

Instructions for use CONNEX cable connector Size 3 and 3/S

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**Read the installation
instructions before working
with the product!**



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 NOTE!

These installation instructions can be accessed on the Internet at www.pfisterer.de.

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1. General

1.1 Scope of delivery

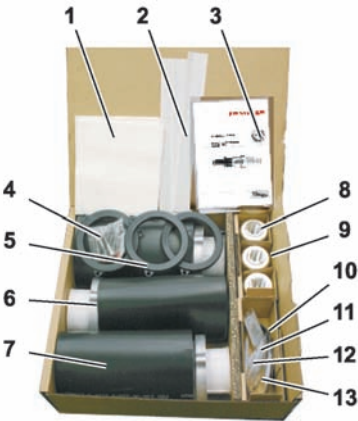
Check the scope of delivery for completeness. Contact the manufacturer immediately if parts are missing.

! ATTENTION!

Operate the product only with the parts listed in the scope of delivery.

Packing unit

Pos.	Name	Qty.
1	Cleaning cloth	3
2	Sealing tape*)	3
3	Installation instructions	1
4	Bolts M8x45	9
5	Sealing*)	3
6	Bell flange	3
7	Shrink tubing*)	3
8	Tension cone	3
9	Contact ring	3
10	Tape measure	1
11	Special PFISTERER grease	4
12	Emery cloth**)	1
13	Semi-conducting tape	3



*) If included in scope of delivery (design-specific).

) **ATTENTION! Only for roughening the outer jacket!

1.2 Explanation of symbols

Important safety relevant notes in these installation instructions are marked by symbols. These notes specified for work safety must be absolutely observed and followed. Exercise special care in these cases to avoid accidents, personal injury and property damage.



WARNING! Danger of injury or life!
This symbol identifies notes whose non-observance can lead to impaired health, injuries, permanent bodily harm or death.



WARNING! Danger of electrical current!
This symbol alerts to dangerous situations through electrical current. Non-observance of the safety note presents danger of serious injuries or death. The work activities to be performed may only be carried out by a trained professional electrician.



ATTENTION! Danger of property damage!
This symbol identifies notes whose non-compliance may lead to damages, malfunction and/or failure of the product.

NOTE!

This symbol points out tips and information to be observed for efficient and trouble-free handling of the product.

1.3 Information on the installation instructions

These installation instructions describe the safe and proper handling of the product. The safety notes and directions specified as well as the local accident prevention regulations and general safety rules applicable to the area of operation must be observed.

The installation instructions, especially the chapter on safety and the respective safety notes, must be studied completely before beginning any work on the product. The material read must have been understood.

The installation instructions are part of the product. They must be stored in the immediate vicinity of the product (e.g. control room, switchboard station) accessible at any time.

1.4 Liability and warranty

All specifications and notes in these installation instructions were compiled under consideration of the applicable regulations, the best available technology as well as our experience and insights of many years.

The installation instructions are to be kept in the immediate vicinity of the product (e.g. control room, switchboard station), accessible to any person working on or with the product.

These installation instructions must be carefully read before beginning **any** work on and with the product. The manufacturer is not liable for damages and malfunctions resulting from the non-compliance with the installation instructions.

The text and image representations do not necessarily correspond to the scope of delivery. The illustrations are not to a scale of 1:1.

In case of special designs, additional ordering options or because of latest technical changes, the actual scope of delivery can deviate from the specifications and notes as well as illustrations shown here. Please contact the manufacturer in case of questions.

We reserve technical changes on the product in the framework of improving product features and enhancements.

1.5 Copyright protection

The installation instructions are to be treated confidentially. They are exclusively intended for persons working on and with the product.

The entire content, texts, drawings, illustrations and other presentations are protected by copyright and subject to additional commercial property rights. Any misuse is punishable by law.

Distribution to third parties as well as copying in any type and format – even in excerpts – as well as the use and/or publication of the content are not permitted without written approval by the manufacturer. Infringements are liable to damage compensation. Additional claims are reserved.

We reserve all rights of exercising industrial property rights.

1.6 Spare parts

Use only original spare parts of the manufacturer.



ATTENTION!

Wrong or faulty spare parts can lead to damages, malfunctions or total failure of the product.

All warranty, service, damage compensation and liability claims against the manufacturer or his representatives, dealers and agents become void when using unauthorized spare parts.

1.7 Disposal

Dispose properly of dismantled parts after disassembly unless a return or disposal agreement has been entered into:

- Scrap metal material remnants
- Submit plastic elements to plastics recycling
- Dispose of any other components sorted according to material properties.



ATTENTION!

Lubricants and other operating materials are subject to special waste treatment and may only be disposed of by certified enterprises.

2. Safety

The product has been manufactured at the time of its development and production according to accepted engineering standards and is deemed safe to operate.

However, this product may present dangers if not used properly or according to its intended purpose by professionally trained personnel.

The chapter "Safety" provides an overview of all key safety aspects for optimal personal protection as well as for the safe and trouble-free operation of the product.

Furthermore, the other chapters of these installation instructions contain specific safety notes, marked by symbols, to avert danger.

2.1 Intended use

The CONNEX cable connector (inner cone system according to DIN EN 50180/50181) Size 3 and Size 3/S is primarily intended for cable connections according to DIN VDE 0276-620.

Operational safety is only ensured when the product is used as intended.



ATTENTION!

Any use of the product exceeding the intended use and/or any different use is prohibited and deemed as not in accordance with the intended use.

Any claims against the manufacturer and/or his authorized agents because of damages resulting from unintended use of the product are excluded.

The operator is solely liable for all damages resulting from unintended use.

The intended use also includes proper compliance with the operating conditions as well as specifications and directions of these installation instructions.

The product may only be operated together with the parts listed in the scope of delivery.

2.2 Content of the installation instructions

Any person ordered to work on or with the product must have read and understood the installation instructions prior to begin working with the product. This also applies if the respective person has already worked with such or a similar product or has been trained by the manufacturer.

Knowledge of the content of the installation instructions constitutes one of the prerequisites to protecting persons against dangers and to avoid errors thereby operating the product in a safe and trouble-free manner.

It is recommended for the operator to request tangible proof by the personnel of having taken notice of the installation instruction's content.

2.3 Modifications and changes to the product

To avoid dangers and to ensure optimal performance, neither changes nor modifications and attachments may be made to the product that have not been expressly approved by the manufacturer.

2.4 Operator's responsibility

These installation instructions must be stored in the immediate vicinity of the product and accessible to persons working with the product at any time.

The product may only be operated in a technically flawless and operationally safe condition.

The directions of the installation instructions must be followed completely and without restrictions.

Apart from the safety notes and directions specified in these installation instructions, the applicable local accident prevention regulations and general safety rules as well as the applicable environmental protection regulations must be observed and complied with.

The operator and his authorized personnel are responsible for the trouble-free operation of the product as well as for clear determinations regarding the responsibility for installation and repair of the product.

2.5 Requirements on the personnel

Only professional personnel authorized and trained by the manufacturer may work on and with the product. The manufacturer will issue a training certificate to the personnel. The certificate is valid for 3 years.

The personnel must have received instructions on occurring dangers.

Professional personnel is anyone able to judge the work assigned to him and recognize possible dangers because of this professional training, know-how, experience and knowledge of the relevant regulations.

The responsibilities for work on and with the product (installation, repair) must be clearly defined and observed to prevent ambiguous assignment of competencies for the sake of safety.

Only those persons may work on and with the product that can be expected that they will perform their activities in a reliable manner. Any manner of work compromising the safety of persons, the environment or product must be refrained from.

Persons under the influence of drugs, alcohol or medication affecting reaction time must never work on or with the product.

The regulations regarding age and occupation applicable at the product location must be observed when selecting the personnel.

The personnel is obligated to immediately report product changes affecting safety to the operator.

2.6 Work safety

Personal injuries and property damages when working with and on the product can be prevented by following the safety notes and directions specified in these installation instructions.

Neglecting these notes can lead to endangering persons and damaging or destroying the product.

Any liability and damage compensation claims against the manufacturer or his representative are void in case of non-compliance with the safety notes and directions specified in these installation instructions as well as with the accident prevention regulations and general safety rules applicable to the operation area.

2.7 Personal protective gear

Always wear the following when working on and with the product:

- **Protective work clothing**

Closely fitting work clothes (low tear strength, no wide sleeves, no rings and other jewelry, etc.)



- **Safety shoes**

to protect against heavy parts being dropped and slipping on slippery surfaces



When working in especially dangerous areas (depending on local conditions):

- **Protective helmet**

to protect against parts being dropped and parts and materials being scattered about



Wear the following when cleaning and greasing:

- **Protective gloves**

to protect the skin from contact with harmful substances



- **Protective goggles**

to protect the eyes against liquids



2.8 Possible product dangers

The product has been subjected to a danger analysis. The resulting construction and design of the product correspond to the state-of-the-art.

The product is safe to operate when used as intended.

Nonetheless, a residual risk remains!

The product operates with high electrical voltage.



WARNING! Danger of electric current!

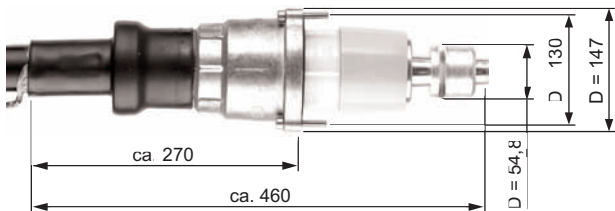
The electric energies may cause very serious injuries. Damages to the insulation or individual components represent danger to life.

Please observe the following before working on electrical installations:

1. Disconnect
2. Secure against power restoration
3. Check for absence of voltage
4. Ground and short-circuit
5. Cover or block off adjacent live parts.

3. Technical data

3.1 Dimensions and weight(s)



Length, incl. shrink tubing	[mm]	ca. 460
Outside diameter, max.	[mm]	147
Circle diameter	[mm]	130
Weight / piece	[kg]	ca. 3,3

3.2 Cable data

With voltage tap		
Conductor diameter, min. / max.	[mm]	7,2 / 34,6
Cross-section, min. / max.	[mm ²]	50 / 800
Diameter over insulation, min. / max.	[mm]	15,5 / 46,0
Without voltage tap		
Conductor diameter, min. / max.	[mm]	7,2 / 34,6
Cross-section, min. / max.	[mm ²]	50 / 800
Diameter over insulation, min. / max.	[mm]	15,5 / 50,0

3.3 Ratings

Rated current	I_N [A]	1250
Max. operating voltage	U_M [kV]	42 (52)*
Rated power frequency withstand voltage	50 Hz / 1 min [kV]	95,0 (117)*
Rated lightning impulse withstand voltage	1,2/50 μ s [kV]	200 (250)*
Partial discharge	$2 \times U_0$ [pC]	≤ 10
DC voltage test	15 min $6 \times U_0$ [kV]	125 (156)*
Rated short-time withstand current	0,5 sec [kA]	63
	1 sec [kA]	50
Rated impulse current	[kA]	150

*) () = Size 3/S

4. Design

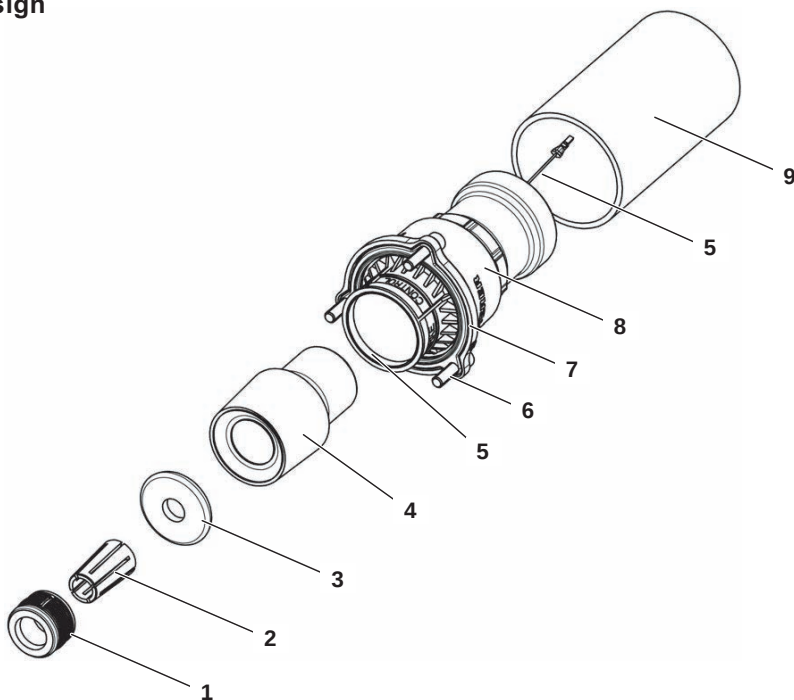


Fig. 1: Overview

- 1 Contact ring
- 2 Tension cone
- 3 Thrust piece
- 4 Insulating part
- 5 Voltage tap*)
- 6 Screws M8x45 (enclosed as parts)
- 7 Sealing*)
- 8 Bell flange
- 9 Shrink tubing*)

*) If included in scope of delivery (design-specific)

5. Transport, packing and storage

5.1 Safety notes



WARNING! Danger of injury!

Danger of injury by dropping parts is present during transport or loading and unloading. The product may be damaged or destroyed by improper transport.

Always observe the following safety notes for this reason:

- Never lift loads across persons.
- Always move the product with care and caution.

5.2 Transport inspection

Check delivery immediately on receipt for completeness and transport damage.

Do not accept delivery or only accept under proviso if there is externally recognizable transport damage. Note the scope of damage on the transport documents/delivery note of the carrier. Start complaints procedure.

Complain about hidden deficiencies as soon as they are discovered as compensation claims can only be asserted within the applicable complaints period.

5.3 Packaging



NOTE! Good for environmental protection!

Packaging materials are valuable raw materials and can continue to be used in many cases or sensibly reconditioned and re-cycled.

If there is no returns agreement for the packaging, separate materials according to type and size and direct to further use or re-cycling.



ATTENTION!

Always dispose of packaging materials in an environmentally friendly manner and in accordance with the applicable, local disposal guidelines. If necessary, commission a re-cycling company.

5.4 Storage

Store packages closed until assembly and observe the setup and storage marks attached to the outside.

Store packages only under the following conditions:

- Do not store outside.
- Store in a dry place.
- Do not expose to aggressive media.
- Relative humidity: max. 60%

6. Assembly accessories

Special tools are required for assembly or disassembly.

6.1 Required tools

Name	Article No.	Description
Hydraulic manual compression tool	827 017 002	For the axial pressing on or pulling off of the contact ring.
Compression head size 3	305 675 003	
Impact head size 3	559 214 003	For the preassembly of the contact ring.
Torx screwdriver SW 6	546 004 009	To tighten or loosen the screws of the CONNEX cable connector.



6.2 Recommended tools and accessories

Name	Article No.	Description
Measuring template size 3	559 223 001	For the efficient jacket removal.
Stripping pliers	305 051 051	For axial and radial cutting of the insulation to expose the conductor.
Replacement blade for stripping pliers	305 063 063	
Peeling tool and outer jacket cutter set	827 951 001	To remove the outer jacket. To peel off the easy strip semi-conducting layer. To bevel the conductor insulation.
Chain	827 165 001	To hook assembly lever into punched strip. Requirement: M12 thread connection on system.



6.2 Recommended tools and accessories

Name	Article No.	Description
Punched strip	827 166 001	To hook in assembly lever.
Assembly lever size 3	827 167 001	To press in or pull off the CONNEX cable connector.
Assembly bushing	827 174 004	To preassemble CONNEX cable connectors (e.g. in the shop).
Protective cap	827 134 003	To protect the pulled off CONNEX cable connector against damage and contamination (not voltage-proof).
Blind cap	827 133 001	Protection against touching live CONNEX cable connector.
Transport case	305 798 001	To accommodate the tools.



In addition for flexible cables:

See PFISTERER catalog “4 Cable fittings for medium and high-voltage networks“ for recommended tools and accessories for the round-pressing of Al-sleeves.

7. Assembly / Installation



WARNING! Danger of injury!

Installation and assembly work may only be carried out by trained technical staff while observing the safety instructions.

Inspect parts for completeness and flawless condition before beginning with the assembly.



ATTENTION!

Damaged components may not be assembled!

Use only perfect parts!

1. Mark where the jacket will be cut (1) on the cable approx. 30 mm below the outer flange of the device connector.

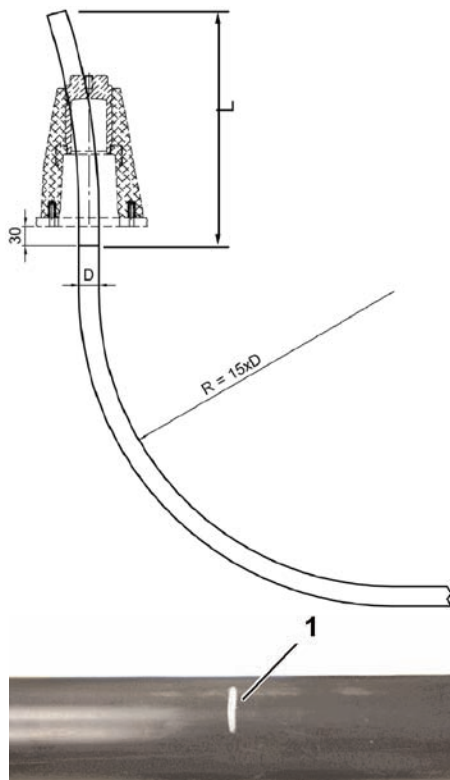
For cables with wire ground screen:

L = depending on distance to ground connection.



NOTE!

See following page for cables with outside diameter > 60 mm.



2. Remove outer jacket up to the “cut mark” using a suitable tool. [→ Seite 14]



ATTENTION!

Do not damage the underlying screen wires.



3. Unwrap outer jacket starting at the cut mark.



Cables with outside diameter > 58 mm:

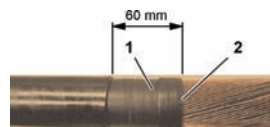
- a) 60 mm Make another mark 60 mm from the “cut mark” (1).
- b) Remove outer jacket up to 60 mm above the “cut mark” using a suitable tool. [→ Seite 14]



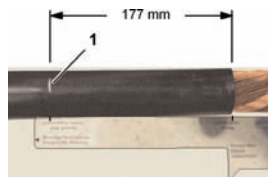
ATTENTION!

Do not damage the underlying screen wires.

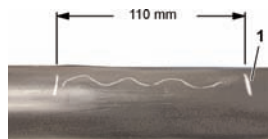
- c) Unwrap outer jacket starting at the cut mark + 60 mm.
- d) Apply two layers of insulation tape 60 mm wide (1).
- The insulation tape wrapping ends at the “cut mark” (2).
- e) Continue with step No. 4.



4. Mark the reference length (1):
 - 177 mm from the cut mark on the jacket
 - or using the measuring template, size 3.



5. Mark the shrink area:
 - Make another mark approx. 110 mm from the reference length (1).



6. Sand the outer jacket in the shrink area using emery cloth.



7. Clean roughened area.

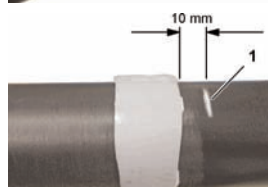


8. Heat the shrink area with a “soft” flame until the surface takes on a slight gloss.



9. Apply one layer of sealing tape *) in the shrink area 10 mm from the reference length.

If included in scope of delivery (design-specific).



10. Apply one layer of adhesive tape at each of three points (I, II, III.) to fix the screen wires.

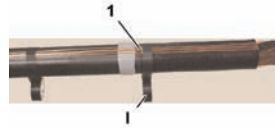
Attach the first adhesive tape (I) at the reference length (1). Allow adhesive tapes to hang loosely; do not tear.



11. Cut cross conductor band at jacket cut (1).



12. Fold over groups of screen wires.



ATTENTION!

Route screen wires in parallel, without crossing each other!

13. Fix screen wires with adhesive tape (I) at the reference length (1) and ...

... at the other two spots (II and III).

14. Tear off the remaining adhesive tape no longer needed after all screen wires have been folded over and fixed.



15. Beat screen wires tight at jacket cut.

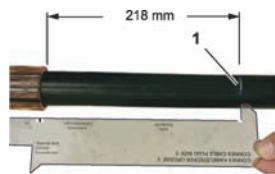


16. Remove wrapping up to the cut mark on jacket.



17. Mark the end of the cable (1):

- 218 mm from the cut mark on the jacket
- or using the measuring template, size 3.



18. Cut off the cable at the mark using a metal cutting saw.



ATTENTION!

To obtain a straight cut, the cable must be cut with a metal cutting saw.

19. Insert sealing*) and three bolts M8x45 into the bell flange.

**) If included in scope of delivery (design-specific).*



20. Push shrink tubing*) over cable.

**) If included in scope of delivery (design-specific).*



21. Push bell flange over cable.

In case of extruded fully bonded semi-conducting layer:

22. Push stop ring against jacket cut.

23. Set spacer of circular peeling device to 30 mm .

24. Set circular peeling device so that as little as possible material is peeled off the insulation (white).



25. Peel extruded fully bonded semi-conducting layer up to 30 mm from the jacket cut.

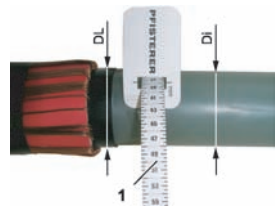
26. Remove peeled-off semi-conducting layer.

27. Remove stop ring.

28. Determine diameter using the enclosed tape measure (1):

DL Diameter of conducting layer

Di Diameter of insulation



ATTENTION!

The diameter of the insulation (Di) must lie within the diameter range of the insulating part (see specification in the insulating part neck)

29. Determine difference between DL and Di:

- $DL - Di < 3,5\text{mm}$
continue with step no. 30.
- $DL - Di > 3,5\text{mm}$
continue with subsequent steps a) to g).

In case of removable easy strip semi-conducting layer:

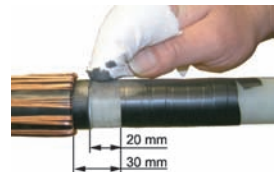
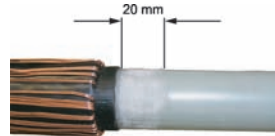
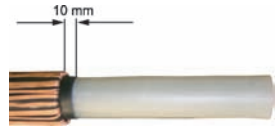
- a) Make a mark on the extruded removable easy strip semi-conducting layer 10 mm from the jacket cut.
- b) Pull off extruded removable easy strip semi-conducting layer up to 10 mm from the jacket cut, following manufacturer's specifications.
- c) Roughen conducting layer 20 mm with electrical-purpose emery cloth with max. 120 grain.



ATTENTION!

Use only electrical-purpose emery cloth with max. 120 grain (e.g. Al-Oxide 120 grain).

- d) Apply a protective wrapping next to the roughened conductor insulation (with adhesive side facing outward).
- e) Apply an additional 20 mm wide conducting layer with dry graphite (article No. 003 010 011) on the roughened conductor insulation.
Observe overall dimension of 30 mm of remaining semi-conducting layer.
- f) Remove protective wrapping.
- g) Continue with step No. 30.



30. Stretch length of semi-conducting tape by approx. 1/3.

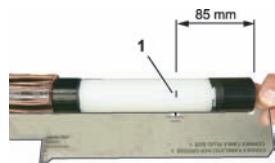
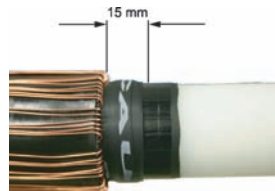
31. Pull of a "thick" end.

32. Begin with the „thin“ end of semi-conducting tape and apply approx. 3 layers, 15 mm wide, to jacket cut.

33. Tear off remaining semi-conducting tape.

34. Mark the conductor:

- 85 mm from the cable end,
- or using the measuring template, size 3.



35. Set stripping pliers to depth (down to the black smooth conductor surface).



ATTENTION!

Set depth so that the conductor is not damaged.



36. Cut insulation at mark (85 mm) all around (observe rotational direction! – See illustration) down to the smooth conductor surface.



37. Reposition stripping pliers.
Check depth (down to black smooth conductor surface), reset if required.



ATTENTION!

Set depth so that the conductor is not damaged.



38. Cut insulation lengthwise up to the mark (85 mm).

39. Cut insulation lengthwise on the opposite side up to the mark (85 mm).

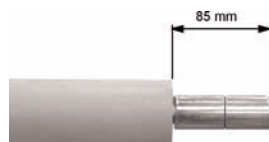


40. Remove insulation.



Only for flexible cables:

- a) Push two crimping sleeves over conductor.
- b) Compress crimping sleeves with hydraulic high-pressure press.
- c) Remove longitudinal burs from crimping sleeves.
- d) Cut off conductor to length of 85 mm.
- e) Debur end of conductor and apply protective wrapping.
- f) Continue with step No. 42.



41. Apply protective wrapping to end of the conductor.



42. Bevel insulation with bevel cutter.



43. Clean insulation.



ATTENTION!

Clean insulation only from the end of the cable in the direction of the jacket cut.

Do not touch the remaining easy strip conducting layer. It may become discolored when coming into contact with the cable cleaner contaminating the insulation.

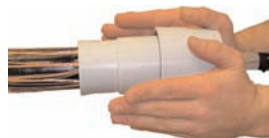
44. Apply thin and even coat of only PFISTERER-MV special grease (article number 558 228 011) to insulation.



45. Apply thin and even coat of only PFISTERER-MV special grease (article number 558 228 011) to inside of insulating part.



46. Push insulating part straight without twisting onto the insulation until ...



47. ... approx. 10 mm of the insulation protrude.

48. Remove excess grease.



49. Remove protective wrapping from end of conductor.

50. Push thrust piece onto conductor with **rounded side facing the insulating part**.



51. Push tension cone onto conductor against the thrust piece.



ATTENTION!

Conductor may not extend beyond tension cone.

52. Push contact ring onto tension cone.



53. Fix contact ring on the tension cone using the impact head. The contact ring must no longer be able to be turned.



- !** **ATTENTION!**
Hit the impact head only with the hand. Do not use a tool.

54. Push the retaining ring of the compression head toward the rear.



55. Position the half sleeves of the compression head behind the thrust piece.

- !** **ATTENTION!**
Do not damage insulating part.

56. Press half sleeves together and push retaining ring forward.



57. Turn adjusting ring of manual compression tool clockwise until the thrust piece of the compression head rests against the contact ring.



58. Press contact ring onto tension cone, using the manual compression tool, until the latter releases.



59. Push the retaining ring of the compression head toward the rear.



60. Open the half sleeves of the compression head.

61. Remove compression head and manual compression tool.



62. Pull insulating part straight without twisting flush against the thrust piece.



63. Push bell flange onto the insulating part.

64. Clean surface of the insulating part and apply a thin and even coat of PFISTERER-MV special grease (article number 558 228 011) to it. Wear protective gloves.



65. Clean inside of device connector and apply thin and even coat of PFISTERER-MV special grease (article number 558 228 011). Wear protective gloves.



66. Introduce CONNEX cable connector into device connector ...



67. ... until the control ring below the "Control Mark" lettering (see arrows) on the CONNEX cable connector is flush with the outside flange of the device connector.



68. If M12 threaded connection exists for system:

- a) Screw chain into front eye.
- b) Hook assembly lever into chain.
- c) Press the bell flange against the outside flange of the device connector using the assembly lever.



69. Tighten bolts with Torx screwdriver SW6 all around and alternating against the block (fastening torque approx. 15 Nm).



NOTE!

When using the assembly lever (see step 68), keep it pressed against the outside flange.



70. If used:

- a) Unhook the assembly lever
- b) Unscrew the chain

71. Check seat of contact using the measuring template, size 3.

Push cable further up if required.

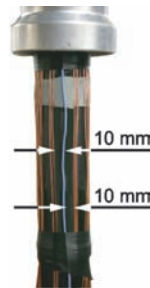


72. Fix test lead with adhesive tape.



ATTENTION!

Test lead may not cross screen wires and must run parallel at a distance of at least 10 mm to the screen wires.



73. If the scope of delivery **does not include a piece of shrink tubing**, the cable must be fixed with a cable clamp immediately after the cable connector.

74. If **shrink tubing** (in scope of delivery) is **available**:

- a) Wrap second layer of sealing tape over the screen wires onto the first layer of sealing tape.



- b) Clean outside of bell flange.



- c) Position shrink tubing over the bell flange above the ribbing.



- d) Heat shrink tubing evenly beginning at the bell flange until it evenly encloses the former and the internal adhesive protrudes on both sides (see arrows).



75. Bundle all screen wires **without** the test lead.



76. Cut screen wires (not the test lead!) to the required length and connect with ground of the installation.

! **ATTENTION!**
Ground the test lead separately if it is not needed.



The product can now be operated within the installation observing all safety regulations.

8. Dismantling / Removal



WARNING! Danger of injury!

Improper disassembly can lead to serious personal injuries and/or property damage. Disassembly activities may therefore only be performed by trained professionals observing the safety regulations.



WARNING! Danger of electric current!

The electric energies may cause very serious injuries. Damages to the insulation or individual components represent danger to life.

Please observe the following before working on electrical installations:

1. Disconnect
2. Secure against power restoration
3. Check for absence of voltage
4. Ground and short-circuit
5. Cover or block off adjacent live parts.

1. If M12 threaded connection exists for system:

- a) Screw chain into front eye (M12 thread).



- b) Hook punched strip in chain.



- c) Attach clamp to cable below bell flange.



2. Loosen Torx screws all around with SW6 screw-driver.



3. If M12 threaded connection exists for system:
 - a) Hook assembly lever in punched strip.
 - b) Apply assembly lever at clamp.
4. Pull CONNEX connector out of device connector.
5. If used:
 - a) Remove clamp
 - b) Unhook the assembly lever
 - c) Unhook punched strip
 - d) Unscrew the chain
6. Remove shrink tubing.



ATTENTION!

The screen wires located under the shrink tubing and the test lead must not be damaged.

7. Assemble the two halves of the pulling-off device and fix with adhesive tape at one point.
8. Position pulling-off device over contact ring with rounded side facing the insulating part ...



9. ... Press together.



10. Place thrust plate into compression head.
Observe installation position (see illustration)!



11. Push the retaining ring of the compression head toward the rear.



12. Position the half sleeves of the compression head behind the pulling-off device.



13. Press half sleeves together and push retaining ring forward.



14. Turn adjusting ring of manual compression tool clockwise until the thrust piece of the compression tool rests against the tension cone.



15. Loosen contact ring with manual compression tool from tension cone.



16. Push the retaining ring of the compression head toward the rear.

17. Open the half sleeves of the compression head.

18. Remove compression head and manual compression tool.

19. Pull off tension cone.



20. Remove thrust piece.



21. Apply protective wrapping to end of the conductor.



22. Push bell flange off the insulating part after removing the shrink tubing.



23. Pull insulating part straight off the insulation without twisting.



ATTENTION!

The following parts must generally be replaced during reassembly:

- **Tension cone**
- **Insulating part**
- **Shrink tubing**

24. Push shrink tubing over bell flange / cable.



25. Continue → Chap. "Assembly/Installation", page 24, step 43.

9. Testing of CONNEX connectors

9.1 Required accessories

Blind cap (Article No 827 133 001):

Protection against touch for live CONNEX connector.



Ill. 2: Blind cap

9.2 Installation of blind cap

The CONNEX connector must be closed with a voltage-proof blind cap when used for test purposes:

1. Attach blind cap
2. Establish ground connection
3. Tighten bolts



Ill. 3: Installation of blind cap

10. Spare parts

Use only original spare parts of manufacturer!



ATTENTION!

Wrong or faulty spare parts and components by third-party manufacturers can lead to serious damages of product and/or installation.

The use of unauthorized spare parts will void any warranty or service claims without prior notice.

10.1 Spare part procurement

When ordering spare parts, be sure to specify the following based on the “cable information”:

- Size
- Conductor diameter
- Diameter of insulation
- Part name
- Requested mode of shipping (mail, freight, sea, air, express)
- Shipping address

Spare part orders without the above information cannot be considered. In case of missing shipping information, shipping is done at the supplier's discretion.

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