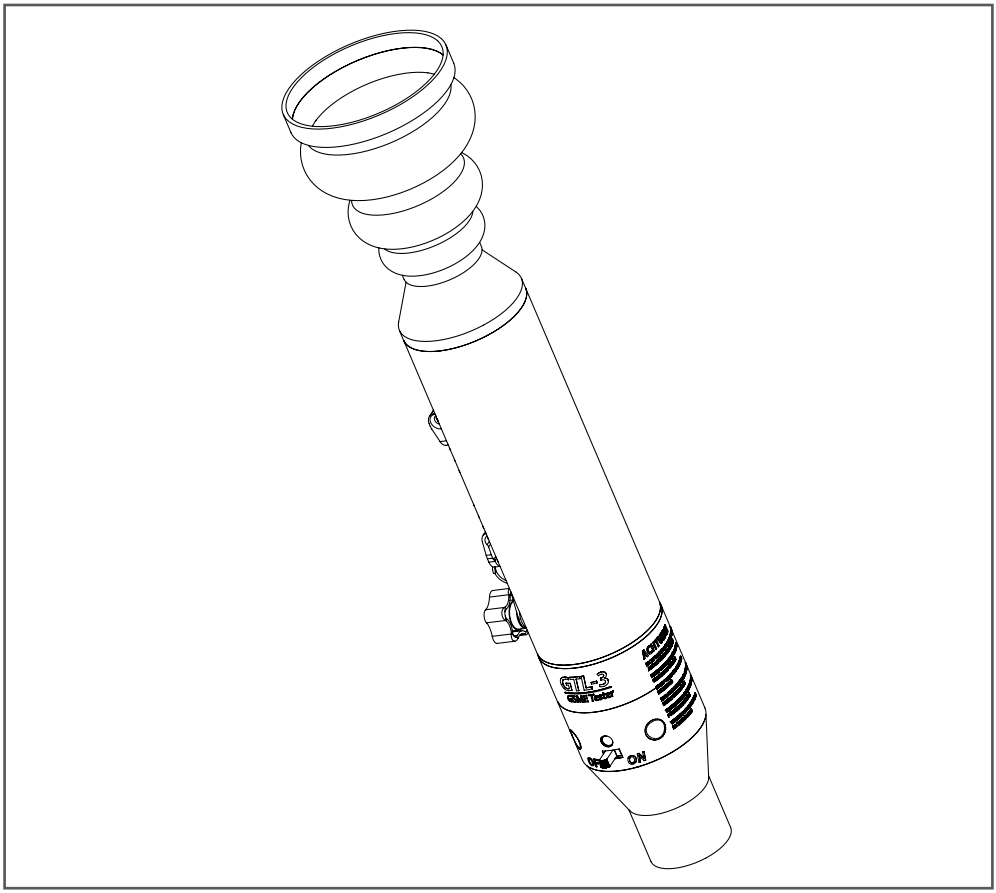

EN CE IP40

Operation Manual

GSME Test Device

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ADICOS GTL-3 - Operating manual
Article number: 430-2410-102
Index: EN12
Release date: 10.03.023

– Translation from German –

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Abstract

The Advanced Discovery System (ADICOS®) is used for early detection of fires in industrial environments. It is comprised of various, separate detector units. By parameterizing and arranging the detectors appropriately, the system fulfills a predefined detection goal. The ADICOS system ensures reliable early detection of embers and smoldering fires even in adverse environments.

GSME fire gas detectors detect at an early stage gases that are characteristic for developing fires. They detect both open and concealed smoldering fires. Highly sensitive and at the same time robust, they are ideal for fire gas detection in industrial environments – and already in the incipient stage.

The ADICOS GTL-3 test device is a test head for the test system solo™ of the company No Climb Products Ltd. (detectortesters.com) for all ADICOS detectors of type GSME.

Content

1 About this Manual

1.1 Objective

This manual describes the operation of the GSME test device ADICOS GTL-3. It is intended to be used only by properly qualified personnel (–› Chap. 2, Safety Instructions).

1.2 Explanation of Symbols

TThis manual follows a certain structure to make it easy to work with and understand. The following designations are used throughout.

Operational objectives

Operational objectives specify the result to be achieved by following the subsequent instructions. Operational objectives are shown in **bold print**.

Instructions

Instructions are the steps to be taken in order to achieve the previously stated operational objective.
Instructions appear like this

► Indicates a single instruction

1 First of a series of instructions
2 Second of a series of instructions
3 etc.

Intermediate states

When it is possible to describe intermediate states or events resulting from the instruction steps (e.g. screens, internal function steps, etc.), they are shown like this:

▷ Intermediate state

Warnings

The following types of notes are used through this manual:

DANGER!
This combination of symbol and signal word indicates an immediately dangerous situation which could lead to death or severe injuries if it is not avoided.

WARNING!
This combination of symbol and signal word indicates a possibly dangerous situation which could lead to death or severe injuries if it is not avoided.

CAUTION!
This combination of symbol and signal word indicates a possibly dangerous situation which could lead to minor injuries if it is not avoided.

NOTICE!
This combination of symbol and signal word indicates a possibly dangerous situation which could lead to property damage if it is not avoided.

Tips and recommendations
This type of note provides information that is directly relevant for the further operation of the device.

1.3 Abbreviations

The following abbreviations are used through this manual:

Abbr.	Meaning
ADICOS	Advanced Discovery System
GSME	GSME fire gas detector
solo™	Testing system of the company No Climb Products Ltd. for fire detectors
GTL-3	GSME Tester

1.4 Storing this Manual

Store this manual near the device, in a place where it can easily be accessed when needed for reference.

1.5 Applicable Documents

Tips and recommendations
Please refer to the operating instructions of the accessories from No Climb Products Ltd. (detectortesters.com).

2 Safety Instructions

When properly installed, started up, operated and serviced, ADICOS GTL-3 devices ensure operational safety at your facility. But it is imperative that the manual, including all safety notes, be read, understood and followed completely.

WARNING!
Personal injury and property damage!
Operating errors can cause fires and explosions.
Read the entire manual and follow the instructions!

Explosion protection
When using ADICOS detectors in potentially explosive atmospheres, follow the specifications of the ATEX operating directive.

2.1 Intended Use

The ADICOS GTL-3 tester can only be used in combination with the battery bar of the test system solo™ from No Climb Products Ltd. (detectortesters.com).
The test probe is designed for functional testing of ADICOS GSME fire gas detectors. The operating parameters described in (–› Chap. 10, Technical Data) must be met. Any other use requires prior consultation with the manufacturer.

Intended use also includes following the instructions in this manual and complying with all relevant local regulations.

2.2 Standards and Regulations

When testing ADICOS detectors, the safety and accident prevention regulations applicable for the specific application must be must be met.

The following standards and directives in their current version are of particular importance when handling fire detector systems:

Regulation	Description
VDE 0800	Telecommunications – General terms, requirements and tests for the safety of installations and equipment
VDE 0833	Alarm systems for fire, intrusion and hold-up
VDE 0845	Overvoltage protection of information technology equipment
VdS 2095	Automatic fire detection and fire alarm systems – Planning and Installation
DIN 14675	Fire detection and fire alarm systems

2.3 Personnel Qualification

Only properly trained and qualified persons may work on ADICOS equipment. Qualified persons are those who have received relevant professional training, have the required skills and experience and who are aware of applicable regulations, enabling them to work on electrical equipment and detect potential hazards.

WARNING!
Personal injury and property damage!
Improperly performed work on and with the device can cause serious injury and damage by fire or explosion.

- **A release for hot work is absolutely necessary!**
- **Tests with the GTL-3 test device are to be carried out by qualified personnel only.**

2.4 Modification

WARNING!
Risk of property damage by any form of unauthorized modification!
Any form of unauthorized modification or extension is expressly prohhibited and can lead to a personal injury and property damage due to fire or explision.

- **Modifications of the GTL-3 is expressly prohibited.**

2.5 Accessories and Spare Parts

WARNING!
Property damage due to short circuit or failure of the detector system
The use of parts other than the manufacturer's original spare parts and original accessories may result in property damage.

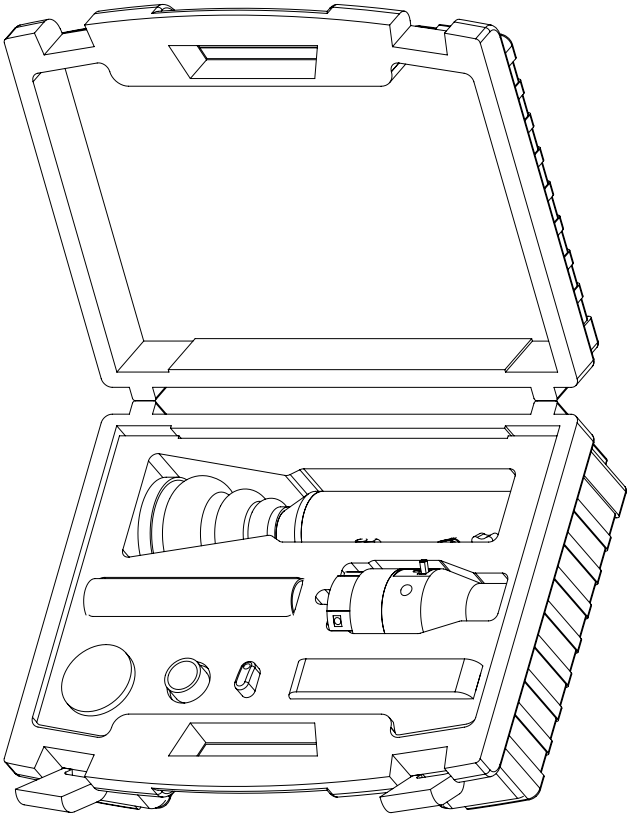
- **Only use original spare parts and original accessories!**
- **Original spare parts and accessories may only be installed by trained specialist personnel.**
- **Qualified personnel are persons as described in Chap. 2.3**

The following accessories are available for the GTL-3 test device:

Art.-Nr.	Description
430-2402-105	Battery pole of the test system solo™*
430-2402-106	Quick battery charger of the test system solo™*
430-2403-105	Telescopic extension rod of the test system solo™*
430-2403-072	GTL-3 Glow filter
430-2003-073	GTL-3 Smouldering sticks

*Manufacturer: No Climb Products Ltd.

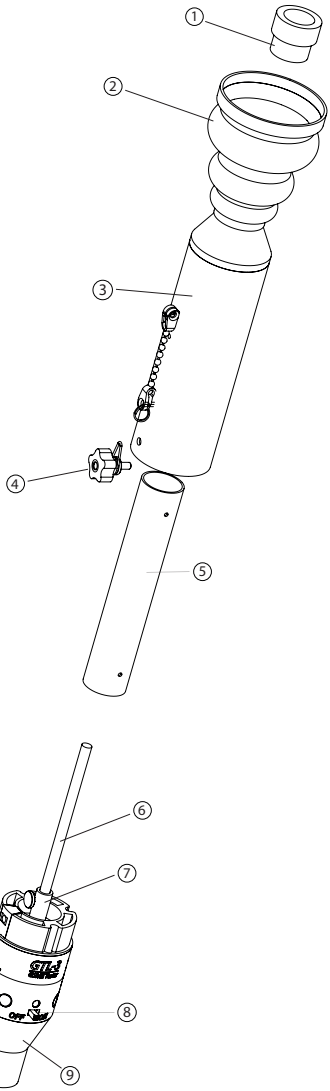
3 Scope of Delivery



Quantity	Description
1	Transport case
1	GTL-3 housing with gas funnel
1	GTL-3 fan unit
1	Protection tube
28	GTL-3 smouldering sticks (in tin can)
30	GTL-3 glow filter (in tin can)
1	Lighter

4 Structure and Function

4.1 Overview GTL-3 Test Head



Nr.	Description
①	Glow filter holder
②	Gas funnel
③	GTL-3 enclosure
④	Locking screw
⑤	Protection tube
⑥	GTL-3 smouldering sticks
⑦	Mounting GTL-3 smouldering sticks
⑧	Operating switch
⑨	Fan unit

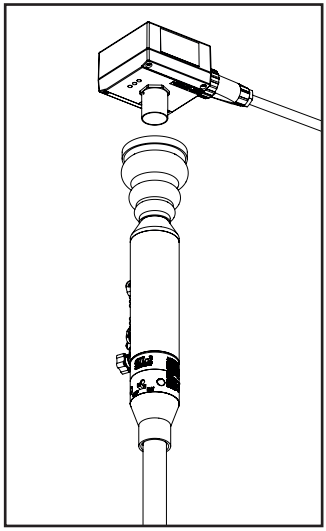
4.2 Function

The ADICOS GTL-3 enables safe burning (smoldering) of the GTL-3 smoldering rod to generate a typical fire gas mixture.

In combination with the solo™ accumulator rod of the company No Climb Products Ltd., these fire gases can be used in a controlled manner for test triggering of ADICOS fire gas detectors type GSME in installation situations in industrial plants.

For this purpose, the smoldering rod inside the combustion chamber is ignited before entering the system to be tested and the fan unit is connected to the solo™ battery baton.

If the gas funnel of the GTL-3 is now pressed against the front of an ADICOS GSME, the air flow generated by the fan unit carries the fire gases released inside the GTL-3 into the detector and triggers an alarm.



5 Preparation for Commissioning

DANGER!
Explosions and fires!
The ADICOS GTL-3 tester works by means of controlled combustion, which can cause fires and explosions if used improperly.

- **Do not open the enclosure inside hazardous areas!**

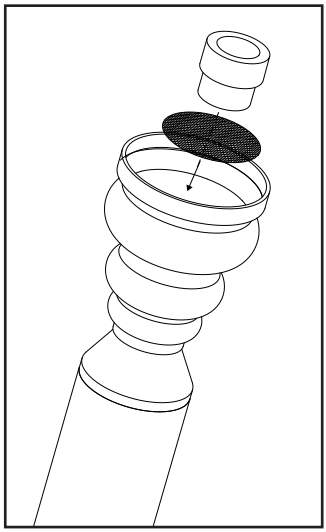
5.1 Inserting the Embers Filter

The GTL-3 glow filter prevents the leak of embers and hot ashes during operation. As soon as the filter is polluted and clogged with fire deposits, it must be replaced before next operation.

Tips and recommendations
A clogged glow filter blocks the proper emission of test gases and therefore leads to incorrect test results.

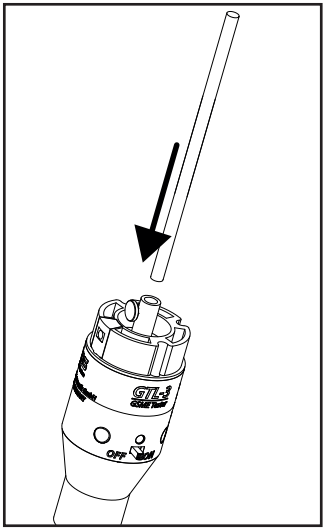
Insert / replace embers filter

1 Press the gas funnel downwards; pull the embers filter holder upwards
2 Remove and dispose of used embers filter
3 Place new embers filter over the opening
4 Clamp new embers filter with embers filter holder



5.2 Insert Smouldering Sticks

GTL-3 smoldering rods are used as fuel for generating test gases for the detector test. A new smouldering rod should be inserted before each operation to ensure that sufficient combustible material is available for operation.



1. Open the device
2. Unscrew knurled nut
3. Dispose any residual combustibles material and ashes safely and properly
4. Insert new smoke stick in the holder and fasten with knurled nut
5. **Carefully tighten the knurled nut to Smouldering sticks cannot be damaged!**
6. Close device
7. **For this purpose, place the GTL-3 enclosure straight on the lower part!**

5.3 Charging the Battery Bar

Tips and recommendations
Before mounting the solo™ battery bar, check the state of charge of the batteries.

- **If necessary, recharge the batteries according to the manufacturer's instructions (see operating manual Solo battery pole)!**

6 Commissioning

DANGER!
Explosions and fires!
The ADICOS GTL-3 tester works with controlled combustion, which can cause fires and explosions if used improperly.

- **Do not open the enclosure within hazardous areas**
- **Only operate the unit when it is approved for hot work!**
- **Only operate the unit with a glow filter!**
- **Only operate the device with the GTL-3 enclosure firmly closed!**

WARNING!
Risk of health damage and injury!
During operation of the ADICOS GTL-3 harmful vapours are generated.

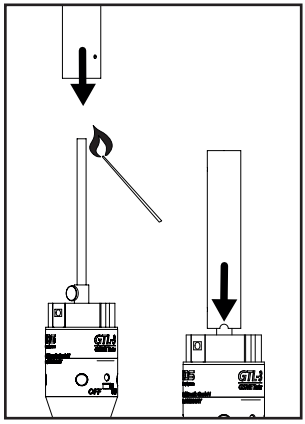
- **Do not inhale vapours!**

Tips and recommendations
Before starting up the ADICOS GTL-3 make sure that:

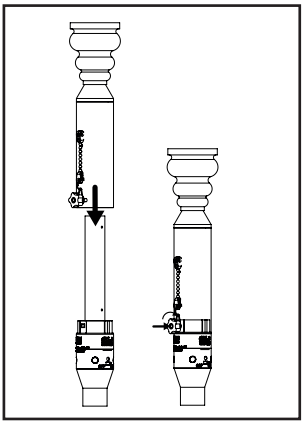
- **The batteries of the solo™ battery bar are sufficiently charged!**
- **A new smouldering rod in the holder GTL-3 smouldering rod is inserted and screwed together!**
- **The fan unit is firmly screwed to the GTL-3 housing**
- **A new embers filter is inserted into the GTL-3 gas funnel and properly clamped!**

6.1 Ignite Smouldering Sticks

1 Remove the GTL-3 protective tube
2 Light smouldering rods at the upper end
3 Replace the GTL-3 protective tube, guiding the recess of the protective tube over the anti-twist protection on the fan unit
4 Mount the GTL-3 housing search unit (–› Chap. 6.2, Mounting the test head)



6.2 Mounting the Test Head



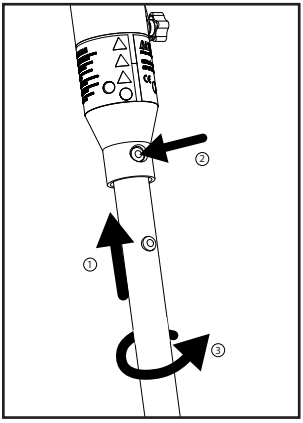
1 Plug the GTL-3 enclosure straight onto the fan unit, using the threaded hole for the knurled screw

2 Secure assembled enclosure parts with knurled screw

6.3 Commissioning the Fan Unit

The fan unit of the ADICOS GTL-3 starts working as soon as it is connected to the solo™ battery bar and the operating switch is pressed.

Mounting the battery pole



1 Insert the solo™ battery pole into the fan unit with the connection socket first. Note the hole for the locking button

2 Press down the locking button and push the bar further until it stops

3 The fan unit is placed in a proper position as soon as it locks with an audible click of the button

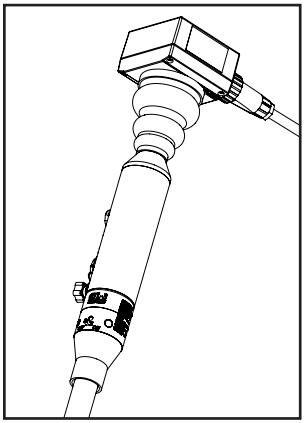
4 Slide the switch in the 'ON' direction

5 The fan starts rotating

6 The GTL-3 is now ready for use

Tips and recommendations
During operation, the fan must run permanently so that the GTL-3 smouldering rod does not go out.

7 Operation



7.1 Testing Fire Gas Detector GSME

1 Press the GTL-3 test device with the gas funnel against the front of the detector until an alarm is indicated.

In order to receive detailed information about the sensor status the total dest duration is two minutes per detector.

2 Remove gas funnel from detector

3 After the last test, **it is essential to extinguish the GTL-3 smouldering sticks** and switch off the fan (–› Chap. 7.2, Set Fan Unit Out of Operation).

7.2 Set Fan Unit Out of Operation

► Slide the operating switch in direction ‘OFF’.

DANGER!
The GTL-3 smouldering rod can cause fires if left unattended.

- **Always extinguish GTL-3 smouldering sticks after the last test!**

Extinguish GTL-3 smouldering sticks

1 Open the device

2 Loosen knurled nut

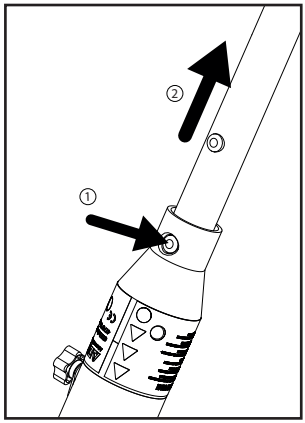
3 Remove glowing GTL-3 smouldering sticks carefully and extinguish with water

Alternatively:

Break off the glowing end of the GTL-3 smouldering rod generously and extinguish with water

Disconnecting the Battery Pole

1 Press and hold down the locking button on the solo™ battery pole
2 Pull the battery bar completely out of the GTL-3 fan unit



8 Maintenance

8.1 Cleaning

Clean test head

Clean the metal surfaces of the probe and the inside of the protection tube with a damp cloth after operation. Use a soft brush if necessary.

GTL-3 Clean housing

If necessary, clean the outer surfaces of the GTL-3 housing with a damp cloth.

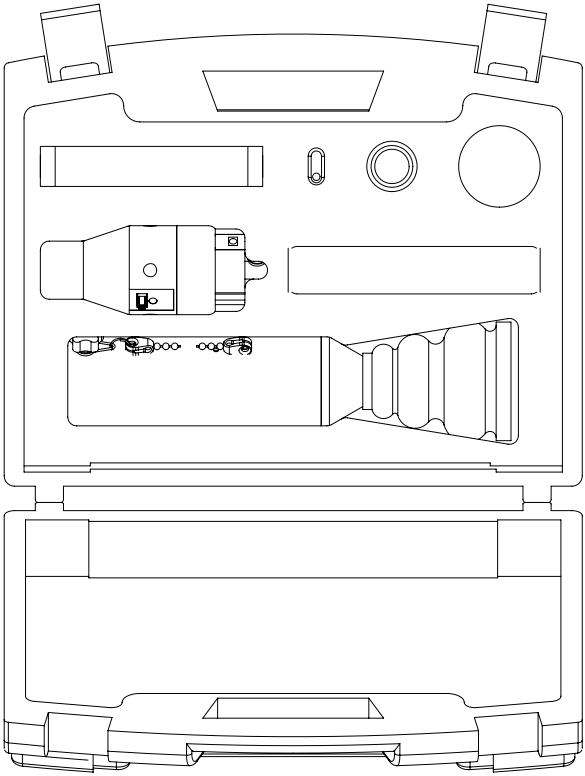
NOTICE!
Damages!
Abrasive cleaning agents can damage the surface of the GTL-3 probe.
- **Do not use aggressive cleaning agents!**

8.2 Storage

Store the device in the transport case when not in use.

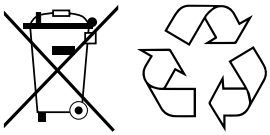
WARNING!
Fire hazard!
This device is operated by means of controlled combustion, which can lead to fires without initiated extinguishing.

- **Only insert the device into the case when the smolderinmg rod is extinguished!**



9 Disposal

Return the device to the manufacturer at the end of the time-of-use. The manufacturer guarantees that all components will be disposed of in an environmentally friendly manner.



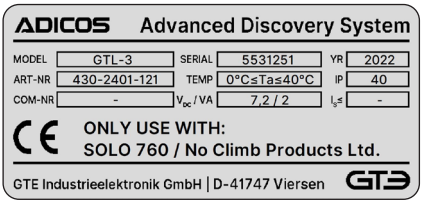
10 Technical Data

General information		
Model		GTL-3
Article No.		430-2410-121
Dimensions	mm	430 x 90 (L x Ø)
Weight	kg	0.58
Degree of Protection		IP40

Electrical characteristics		
Power consumption	mA	250
Input voltage	V	7.2

Environmental conditions		
Temperature range	°C	0 ... 40
Relative humidity	%	≤ 95 (non-condensing)

10.1 ID Plate



Model	Device model	SERIAL	Serial number (variable)	YR	Year of production (variable)
ART-Nr	Article number (variable)	TEMP	Ambient temperature	IP	Degree of protection
COM-Nr	Communication number (variable)	V_{DC}/VA	Voltage range / maximum power consumption (heating incl.)	I_0	Internal fusing (Short-circuit current)
	CE marking	Note			