

**Operating Manual**

**HOTSPOT Test Device**

ADICOS HTL-2 - Operating manual  
Article number: 410-2410-008  
Index: EN20  
Release date: 03.02.2020

– *Translation* –

*Manufacturer:*  
GTE Industrieelektronik GmbH  
Helmholtzstr. 21, 38-40  
41747 Viersen  
GERMANY

Support hotline: +49 2162 3703-0  
E-Mail: [support.adicos@gte.de](mailto:support.adicos@gte.de)

© 2020 GTE Industrieelektronik GmbH – This document and all figures contained may not be copied, changed, or distributed without explicit approval by the manufacturer!

*Subject to technical changes!*

ADICOS® and GSME® are registered trademarks of GTE Industrieelektronik GmbH.

## **Abstract**

The *Advanced Discovery System* (short: *ADICOS*) detects fire scenarios early in an industrial environment. It incorporates various independent detector units that make it possible to reliably detect the detection goal stipulated during planning through appropriate configuration and parameterization.

The detector units are connected with a central unit through the *ADICOS M-Bus*. *The central unit makes it possible to supply power to and parameterize each individual detector and stores all sensor data for statistical evaluations.*

In combination with the SOLO 760 battery baton from the company *No Climb Products Ltd.* ([detectortesters.com](http://detectortesters.com)), the *ADICOS HTL-2* serves as a test device for all *ADICOS* detectors of the type *HOTSPOT*.

# Contents

1	About this manual . . . . .	3
1.1	Objective . . . . .	3
1.2	Explanation of symbols . . . . .	3
1.3	Abbreviations . . . . .	4
1.4	Storing the instruction manual . . . . .	4
2	Safety instructions . . . . .	5
2.1	Intended use . . . . .	5
2.2	Standards and regulations . . . . .	5
2.3	Qualification of staff . . . . .	6
2.4	Modification . . . . .	6
2.5	Accessories and replacement parts . . . . .	6
3	Scope of delivery . . . . .	7
4	Construction and function . . . . .	8
4.1	Overview . . . . .	8
4.2	Function . . . . .	9
4.3	Display and control elements . . . . .	9
5	Preparation for operation . . . . .	10
5.1	Removing dirt . . . . .	10
5.2	Charging the battery baton . . . . .	10
5.3	Mounting the battery baton . . . . .	10
5.4	Mounting the telescope pole . . . . .	10
6	Putting into operation . . . . .	11
7	Detector test . . . . .	12
7.1	Preparing for the Detector Test . . . . .	12
7.2	Testing HOTSPOT detectors . . . . .	12
7.3	Evaluating the detector test . . . . .	12
9	Maintenance . . . . .	14
9.1	Cleaning . . . . .	14
9.2	Storage . . . . .	14
10	Disposal . . . . .	15
11	Technical information . . . . .	15

## 1 About this manual

### 1.1 Objective

This manual describes the proper assembly, wiring, commissioning, and operation of ADICOS *branching and connection boxes*. After commissioning, they are used as reference work in the case of faults.

It is exclusively addressed to knowledgeable specialist personnel (→ *Chap. 2, Safety instructions*).

### 1.2 Explanation of symbols

This manual features a continuous structure for best possible comprehension. The following labels are used.

#### Action objectives

Action objectives describe the result to be achieved by the subsequent instructions. Action objectives are presented in **bolt font**.

#### Action instructions

Action instructions describe the activities to be performed in order to achieve the action objective previously mentioned. Action instructions are presented as follows.

- ▶ Individual action instruction
  
- 1** First of several sequential action instructions
- 2** Second of several sequential action instructions
- 3** etc.

#### Intermediate states

In case of describable intermediate states or results, which are the result of action steps (e.g. displays, internal function steps, etc.), they are presented as follows.

- ▷ Intermediate state

#### Warnings signs

This manual uses the following information types.

**DANGER!**

This type of warning indicates a danger that directly causes death or serious injury.



**WARNING!**

This type of warning indicates a danger that may result in death or serious injury.



**CAUTION!**

This type of warning indicates a danger that may result in injury.



**NOTICE!**

This type of warning provides information that is of immediate importance for further operation of the equipment.



**Tips and recommendations**

This type of hint provides information that is immediately relevant to the continued operation of the device.

### 1.3 Abbreviations

This instruction manual uses the following abbreviations.

<b>Abbr.</b>	<b>Meaning</b>
ADICOS	Advanced Discovery System
SOLO	Testing system of the company <i>No Climb Products Ltd.</i> for fire detectors
HTL	HOTSPOT test device

### 1.4 Storing the instruction manual

Store this document close at hand in the carrying case of the test device so you can look up information as needed.

## 2 Safety instructions

To safely operate ADICOS HTL-2, you absolutely must read, understand, and follow these instructions and the safety information they contain in their entirety.



### **WARNING!**

#### **Fire and explosion hazard due to hot plate**

The ADICOS HTL-2 uses a hotplate that can cause fires on contact with foreign bodies or explosions in ex-zones.

- **You must read and comply with this instruction manual in its entirety!**

### 2.1 Intended use

In combination with the SOLO 760 battery baton from the company *No Climb Products Ltd.* ([detectortesters.com](http://detectortesters.com)), the ADICOS HTL-2 is used to check the functioning of infrared detectors of the type ADICOS HOTSPOT. In that context, the operating parameters addressed in Chapter 11 on technical information must be complied with. Any use deviating from that requires previous consultation with the manufacturer.

Compliance with this instruction manual and observance of all applicable country-specific regulations is part of proper use.

### 2.2 Standards and regulations

When ADICOS detectors are tested, the safety and accident prevention measures valid for each specific case of application must be observed.

The following standards and guidelines are of critical importance for dealing with fire detection systems:

<b>Regulation</b>	<b>Description</b>
VDE 0800	Telecommunications - general terms, requirements and tests for the safety of equipment and devices
VDE 0833	Fire alarm systems
VDE 0845	Protection of telecommunications systems against the effects of lightning, static charging and surges from high voltage systems - measures against surges
VdS 2095	Automatic fire detection systems, planning, and installation
DIN 14675	Fire detection systems - construction and operation

### 2.3 Qualification of staff

All work performed on ADICOS systems must be performed only by qualified staff. Qualified staff is considered to be persons who can perform tests on special fire detection systems and recognize possible dangers owing to their specialist training, knowledge, and experience and their knowledge of relevant provisions.



#### Tests by ADICOS detectors

ADICOS detectors may be tested only by staff who have been authorized and appropriately schooled to do so!

**An approval for hot work is absolutely necessary!**

### 2.4 Modification



#### NOTICE

#### Property damage due to unauthorized change

Any form of arbitrary change can cause property damage.

- **A modification of the ADICOS HTL-2 is expressly prohibited!**

### 2.5 Accessories and replacement parts



#### NOTICE!

#### Property damage through the use of incorrect components

The use of parts other than the original spare parts and the original accessories of the manufacturer may result in short-circuit damage.

- **Use only original spare parts and Original accessories**

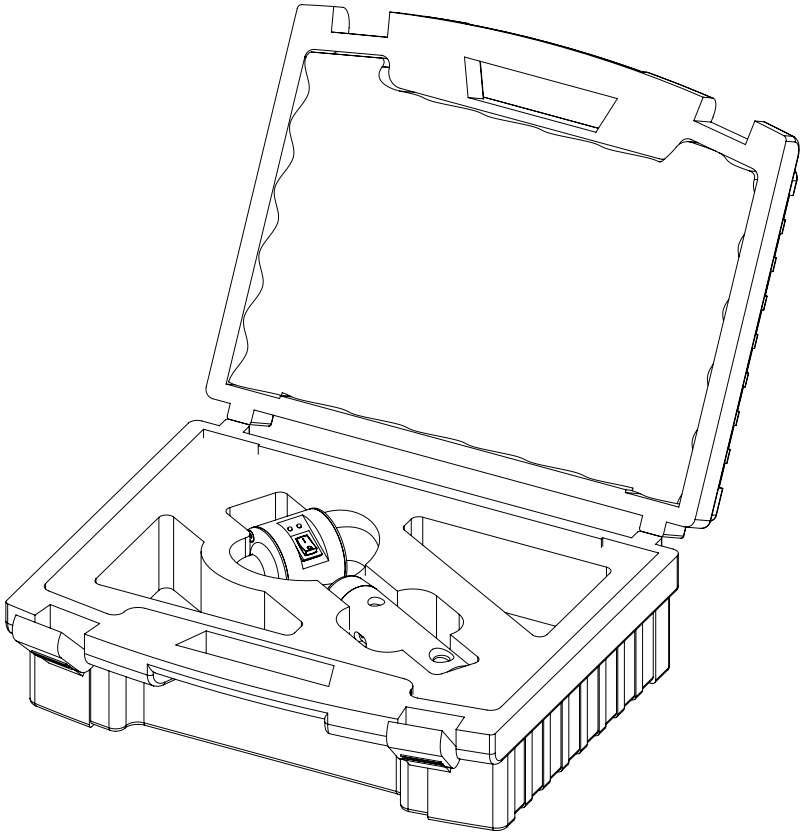
The following accessories are available for the HTL-2.

Art. no.	Description
<b>430-2402-105</b>	SOLO 760 battery baton*
<b>430-2402-106</b>	SOLO 725 battery fast charger*
<b>430-2403-105</b>	SOLO 100 telescope extension pole*

\*Manufacturer: No Climb Products Ltd.



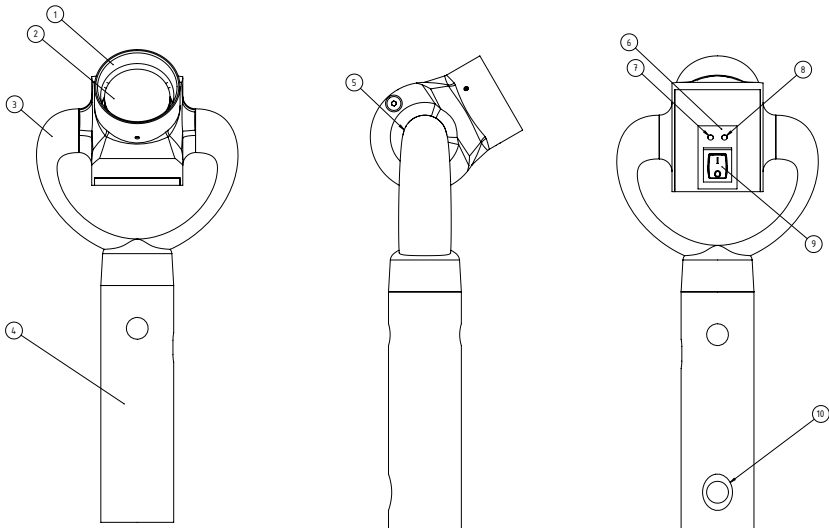
### 3 Structure



<b>Number</b>	<b>Description</b>
<b>1</b>	Carrying case
<b>1</b>	HTL-2 test device

## 4 Construction and function

### 4.1 Overview

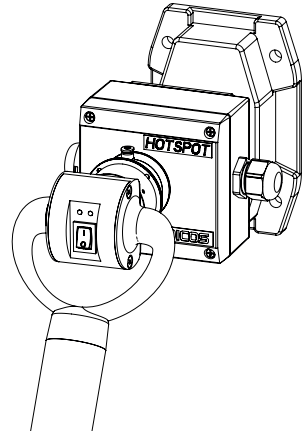


No.	Description
①	HTL test tube
②	HTL hot plate
③	HTL holder
④	HTL connection element for SOLO 760
⑤	Swivel joint
⑥	HTL control panel
⑦	Operating LED (green)
⑧	Heating LED (red)
⑨	ON/OFF switch
⑩	Stop hole for SOLO 760 battery baton

## 4.2 Function

In combination with the SOLO 760 battery baton from the company No Climb Products Ltd., ADICOS HTL-2 makes it possible to easily trigger tests and check the functions of ADICOS infrared detectors of the type HOTSPOT in installation situations in industrial equipment.

For this purpose, its hot plate, which is regulated to maintain a temperature of 100 ... 105 °C, is pressed against the optics of the HOTSPOT detector to be tested, meaning that the entire view range of the detector sensor is homogenously stimulated.



## 4.3 Display and control elements

HTL control panel		
Operating switch	The operating switch is located in the control panel of the HTL-2 and can be used to turn the device on and off.	
Operating LED	The operating LED is located to the left above the operating switch in the control panel. It shines green when the HTL-2 is operated and blinks when the battery is low.	
Heating LED	The heating LED is located to the right above the operating switch in the control panel. It shines red when the heating function of the HTL-2 is active.	

## 5 Preparation for operation

### 5.1 Removing dirt



#### **DANGER!**

#### **Fire hazard due to deposits**

Deposits in the test tube of the ADICOS HTL-2 (e.g. carbon dust) can ignite during operation.

- **Clean the device before each use!**

### 5.2 Charging the battery baton



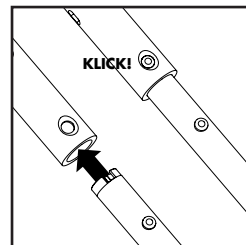
#### **Check charge status**

Before you mount the SOLO 760 battery baton, you must check the charging status of the batteries located inside.

- **If needed, charge the batteries according to the manufacturer's instructions!**

### 5.3 Mounting the battery baton

- 1** Insert the SOLO 760 battery baton into the HTL connection element from below with the connection socket first until it reaches the locking knob
- 2** Press down the locking knob and slide in the baton until it makes contact
- 3** Twist the battery baton, exerting pressure, until it snaps into place with an audible click



### 5.4 Mounting the telescope pole

- 1** Insert the SOLO 760 battery pole into the SOLO 100 telescope extension pole until it reaches the locking knob
- 2** Orient the pole so that the free locking knob of the battery baton and the corresponding engaging hole of the telescope pole are aligned
- 3** Press down the locking knob and slide in the pole until it clicks into place with an audible click

## 6 Putting into operation



### **DANGER!**

#### **Risk of fire due to active hot plate**

The ADICOS HTL-2 uses an active hot plate and can cause fires and explosions if used improperly.

- **Operate the device only if you have a permit for hot work!**
- **Do not operate the device in areas where there is danger of explosion!**
- **Do not leave an activated device unsupervised!**



### **DANGER!**

#### **Burns due to active hot plate**

The ADICOS HTL-2 uses an active hot plate that can cause severe burns if it comes into contact with the skin.

- **Do not touch the hot plate!**
- **Do not operate the device in the carrying case!**



### **DANGER!**

#### **Fire hazard due to deposits**

Deposits in the test tube of the ADICOS HTL-2 (e.g. carbon dust) can ignite during operation.

- **Clean the device before each use!**



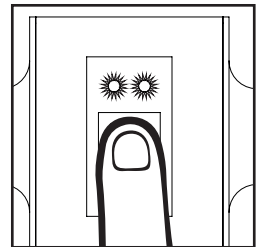
### **Check charge status**

Before you mount the SOLO 760 battery baton, you must check the charging status of the batteries located inside.

- **If needed, charge the batteries according to the manufacturer's instructions!**

### Turning on the HTL-2

- 1** Actuate the operating switch (position I)
  - ▷ The operating LED shines green
  - ▷ The heating LED shines red
  - ▷ The HTL hot plate is being heated
- 2** Wait until the heating LED extinguishes. Depending on the temperature and the charging state of the SOLO 760 battery baton, this can take up to 10 minutes.
  - ▷ The HTL-2 is ready for use.



## 7 Detector test



### WARNING!

#### Risk of injury due to falling deposits

Deposits on the ADICOS detectors can drop when touched during testing and cause injury.

- **Wear appropriate protective clothing**

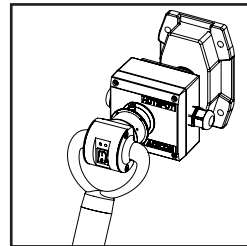
### 7.1 Preparing for the Detector Test

- 1 Use ADICOS software to call up the detectors to be tested
- 2 Call up the thermal image of the detector
- 3 Select the tab "Max.-Werte T"
- 4 In "Zusatz-F." in the lower-left section, select "Max T" in the window
- 5 Press the button "Max Löschen"



### 7.2 Testing HOTSPOT detectors

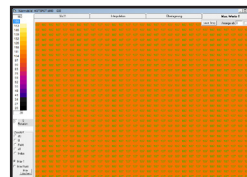
- ▶ Press the heated HTL-2 with the test tube directly against the sensor of the detector to be tested and hold it there for several seconds.
- ▶ Turn off HTL-2 after testing.  
Use the operating switch to do so (position O)



### 7.3 Evaluating the detector test

Depending on the parameterization of the detector, the test is successful if an alarm is triggered and if the "Max T" thermal image, which displays the highest temperature of every pixel, uniformly displays the temperature of the HTL hot plate after the test. To do this...

- 1 Use the ADICOS software to call up the detector to be tested
- 2 Call up the thermal image of the detector
- 3 Select the tab "Max.-Werte T"
- 4 In "Zusatz-F." in the lower-left section, select "Max T" in the window
- 5 Configure an appropriate color spread



## 8 Malfunctions

Description of malfunction	Possible cause	Solution
Operating LED and heating LED do not light up	Batteries are empty	Charge the SOLO battery baton (→ Chapter 5.2)
Operating LED and heating LED do not light up	Battery baton improperly inserted	Remove the SOLO Akkustange and connect it again (→ Chapter 5.3)
Operating LED and heating LED blink	Low battery power	Charge the SOLO battery baton (→ Chapter 5.2)
Heating LED does not go out	Low battery power	Charge the SOLO battery baton (→ Chapter 5.2)

## 9 Maintenance

### 9.1 Cleaning

#### Cleaning the HTL test tube

- 1 Blow out the test tube with compressed air if it gets dirty
- 2 Clean the hot plate with a moist towel  
**Do not use any aggressive cleaning agents!**

#### Cleaning the HTL case

- ▶ Clean the outer surfaces of the HTL-2 with a moist towel as needed  
**Do not use any aggressive cleaning agents!**

#### Maintaining the HTL swivel joints

- 1 If it becomes difficult to rotate the HTL-2 swivel joints, blow them out with compressed air
- 2 Grease the swivel joints with penetrating oil (e.g. WD-40)

### 9.2 Storage

Store the device in its carrying case when it is not in use.

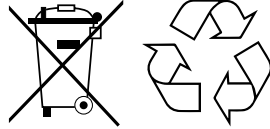
**WARNING****Risk of injury from swirling particles**

When cleaning the ADICOS HTL-2 with compressed air, dirt particles can be whirled up and cause injuries to the eyes and respiratory tract.

- **Wear appropriate protective clothing**

## 10 Disposal

After the end of its utilization time, return the device to the manufacturer, who guarantees environmentally friendly disposal of all components.



## 11 Technical information

<b>General</b>		
Measurements:	mm	265 x 110 x 60 (L x W x H)
Weight:	kg	0.2
<b>Electrical properties</b>		
Power consumption:	A	1.0 ... 1.2
Max. operating time: (with completely charged SOLO 760 battery baton)	h	3.5
<b>Environmental conditions</b>		
Temperature range:	°C	+10 ... +40
Humidity range:	%	< 95 (non-condensing)



