

**NRS 074-2:2011**

Edition 1  
Reaffirmed (March 2017)

**LOW-VOLTAGE (600/1 000 V) CABLE  
SYSTEMS FOR UNDERGROUND  
ELECTRICAL DISTRIBUTION**

**PART 2: ACCESSORIES**

**This document is not a South African National Standard**



This rationalized user specification is issued by  
the Technical Governance Department, Eskom,  
on behalf of the  
User Group given in the foreword  
and is not a standard as contemplated in the Standards Act, 1993 (Act No. 29 of 1993).

**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Text affected</b>

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## NRS 074-2:2011

### Foreword

This part of NRS 074 was prepared on behalf of the Electricity Suppliers Liaison Committee (ESLC) and approved by it for use by supply authorities.

This part of NRS 074 was prepared by a working group which, at the time of publication, comprised the following members:

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A Manufacturers Interest Group (MIG) was consulted on the contents of this part of NRS 074-2 and its comments were incorporated where the working group was in agreement. The MIG comprised the following members:

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NRS 074 comprises the following parts:

*Part 1: Cables*

*Part 2: Accessories*

*Part 3: Application guide (to be developed)*

Annex A and B are for information only.

## **Introduction**

This part of NRS 074 was prepared to establish and promote uniform requirements for low-voltage accessories that are used with cables for underground electrical distribution in order to enable purchasers to acquire the specified equipment without the need for detailed and extensive contract documents.

The ESLC expresses the wish that, in the national interest and in support of government policy, to foster local manufacturing industry and stimulate exports, all purchasers will adopt the requirements of this part of NRS 074 in so far as their particular conditions will allow. Any differences between this part of NRS 074 and the corresponding purchaser's requirements should, as far as possible, be clearly indicated in the schedules attached to NRS 074-2 and, where appropriate, be submitted for consideration in future revisions of NRS 074-2.

## **Keywords**

armour, cables, distribution, electricity distribution, ferrules, glands, insulation, joints, low-voltage, lugs, PVC, specification, terminations, testing.

## Contents

	Page
<b>1</b> Scope .....	3
<b>2</b> Normative references .....	3
<b>3</b> Terms, definitions and abbreviations .....	4
<b>3.1</b> Terms and definitions .....	4
<b>3.2</b> Abbreviations.....	4
<b>4</b> Requirements.....	4
<b>4.1</b> Cable joints.....	4
<b>4.2</b> Outdoor terminations .....	9
<b>4.3</b> Indoor terminations .....	12
<b>4.4</b> Cable glands .....	12
<b>4.5</b> Lugs and ferrules .....	13
<b>4.6</b> Test - Cable joints and terminations.....	13
<b>5</b> Markings, packaging and documentation.....	14
<b>5.1</b> Marking.....	14
<b>5.2</b> Packaging.....	14
<b>5.3</b> Documentation .....	15
<b>6</b> Samples and storage.....	16
<b>6.1</b> Samples .....	16
<b>6.2</b> Storage .....	16
<b>7</b> Training .....	16
<b>Annex A</b> (informative) - Guide to purchasers on preparing an enquiry.....	17
<b>Annex B</b> (informative) - Model form for schedules A and B.....	19
<b>Bibliography</b> .....	20

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## LOW VOLTAGE (600/1 000 V) CABLE SYSTEMS FOR UNDERGROUND ELECTRICAL DISTRIBUTION

### Part 2: Accessories

#### 1. Scope

This part of NRS 074 specifies the requirements for the materials, construction and testing of the following low-voltage accessories that are used with cables for underground electrical distribution:

- a) cable joints;
- b) outdoor terminations;
- c) indoor terminations;
- d) cable glands; and
- e) lugs and ferrules.

Requirements for cables for underground electrical distribution are given in part 1 of NRS 074.

NOTE Cables and accessories for special applications such as petrochemical plants, power stations and underground mines are not covered by this part of NRS 074.

#### 2. Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this specification. All documents are subject to revision and, since any reference to a document is deemed to be a reference to the latest edition of that document, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the documents listed below. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

EN 50393, *Test methods and requirements for accessories for use on distribution cables of rated voltage 0,6/1,0 (1,2) kV.*

NRS 074-1, *Low-voltage (600/1 000V) cable systems for underground electrical distribution — Part 1: Cables*

NRS 075: 2011, *Mechanical torque shear connectors for medium voltage applications.*

SANS 1213, *Mechanical cable glands.*

SANS 1507-3, *Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) — Part 3: PVC Distribution cables*

SANS 1803-1, *Lugs and ferrules for insulated electric cables. — Part 1: Copper conductors.*

SANS 61238-1, *Compression and mechanical connectors for power cables for rated voltages up to 30 kV ( $U_m = 36$  kV) Part 1: Test methods and requirements.*

SANS 61442/IEC 61442: 2006, *Test methods for accessories for power cables with rated voltages from 6 kV ( $U_m = 7,2$  kV) up to 30 kV ( $U_m = 36$  kV).*

### 3. Terms, definitions and abbreviations

For the purposes of this part of NRS 074, the following definitions and those given in SANS 1803 and part 1 of NRS 074 apply. In the case of conflicting requirements, the definitions given below shall take precedence.

#### 3.1 Terms and definitions

**adjustable mechanical cable gland**

mechanical cable gland that provides an electrical earth connection to the armour wires

**compression mechanical cable gland**

mechanical cable gland that provides a seal around the cable outer sheath

**ferrule**

metallic device that connects two consecutive lengths of conductor

**joint**

accessory that makes a straight connection between two cables to form a continuous circuit

NOTE Branch type joints are excluded.

**lug**

metallic device that connects a cable conductor to other electrical equipment

**mechanical cable gland**

metallic device that provides mechanical support for a cable

**termination**

device fitted to the end of a cable to ensure electrical connection with other parts of the system and to maintain the insulation up to the point of connection

#### 3.2 Abbreviations

**AWA:** aluminium wire armour (ed)

**PVC:** polyvinyl chloride

**SWA:** steel wire armoured (ed)

**UV:** ultraviolet

**XLPE:** cross-linked polyethylene

### 4. Requirements

#### 4.1 Cable joints

##### 4.1.1 General

Where it is necessary to make a joint in a cable covered by this part of NRS 074, the joint shall be the cold pour resin (cast resin) or heat shrink type, in accordance with EN 50393. If specified in schedule A, joints shall be supplied with suitable range taking torque shear ferrules in accordance with NRS 075.



The preferred accessory ranges for LV joints are:

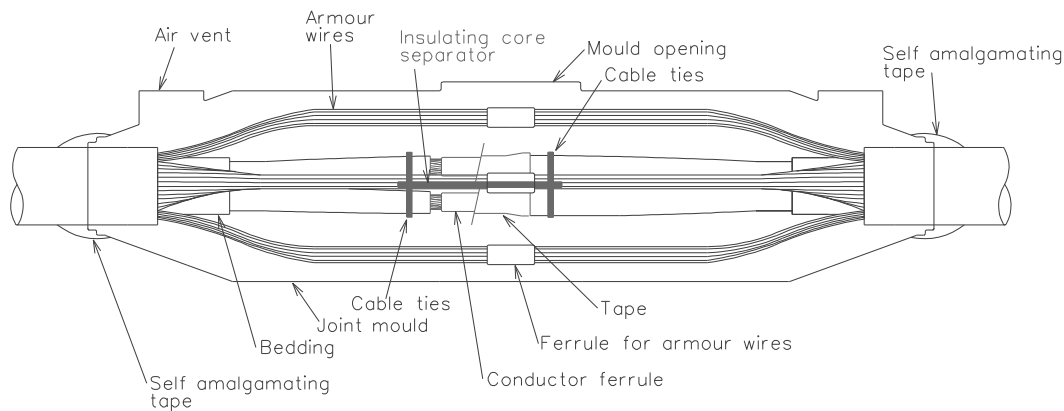
- a) 1,5 mm<sup>2</sup> to 2,5 mm<sup>2</sup>;
- b) 4 mm<sup>2</sup> to 10 mm<sup>2</sup>;
- c) 16 mm<sup>2</sup> to 25 mm<sup>2</sup>;
- d) 35 mm<sup>2</sup> to 50 mm<sup>2</sup>;
- e) 70 mm<sup>2</sup> to 95 mm<sup>2</sup>;
- f) 120 mm<sup>2</sup> to 150 mm<sup>2</sup>;
- g) 185 mm<sup>2</sup> to 240 mm<sup>2</sup>; and
- h) 300 mm<sup>2</sup>.

#### **4.1.2 Cast resin joints**

**4.1.2.1** A cast resin joint kit shall include the following as specified in schedule A:

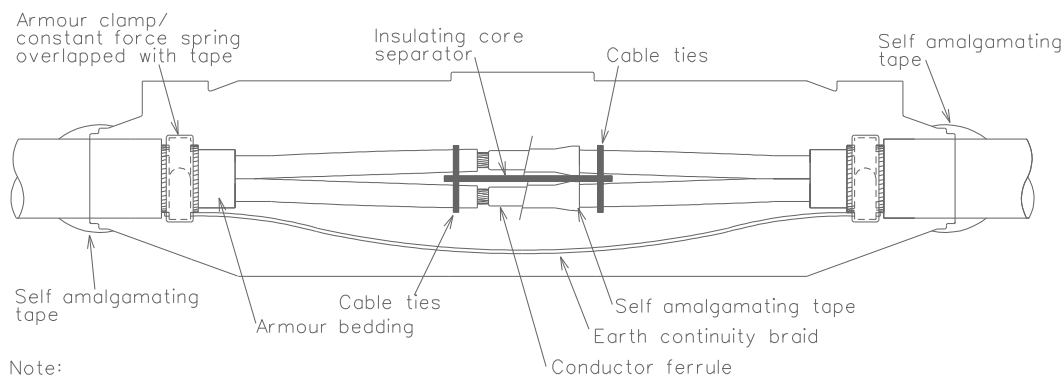
- a) a joint shell or mould, split longitudinally and supplied in two halves that clip together. The joint shell shall be suitably shaped tapered from the centre to the ends to accommodate the ferrule connections;
- b) clear filling resin and hardener with detailed mixing instructions;
- c) suitable lengths of self-amalgamating tape to insulate the conductor ferrules and exposed conductors. The type of insulation shall be stated in schedule B;
- d) two lengths of self-amalgamating tape to adequately seal the ends of the mould;
- e) constant force springs and a suitable size of tinned copper earthing braid;
- f) suitable lengths of self-amalgamating tape or PVC insulation tape to restrain the constant force springs;
- g) insulating core separator of minimum thickness 5 mm and length at least 20 mm longer than the length of the maximum ferrule size required for the range of joint;
- h) two non-metallic cable ties suitable for holding the assembled cores in position around the core separator;
- i) for cables of 120 mm<sup>2</sup> and larger, the resin and hardener supplied in tins, not in multiple small packets with a disposable plastic spatula for mixing the components; and
- j) disposable protective gloves.

A typical cast resin joint is shown in figures 1(a) and 1(b).



Note :  
Cables up to 16<sup>2</sup>mm with armour wires  
continued across joint

**Figure 1(a) — Cast resin joint**



Note:  
Armour clamps and earthing braid  
is used for earth continuity.

**Figure 1(b) — Cast resin joint**

**4.1.2.2** If specified in schedule A of the enquiry document, suitable range-taking torque shear connectors in accordance with NRS 075 for joining the conductors shall be provided in the joint kit.

**NOTE** Where torque shear connectors are not supplied with the joint, the crimp type ferrules are usually supplied as separate items as they are not range taking.

**4.1.2.3** The volume of resin supplied shall be sufficient to fill the shell without any cable.

**4.1.2.4** The minimum shelf life of the joint shall be two years.

**4.1.2.5** It shall be possible to energise the joint immediately upon completion of the joint.

**4.1.2.6** The minimum dimensions of the mould and the minimum size of the earthing braid shall be as specified in table 1.

Table 1 — Minimum dimensions of mould and size of earthing braid

1	2	3	4	5	6	7
Conductor size  mm <sup>2</sup>	Minimum dimensions of mould				Minimum nominal cross sectional area of earthing braid  mm <sup>2</sup>	Minimum length of earthing braid  mm
	Single core		Multicore			
	Length mm	Diameter mm	Length mm	Diameter mm		
1,5 to 2,5	-	-	185	32	16	230
4 to 10	-	-	270	44	16	340
16	-	-	400	68	35	500
25	-	-	400	68	35	500
35	-	-	430	85	35	550
50	190	35	430	85	35	550
70	190	35	520	100	50	650
95	190	35	520	100	50	650
120	275	45	660	140	70	830
150	275	45	660	140	70	830
185	360	50	660	140	70	830
240	360	50	660	140	70	830
300	360	50	860	140	70	1050
NOTE 1 The length of the mould is the straight distance measured from end to end as supplied.						
NOTE 2 The diameter of the mould is the outside diameter measured at the centre of the joint, excluding filler points.						
NOTE 3 The general shape of the joint is as indicated in figure 1.						

### 4.1.3 Heat shrink joints

4.1.3.1 A heat shrink joint kit shall include the following as specified in schedule A:

- suitable lengths of self-amalgamating tape to cover the conductor ferrules and exposed conductors and create a smooth profile;
- heat shrink sleeving to insulate the conductor ferrules and exposed conductors;
- filler mastics to fill the area between the cores and provide a longitudinal water block;
- inner bedding heat shrink sleeve that separates the individual core insulation from the main earthing conductor and extends from armour bedding to armour bedding;
- constant force springs and a suitable size of tinned copper earthing braid;
- suitable lengths of self-amalgamating tape or PVC insulation tape to restrain the constant force spring;
- galvanised steel mesh tape which is to be helically applied around the joint from armour to armour with a 50 % overlap for mechanical protection;

- h) heat shrink outer protection sleeve with co-extruded hot-melt adhesive applied internally throughout; and
- i) cleaning kit including:
  - 1) 25 mm x 600 mm aluminium-oxide or glass based abrasive tape,
  - 2) four pieces of 150 mm x 150 mm lint free cloth, and
  - 3) non-oil based cleaning solvent supplied in a sealed container that prevents leakage or evaporation.

**4.1.3.2** If specified in schedule A of the enquiry document, suitable range-taking torque shear connectors in accordance with NRS 075 for joining the conductors shall be provided in the joint kit.

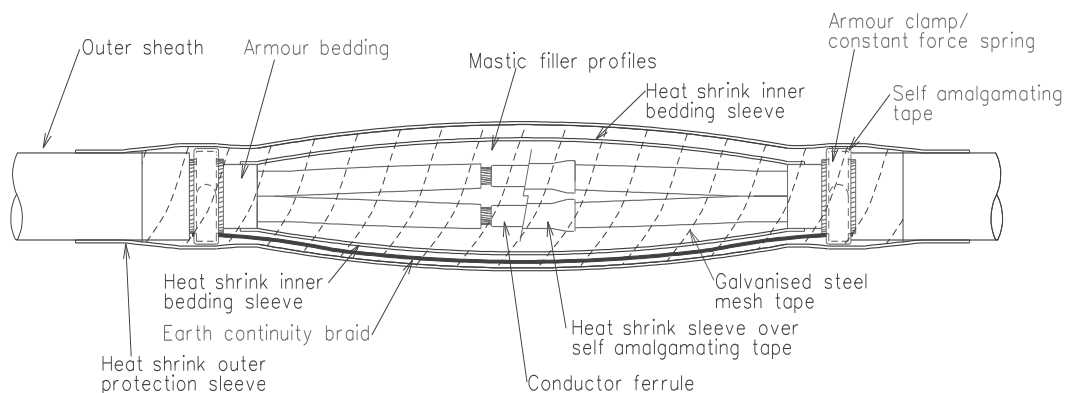
NOTE Where torque shear connectors are not supplied with the joint, the crimp type ferrules are usually supplied as separate items as they are not range taking.

**4.1.3.3** It shall be possible to energise the joint immediately upon completion of the joint.

**4.1.3.4** The minimum nominal cross sectional area and length of the earthing braid shall be as specified in table 1.

**4.1.3.5** The minimum wall thickness of all heat shrink sleeves shall be 2 mm after installation.

A typical heat shrink joint is shown in figure 2.



**Figure 2 — Heat shrink joint**

## **4.2 Outdoor terminations**

### **4.2.1 General**

**4.2.1.1** Outdoor terminations shall provide protection from both moisture and solar (UV) radiation. A boot shall be provided to prevent the ingress of moisture at the point where the cores are separated, and the ends of each core shall be sealed to prevent moisture entering through the lug sealing sleeve.

**4.2.1.2** The coloured PVC insulation on the cores is not normally UV stabilized and will rapidly deteriorate when exposed to the rays of the sun. UV stabilized sleeving shall be provided over each core.

**4.2.1.3** Where a connection has to be made to the cable armouring, the termination shall include a constant force spring and earthing braid.

**4.2.1.4** The preferred accessory ranges for outdoor terminations are:

- a) 1,5 mm<sup>2</sup> to 2,5 mm<sup>2</sup>;
- b) 4 mm<sup>2</sup> to 10 mm<sup>2</sup>;
- c) 16 mm<sup>2</sup> to 25 mm<sup>2</sup>;
- d) 35 mm<sup>2</sup> to 50 mm<sup>2</sup>;
- e) 70 mm<sup>2</sup> to 95 mm<sup>2</sup>;
- f) 120 mm<sup>2</sup> to 150 mm<sup>2</sup>;
- g) 185 mm<sup>2</sup> to 240 mm<sup>2</sup>; and
- h) 300 mm<sup>2</sup>.

### 4.2.2 Outdoor termination kits

**4.2.2.1** An outdoor termination kit shall include the following as specified in schedule A:

- a) a suitably sized two-core, three-core, or four-core sealing breakout boot as required;
- b) if required, a constant force spring, earthing braid and suitable length of self-amalgamating tape or PVC insulation tape to restrain the constant force spring;
- c) insulating sleeve to provide a waterproof seal over the bedding, armour and outer sheath when an earthing connection is required;
- d) coloured UV stabilized tubing of 1500 mm length to provide UV protection for the exposed cable cores and phase identification (red, yellow, blue and black as appropriate);
- e) when lugs are installed, sealing sleeves to provide a waterproof seal onto the cable lug barrel; and
- f) additional sealing materials as required to complete the waterproofing of the termination.

**4.2.2.2** If specified in schedule A of the enquiry document, terminations shall be supplied with suitable range taking torque shear lugs in accordance with NRS 075.

NOTE Where torque shear connectors are not supplied with the termination, the crimp type lugs are usually supplied as separate items as they are not range taking.

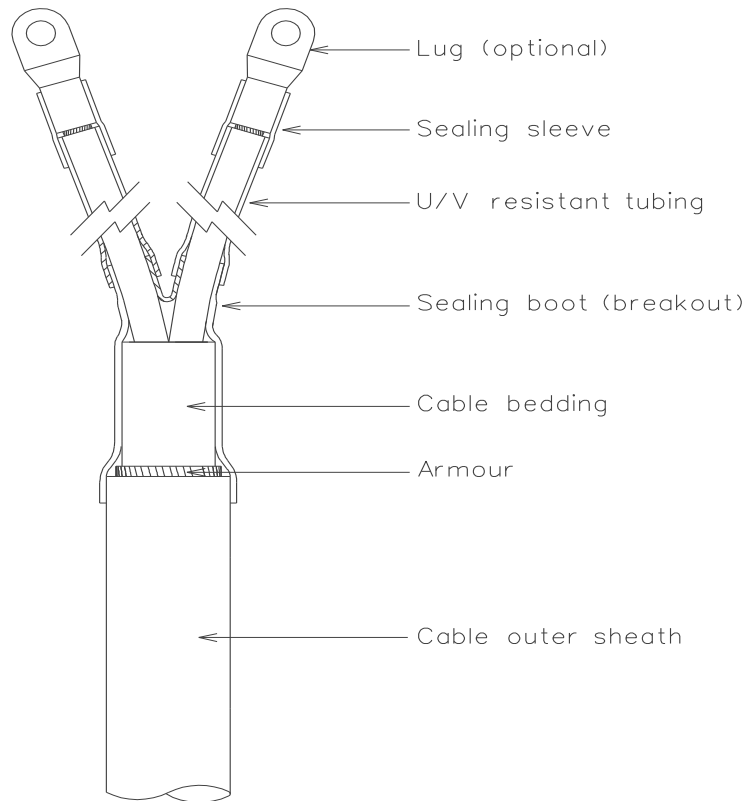
**4.2.2.3** Typical outdoor terminations are shown in figures 3(a) and 3(b).

**4.2.2.4** The minimum nominal cross-sectional area of the earthing braid shall be as specified in table 1.

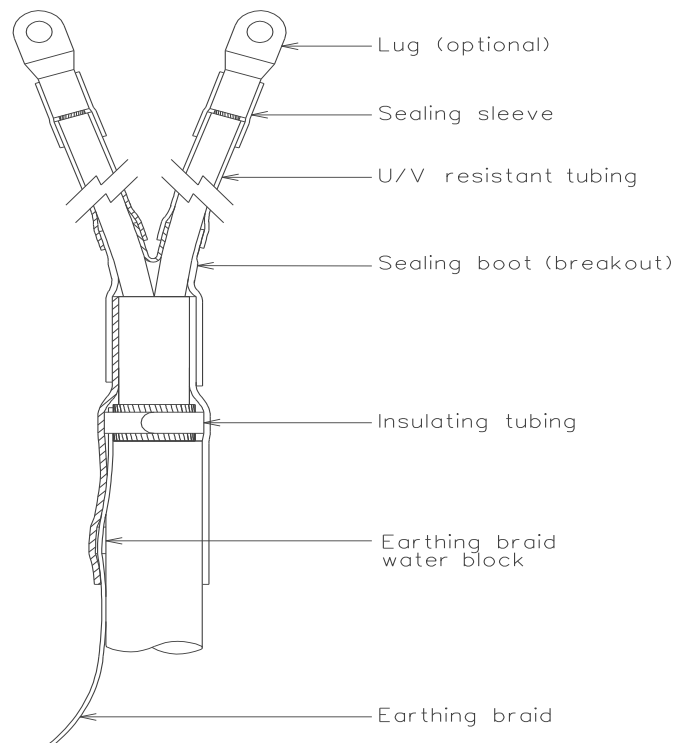
**4.2.2.5** The minimum length of earthing braid shall be 1 200 mm.

**4.2.2.6** The breakout boot and earth sealing sleeve (if applicable) shall be coated on the inside with a hot melt adhesive to ensure an adequate moisture seal to underlying components.

**4.2.2.7** When supplied, the cable termination earthing braid shall be water blocked to prevent the ingress of moisture into the termination. The method of waterproofing shall be stated in schedule B.



**Figure 3 (a) — Outdoor termination without earthing connection**



**Figure 3 (b) — Outdoor termination with earthing connection**

### 4.3 Indoor terminations

Where cables are terminated indoors, there is no need to take special precautions to protect the cable or termination from moisture ingress or UV radiation. All that is required is a suitable cable gland and a set of lugs. A typical indoor termination is shown in figure 4. The term "indoor termination" applies also to terminations outdoors in weatherproof enclosures.

If an electrical connection is required to the cable armouring, an adjustable mechanical cable gland shall be used.

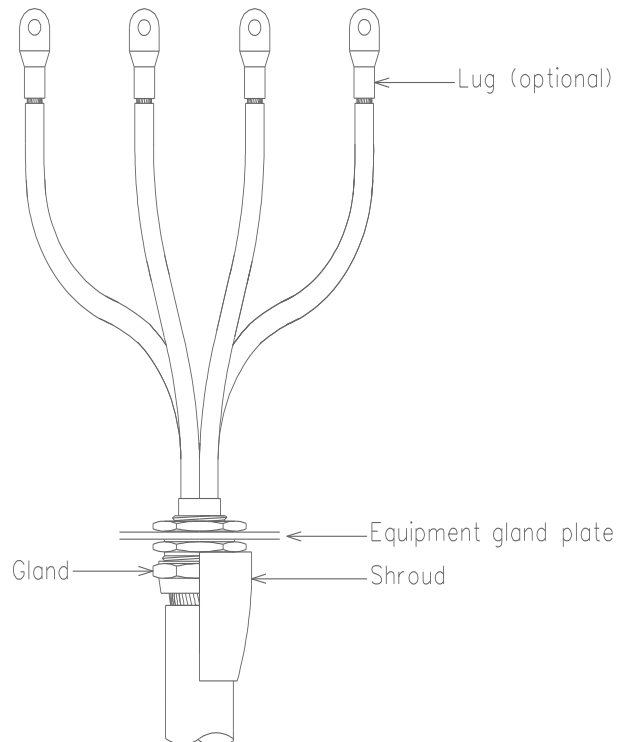


Figure 4 — Indoor termination using an adjustable mechanical cable gland

## 4.4 Cable glands

### 4.4.1 General

4.4.1.1 Cable glands shall be in accordance with the requirements of SANS 1213.

4.4.1.2 The type of mechanical cable gland required shall be specified in schedule A (i.e. adjustable mechanical cable gland type versus compression mechanical cable gland type).

### 4.4.2 Sizes

The recommended gland sizes are given in table 2. These are based on the cable dimensions given in SANS 1507-3.



Table 2 — Gland sizes

1	2	3	4	5
Conductor size	PVC/AWA/PVC	PVC/SWA/PVC		
mm <sup>2</sup>	Single-core	Two-core	Three-core	Four-core
4	-	0-20	0-20	1-20
6	-	1-20	1-20	2-25
10	-	2-25	2-25	2-25
16	-	2-25	2-25	2-25
25	-	2-25	2-25	3-32
35	-	2-25	3-32	3-32
50	2-25	3-32	3-32	4-40
70	2-25	3-32	4-40	4-40
95	2-25	4-40	4-40	5-50
120	2-25	4-40	5-50	5-50
150	3-32	5-50	5-50	6-63
185	3-32	5-50	6-63	6-63
240	4-40	6-63	6-63	6-63
300	4-40	6-63	6-63	7-75
400	5-50	-	-	-
500	5-50	-	-	-

## 4.5 Lugs and ferrules

Lugs and ferrules, used with the joints and terminations detailed in 4.1, 4.2 and 4.3, shall be in accordance with the requirements of SANS 1803-1 for crimped type connectors for copper conductors or NRS 075 for torque shear connectors.

Crimped type connectors for both copper and aluminium shall be class A connectors in accordance with SANS 61238-1, and tested for short-circuit.

NOTE SANS 1803-1 covers the requirements for crimped type lugs and ferrules used for copper conductors.

There is no dimensional standard available for crimped type connectors used for aluminium conductors.

## 4.6 Tests - Cable joints and terminations

Approval of the complete range of conductor cross-sectional areas of one type of accessory shall be obtained by successfully completing the full range of type tests specified in EN 50393 on a four-core cable with conductor cross-sectional area equal to or greater than 120 mm<sup>2</sup>.

Approval is independent of the cable conductor material. Tests may therefore be carried out using cables with either aluminium or copper conductors.

Approval is independent of the cable conductor shape.

Tests performed on four-core accessories shall be deemed to cover single-core, two-core and three-core accessories of the same design. The converse will not apply.

In addition to the requirements of EN 50393, a thermal short-circuit (earth fault) test in accordance with clause 10 of SANS 61442:2006 shall be performed at 10 kA for 1 s. The thermal short circuit (earth fault) test is intended to prove the ability of the earthing circuit of an accessory to withstand earth fault currents. A visual examination of the accessory shall be carried out after this test.

## **5. Markings, packaging and documentation**

### **5.1 Marking**

All cable joint and termination kits shall be clearly and durably marked by the manufacturer to indicate the following:

- a) the manufacturer's identification mark and reference/catalogue number (visible on the completed accessory);
- b) the rated voltage and accessory description (e.g. 600/1 000 V joint (PVC/XLPE));
- c) the accessory range (visible on the accessory packaging);
- d) the purchaser's unique stock code/number;
- e) the manufacturer's identification mark and a part number (visible on all components forming part of an accessory). This part number shall be referenced in the bill of materials. Components that are physically impossible to mark shall be individually packed and the packaging shall be marked;
- f) the expiry date (visible on the packaging of all components or consumables that are subjected to a shelf life limitation). These components or consumables shall be individually packed;
- g) in addition, where an accessory contains components or consumables that have an expiry date it shall be clearly marked on the outside of the cardboard container;
- h) the completed accessory shall be provided with an indelible identification tag that indicates the manufacturer/supplier, accessory part number and allows the joiner to record his/her name and date of installation. Details of the tag offered shall be indicated in schedule B; and
- i) information indicating special storage shall be clearly marked on the outside of the cardboard container.

### **5.2 Packaging**

**5.2.1** Each cable joint and termination kit shall be packed in a cardboard container to protect it from mechanical damage. Individual parts shall be packed in sealed plastic bags. The package shall contain

- a) an installation instruction (see 6.3.2),
- b) all necessary components and consumables required to complete the installation in accordance with the instruction i.e. accessory components, cleaning kit and earthing kit, and
- c) a bill of materials.

**5.2.2** Cable glands shall be individually packaged in cardboard containers.

**5.2.3** Plastic packing shall be such as to permit easy identification of the components without their removal from the packing.

**5.2.4** Where accessories are bulk-packed, the mass of each container shall not exceed 30 kg.

The container shall be marked with the following information:

- a) the name of the manufacturer;
- b) the accessory reference;
- c) the number of accessories per container; and
- d) the purchaser's order number.

### **5.3 Documentation**

#### **5.3.1 Language of documentation**

All documentation shall be in English.

#### **5.3.2 Installation instructions**

Installation instructions shall be supplied for each cable joint and termination kit and shall

- a) be supported by legible illustrations that clearly indicate the application and assembly of all components of the accessory,
- b) reference the bill of materials by quoting the relevant part number at least once when describing the components,
- c) indicate a date of issue and a revision number,
- d) be individually printed and not photo-copied,
- e) indicate how, where and when the accessory identification tag shall be attached, and
- f) indicate the method of sealing the interface between the termination tail outer tube and the lug barrel for outdoor cable terminations, and
- g) indicate the maximum length and diameter of the ferrule (s) that may be used with the joint.

#### **5.3.3 Bill of materials**

The bill of materials shall provide the following information for each component:

- a) a short description;
- b) the quantity; and
- c) a part number or a batch number.

#### **5.3.4 Test reports**

**5.3.4.1** Test reports shall be submitted with a tender and shall be arranged according to the applicable type test sequence.

**5.3.4.2** Test reports shall be accompanied by installation instructions and a bill of materials that form part of the test report issued by the accredited laboratory.

**5.3.4.3** On the cover page of each test report, there shall be a clear statement as to which clause(s) of the relevant specification have been excluded from the test requirement.

**5.3.4.4** All test reports shall bear the mark of accreditation which the accredited laboratory holds. This mark of accreditation shall be prominent on the front page of the test report.

## **6. Samples and storage**

### **6.1 Samples**

Where so specified in schedule A, a sample of the accessory shall be supplied with the tender.

### **6.2 Storage**

Components shall be capable of being stored without deterioration within the temperature range –10 °C to + 45 °C for a minimum of 24 months.

## **7. Training**

The supplier shall provide the following details with the tender regarding training offered:

- a) the available training courses;
- b) the duration of each course;
- c) the cost per delegate (for non purchaser affiliated delegates);
- d) the minimum number of delegates required;
- e) the certification of delegates;
- f) delegate evaluation criteria;
- g) the relevant of SAQA or ESETA accreditation (or both); and
- h) on-site training and technical support.

All training course material shall be subject to the approval of the purchaser.

## **Annex A**

(informative)

### **Guide to purchasers on preparing an enquiry**

#### **A.1 General**

A model form for schedules A and B is given in annex B to provide the purchaser with a convenient aid to purchasing. The use of this form is intended to obviate the need for preparing a detailed technical specification.

The purchaser needs to only specify compliance with NRS 074-2, provide the tenderer with details of his particular requirements, and set out the information he requires the tenderers to provide, as indicated below.

#### **A.2 Schedules**

##### **A.2.1 General**

The model form for purchasing schedules in annex B provides the purchaser with examples of a schedule A and a schedule B. In his enquiry, the purchaser should provide a schedule A and schedule B, based on these examples.

##### **A.2.2 Schedule A**

Schedule A lists the requirements to be specified by the purchaser in enquiries and orders. These requirements include references to the relevant subclauses in NRS 074-2, to assist in compiling the schedules.

The purchaser should set out his particular requirements and choices in schedule A.

NOTE 1 In the interests of standardization, purchasers are encouraged not to deviate from these preferred items, values and quantities listed in schedule A.

NOTE 2 The purchaser need include only the items he considers to be relevant or necessary when preparing schedule A and schedule B.

NOTE 3 The purchaser's schedule A, when completed, is intended to be issued as the technical schedule of an enquiry specification.

##### **A.2.3 Schedule B**

In schedule B, the tenderer will state compliance with NRS 074-2 and provide information requested by the purchaser.

NOTE These schedules, when completed, are intended to form the technical schedules of a tender submission and the subsequent contract, if applicable.

#### **A.3 Commercial conditions**

In addition, a purchaser will need to indicate the commercial conditions applicable and draw up a price schedule. Requirements for delivery, storage, packaging and marking should be included in this part of the enquiry.

#### **A.4 Quality assurance**

NRS 074-2 does not cover the purchaser's possible requirements in respect of quality assurance, quality control, inspections, etc., since each purchaser needs to consider the criticality of the application of each component and his own policy towards these matters. Purchasers are referred to SANS 9001 for guidance.

**Annex A**  
(concluded)**A.5 Testing**

Attention should be paid to the subject of testing and related costs. Tests should be carried out by an accredited laboratory and tenderers should be requested to provide formal assurance in this regard. Price schedules and covering letters should be appropriately prepared to indicate that the costs of all services, such as tests, delivery and spares, are declared and provided for in the tender. Before type tests, routine tests and sample tests are carried out; the number of samples used and the frequency of sampling should be agreed upon with the supplier.

**A.6 Revisions of standards used as normative references**

This part of NRS 074, as has been indicated, is based on a set of defined standards or which might have been revised or amended. All standards are regularly reviewed and amended, and most purchasers would, in principle, wish to employ the latest standards. However, in some cases a blanket commitment to work to the “latest” versions of standards might create legal difficulties of interpretation and risks for both parties. For example, if a new edition of a references standard is about to be approved or published during the tendering process, there could be misinterpretation as to which edition of the referenced standard is applicable.

To avoid such misinterpretation, the purchaser should obtain an undertaking from the supplier to identify the editions and amendments of the reference standards applicable during the tendering process. Where so agreed, if applicable, these specific editions and amendments would become the basis of the subsequent contract.

**Annex B**  
(informative)

**Model form for schedules A and B**

The model form is provided as a convenient aid to purchasing. Guidance on preparing an enquiry using this form is given in annex A.

**Schedule A: Purchaser's specific requirements**

**Schedule B: Particulars of equipment to be supplied** (to be completed by tenderer)

Item	Sub-clause of NRS 074-2	Description	Schedule A	Schedule B
1	4.1.1	Joints to be supplied with suitable range taking torque shear ferrules in accordance with NRS 075	Yes/no	xxxxxxxxxx
2	4.1.2	Type of insulation	xxxxxxxxxx	_____
		<b>Type of accessory</b>		
3	4.1.2	Cast resin joint	Yes/no	xxxxxxxxxx
		Number of cores	_____	_____
		Conductor size	_____	_____
		Quantity	_____	_____
		Type of earth connection required	_____	xxxxxxxxxx
4	4.1.3	Heat shrink joint	Yes/no	xxxxxxxxxx
		Number of cores	_____	_____
		Conductor size	_____	_____
		Quantity	_____	_____
5	4.2.2	Outdoor termination kits	Yes/no	xxxxxxxxxx
		Number of cores	_____	_____
		Conductor size	_____	_____
		Earthing connection required	Yes/no	xxxxxxxxxx
		Quantity	_____	_____
6	4.2.2.2	Terminations to be supplied with suitable range taking torque shear lugs in accordance with NRS 075	_____	xxxxxxxxxx
7	4.4	Cable glands	Yes/no	xxxxxxxxxx
		Cable conductor size	_____	_____
		Number of cores	_____	_____
		Quantity	_____	_____
8	4.4.1.2	Type of mechanical cable gland required (i.e. adjustable versus compression type)	_____	xxxxxxxxxx
9	4.5	Lugs	Yes/no	xxxxxxxxxx
		Conductor size (uncompacted)	_____	_____
		Quantity	_____	_____
		Ferrules	Yes/no	xxxxxxxxxx
10	6.1 (h)	Details of identification tag offered	xxxxxxxxxx	_____
11	6.3.1	Language preference for installation instructions	_____	xxxxxxxxxx

### **Bibliography**

SANS 9001/ISO 9001:2000, *Quality management systems — Requirements*.