OPERATING INSTRUCTIONS

HT11K Hand Tool NANOMQS 0.13-0.35 SQ.MM

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Certified in accordance with ISO 14001 and ISO/TS 16949:2002

General information

- The information provided is for the purpose of product descriptions only. Users must carry out their own assessments and tests. It should be noted that our products are subject to natural wear and ageing processes.
- The front page shows a sample configuration. The supplied product may vary from that shown.
- The original operating instructions were written in German.

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1 Revisions

1.1 Revision history

Rev.	Date	Description	Name
A	19.09.2016	First version	L. Sandhu

Table 1: Revision history

2 Introduction

2.1 About these operating instructions

These operating instructions describe the use and operation of the HT11K hand tool and the necessary maintenance measures.

All persons using the hand tool must therefore be familiar with these operating instructions and follow them.

These operating instructions must be available with the hand tool at all times.

The owner and/or user is obliged to supplement these operating instructions with instructions in line with existing national regulations for accident prevention and environmental protection.

These operating instructions apply to the following hand tool from TE Connectivity:

- HT11K Hand Tool NANOMQS TAB 0.13-0.35 TE P/N 4-1579014-2

Warranty claims, liability

TE Connectivity disclaims all liability for any loss or damage arising from failure to observe instructions on the hand tool or in the operating instructions.

The manufacturer is not liable for any loss or damage arising from unauthorised changes or modifications to the hand tool.

Service

For further information and technical support, please contact the TE Connectivity Customer Support Centre. For addresses, see Section 9.

2.2 Signs and symbols used in this document

The signs and symbols mentioned in this section are used in these operating instructions.

2.2.1 Instructions

Instructions are marked as follows:

- ➲ For action steps
- ✓ For action results

2.2.2 Notes

	General note on operation/use.

2.3 Abbreviations

Abbreviation	Meaning
TE P/N	TE Connectivity part number

Table 2: Abbreviations used

3 General Safety Instructions

The hand tool has been manufactured in line with current industry standards and recognised safety rules.

Nonetheless, a risk of physical and material damage exists if the following general safety instructions and warnings preceding the instructions in these operating instructions are not followed.

Finding information about RoHS

Information on the presence and location of substances subject to Restriction of Hazardous Substances (RoHS) guidelines can be found on the following website:

http://www.te.com/en/resources/product-compliance.html

- ➲ Click on the entry field underneath **Test Product Compliance and Request Statements of Compliance (SoCs)** and enter the relevant item numbers.
- ➲ Click on the entry field underneath Product Compliance and enter the relevant part number(s).
- ➲ Click on the Search button.
- ✓ *The search results will be displayed.*

3.1 Intended Use

The hand tool is used to crimp NanoMQS terminals according to the TE processing specification and drawing listed in Table 3.

The hand tool may only be used for repair purposes or for making samples, not for series production.

The following NanoMQS terminals can be processed with the hand tool:

Diameter	Terminal	Terminal PN	TE processing specification
0.13 – 0.17 mm²	NanoMQS	2236905-x	Appl. Spec.114-94288 Appl. Spec.114-18022
0.22 – 0.35 mm²	NanoMQS	1-2236905-x	Appl. Spec.114-94288 Appl. Spec.114-18022

Table 3: Processable terminals

Operational environment

The hand tool may only be used in a dry and dust-free environment. Do not use the hand tool in environments with a gas atmosphere.

3.2 Safety measures

3.2.1 General

The hand tool may only be used for the intended purpose.

The hand tool may only be used by suitably trained and authorised staff.

3.2.2 Safety measures for operation

The hand tool must only be used in technically perfect condition and with full awareness of safety aspects and potential dangers. If the hand tool is considered to be no longer safe to use, it must be taken out of service.

Never crimp live wires

Wear eye protection when using the hand tool. Failure to follow this instruction can lead to eye injuries from flying particles.

Observe the relevant processing specification when using the tool.

3.3 Warnings

The signs and symbols set out in this section are used in these operating instructions.

Attention

ATTENTION!	
	**Type of hazard** Cause ■ Measures for averting hazards

"Attention" indicates information or recommendations which can refer directly or indirectly to the safety of persons or material damage.

4 Description

4.1 Functional description

Crimping is performed by squeezing the handles together. Suitable crimp terminals are crimped using dies.

The ratchet mechanism of the hand tool has resting points which click when closing the handles.

4.2 Layout

Figure 1: Hand tool

Item	Designation	Item	Designation
1	Terminating head	2	Handles
3	Locking mechanism	4	Crimping die
5	Crimping nest	6	Die latch
7	Wire stop	8	Terminal holder

Table 4: Components of the hand tool

5 Set-up

5.1 Cross-section setting

Based on the wire cross-section and the relevant processing specification, determine the right crimping die for the terminal to be processed. Proceed as follows to crimp the terminal:

- Close the hand tool until the locking mechanism allows you to open the handles.

	Cross-section data may differ from the actual hand tool.
	The locking mechanism of the hand tool has a ratchet that makes audible clicks when you close the handles. When you hear the last click, the locking mechanism releases and the hand tool can be opened again. For an emergency release, the lever of the unlocking mechanism must be operated.

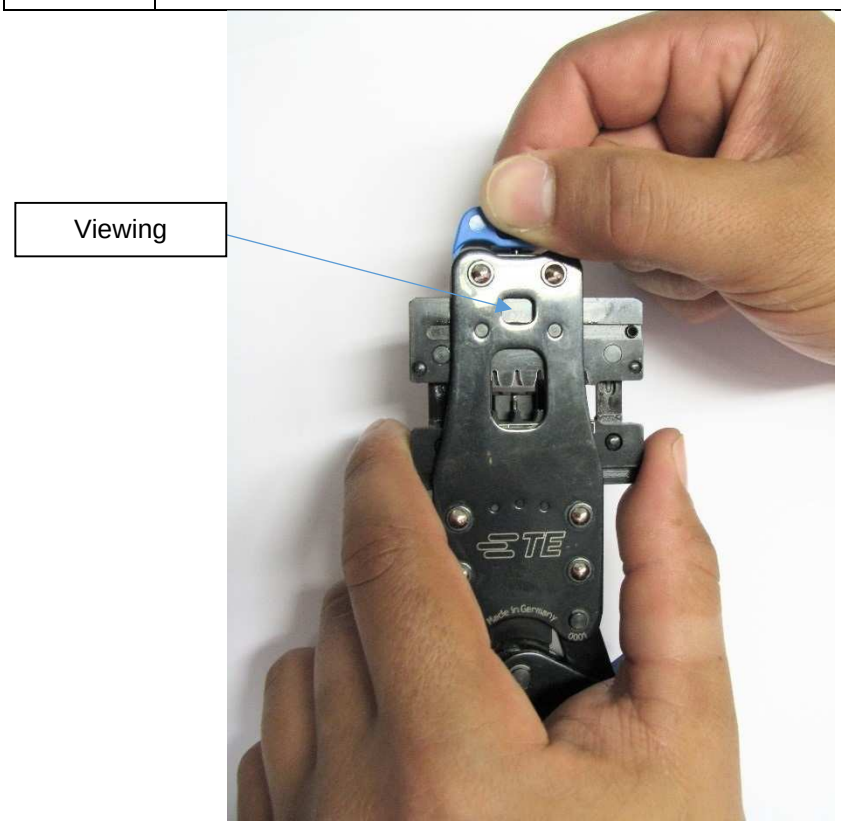

Figure 2: Position the die

- Lift the die latch and position the die, so that the cross-section to be processed can be seen in the viewing window.
- The die latch must then be returned to the starting point, so that the die is fixed in position.

6 Operation

ATTENTION!	
	**Fatigue symptoms** Prolonged use of mechanical hand tools can lead to fatigue symptoms, also called "cumulative trauma disorders", such as tendon sheath inflammation. Hand tools are only intended for occasional use with low stress levels. ■ In situations where prolonged use is necessary, pneumatic or electric hand tools should be used.

6.1 Crimping terminals

- Open the hinged terminal holder.
- Open the wire stop and insert the terminal to be processed into the terminal holder. Make sure the terminal is pushed into the stop in the terminal holder.

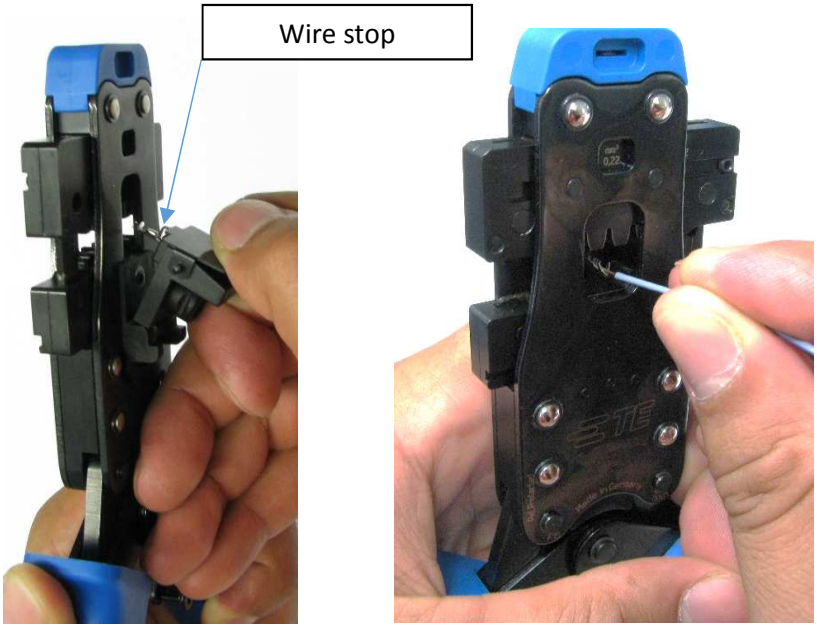

Figure 3: Position the terminal over the terminal holder (left), insert wire (right).

- Carefully close the hinged terminal holder.
- Feed the wire, insulated according to the processing specification, into the terminal until it reaches the wire stop.
- Hold the wire against the wire stop and press the handles together until the locking mechanism opens again. The hand tool then opens fully.

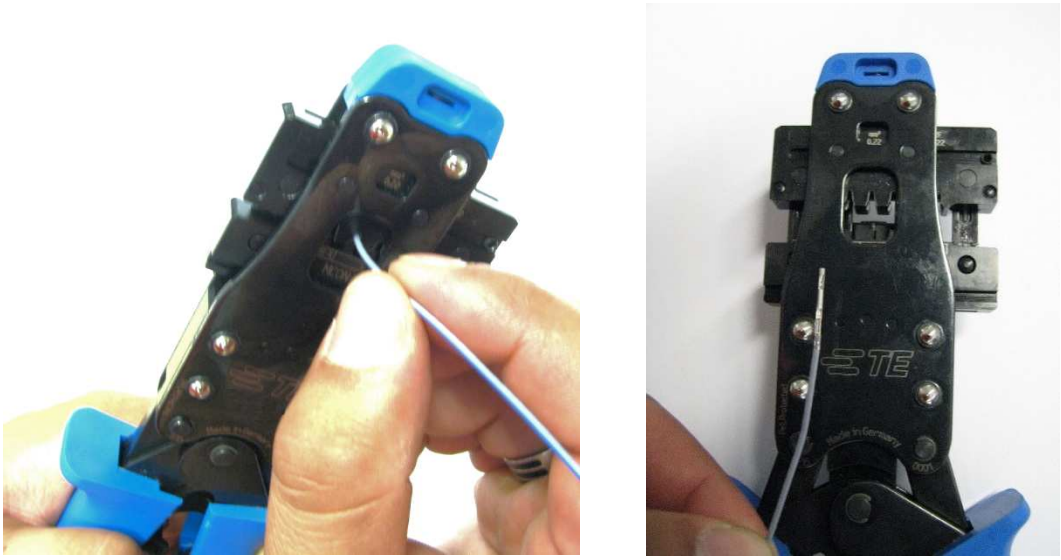

Figure 4: Crimp terminal (left), check the crimped terminal (right)

- ➲ Then you can remove the crimped terminal from the crimping die. Ensure that the wire stop is opened. If the terminal is stuck, jiggle it slightly to remove it from the terminal holder.
- ➲ Check the crimp height of the crimped terminal, Refer to the information in the TE Connectivity processing specification and drawing.
- ✓ *The hand tool is ready for use again.*

7 Repair and maintenance

7.1 Daily Maintenance

The following daily maintenance tasks should be performed by the responsible operator:

- Using a soft, clean brush or a lint-free cloth, remove dirt, dust, moisture and other residue from the hand tool. Do not use any hard or abrasive tools or materials that could damage the hand tool.
- Apply sewing-machine oil to all pivot points and bearing surfaces. Do not lubricate excessively.
- When the hand tool is not needed, store it in a clean and dry location.

7.2 Periodic inspection

- The hand tool should be inspected periodically by suitably qualified staff according to the level of use, and the inspections should be documented.
- Check the hand tool for wear and damage, particularly in the crimping nest areas.

8 Disposal

The hand tool can be disposed of as normal waste or as recyclable waste where possible. Disposal must take place in compliance with the local regulations. In case of doubt, the hand tool can be sent to TE for disposal. See Section 9 for contact details.

9 Customer Service Europe, Middle East and Africa (EMEA)

Contact for service enquiries or technical support:

Office hours:

Monday – Thursday	8 am – 4 pm
Friday	8 am – 2 pm
Phone:	+49 (0)6151-607-1518

E-mail contact:

EMEA Field Service Hotline:	TEFE1@te.com
EMEA Hand Tool Repair:	TEFE2@te.com
EMEA Wear & Spare Parts:	TEFE3@te.com
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Address:

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64293 Darmstadt
Germany

Please note that the EMEA service hotline staff speak English and German. Additional information and contact details can also be found online. Visit us at:
http://tooling.te.com/