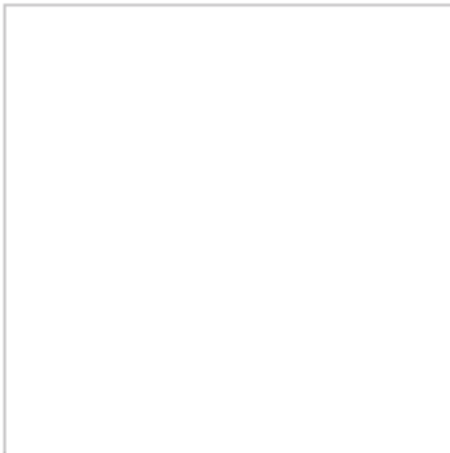
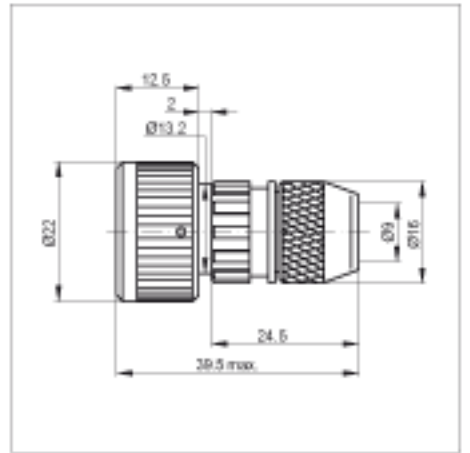
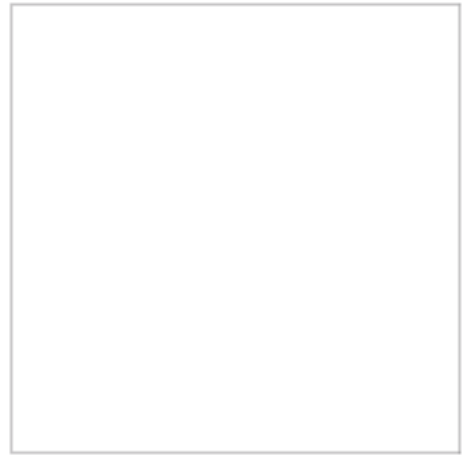


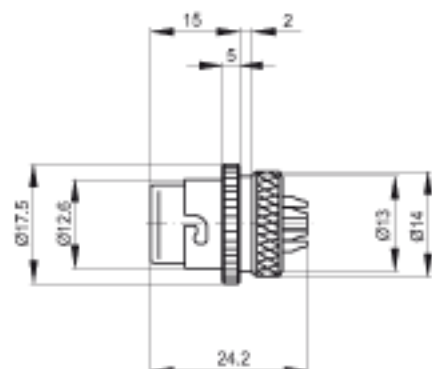
**Circular Audio
Miniature Connectors
Series NF07
Series NF10**



Cable connecting receptacle (for heatshrink boot)

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 D 1 L0 ...*2



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

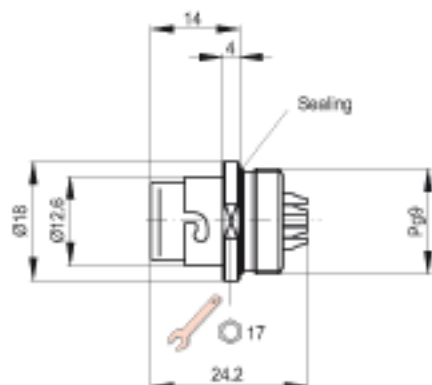
*1 See also ordering information on page 6
*2 Customized designs upon request

Note: Heatshrink boots on page 11
Terminal styles on page 13

Jam nut receptacle with thread PG9

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 H 1 L0 ...*2



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

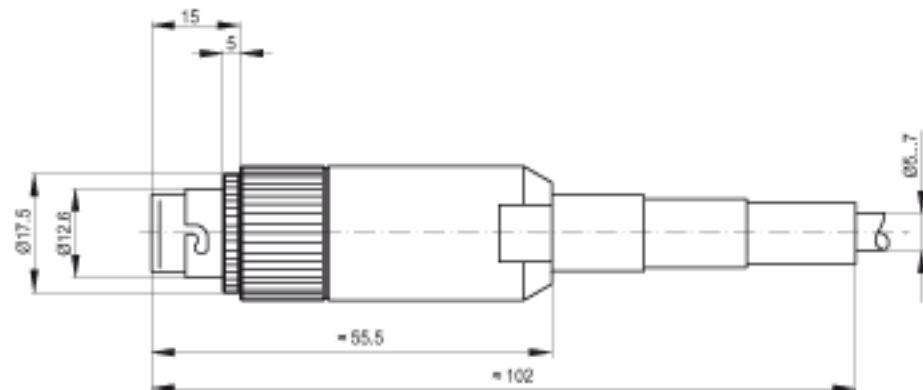
*1 See also ordering information on page 6
*2 Customized designs upon request

Note: Terminal styles on page 13

Cable connecting receptacle (rubber sleeve)

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 D 1 L0 D6

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

*1 See also ordering information on page 6

▽ cable diameter

Note: Terminal styles on page 13

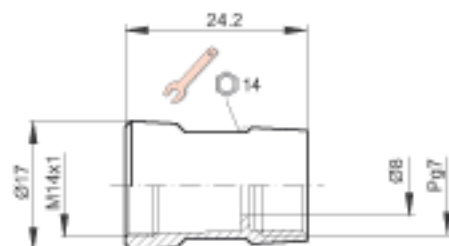
Backshell NF07 Z5 with thread PG7

Series NF07

Device outline

Ordering code

Accessories / Shell part 2



Note: For use with commercially available screw coupling built to DIN 46320

Example*1:

NF07 Z5 PG7



Backshell with thread PG7
NF07 Z5 PG7

*1 See also ordering information on page 6

Heatshrink boots

Series NF07

Device outline

Ordering code

Accessories / Shell part 2

Heatshrink boot, straight

Heatshrink boot, 90°



Example*1:

203W 112-30



*1 See also ordering information on page 6

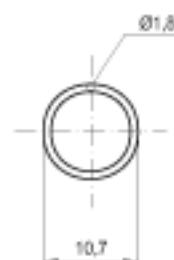
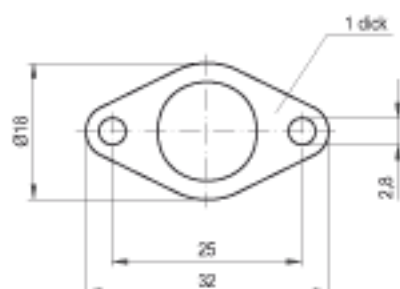
Sealings NF Z1 and NF Z2

Series NF07

Device outline

Ordering code

Accessories / Shell part 2

Gasket NF Z1
(Flange seal)Sealing ring NF Z2
(O-ring)

Example*1:

NF Z1

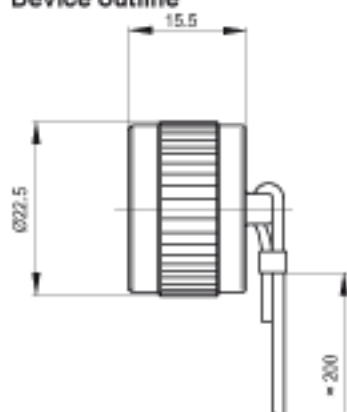


*1 See also ordering information on page 6

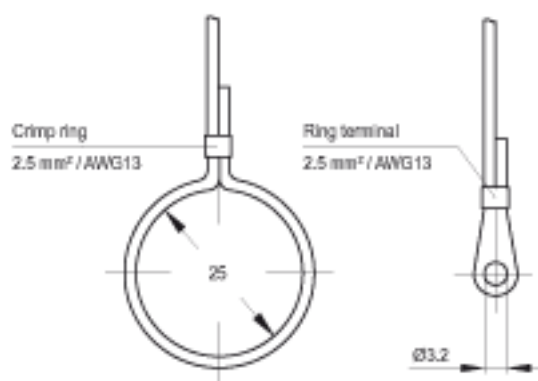
Protection cap VG96934 Z3

Series NF07

Device outline



Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z3



Protection cap
VG96934 Z3

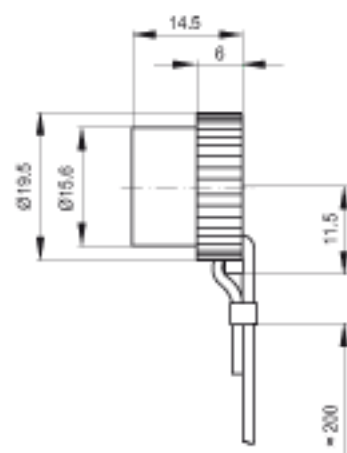
*1 See also ordering information on page 6

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

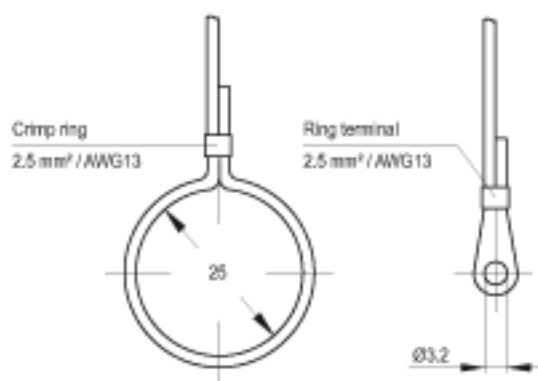
Protection cap VG96934 Z4 (rubber)

Series NF07

Device outline



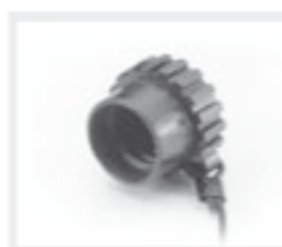
Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z3



Protection cap
VG96934 Z4

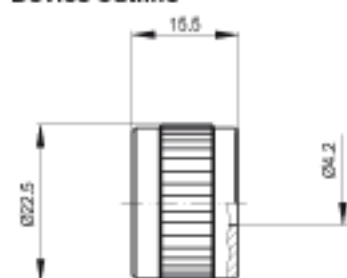
*1 See also ordering information on page 6

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

Dummy receptacle VG96934 Z6

Series NF07

Device outline

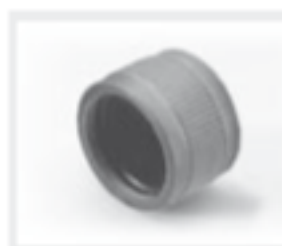


Ordering code

Accessories/Protection cap

Example*1:

VG96934 Z4



Dummy receptacle
VG96934 Z6

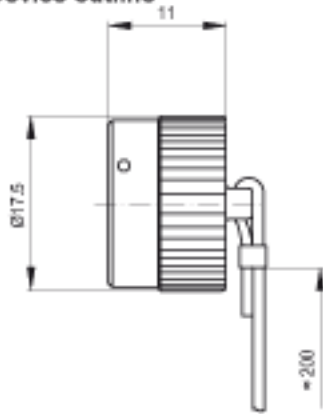
Note: Dummy receptacle to be mounted onto the case of a device for receiving a free plug cable

*1 See also ordering information on page 6

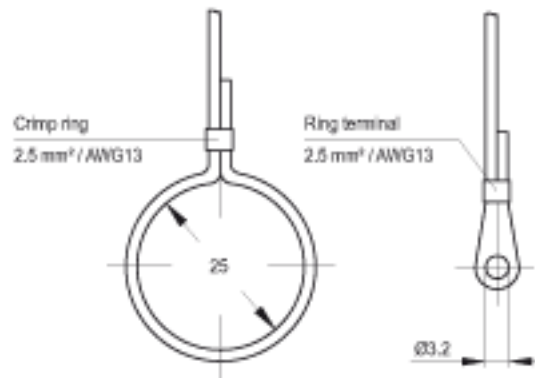
Protection cap for polarization NF07 Z7/x

Series NF07

Device outline



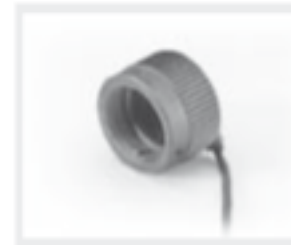
Ordering code



Accessories/Protection cap

Example*1:

NF07 Z7 / 1



1
2
3

Protection cap
NF07 Z7

*1 See also ordering information on page 6

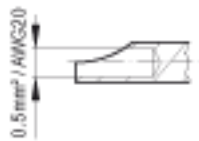
Note: It is possible to fit loops or ring terminals (both included)

Terminal styles, Mounting tool VG96934 Z10

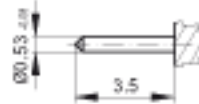
Series NF07

Terminal styles

Terminal style L0



Terminal style L1



Mounting tool VG96934 Z10

Accessories

Ordering code:

VG96934 Z10

Mounting tool for
jam nut plugs and
receptacles Series:

- NF07
- NF07 /S
- NF10



Mounting
tool
VG96934 Z10

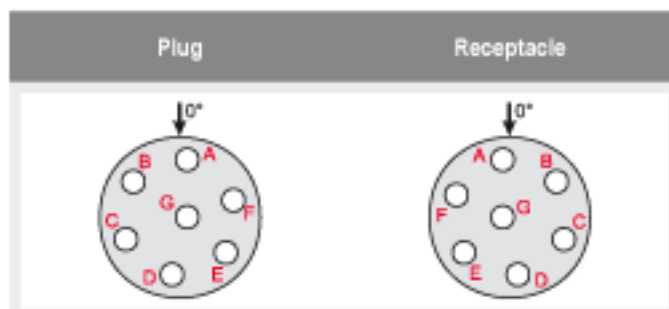
Note: Terminals must not be subjected to force or stress

Note: Torque 8¹² Nm max.

Contact arrangement, Polarization

Series NF07

Contact arrangement



Note: Planforms seen from connector face

Polarization

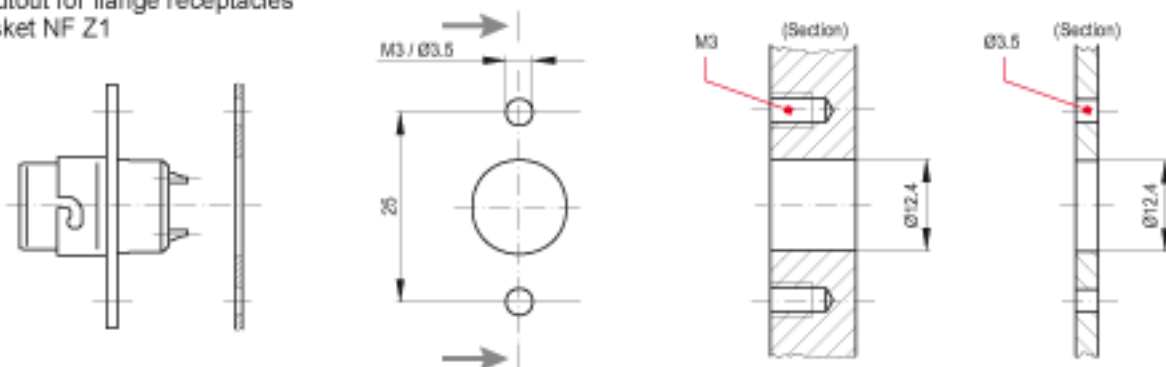
| Bayonet latch positions | Polarization Series NF07 | | |
|-------------------------|--------------------------|------------|--------|
| Orientation | $\alpha 1$ | $\alpha 2$ | Colour |
| 1 | 90° | 120° | red |
| 2 | 105° | 130° | yellow |
| 3 | 110° | 135° | green |
| --- | --- | --- | --- |
| --- | --- | --- | --- |

NF07 Standard Mounting borings

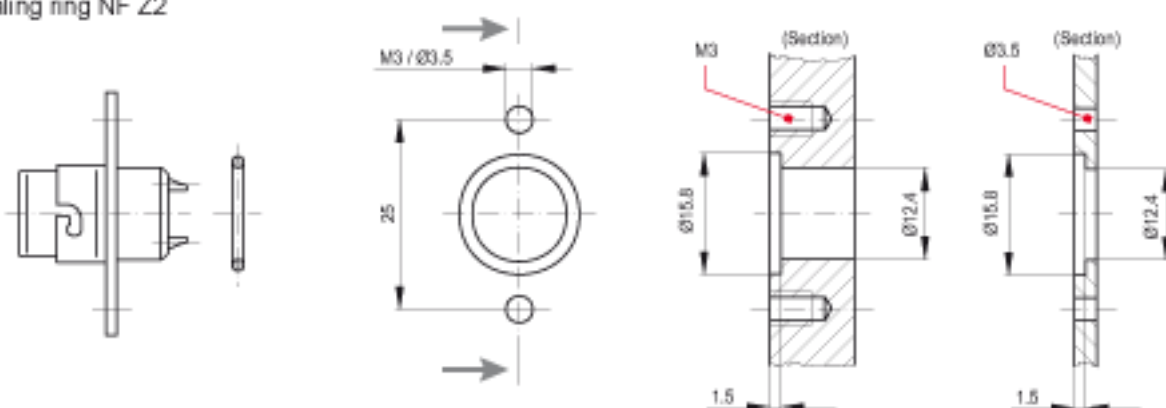
Series NF07

Flange receptacles

- Panel cutout for flange receptacles with gasket NF Z1

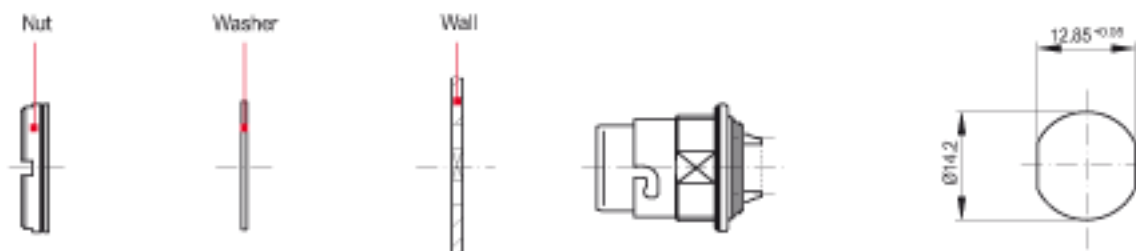


- Panel cutout for flange receptacles with sealing ring NF Z2



Jam nut receptacles

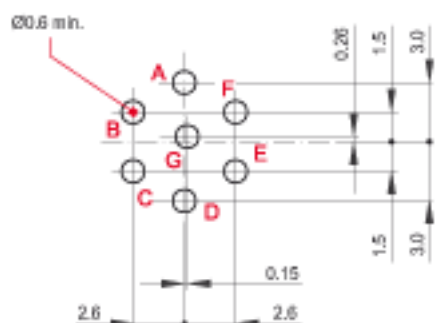
- Panel cutout for jam nut receptacles



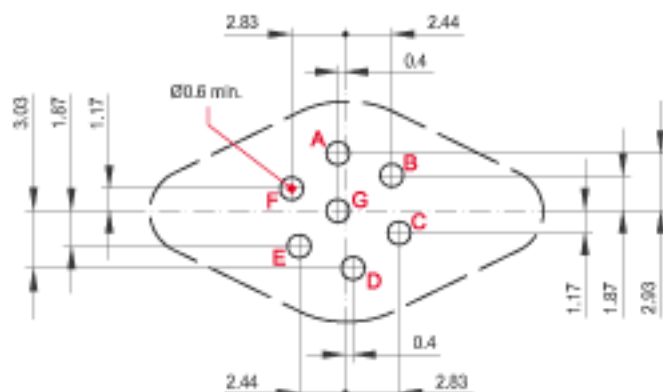
Note: Use mounting tool VG96934 Z10
Torque 2 Nm max.

PCB terminal

- Panel drilling for plugs



- Panel drilling for receptacles

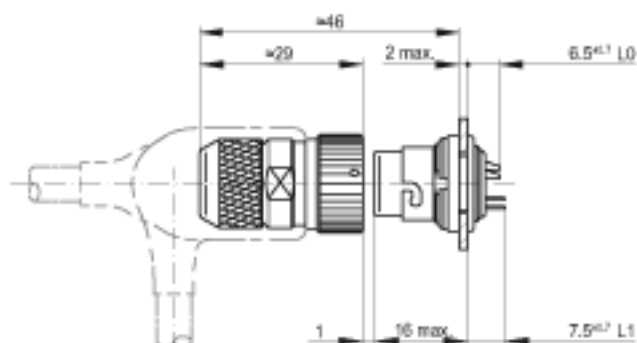


Note: These mounting borings can also be used for NF07 /S Series receptacles

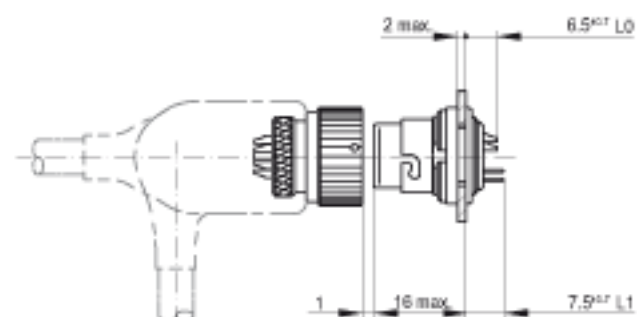
NF07 Standard Assembly and installation dimensions

Series NF07

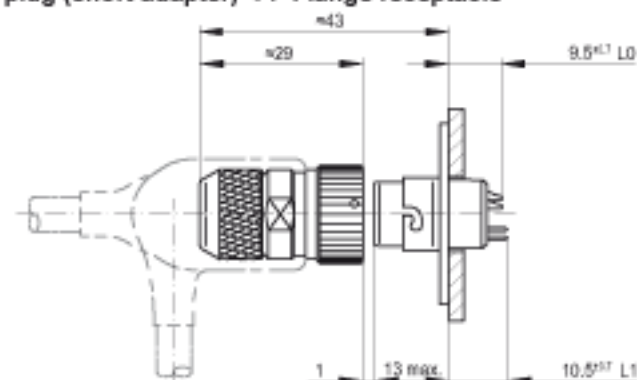
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



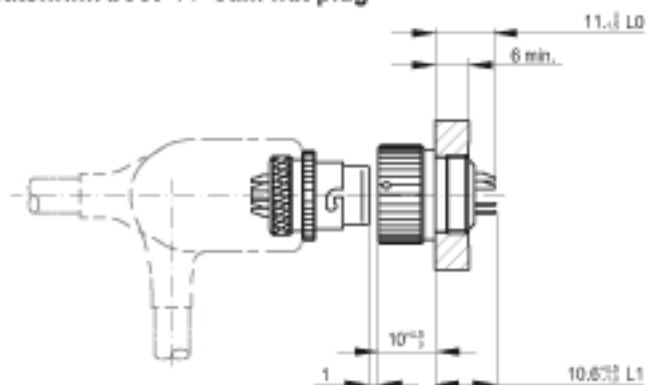
- Plug for heatshrink boot ↔ Jam nut receptacle



- Cable connecting plug (short adapter) ↔ Flange receptacle



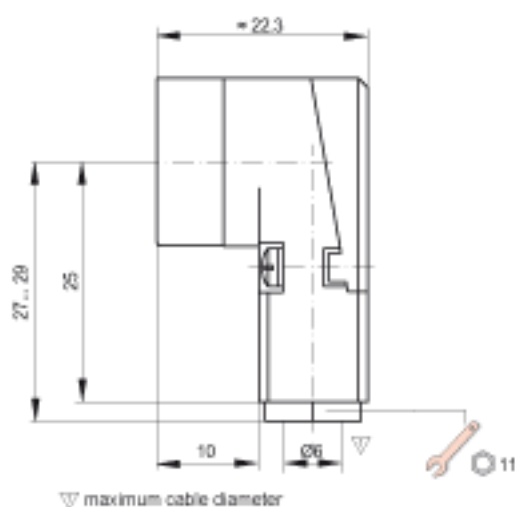
- Receptacle for heatshrink boot ↔ Jam nut plug



90° Cable connecting plug

Series NF07 /S

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 A 1 L0 A17/S

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|



| | | | | | |
|----|----|---|---|----|-------|
| | | A | 1 | L0 | A17/S |
| NF | 07 | A | 2 | L0 | A17/S |
| | | A | 3 | L0 | A17/S |
| | | A | 4 | L0 | A17/S |

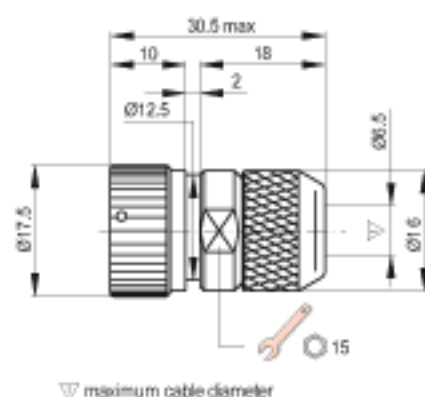
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Cable connecting plug (short adapter)

Series NF07 /S

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 A 1 L0 A1/S

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|



| | | | | | |
|----|----|---|---|----|------|
| | | A | 1 | L0 | A1/S |
| NF | 07 | A | 2 | L0 | A1/S |
| | | A | 3 | L0 | A1/S |
| | | A | 4 | L0 | A1/S |

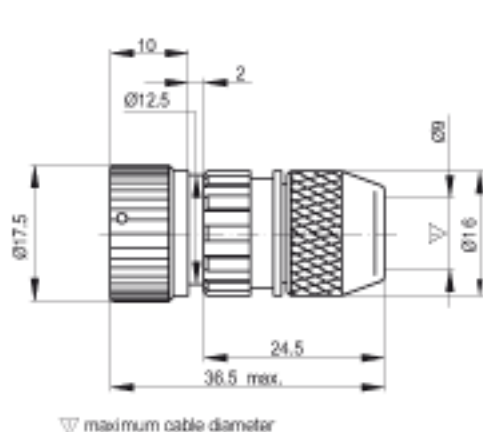
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Cable connecting plug (long adapter)

Series NF07 /S

Device outline



Ordering code

Example*1:

Shell part 1
NF 07 A 1 L0 /S

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|



| | | | | | |
|----|----|---|---|----|----|
| | | A | 1 | L0 | /S |
| NF | 07 | A | 2 | L0 | /S |
| | | A | 3 | L0 | /S |
| | | A | 4 | L0 | /S |

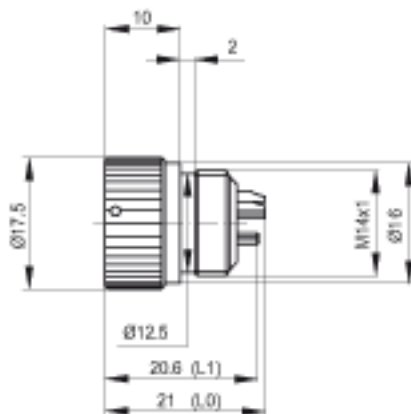
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Jam nut plug

Series NF07 /S

Device outline



Ordering code

Example*1:

| | | | | | | Shell part 1 | | | | | |
|----|----|---|---|----|----|--------------|---|---|---|---|---|
| NF | 07 | E | 1 | L0 | /S | | | | | | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | 1 | 2 | 3 | 4 | 5 | 6 |



| | | | | | | | | | | | |
|----|----|---|---|----|----|--|--|--|--|--|--|
| NF | 07 | E | 1 | L0 | /S | | | | | | |
| | | 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 | | | | | | |

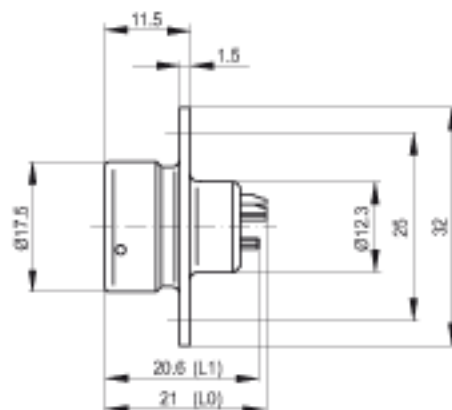
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Flange plug

Series NF07 /S

Device outline



Ordering code

Example*1:

| | | | | | | Shell part 1 | | | | | |
|----|----|---|---|----|----|--------------|---|---|---|---|---|
| NF | 07 | F | 1 | L0 | /S | | | | | | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | 1 | 2 | 3 | 4 | 5 | 6 |



| | | | | | | | | | | | |
|----|----|---|---|----|----|--|--|--|--|--|--|
| NF | 07 | F | 1 | L0 | /S | | | | | | |
| | | 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 | | | | | | |

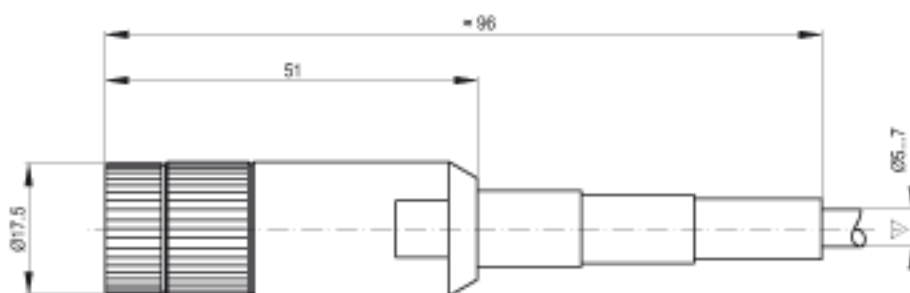
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Cable connecting plug (rubber sleeve)

Series NF07 /S

Device outline



▽ cable diameter

Ordering code

Shell part 1

Example*1:

| | | | | | | Shell part 1 | | | | | |
|----|----|---|---|----|----|--------------|---|---|---|---|---|
| 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 | | | | | | |

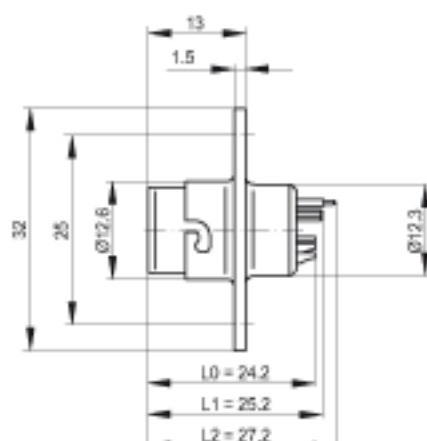
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Flange receptacle

Series NF07 /S

Device outline



Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|----|---|
| NF | 07 | B | 1 | L0 | /S | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | B | 1 | L0 | /S | |
| NF | 07 | 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 | |

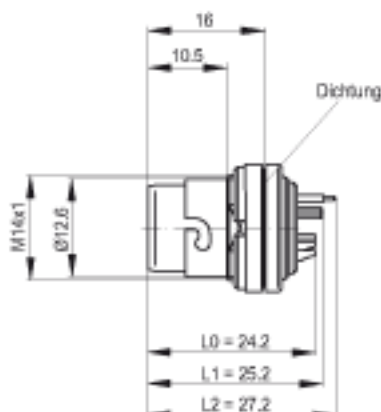
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Jam nut receptacle

Series NF07 /S

Device outline



Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|----|---|
| NF | 07 | C | 1 | L0 | /S | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | C | 1 | L0 | /S | |
| NF | 07 | 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 | L3 | /S | |
| | | C | 4 | L4 | /S | |

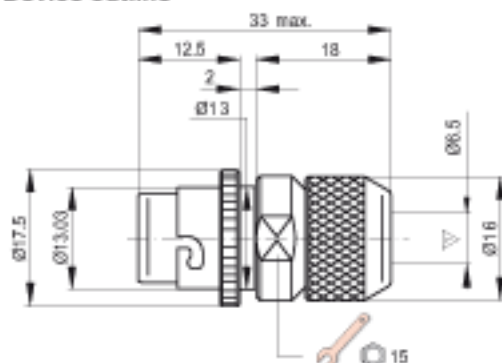
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Cable connecting receptacle (short adapter)

Series NF07 /S

Device outline



Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|----|---|
| NF | 07 | D | 1 | L0 | /S | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | D | 1 | L0 | /S | |
| NF | 07 | D | 2 | L0 | /S | |
| | | D | 3 | L0 | /S | |
| | | D | 4 | L0 | /S | |

*1 See also ordering information on page 6

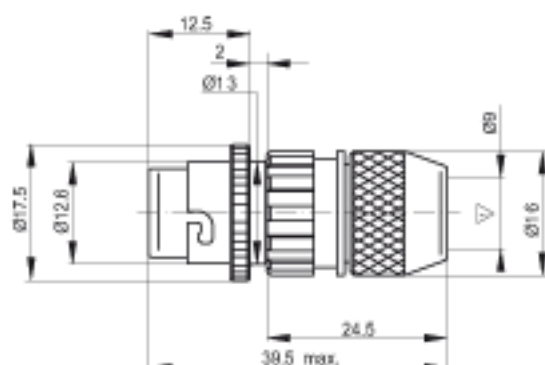
Note: Terminal styles on page 22

▽ maximum cable diameter

Cable connecting receptacle (long adapter)

Series NF07 /S

Device outline



▽ maximum cable diameter

Designation / Ordering

Example*1:

| | | Shell part 1 | | | |
|----|----|--------------|---|----|------|
| NF | 07 | D | 1 | L0 | D7/S |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | D | 1 | L0 | D7/S |
| NF | 07 | D | 2 | L0 | D7/S |
| | | D | 3 | L0 | D7/S |
| | | D | 4 | L0 | D7/S |



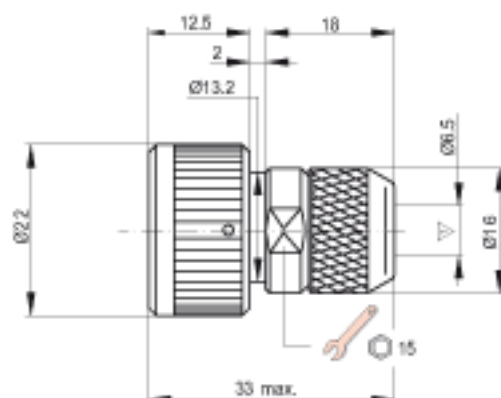
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Reinforced cable connecting receptacle (short adapter)

Series NF07 /S

Device outline



▽ maximum cable diameter

Designation / Ordering

Example*1:

| | | Shell part 1 | | | |
|----|----|--------------|---|----|----|
| NF | 07 | N | 1 | L0 | /S |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | N | 1 | L0 | /S |
| NF | 07 | N | 2 | L0 | /S |
| | | N | 3 | L0 | /S |
| | | N | 4 | L0 | /S |



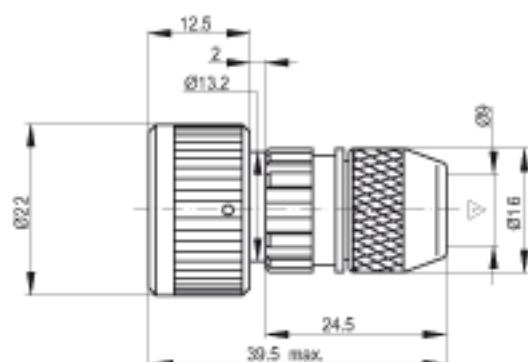
*1 See also ordering information on page 6

Note: Terminal styles on page 22

Reinforced cable connecting receptacle (long adapter)

Series NF07 /S

Device outline



▽ maximum cable diameter

Designation / Ordering

Example*1:

| | | Shell part 1 | | | |
|----|----|--------------|---|----|----|
| NF | 07 | K | 1 | L0 | /S |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | K | 1 | L0 | /S |
| NF | 07 | K | 2 | L0 | /S |
| | | K | 3 | L0 | /S |
| | | K | 4 | L0 | /S |



*1 See also ordering information on page 6

Note: Terminal styles on page 22

Connectors for audio technology: Series NF07 and NF10

Series NF

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 |
|--|-------------|
| 7-pole standard NF07 series | Page 7 |
| 7-pole NF07 /S series with enhanced shielding | Page 16 |
| 10-pole NF10 series with enhanced shielding | 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 connecting 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, π -filter
- **Tubular technique:** C-filter, π -filter, RFI-filter

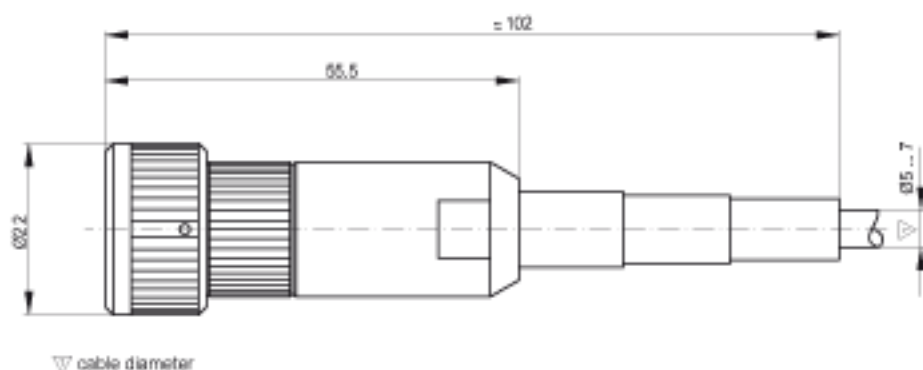
Reinforced cable connecting receptacle (rubber sleeve)

Series NF07 /S

Device outline

Ordering code

Shell part 1



Example*1:

| | | | | | |
|----|----|---|---|----|-------------------|
| NF | 07 | M | 1 | L0 | ... ^{*2} |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | M | 1 | L0 | ... ^{*2} |
| NF | 07 | M | 2 | L0 | ... ^{*2} |
| | | M | 3 | L0 | ... ^{*2} |
| | | M | 4 | L0 | ... ^{*2} |

*1 See also ordering information on page 6
*2 Customized designs upon request

Note: Terminal styles on page 22

Heatshrink boots

Series NF07 /S

Device outline

Ordering code

Accessories / Shell part 2

Heatshrink boot, straight

Heatshrink boot, 90°



Example*1:

203W 112-30

Heatshrink boot, straight
203W112-30
Heatshrink boot, 90°
224K012-30

*1 See also ordering information on page 6

Sealings NF Z1 and NF Z2

Series NF07 /S

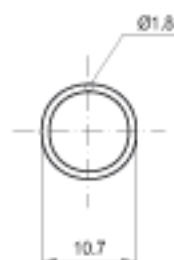
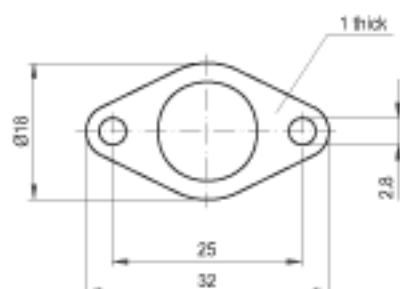
Device outline

Ordering code

Accessories / Shell part 2

Gasket NF Z1
(Flange seal)

Sealing ring NF Z2
(O-ring)



Example*1:

NF Z1

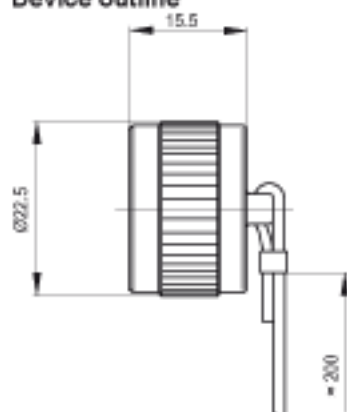
Gasket NF Z1
Sealing ring NF Z2

*1 See also ordering information on page 6

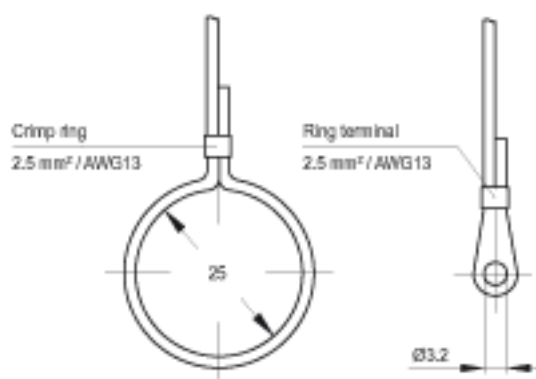
Protection cap VG96934 Z3

Series NF07 /S

Device outline



Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z3

Protection cap
VG96934 Z3

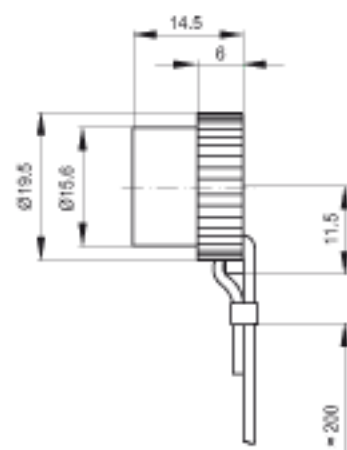
*1 See also ordering information on page 6

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

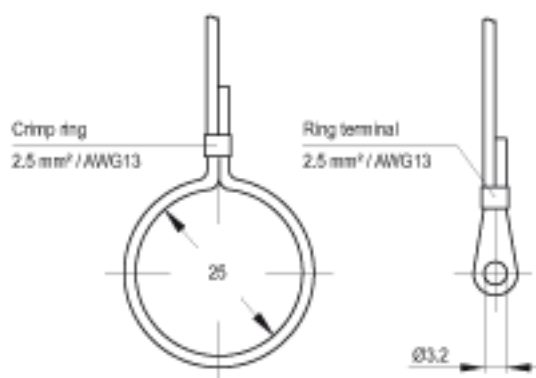
Protection cap VG96934 Z4 (rubber)

Series NF07 /S

Device outline



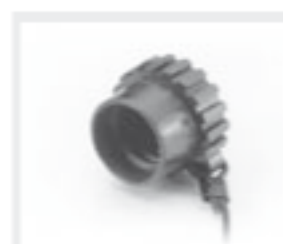
Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z3

Protection cap
VG96934 Z4

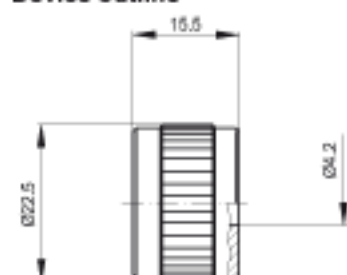
*1 See also ordering information on page 6

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*1:

VG96934 Z4

Dummy receptacle
VG96934 Z6

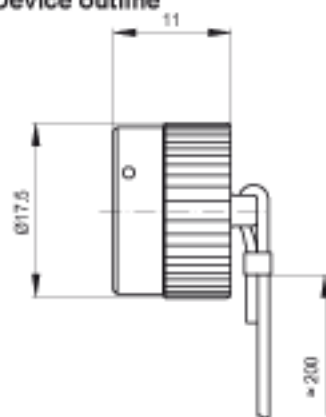
*1 See also ordering information on page 6

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

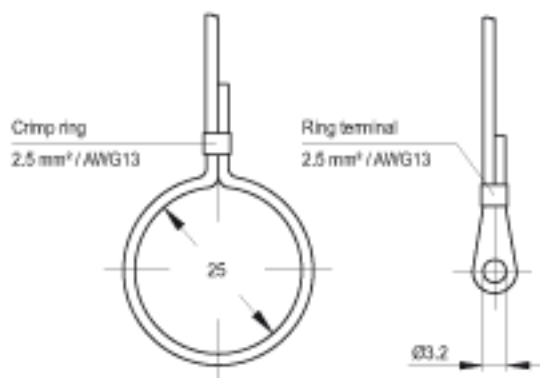
Protection cap for polarization NF07 Z7/x

Series NF07 /S

Device outline



Ordering code



Accessories/Protection cap

Example*1:

NF07 Z7 / 1



| | |
|---|---|
| 1 | ↑ |
| 2 | ↑ |
| 3 | ↓ |
| 4 | ↓ |
| 5 | ↓ |

Protection cap
NF07 Z7

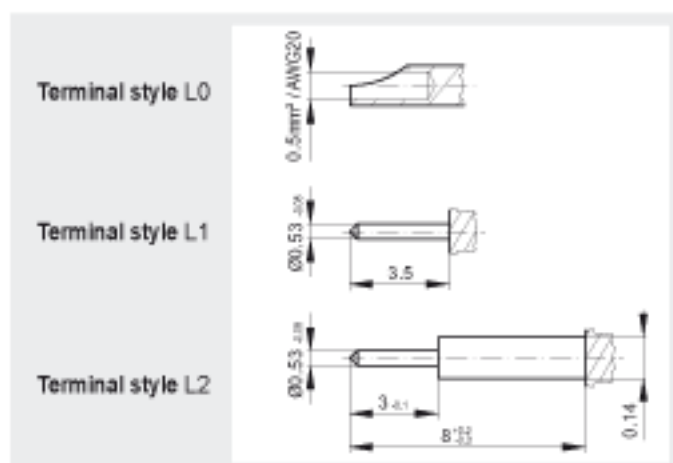
*1 See also ordering information on page 6

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

Terminal styles, Mounting tool VG96934 Z10

Series NF07 /S

Terminal styles



Note: Terminals must not be subjected to force or stress

Mounting tool VG96934 Z10

Mounting tool for jam nut plugs and receptacles Series:

- NF07
- NF07 /S
- NF10

Accessories

Ordering code:

VG96934 Z10



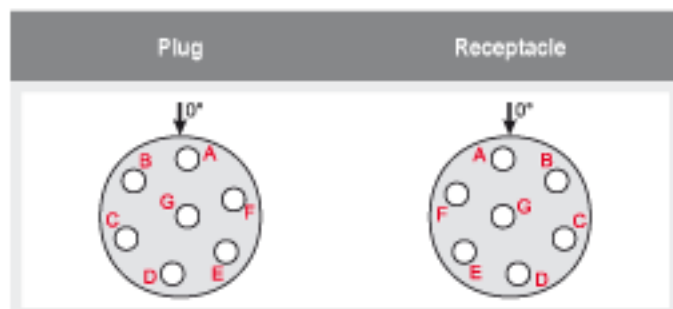
Mounting tool
VG96934 Z10

Note: Torque 8[±] Nm max.

Contact arrangement, Polarization

Series NF07 /S

Contact arrangement



Note: Planforms seen from connector face

Polarization

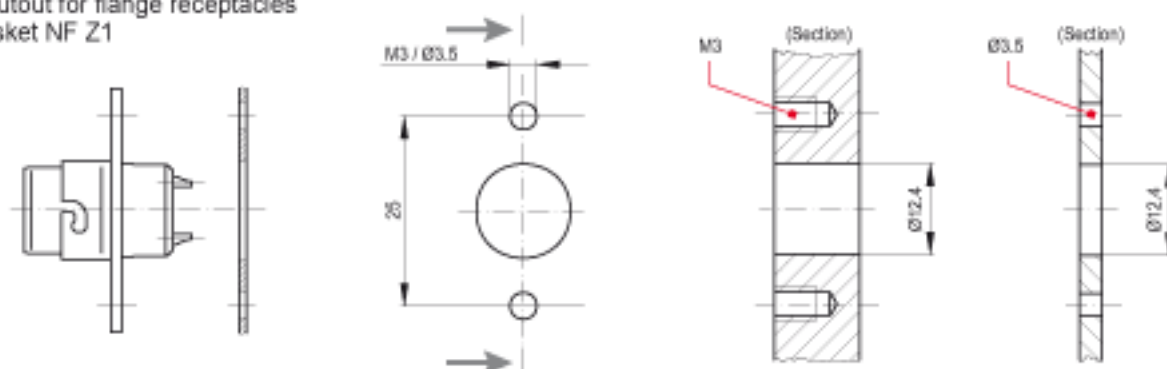
| Bayonet latch positions | Polarization Series NF07 | | | |
|-------------------------|--------------------------|------|------|--------|
| | Orientation | α1 | α2 | Colour |
| | 1 | 90° | 120° | red |
| | 2 | 105° | 130° | yellow |
| | 3 | 110° | 135° | green |
| | 4 | 100° | 165° | pink |
| --- |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

Mounting borings

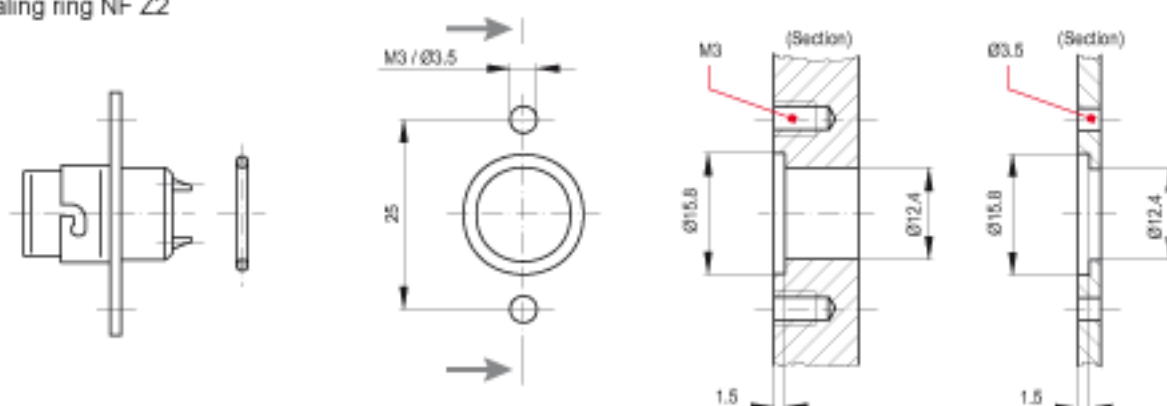
Series NF07 /S

Flange receptacles

- Panel cutout for flange receptacles with gasket NF Z1

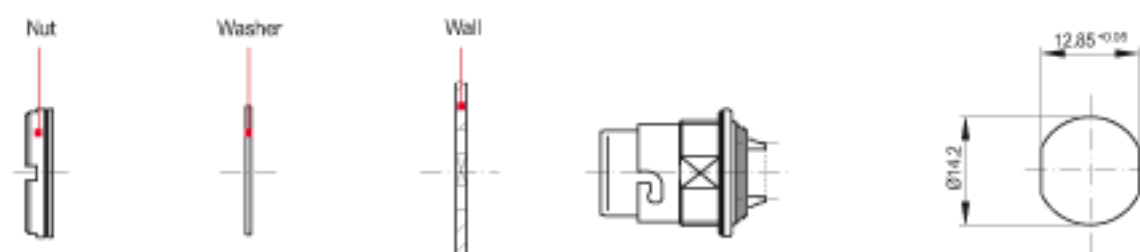


- Panel cutout for flange receptacles with sealing ring NF Z2



Jam nut receptacles

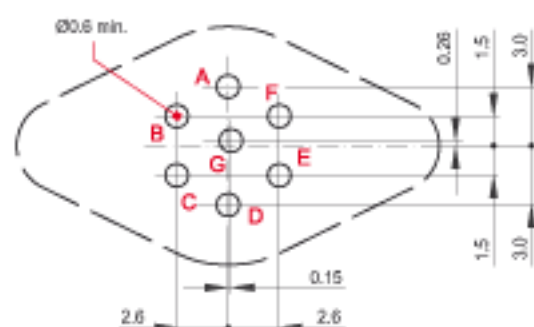
- Panel cutout for jam nut receptacles



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

PCB terminal

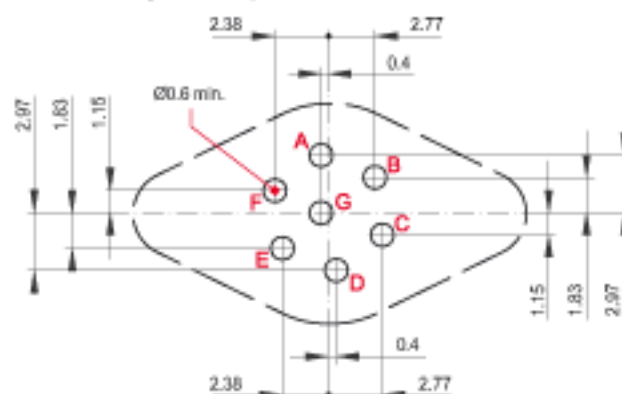
- Panel drilling for plugs



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

Reduced scale diagrams / dimensions in mm

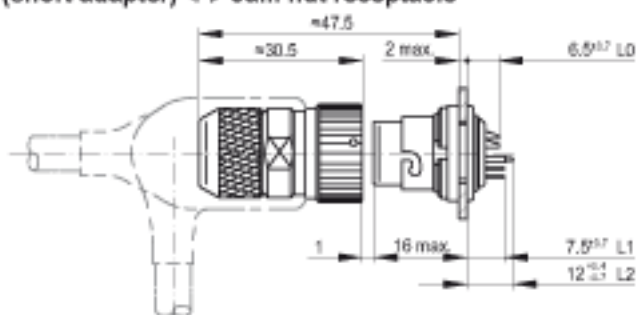
- Panel drilling for receptacles



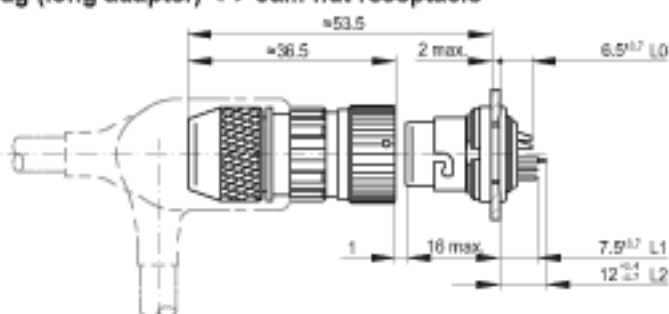
Assembly and installation dimensions

Series NF07 /S

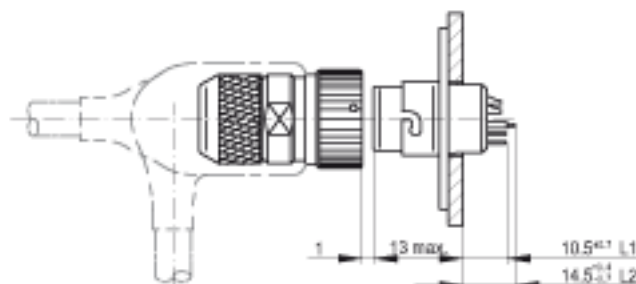
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



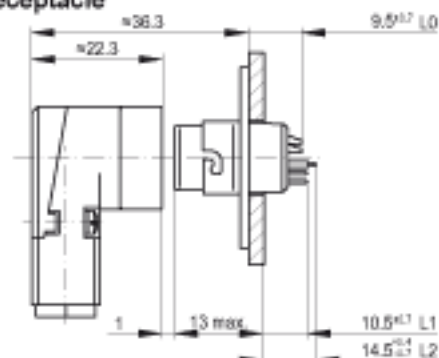
- Cable connecting plug (long adapter) ↔ Jam nut receptacle



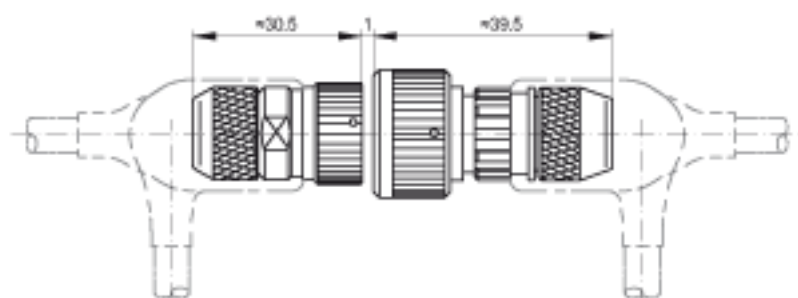
- Cable connecting plug (short adapter) ↔ Flange receptacle



- 90° Cable connecting plug ↔ Flange receptacle



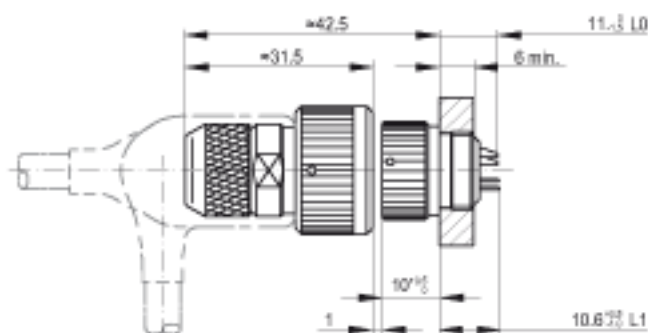
- Cable connecting plug (short adapter) ↔ Reinforced cable connecting receptacle (long adapter)



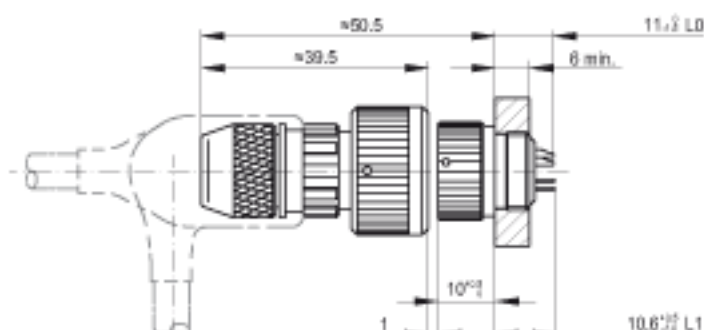
Assembly and installation dimensions

Series NF07 /S

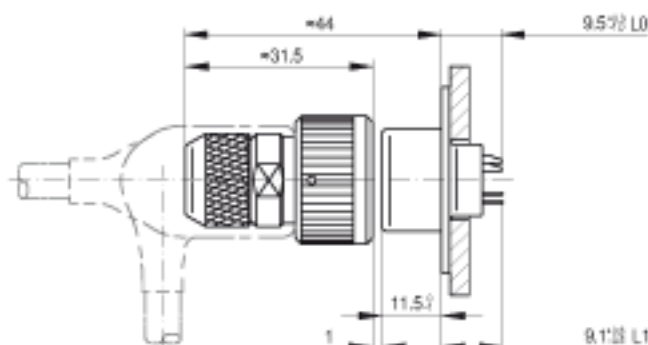
- Reinforced cable connecting receptacle (short adapter) ↔ Jam nut plug



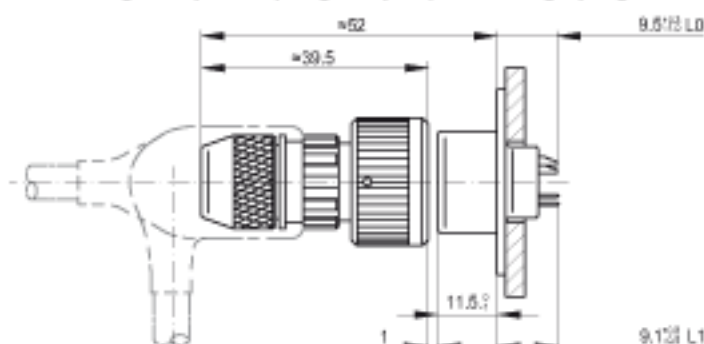
- Reinforced cable connecting receptacle (long adapter) ↔ Jam nut plug



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



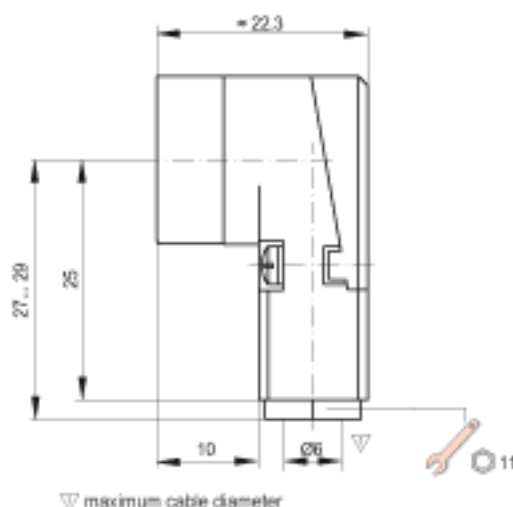
- Reinforced cable connecting receptacle (long adapter) ↔ Flange plug



90° Cable connecting plug

Series NF10

Device outline



Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-----|--|
| NF | 10 | A | 1 | L0 | A17 | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | A | 1 | L0 | A17 | |
| | | A | 2 | L0 | A17 | |
| NF | 10 | A | 3 | L0 | A17 | |
| | | A | 4 | L0 | A17 | |
| | | A | 5 | L0 | A17 | |



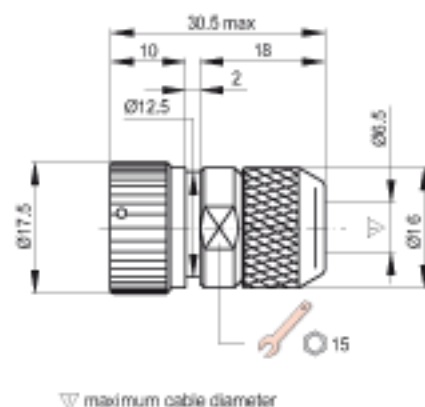
*1 See also ordering information on page 6

Note: Terminal styles on page 32

Cable connecting plug (short adapter)

Series NF10

Device outline



Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-------|--|
| NF | 10 | A | 1 | L0 | ...*2 | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | A | 1 | L0 | ...*2 | |
| | | A | 2 | L0 | ...*2 | |
| NF | 10 | A | 3 | L0 | ...*2 | |
| | | A | 4 | L0 | ...*2 | |
| | | A | 5 | L0 | ...*2 | |



*1 See also ordering information on page 6

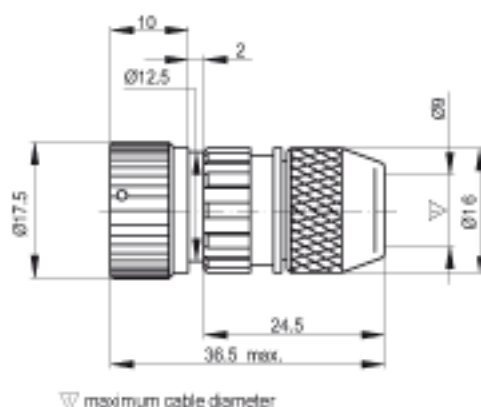
*2 Customized designs upon request

Note: Terminal styles on page 32
Crimp ring eyelet and strain relief split pin included in delivery

Cable connecting plug (long adapter)

Series NF10

Device outline



Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|----|--|
| NF | 10 | A | 1 | L0 | A7 | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | A | 1 | L0 | A7 | |
| | | A | 2 | L0 | A7 | |
| NF | 10 | A | 3 | L0 | A7 | |
| | | A | 4 | L0 | A7 | |
| | | A | 5 | L0 | A7 | |



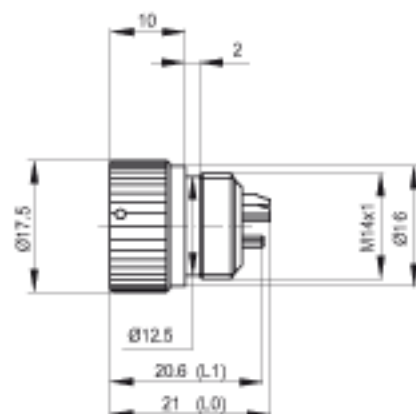
*1 See also ordering information on page 6

Note: Terminal styles on page 32
Crimp ring eyelet and strain relief split pin included in delivery

Jam nut plug

Series NF10

Device outline



Ordering code

Example*1:



| | | | | | | Shell part 1 |
|----|----|---|---|----|-----|--------------|
| NF | 10 | E | 1 | L0 | --- | *2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | E | 1 | L0 | --- | *2 |
| | | E | 2 | L0 | --- | *2 |
| NF | 10 | E | 3 | L0 | --- | *2 |
| | | E | 4 | L0 | --- | *2 |
| | | E | 5 | L0 | --- | *2 |
| | | E | 1 | L1 | --- | *2 |
| NF | 10 | E | 2 | L1 | --- | *2 |
| | | E | 3 | L1 | --- | *2 |
| | | E | 4 | L1 | --- | *2 |
| | | E | 5 | L1 | --- | *2 |

*1 See also ordering information on page 6

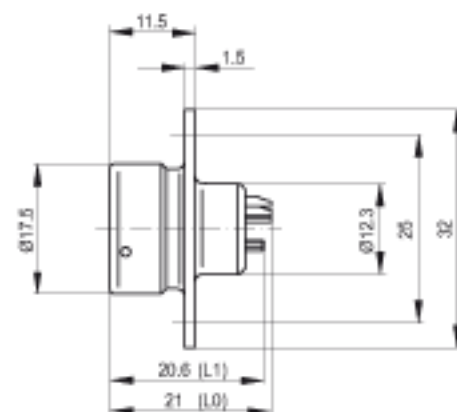
*2 Customized designs upon request

Note: Terminal styles on page 32

Flange plug

Series NF10

Device outline



Ordering code

Example*1:



| | | | | | | Shell part 1 |
|----|----|---|---|----|-----|--------------|
| NF | 10 | F | 1 | L0 | --- | *2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | F | 1 | L0 | --- | *2 |
| | | F | 2 | L0 | --- | *2 |
| NF | 10 | F | 3 | L0 | --- | *2 |
| | | F | 4 | L0 | --- | *2 |
| | | F | 5 | L0 | --- | *2 |
| | | F | 1 | L1 | --- | *2 |
| NF | 10 | F | 2 | L1 | --- | *2 |
| | | F | 3 | L1 | --- | *2 |
| | | F | 4 | L1 | --- | *2 |
| | | F | 5 | L1 | --- | *2 |

*1 See also ordering information on page 6

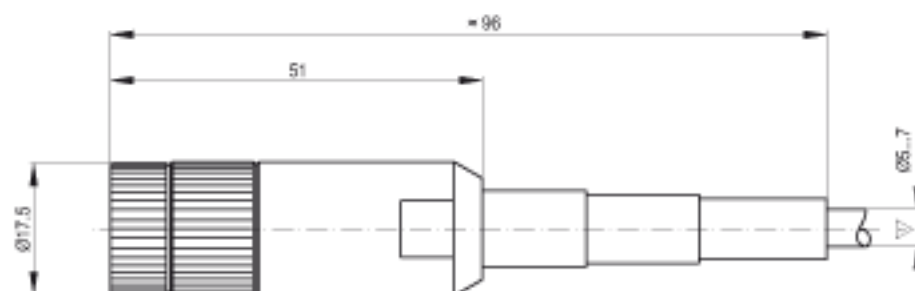
*2 Customized designs upon request

Note: Terminal styles on page 32

Cable connecting plug (rubber sleeve)

Series NF10

Device outline



Ordering code

Example*1:

| | | | | | | Shell part 1 |
|----|----|---|---|----|----|--------------|
| NF | 10 | A | 1 | L0 | A5 | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | A | 1 | L0 | A5 | |
| | | A | 2 | L0 | A5 | |
| NF | 10 | A | 3 | L0 | A5 | |
| | | A | 4 | L0 | A5 | |
| | | A | 5 | L0 | A5 | |

*1 See also ordering information on page 6

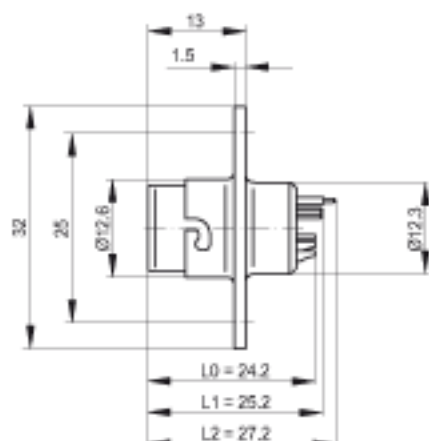
▽ cable diameter

Note: Terminal styles on page 32

Flange receptacle

Series NF10

Device outline



Note: Terminal styles on page 32

Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-----|----|
| NF | 10 | B | 1 | L0 | --- | *2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| NF | 10 | B | 1 | L0 | --- | *2 |
| | | B | 2 | L0 | --- | *2 |
| | | B | 3 | L0 | --- | *2 |
| | | B | 4 | L0 | --- | *2 |
| | | B | 5 | L0 | --- | *2 |
| NF | 10 | B | 1 | L1 | --- | *2 |
| | | B | 2 | L1 | --- | *2 |
| | | B | 3 | L1 | --- | *2 |
| | | B | 4 | L1 | --- | *2 |
| | | B | 5 | L1 | --- | *2 |
| NF | 10 | B | 1 | L2 | --- | *2 |
| | | B | 2 | L2 | --- | *2 |
| | | B | 3 | L2 | --- | *2 |
| | | B | 4 | L2 | --- | *2 |
| | | B | 5 | L2 | --- | *2 |

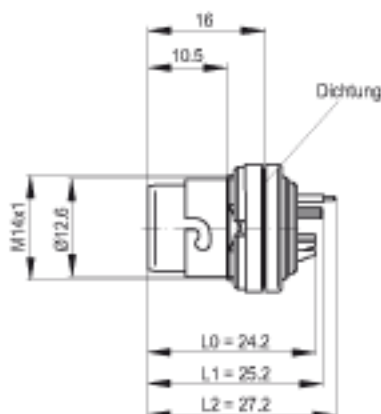
*1 See also ordering information on page 6

*2 Customized designs upon request

Jam nut receptacle

Series NF10

Device outline



Note: Terminal styles on page 32

Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-----|----|
| NF | 10 | C | 1 | L0 | --- | *2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| NF | 10 | C | 1 | L0 | --- | *2 |
| | | C | 2 | L0 | --- | *2 |
| | | C | 3 | L0 | --- | *2 |
| | | C | 4 | L0 | --- | *2 |
| | | C | 5 | L0 | --- | *2 |
| NF | 10 | C | 1 | L1 | --- | *2 |
| | | C | 2 | L1 | --- | *2 |
| | | C | 3 | L1 | --- | *2 |
| | | C | 4 | L1 | --- | *2 |
| | | C | 5 | L1 | --- | *2 |
| NF | 10 | C | 1 | L2 | --- | *2 |
| | | C | 2 | L2 | --- | *2 |
| | | C | 3 | L2 | --- | *2 |
| | | C | 4 | L2 | --- | *2 |
| | | C | 5 | L2 | --- | *2 |

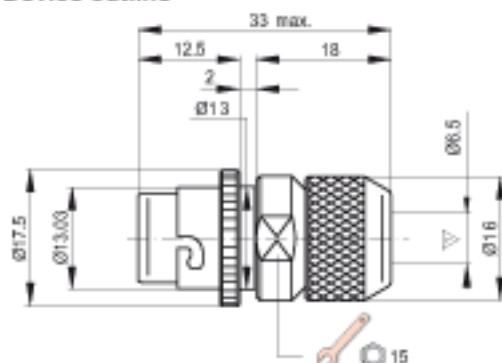
*1 See also ordering information on page 6

*2 Customized designs upon request

Cable connecting receptacle (short adapter)

Series NF10

Device outline



▽ maximum cable diameter

Ordering code

Example*1:



| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-----|----|
| NF | 10 | D | 1 | L0 | --- | *2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| NF | 10 | D | 1 | L0 | --- | *2 |
| | | D | 2 | L0 | --- | *2 |
| | | D | 3 | L0 | --- | *2 |
| | | D | 4 | L0 | --- | *2 |
| | | D | 5 | L0 | --- | *2 |

*1 See also ordering information on page 6

*2 Customized designs upon request

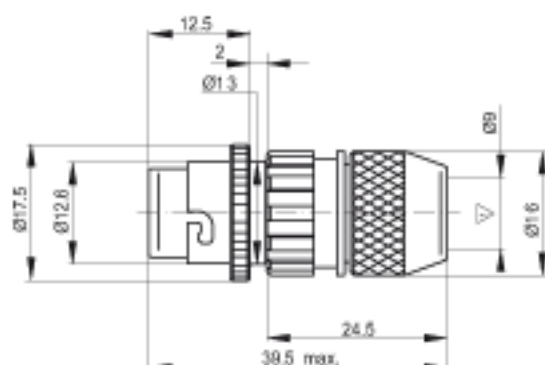
Note: Terminal styles on page 32

Crimp ring eyelet and strain relief split pin included in delivery

Cable connecting receptacle (long adapter)

Series NF10

Device outline



▽ maximum cable diameter

Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|----|--|
| NF | 10 | D | 1 | L0 | D7 | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | D | 1 | L0 | D7 | |
| | | D | 2 | L0 | D7 | |
| NF | 10 | D | 3 | L0 | D7 | |
| | | D | 4 | L0 | D7 | |
| | | D | 5 | L0 | D7 | |



*1 See also ordering information on page 6

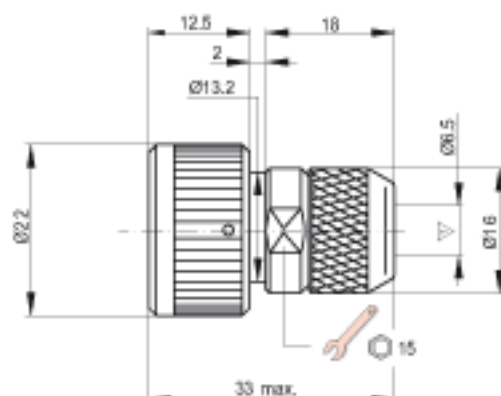
Note: Terminal styles on page 32

Crimp ring eyelet and strain relief split pin included in delivery

Reinforced cable connecting receptacle (short adapter)

Series NF10

Device outline



▽ maximum cable diameter

Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-------|--|
| NF | 10 | N | 1 | L0 | ...*2 | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | N | 1 | L0 | ...*2 | |
| | | N | 2 | L0 | ...*2 | |
| NF | 10 | N | 3 | L0 | ...*2 | |
| | | N | 4 | L0 | ...*2 | |
| | | N | 5 | L0 | ...*2 | |



*1 See also ordering information on page 6

*2 Customized designs upon request

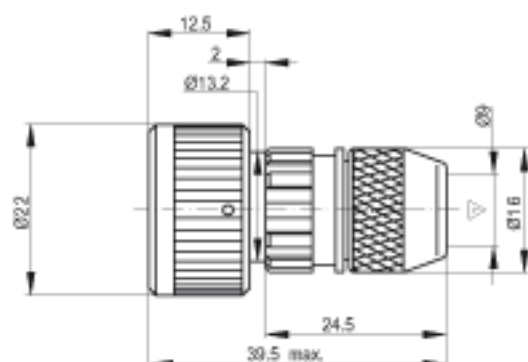
Note: Terminal styles on page 32

Crimp ring eyelet and strain relief split pin included in delivery

Reinforced cable connecting receptacle (long adapter)

Series NF10

Device outline



▽ maximum cable diameter

Ordering code

Example*1:

| | | Shell part 1 | | | | |
|----|----|--------------|---|----|-------|--|
| NF | 10 | K | 1 | L0 | ...*2 | |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| | | K | 1 | L0 | ...*2 | |
| | | K | 2 | L0 | ...*2 | |
| NF | 10 | K | 3 | L0 | ...*2 | |
| | | K | 4 | L0 | ...*2 | |
| | | K | 5 | L0 | ...*2 | |



*1 See also ordering information on page 6







*2 Customized designs upon request

Note: Terminal styles on page 32

Crimp ring eyelet and strain relief split pin included in delivery

Technical Data

Series NF

| Series | NF07 | NF07 /S | NF10 |
|---|---|--|--|
| Number of contacts | 7 | 7 | 10 |
| Contact arrangement Plug: Rear view Receptacle: Front view |  |  |  |
| Contact identification Plug: Rear view Receptacle: Front view |  |  |  |
| Rated voltage | 50 V | 50 V | 50 V |
| Connector orientations | 3 | 4 | 5 |
| Rated current: I min. I max. | 6 μ A 2.5 A *1 | 6 μ A 2.5 A *1 | 6 μ A 2.5 A *1 |
| Contact resistance | approx. 5 m Ω *2 | approx. 5 m Ω *2 | approx. 5 m Ω *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 | $\geq 5 \times 10$ M Ω | $\geq 5 \times 10$ M Ω | $\geq 5 \times 10$ M Ω |
| Test voltage | 500 V _{rms} 50 Hz | 500 V _{rms} 50 Hz | 500 V _{rms} 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*2 Black Stainless steel Cr 3*2 Black | Aluminium alloy / Stainless steel Ni 3*2Cd 6*2 cF / Cr 3*2 Olive (RAL6015) / Black Stainless, antimagnetic steel Cr 3*2 Black | Aluminium alloy / Stainless steel Ni 3*2Cd 6*2 cF / Cr 3*2 Olive (RAL6015) / Black Stainless, antimagnetic steel Cr 3*2 Black |
| Contact inserts | Thermoplastic / Duroplast | Thermoplastic / Duroplast | Thermoplastic / Duroplast |
| Sealing elements | Silicone elastomer / Fluor-silicone elastomer | Silicone elastomer / Fluor-silicone elastomer | Silicone elastomer / Fluor-silicone elastomer |
| Contact type: Plug Receptacle Material: Crimp-type copper wrought alloy Finish: Layer in micrometer | 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 |

SCHALTBAU

*1 for any two contacts

*2 required: ≤ 20 m Ω (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:**
VG 95351 meets requirements regarding test and approval.
- **7-pole connector, suitable for shielding:**
Test according to VG 96934

Series NF10:

- **10-pole connector, suitable for shielding:**
VG 96934 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.

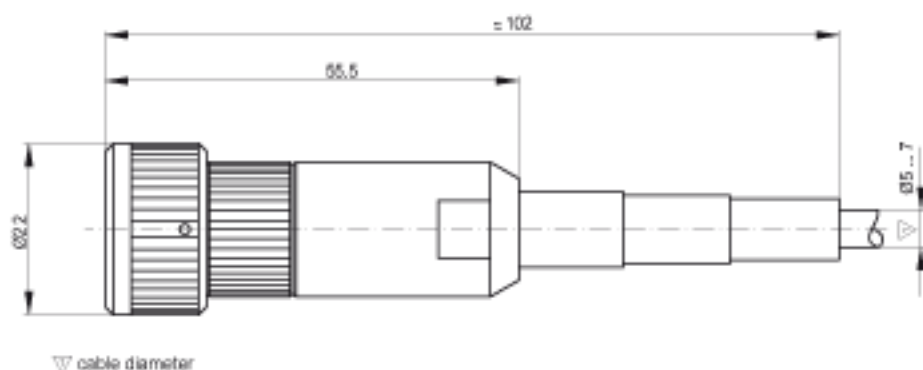
Reinforced cable connecting receptacle (rubber sleeve)

Series NF10

Device outline

Ordering code

Shell part 1



Example*1:

| | | | | | |
|----|----|---|---|----|-------------------|
| 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} |

*1 See also ordering information on page 6
*2 Customized designs upon request

Note: Terminal styles on page 32

Heatshrink boots

Series NF10

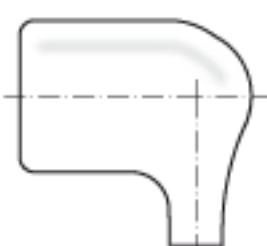
Device outline

Ordering code

Accessories / Shell part 2

Heatshrink boot, straight

Heatshrink boot, 90°



Example*1:

203W 112-30

| | |
|---------------------------|------------|
| Heatshrink boot, straight | 203W112-30 |
| Heatshrink boot, 90° | 224K012-30 |

*1 See also ordering information on page 6

Sealings NF Z1 and NF Z2

Series NF10

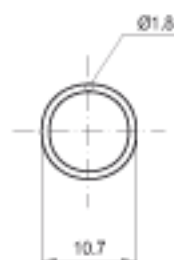
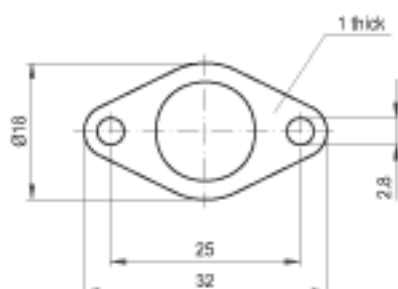
Device outline

Ordering code

Accessories / Shell part 2

Gasket NF Z1
(Flange seal)

Sealing ring NF Z2
(O-ring)



Example*1:

NF Z1

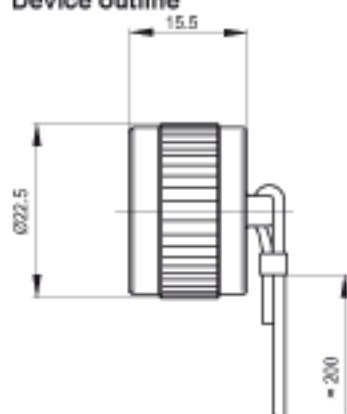
| | |
|--------------------|--|
| Gasket NF Z1 | |
| Sealing ring NF Z2 | |

*1 See also ordering information on page 6

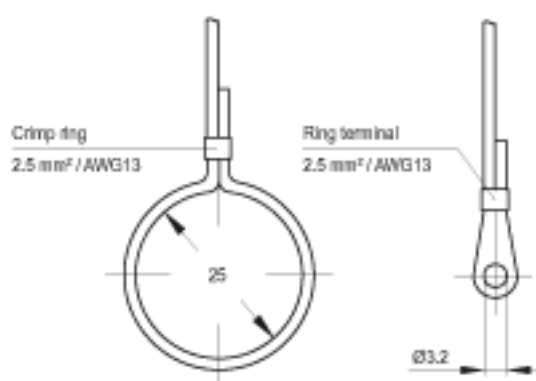
Protection cap VG96934 Z3

Series NF10

Device outline



Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z3

Protection cap
VG96934 Z3

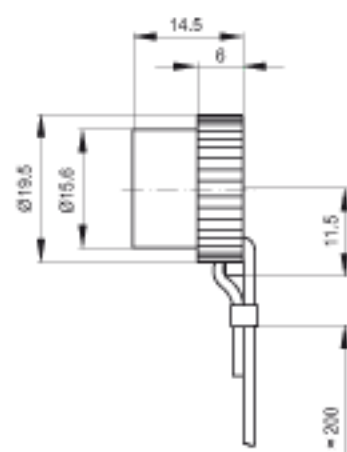
*1 See also ordering information on page 6

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

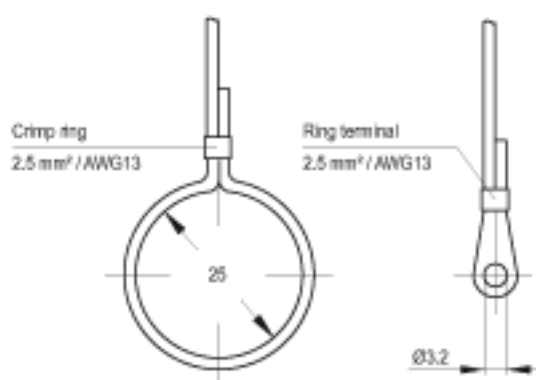
Protection cap VG96934 Z4 (rubber)

Series NF10

Device outline



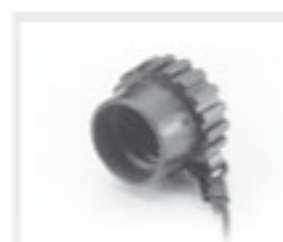
Ordering code



Accessories/Protection cap

Example*1:

VG96934 Z4

Protection cap
VG96934 Z4

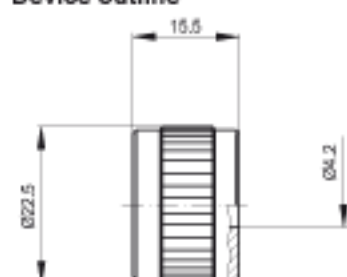
*1 See also ordering information on page 6

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*1:

VG96934 Z6

Dummy receptacle
VG96934 Z6

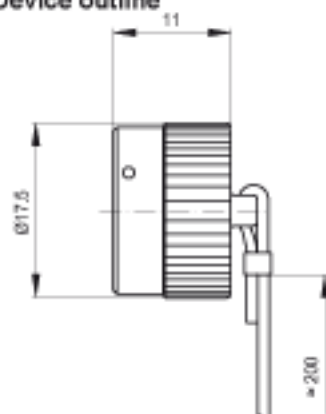
*1 See also ordering information on page 6

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

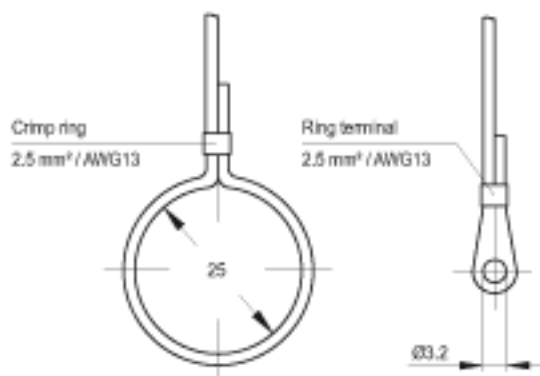
Protection cap for polarization NF10 Z8/x

Series NF10

Device outline



Ordering code



Accessories/Protection cap

Example*1:

NF10 Z8 / 1



| | |
|----------------|---|
| 1 | 2 |
| 1 | 2 |
| Protection cap | 3 |
| NF10 Z8 | 4 |
| | 5 |

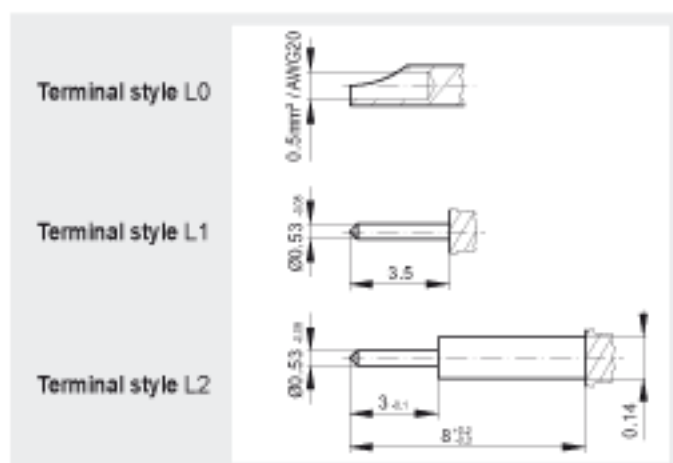
*1 See also ordering information on page 6

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

Terminal styles, Mounting tool VG96934 Z10

Series NF10

Terminal styles



Note: Terminals must not be subjected to force or stress

Mounting tool VG96934 Z10

Mounting tool for jam nut plugs and receptacles Series:

- NF07
- NF07 /S
- NF10

Ordering code:

VG96934 Z10



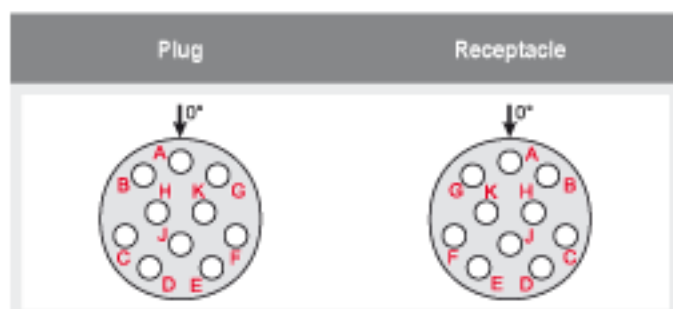
Mounting tool
VG96934 Z10

Note: Torque 8[±] Nm max.

Contact arrangement, Polarization

Series NF10

Contact arrangement



Note: Planforms seen from connector face

Polarization

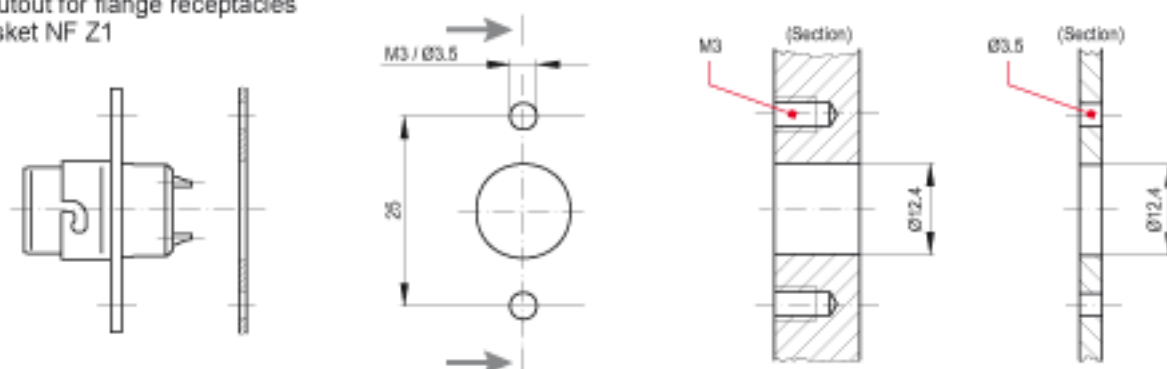
| Bayonet latch positions | Polarization Series NF10 | | |
|-------------------------|--------------------------|------|---------------|
| | Orientation | α1 | α2 |
| 1 | 95° | 140° | white |
| 2 | 85° | 115° | blue |
| 3 | 100° | 105° | violet |
| 4 | 110° | 120° | chrome yellow |
| 5 | 80° | 145° |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

Mounting borings

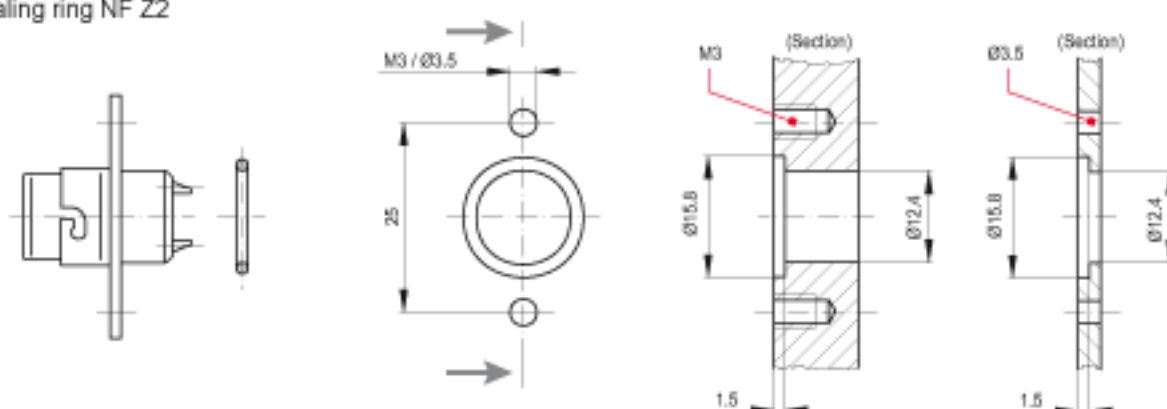
Series NF10

Flange receptacles

- Panel cutout for flange receptacles with gasket NF Z1

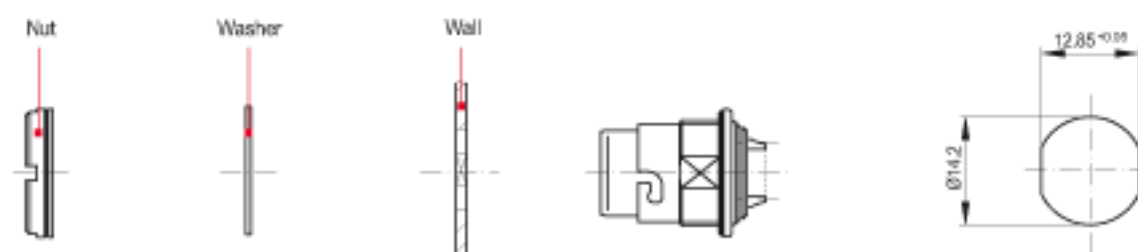


- Panel cutout for flange receptacles with sealing ring NF Z2



Jam nut receptacles

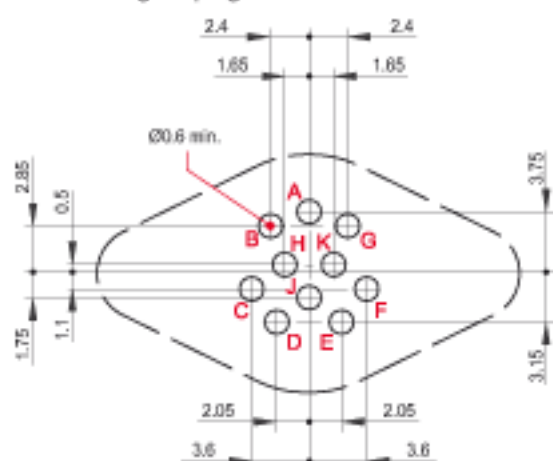
- Panel cutout for jam nut receptacles



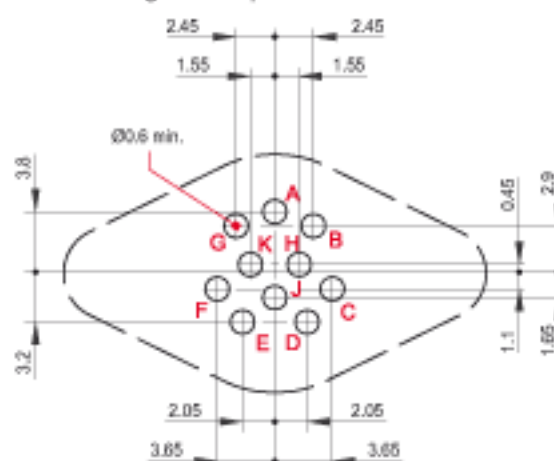
Note: Use mounting tool VG96934 Z10
Torque 2 Nm max.

PCB terminal

- Panel drilling for plugs



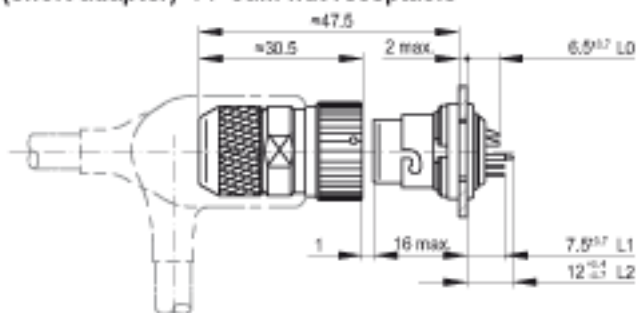
- Panel drilling for receptacles



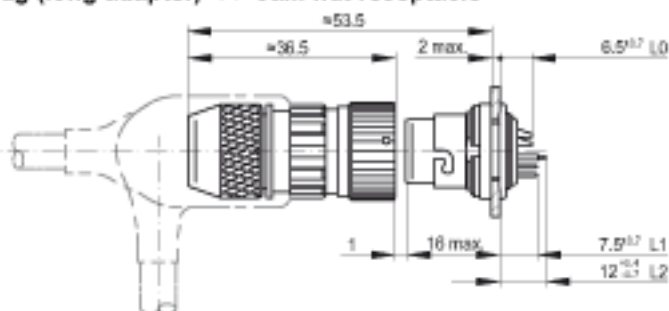
Assembly and installation dimensions

Series NF10

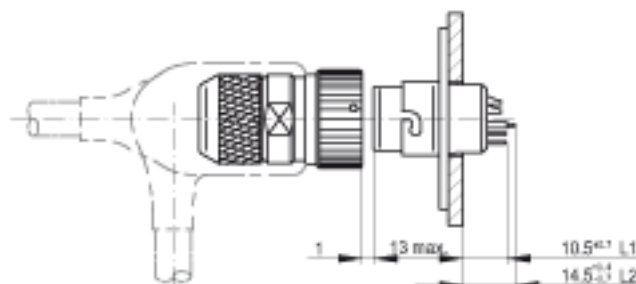
- Cable connecting plug (short adapter) ↔ Jam nut receptacle



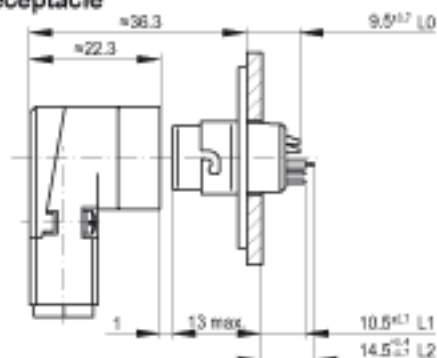
- Cable connecting plug (long adapter) ↔ Jam nut receptacle



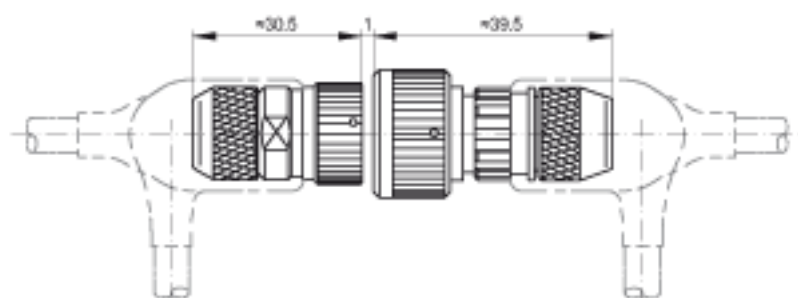
- Cable connecting plug (short adapter) ↔ Flange receptacle



- 90° Cable connecting plug ↔ Flange receptacle



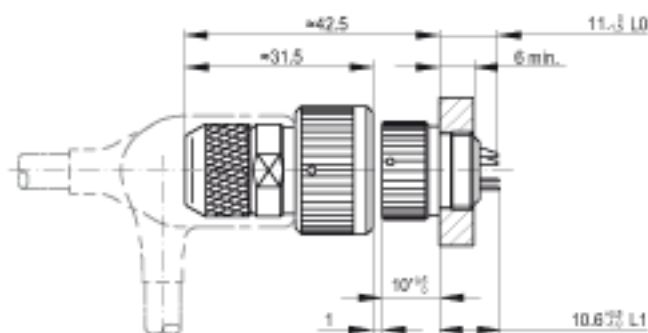
- Cable connecting plug (short adapter) ↔ Reinforced cable connecting receptacle (long adapter)



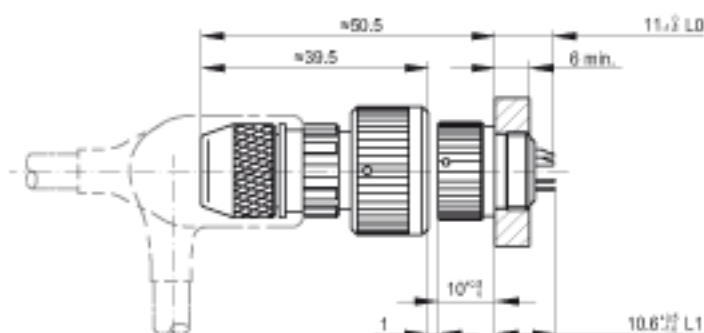
Assembly and installation dimensions

Series NF10

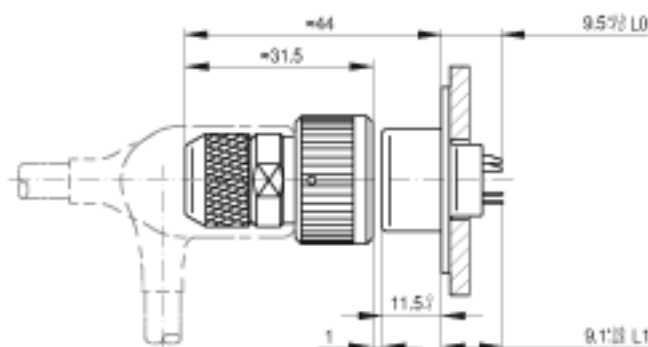
- Reinforced cable connecting receptacle (short adapter) ↔ Jam nut plug



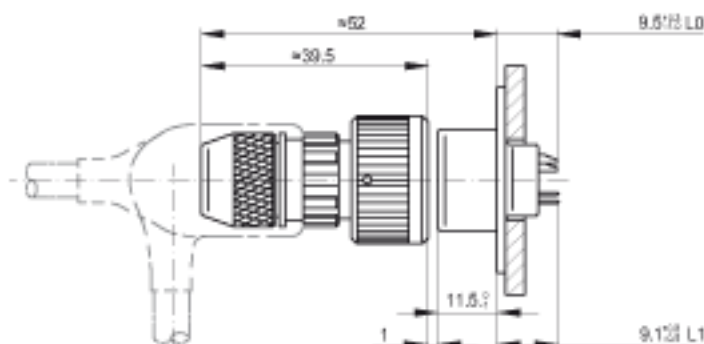
- Reinforced cable connecting receptacle (long adapter) ↔ Jam nut plug



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



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

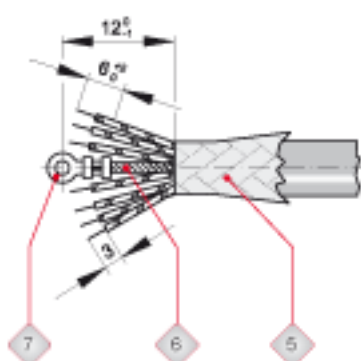
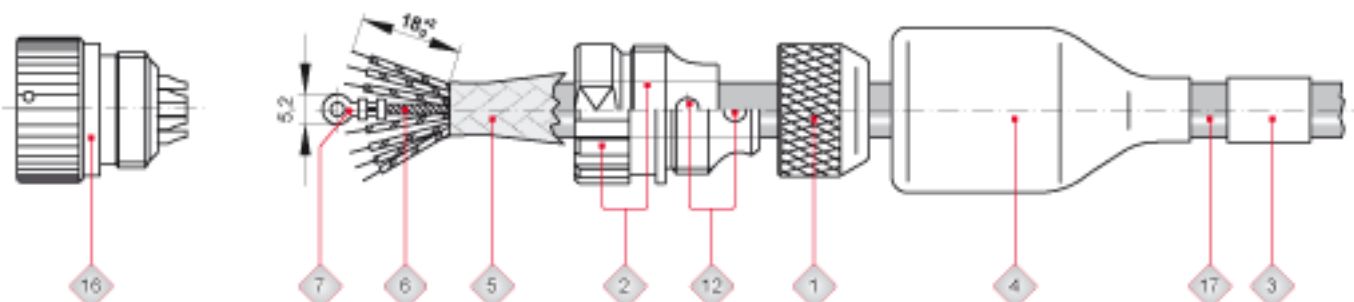


Cable assembly details

Series NF

Styles A, D, J, K and N with cable according to VG 95218-11.

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.

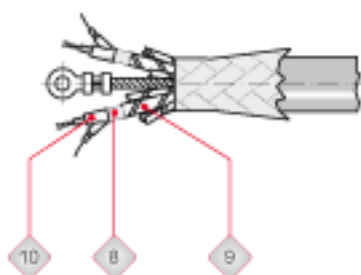
Remove jacket from cable end (17) approx. 18+2 mm with cable stripper.

Fold back screen meshing (5).

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

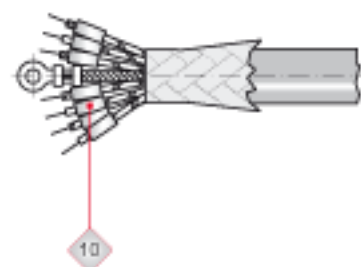
Strip approx. 3 mm and tin single wires. Use thermal stripping device.

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.

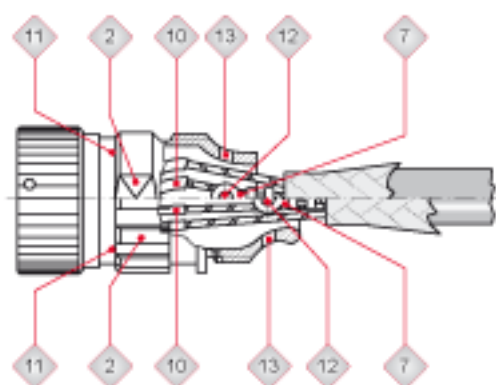
Solder single wires on the contacts with filament type extra thin tin solder L Sn60, diameter 1 mm with acid free flux core. Temperature stabilized soldering iron with a tip diameter of approx. 2 mm.

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

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

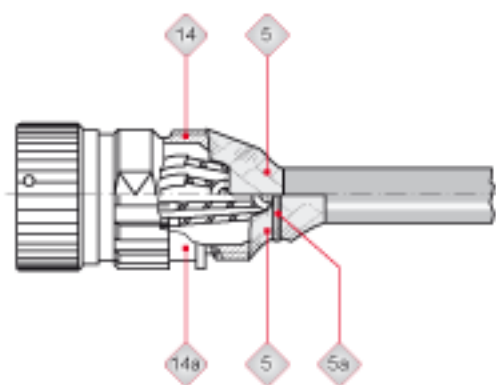
Apply on threads (11) of plug conductive adhesive (only on first thread) and screw on connector backshell (2).

Tighten securely with pliers covered with plastic or rubber.



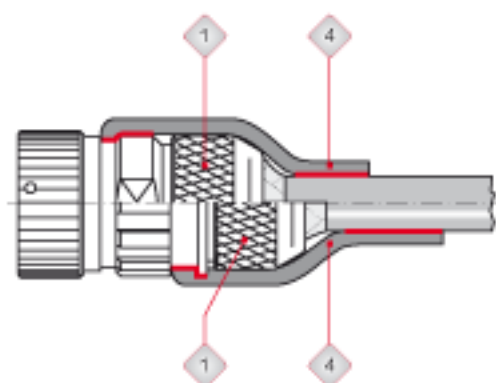
Slide cable in connector backshell (2) so that strain relief split pin (12) can be slid through bore holes (13) in connector backshell (2) and cable eye or ring eyelet (7).

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.

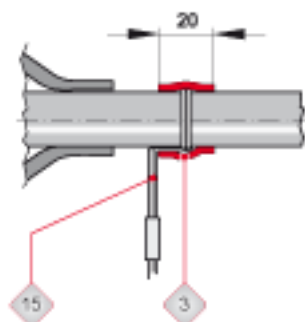
Note:

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 opposite 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.

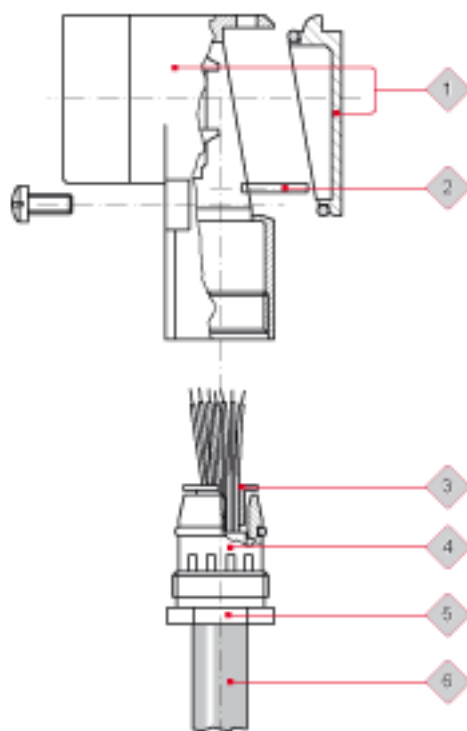
**Fitting of the protective cap to cable:**

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.

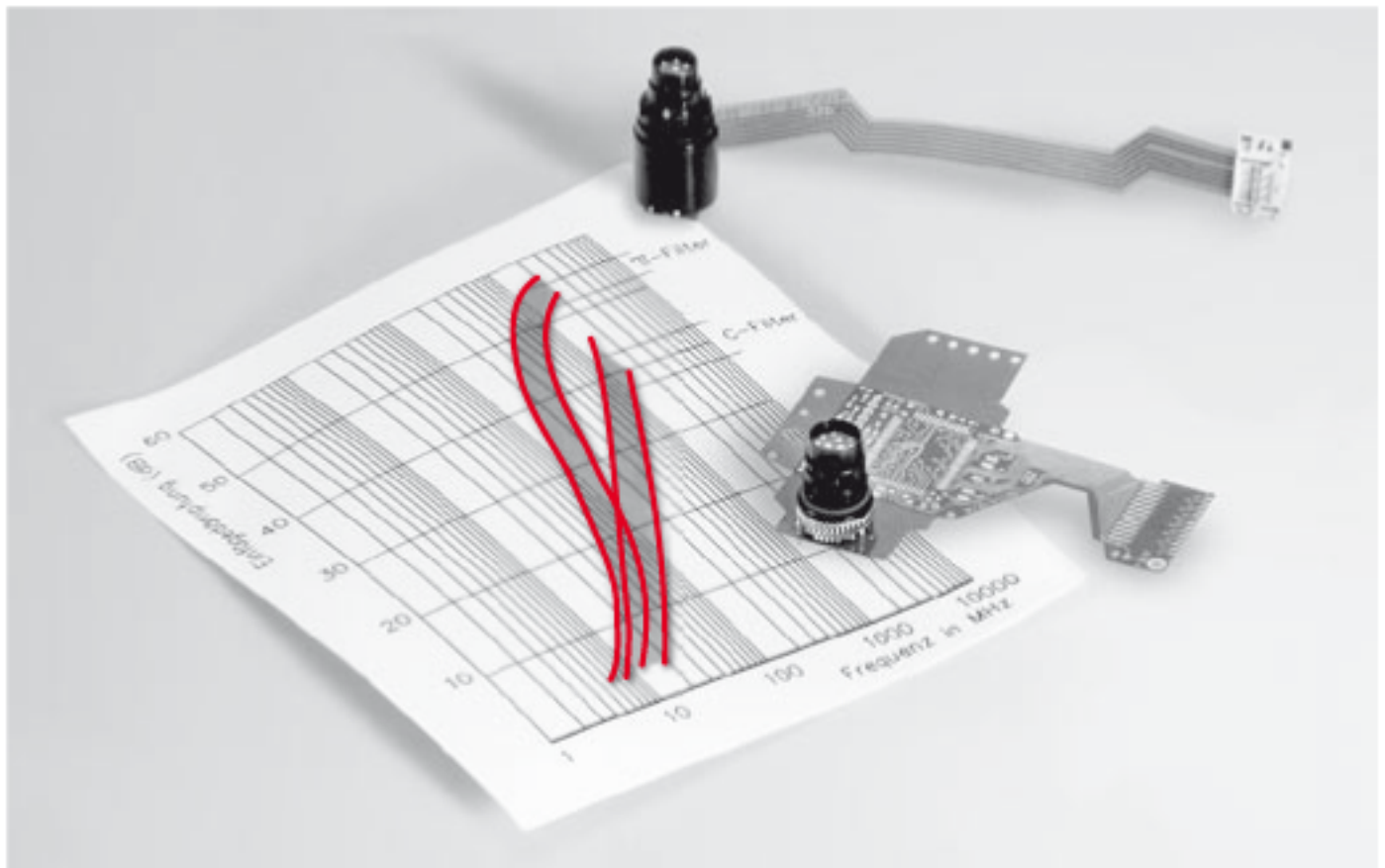
For further assembly steps (insulate, tin, solder and insulate single wires) and test please refer to prior chapter.

SF07 and SF10 Filtered connectors

Series SF07/10

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 recommend 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.

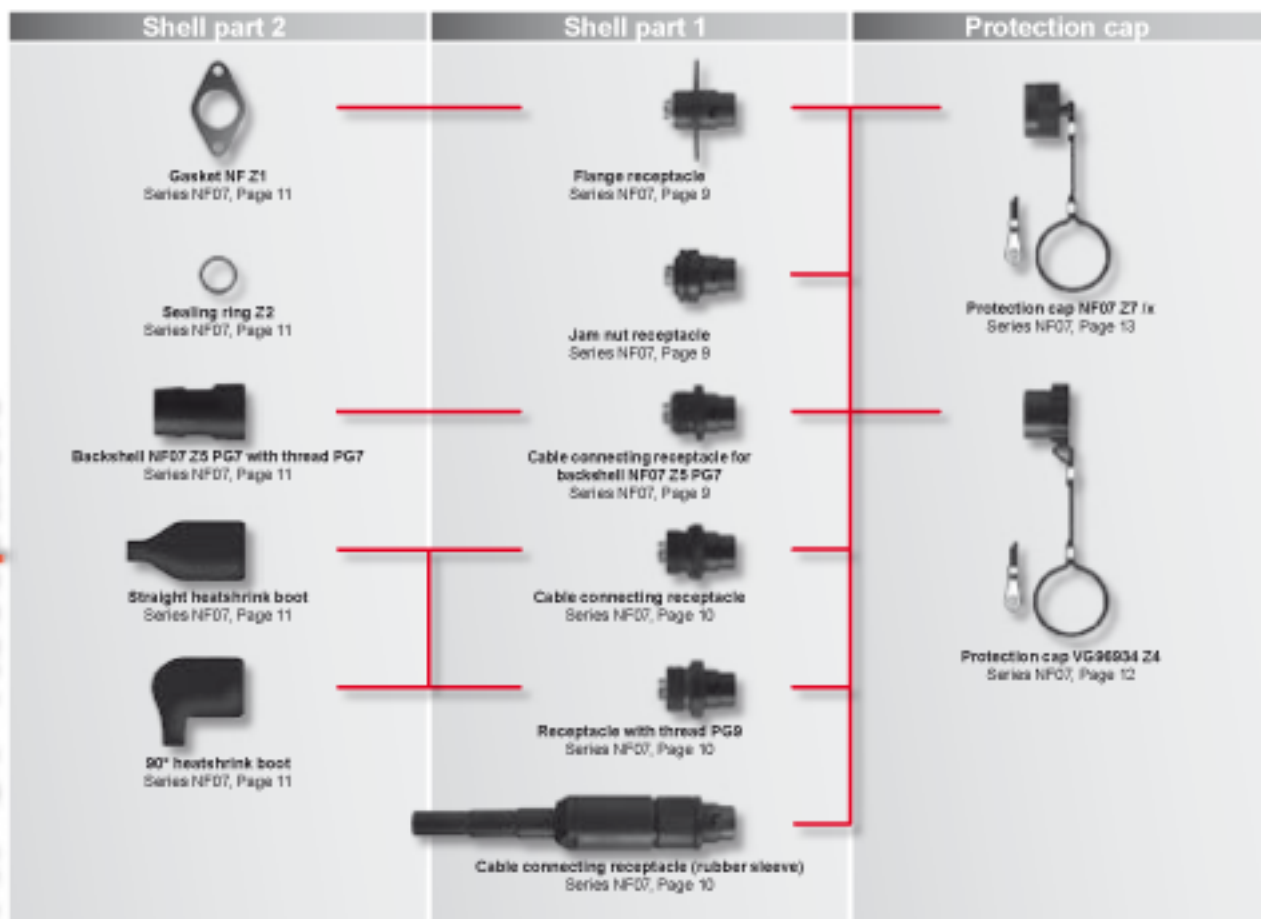
For this purpose the SF concept offers filter systems in

- **Planar technique:**
 - C-filter
- **Modular technique:**
 - C-filter
 - π -filter
- **Tubular technique:**
 - C-filter
 - π -filter
 - RFI-filter

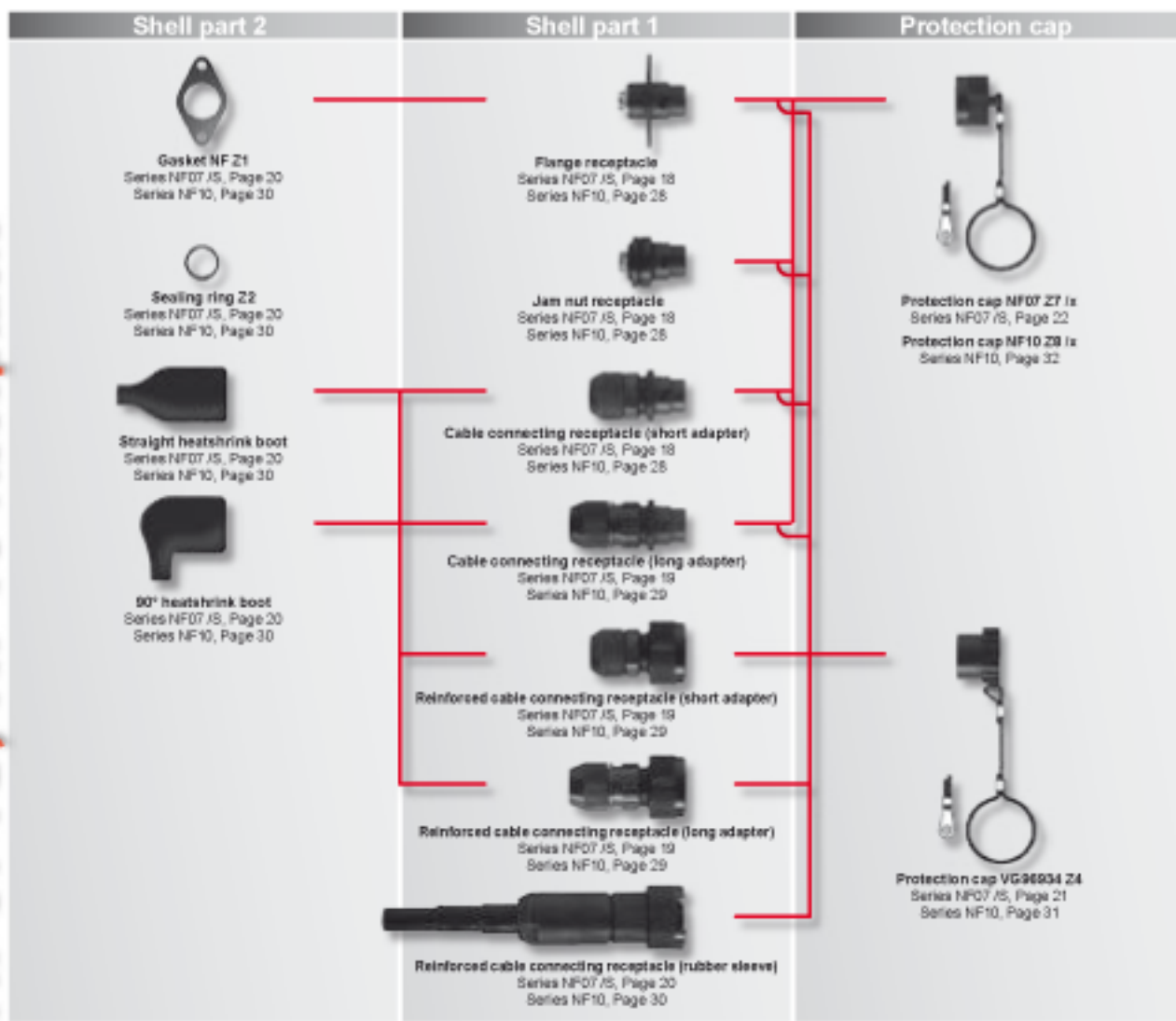
Please do not hesitate to request detailed information.



NF07 Receptacle



NF07 /S, NF10 Receptacle





Schaltbau GmbH has an environment management system that has been certified since 2002.



Schaltbau GmbH has a quality management system that has been certified since 1994.

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 stop switches
- Special contactors to suit customer requirements

Electrics for rolling stock

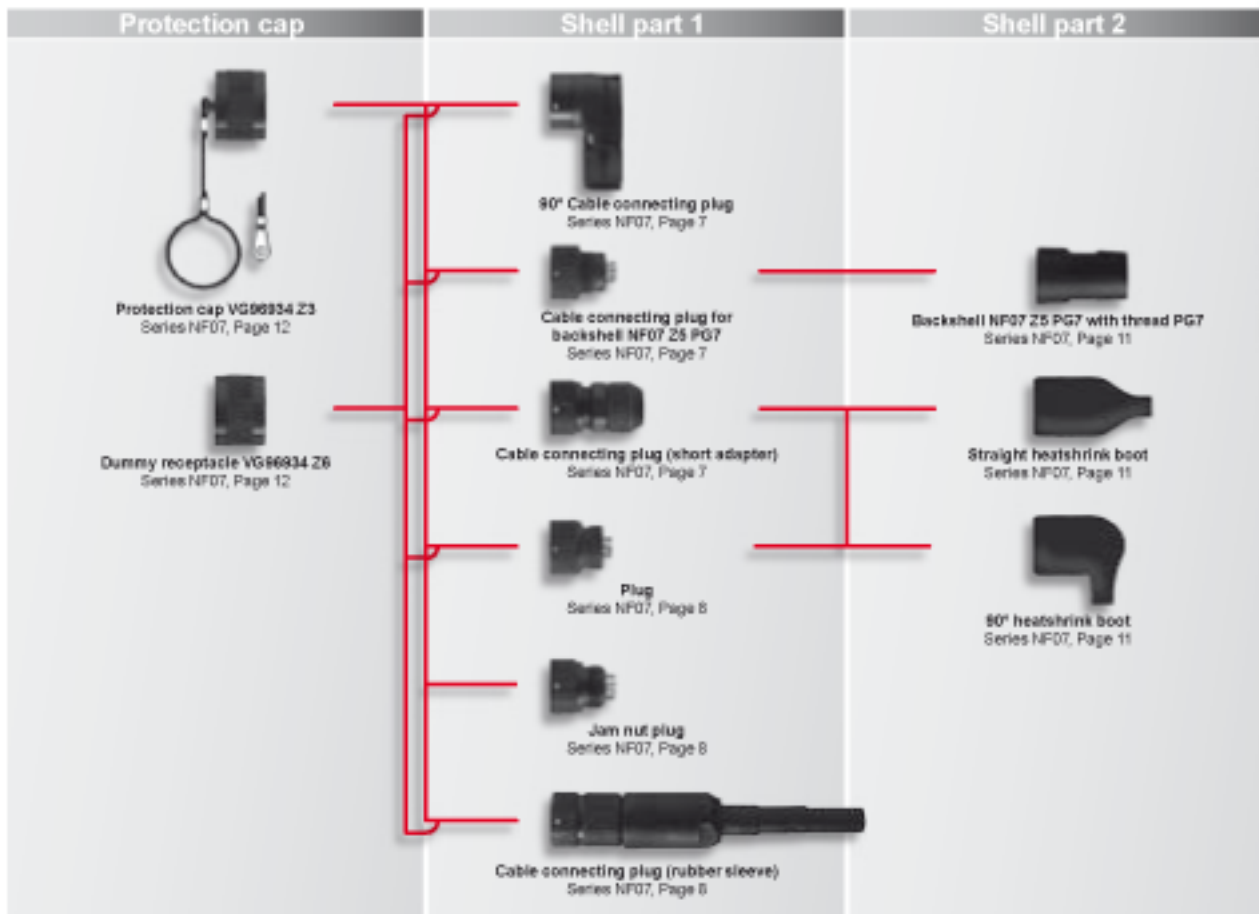
- Equipment for driver's cab
- Equipment for passenger use
- High-voltage switchgear
- High-voltage heaters
- High-voltage roof equipment
- Equipment for electric brakes
- Design and engineering of train electrics to customer requirements

Schaltbau GmbH

Klausenburger Strasse 6
81677 Munich
Germany

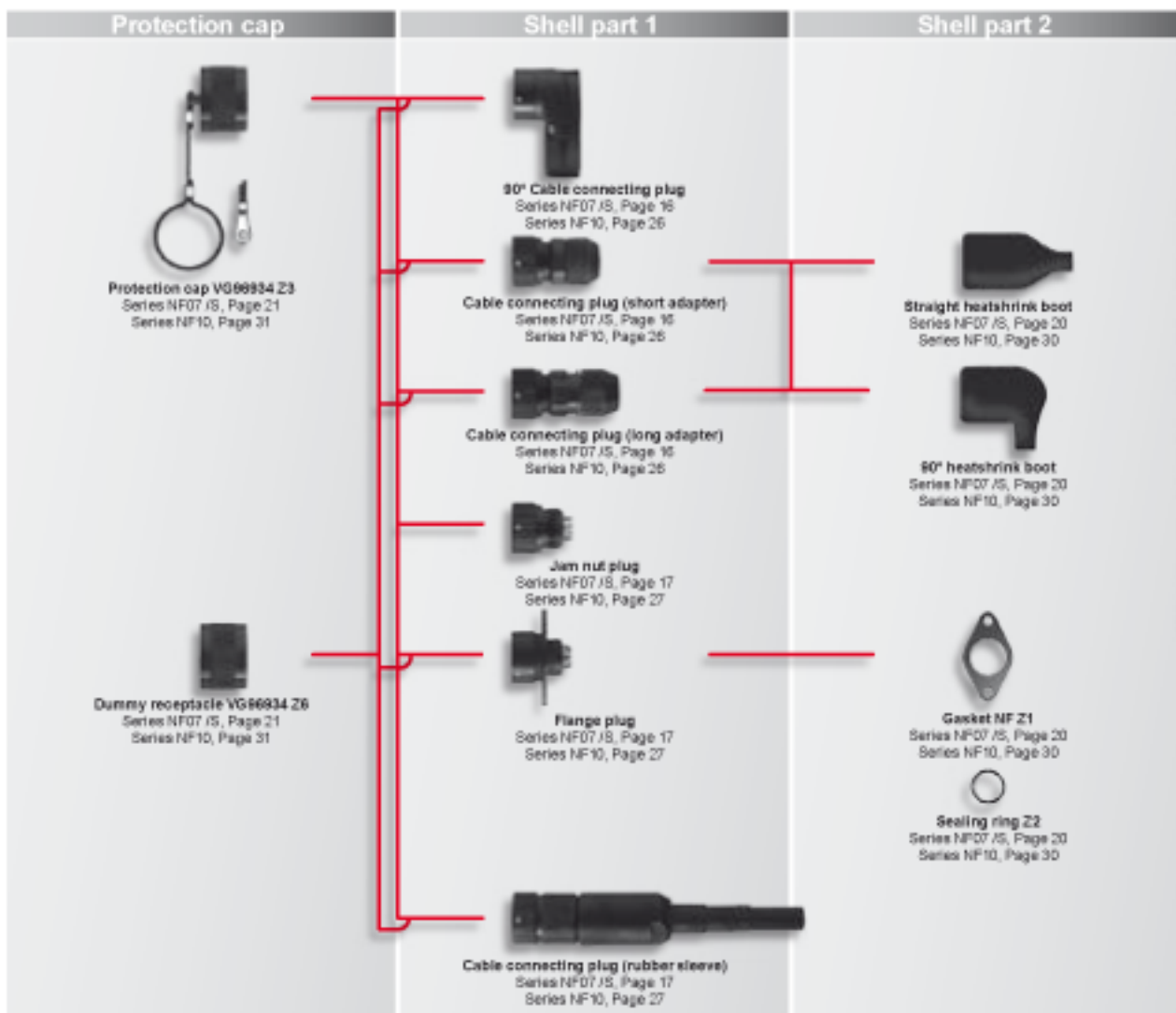
Phone +49 89 9 30 05-0
Fax +49 89 9 30 05-350
e-Mail contact@schaltbau.de
Internet www.schaltbau.com

with compliments:



NF07 Plug

OVERVIEW



NF07 /S, NF10 Plug

Ordering Information

Series NF

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 (parameter 1) | NF | | | |
| | Connectors to suit the special requirements of communications engineering | | | |
| Number of poles (parameter 2) | 07 7-pole 10 10-pole | | | |
| Shell styles (parameter 3) | A Cable connecting plug (short adapter) B Flange receptacle C Jam nut receptacle D Cable connecting receptacle E Jam nut plug F Flange plug H Jam nut receptacle, PG9 ** J Cable connecting plug (long adapter) K Reinforced cable connecting receptacle **,* L Cable connecting plug (rubber sleeve) M Cable connecting receptacle (rubber sleeve) **,* N Reinforced cable connecting receptacle (short adapter) **,* | | | |
| Polarization (parameter 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 (parameter 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 **,* | | | |
| Special designs (parameter 6) (beyond VG96934 / VG95351) | A1 Cable connecting plug (short adapter) **,* A5 Cable connecting plug (rubber sleeve) **,* A6 Jam nut plug M14x1 A7 Cable connecting plug (long adapter) ** A11 Cable connecting plug for backshell NF07 Z5 PG7 ** A17 90° Cable connecting plug D3 Cable connecting receptacle for backshell NF07 Z5 PG7 ** D6 Cable connecting receptacle (rubber sleeve) ** D7 Reinforced cable connecting receptacle (long adapter) **,* /S enhanced shielding, extra parameter for series NF07 /S only ** | | | |

** Series NF07 only

** Series NF07 /S only

** Series NF10 only

** 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.

• Protection caps and dummy receptacles

Example: **NF07 Z7 /1**

| | | | | |
|--|---|--------|---------|---------------|
| Protection caps/dummy receptacles (parameter 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 (parameter 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 (parameter 1) | NF07 Z5 PG7 Backshell, PG7 203VV112-30 Straight heatshrink boot 224K012-30 90° heatshrink boot | | |
|--------------------------------|--|--|--|

• Gaskets

Example: **NF Z1**

| | | | |
|-----------------------------|------------------------|--|--|
| Gasket (parameter 1) | NF Z1 Gasket (VG96934) | | |
|-----------------------------|------------------------|--|--|

• Tools

Example: **VG96934 Z10**

| | | | |
|---------------------------|-------------------------------------|--|--|
| Tool (parameter 1) | VG96934 Z10 Mounting tool (VG96934) | | |
|---------------------------|-------------------------------------|--|--|

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.

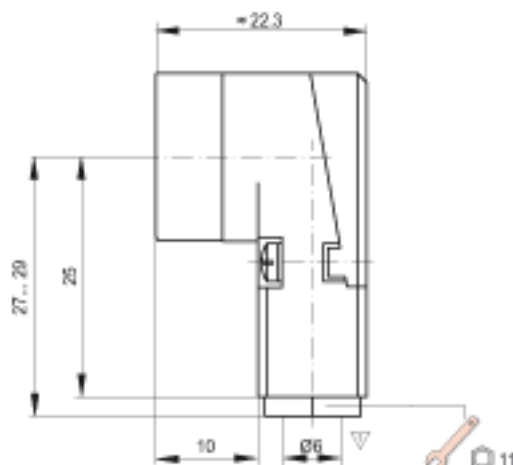
Special variant:

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



▽ max. cable diameter

Ordering code

Example*1:

| NF | | 07 | | A | | 1 | | L0 | | A17 | |
|----|----|----|---|----|-----|----|-----|----|---|-----|---|
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| | | | | A | 1 | L0 | A17 | | | | |
| NF | 07 | A | 2 | L0 | A17 | | | | | | |
| | | A | 3 | L0 | A17 | | | | | | |



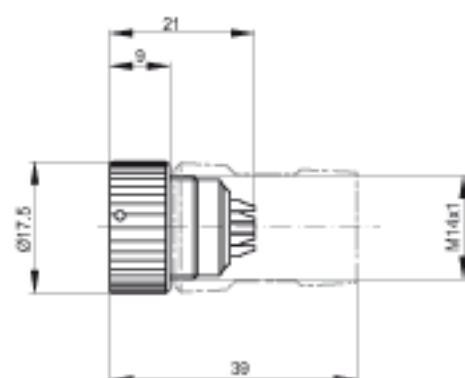
*1 See also ordering information on page 6

Note: Terminal styles on page 13

Cable connecting plug for backshell NF07 Z5 PG7

Series NF07

Device outline



Ordering code

Example*1:

| NF | | 07 | | A | | 1 | | L0 | | A11 | |
|----|----|----|---|----|-----|----|-----|----|---|-----|---|
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| | | | | A | 1 | L0 | A11 | | | | |
| NF | 07 | A | 2 | L0 | A11 | | | | | | |
| | | A | 3 | L0 | A11 | | | | | | |



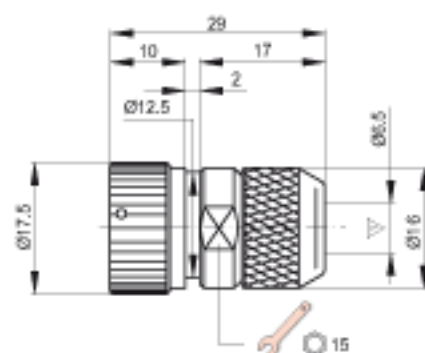
*1 See also ordering information on page 6

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

Cable connecting plug (short adapter)

Series NF07

Device outline



▽ max. cable diameter

Ordering code

Example*1:

| NF | | 07 | | A | | 1 | | L0 | | A1 | |
|----|----|----|---|----|----|----|----|----|---|----|---|
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| | | | | A | 1 | L0 | A1 | | | | |
| NF | 07 | A | 2 | L0 | A1 | | | | | | |
| | | A | 3 | L0 | A1 | | | | | | |



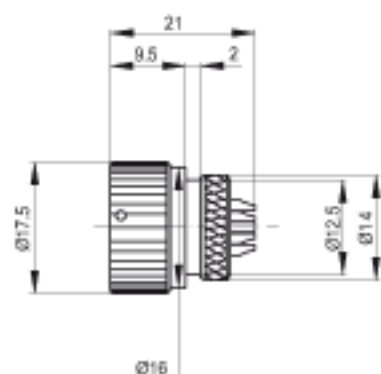
*1 See also ordering information on page 6

Note: Terminal styles on page 13

Plug for heatshrink boot

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1

NF 07 A 1 L0 ...*2

↑ ↑ ↑ ↑ ↑ ↑
1 2 3 4 5 6



| | | | | | | |
|----|----|--|---|---|----|-------|
| | | | A | 1 | L0 | ...*2 |
| NF | 07 | | A | 2 | L0 | ...*2 |
| | | | A | 3 | L0 | ...*2 |

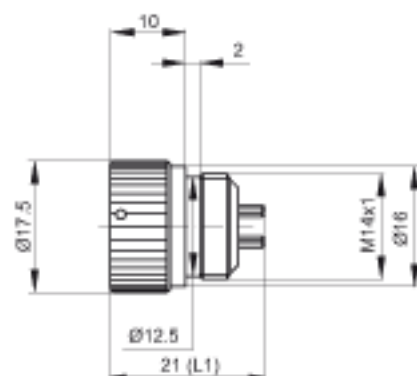
*1 See also ordering information on page 6
*2 Customized designs upon request

Note: Heatshrink boots on page 11
Terminal styles on page 13

Jam nut plug M14x1

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1

NF 07 A 1 L0 A6

↑ ↑ ↑ ↑ ↑ ↑
1 2 3 4 5 6



| | | | | | | |
|----|----|--|---|---|----|----|
| | | | A | 1 | L0 | A6 |
| NF | 07 | | A | 2 | L0 | A6 |
| | | | A | 3 | L0 | A6 |

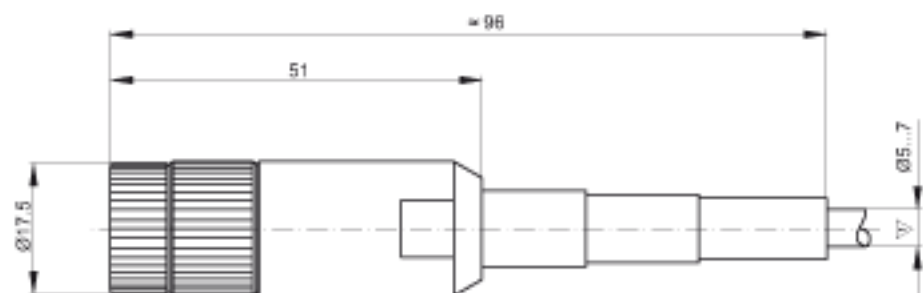
*1 See also ordering information on page 6

Note: Terminal styles on page 13

Cable connecting plug (rubber sleeve)

Series NF07

Device outline



Ordering code

Shell part 1

Example*1:

NF 07 A 1 L0 A5

↑ ↑ ↑ ↑ ↑ ↑
1 2 3 4 5 6

| | | | | | | |
|----|----|--|---|---|----|----|
| | | | A | 1 | L0 | A5 |
| NF | 07 | | A | 2 | L0 | A5 |
| | | | A | 3 | L0 | A5 |

*1 See also ordering information on page 6

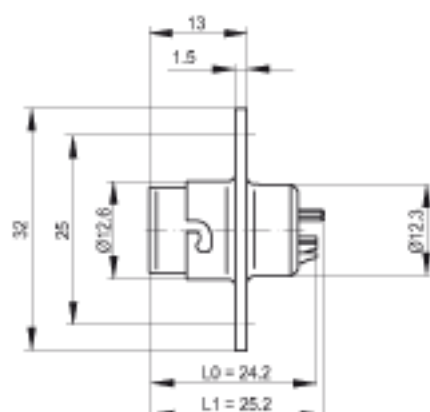
▽ cable diameter

Note: Terminal styles on page 13

Flange receptacle

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1

| | | | | | |
|----|----|---|---|----|-------|
| NF | 07 | B | 1 | L0 | ...*2 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| NF | 07 | B | 2 | L0 | ...*2 |
| | | B | 3 | L0 | ...*2 |
| NF | 07 | B | 1 | L1 | ...*2 |
| | | B | 2 | L1 | ...*2 |
| | | B | 3 | L1 | ...*2 |



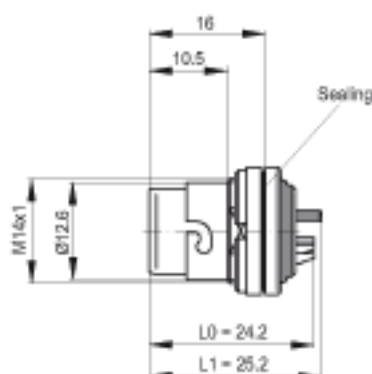
*1 See also ordering information on page 6
 *2 Customized designs upon request

Note: Terminal styles on page 13

Jam nut receptacle

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1

| | | | | | |
|----|----|---|---|----|-------|
| 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 |



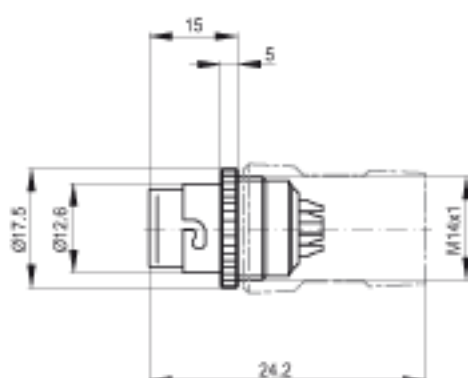
*1 See also ordering information on page 6
 *2 Customized designs upon request

Note: Terminal styles on page 13

Cable connecting receptacle for backshell NF07 Z5 PG7

Series NF07

Device outline



Ordering code

Example*1:

Shell part 1

| | | | | | |
|----|----|---|---|----|----|
| NF | 07 | D | 1 | L0 | D3 |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | D | 1 | L0 | D3 |
| NF | 07 | D | 2 | L0 | D3 |
| | | D | 3 | L0 | D3 |



*1 See also ordering information on page 6

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