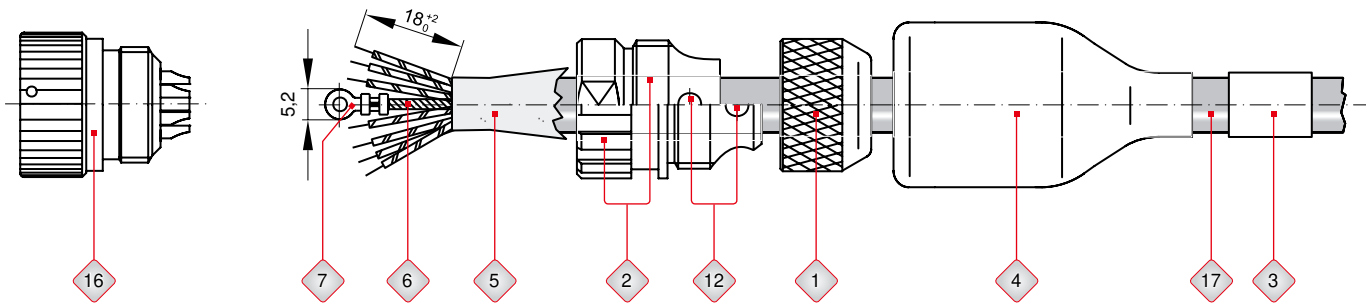


**Cable assembly details for plugs with short or long adapter**

Series NF

Styles A, D, J, K and N with cable according to VG95218-11.

Details not mentioned are to be chosen appropriately.



The lock nut (1) and the connector backshell (2) are to be loosened from the connector (16).

Slide lock nut (1) heatshrink boot (4) and, if used, sleeve (3) for fixing the protective cap on the cable.

Remove jacket from cable end (17) approx. 18+2 mm with cable stripper.

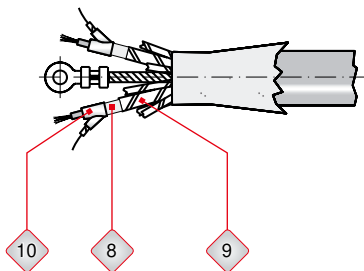
Fold back screen meshing (5).

If existing, open and cut off foil type shielding with slitting tool (knife or similar).

Strip approx. 3 mm and tin single wires. Use thermal stripping device.

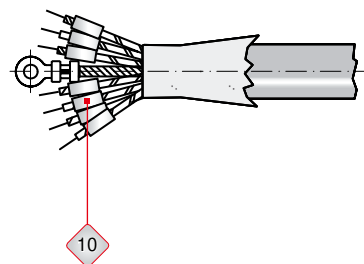
Shorten strain relief rope (6) to indicated dimensions

12-1 mm with crimp ring eyelet (7).



If existing:

Insulate the single wire screen meshing (8) of the shielded single wire (9) with small PTFE tape and if required gather them and crimp them together with an insulated single wire on the appropriate contact.



Note:

Prior to the form fit extrusion-coating of the connector, the connector backshell is to be potted.

If the connector backshell is not to be potted:

Slide shrinkable tubings (10) diameter 1.6 mm to 2.4 mm, approx. 7 mm long - over single wires or insulate with small PTFE tape.

Note:

For easier handling, clamp connector in an appropriate fixture and fix cable in suitable holder.



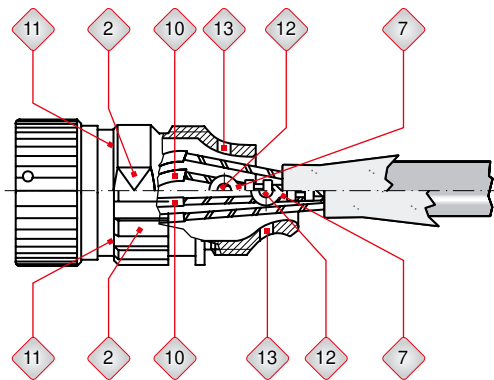
Solder single wires on the contacts with filament type extra thin tin solder LSn60, diameter 1 mm with acid free flux core. Temperature stabilized soldering iron with a tip diameter of approx. 2 mm.

Solder tip temperature 310°C max.; soldering time 4 seconds max.

Slide insulating tubing (10) over solder cups (and shrink fit them)

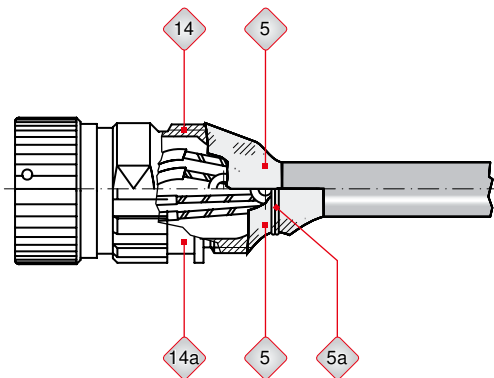
Apply on threads (11) of plug conductive adhesive (only on first thread) and screw on connector backshell (2).

Tighten securely with pliers covered with plastic or rubber.



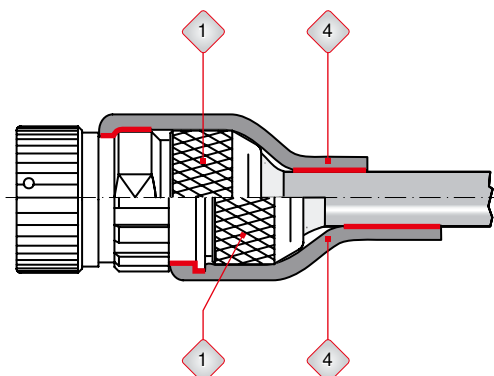
Slide cable in connector backshell (2) so that strain relief split pin (12) can be slid through bore holes (13) in connector backshell (2) and cable eye or ring eyelet (7).

The ring eyelet should be on the inner curve side at an angular connector backshell to avoid compressive load of the single wires at tensile load.



Fold the screen meshing (5) over the back of the conical adapter (14), and trim off just short of the thread.

In case of connector backshells with long adapter (14a), the screen meshing (5) has to be fixed by additional wire (5a).



Apply conductive adhesive to the first threads.

Screw jam nut (1) onto the connector backshell and tighten securely with pliers.

Intermediate examination:

Check contact resistance, insulation resistance and dielectric strength according to VG 96934-1, Test No.5.12 and 5.13.

Unless a moulded backfitting is to be applied:

Mount heatshrink boot (4) according to VG95343-4.

Note:

In order to achieve the tightness IP67 mentioned in the data sheet, the heatshrink boot has to be glued to the parts marked in red in the op-

posite drawing.

Schaltbau recommends to use adhesives made by manufacturers of the heatshrink boot.

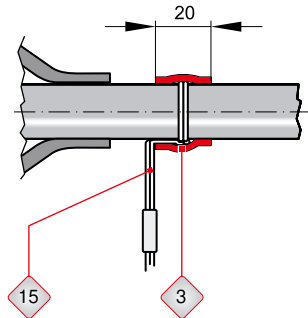
**Final examination:**

Insulation resistance and dielectric strength tests according to VG 96934-1, Test No. 5.12 and 5.13.

**Fitting of the protective cap to cable:**

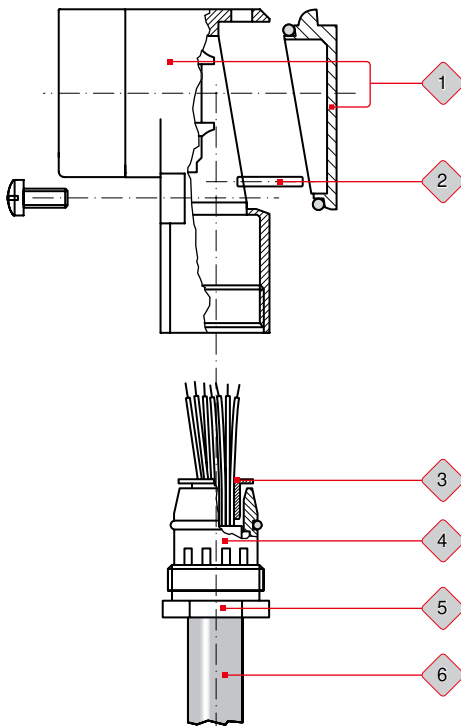
Loop cord (15) of protective cap round the cable.

Shrink on heatshrink tube (3).



**Cable assembly details for 90° cable connecting plug**

Series NF



Slide pressure screw (5) and strain relief (4) on cable before screen end.

Slide screen cone (3) between single wire and screen meshing.

Press strain relief (4) over screen cone (3) with screen meshing from below.

The screen meshing is now between strain relief (4) and screen cone (3).

Cut off projecting parts of the screen meshing.

Insert premounted cable into housing (1).

Knot strain relief rope around the strain relief split pin (2).

Note:

An effective strain relief can only be achieved by a permanently and tightly knotted strain relief rope.

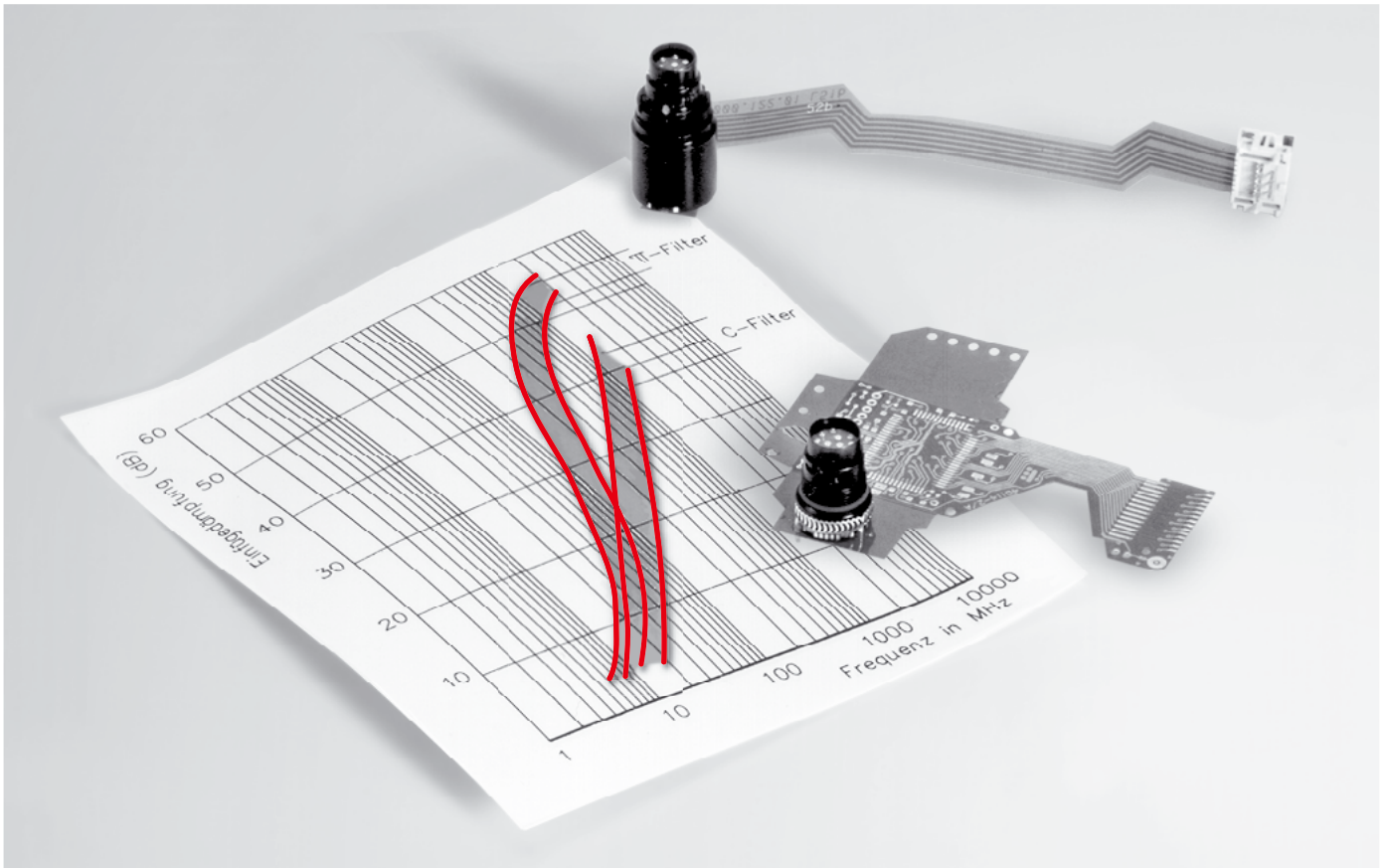
For further assembly steps (insulate, tin, solder and insulate single wires) and test please refer to prior chapter.

## SF07, SF10 Filtered connectors

Series SF

Connector series NF07 and NF10 were especially designed for application in modern telecommunication engineering. In case an additional protection against electromagnetic disturbance is desired, we recom-

mend our shielded and filtered connectors of series SF07 and SF10. Please inquire for customized designs.



More and more highly efficient electronic systems co-operate on limited space. The protection against electromagnetic influence increasingly requires EMC-suitable interfaces.

Shielded and filtered connectors help to protect the whole system against undesirable electromagnetic disturbance.

Our solutions allow to avoid malfunctions and direct or indirect economic losses such as:

- Malfunction of peripheral electronics
- Destruction of modules
- Machine standstills.

For this purpose the SF concept offers filter systems in

- Planar technique:
  - C-filter
- Modular technique:
  - C-filter
  - $\pi$ -filter
- Tubular technique:
  - C-filter
  - $\pi$ -filter
  - RFI-filter

Please do not hesitate to request detailed information.



# Schaltbau GmbH

For detailed information on our products and services visit our website – or give us a call!

Schaltbau GmbH  
Hollerithstrasse 5  
81829 Munich  
Germany



Phone +49 89 9 30 05-0  
Fax +49 89 9 30 05-350  
Internet [www.schaltbau.com](http://www.schaltbau.com)  
e-Mail [contact@schaltbau.de](mailto:contact@schaltbau.de)

with compliments:



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## Electrical Components and Systems for Railway Engineering and Industrial Applications

### Connectors

- Connectors manufactured to industry standards
- Connectors to suit the special requirements of communications engineering (MIL connectors)
- Charging connectors for battery-powered machines and systems
- Connectors for railway engineering, including UIC connectors
- Special connectors to suit customer requirements

### Snap-action switches

- Snap-action switches with positive opening operation
- Snap-action switches with self-cleaning contacts
- Enabling switches
- Special switches to suit customer requirements

### Contactors

- Single and multi-pole DC contactors
- High-voltage AC/DC contactors
- Contactors for battery powered vehicles and power supplies
- Contactors for railway applications
- Terminal bolts and fuse holders
- DC emergency disconnect switches
- Special contactors to suit customer requirements

### Electrics for rolling stock

- Equipment for driver's cab
- Equipment for passenger use
- High-voltage switchgear
- High-voltage heaters
- High-voltage roof equipment
- Equipment for electric brakes
- Design and engineering of train electrics to customer requirements