Operating manual



Chain Hoist Testing Set KPS35





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1 Safety

1.1 Regarding these Operating Instructions

What information do you expect?

In these Operating Instructions you will find all the information which you need to commission and operate the chain hoist testing set KPS35.

All the information contained in these Operating Instructions corresponds to the latest state of the art and is based on our previous experience and know-how according to the best of our knowledge.

General instructions

INSTRUCTION General instructions in the text are printed with this typographical layout.

Index

At the end of the Operating Instructions there is an **index**, from which you can find the information that you are looking for.

Illustrations

The illustrations do not necessarily correspond with the scope of supply or a possible spare parts order. The drawings and diagrams are not to scale.

1.2 Marking of the safety instructions

Graduation

There are three grades of safety instructions. They refer to the possible residual dangers.

DANGERThis safety instruction indicates an immediate danger. Non-observance
leads to serious injury or death.



This safety instruction shows a potential danger. Non-observance may lead to serious injury or death.

This safety instruction indicates a potentially dangerous situation, which can lead to medium or slight body injury. With this instruction it is possible to warn of possible damage.

1.3 Residual dangers

The chain hoist testing set KPS35 is a test device to test the slip couplings on chain hoists.

In addition the operator should so consider safety matters that residual dangers are minimized.

If the chain hoist testing set KPS35 is combined with the chain hoist to form a new system dangers can arise. These dangers should be minimised by a danger assessment carried out be a competent operator.

1.4 Obligations of the operator

Use in accordance with instructions

The purpose of the chain hoist testing set KPS35 is the testing of slip couplings on chain hoists with chains of 4-11 mm thickness as specified in DIN 5684 and DIN EN 818. Any other use of the chain hoist testing set KPS35 is not in accordance with these instructions.

Misuse

The following are considered to be use not in accordance with the instructions (misuse):

- any application that deviates from or exceeds the purpose for which the equipment was intended.
- the testing of unsuitable chain hoists.
- the non-observance of the safety instructions.
- use of the device with any defects which can affect safety that have not been repaired.
- the use of a longer signal cable than that delivered.
- the use of material other than original spare parts or accessories.
- unauthorised extensions and conversions of the chain hoist testing set KPS35.
- if the equipment is operated, when it is not in a technically satisfactory condition, not in a safety and danger conscious way and not in accordance with all the operating instructions.

• the use of other force transducers.

If the equipment is used for any purpose other than that intended (misuse) the manufacturer will not accept any liability.

Observation obligation

It is incumbent on the operator to keep the technical condition of the chain hoist testing set KPS35 constantly under review and to look for recognizable external defects and damage as well as changes in the operating conditions.

The operator is obliged to only operate the chain hoist testing set KPS35 when it is in a satisfactory condition. He must check the condition of the chain hoist testing set KPS35 before use and ensure that any defects are repaired before the equipment is used again.

Qualification of the staff

The chain hoist testing set KPS35 must only be set up by trained, authorised, reliable and competent staff.

The testing and operation must only be done by competent technical staff.

Competent means,

- someone who, because of his technical training and experience, has sufficient knowledge in the field of chain hoist equipment and
- is familiar with the relevant national safety at work regulations, accident prevention regulations and generally recognised rules in this area (e.g. BG rules, DIN standards, VDE regulations, technical rules of other member states of the European Union or other countries that are signatories to the agreement of the European Economic Community).
- that he can assess whether the results obtained are valid and whether the measurements can be safely carried out.

These requirements are met, for example, by a suitably trained fitter of the manufacturing and maintenance firms as well as correspondingly trained technical staff who belong to the firm.

The manager of the chain hoist will not be released from the responsibility of operating the chain hoist properly because he has installed the chain hoist testing set KPS35.

Occupational health and safety at work regulations

The operator of the chain hoist is also obliged to observe the national industrial safety regulations while testing.

2 Description

The chain hoist testing set KPS35 comes in two versions:

- Chain hoist testing set KPS35 Basic
- Chain hoist testing set KPS35 Advanced

The scope of supply and the device are described below for both versions.

2.1 Chain hoist testing set KPS35 basic



2.1.1 Scope of supply KPS35 basic

Item	Designation	ltem	Designation	Item	Designation
1	ViSens-display device	6	Chain centring shell 3 (4-5mm)	11	Aluminium box
2	Signal cable, 10 metre	7	Chain centring shell 2 (6-7mm)		
3	Charging device 220-240 V	8	Chain centring shell 1 (8-11mm)		
4	EU adapter	9	Chain adapter B (4-6mm)		
5	Force transducer	10	Chain adapter A (7-11mm)		

2.1.2 Overview of chain hoist testing set KPS35 basic

Purpose

The chain hoist testing set KPS35 tests slip couplings on chain hoists.

Components

The chain hoist testing set KPS35 consists of two components:

- ViSens display device (1) with signal cable (2) for the measurement, display and evaluation of the test.
- Force transducer (3) with chain adapter (5) and chain centring shell (4). (6) for the transmission and storage of the measured data on the PC.



ViSens display device

The ViSens display device is used to make, store and display measurements.

The ViSens display device has the following soft keys and connections.

Keys

- Soft keys, the function of a soft key depends on the soft key display.
- Arrow keys \leftarrow , \rightarrow , \uparrow . \downarrow
- On/Enter key ← For switching On/Off

Connections

- Force transducer signal lead connection
- Charger connection



ViSens display

The ViSens display device has start and measured value displays:

Start display



The start display shows the version number 2 seconds after switching on.

Measured value display

-65%	020ms RNG01	•	Info line
+00	295 kg	•	Measured value display
020	90	•	Auxiliary display: min/max values
MIN MAX	HLD TAR AVG LGT	•	Soft keys

```
Info line: -65% 020ms RNG014
```

The info line gives information on:

•	Battery state:	
---	----------------	--

- -65% = Battery charge level
- **LOAD** = Display device is being charged. Device is ready to measure.
- -BAT: = Battery voltage is too low. No measurement can be made.
- Measured value averaging 020 ms
 Measured value averaging is a fixed setting of 20 ms.
- Measuring range **RNG01** The measuring range is a fixed setting.

Measured value display; +00295 kg

• The current measured value is shown in kg. The display goes up to 4985 kg (without tare), above this the display shows "-----".

Auxiliary display: Display value: 02090, dependent on the soft key activated

- The min- and max-values of the measurement are displayed depending on the soft key activated. Further pressing of the soft key resets the value.
- If there are unusual conditions the following messages appear: OVERLOAD = Overload at the input

CHECK SENSOR = Input current is too high: Input is switched off by the device

The fault must be cleared before making further measurements and the ViSens display device switched off and on again.

Soft keys: MIN MAX HLD TAR AVG LGT

- MIN: Activates the MIN measurement. The measured value is displayed in the auxiliary display.
- MAX: Activates the MAX measurement. The measured value is displayed in the auxiliary display.
- **HLD**: Activates the HOLD measurement. The measured value at the time of activation is held and displayed in the auxiliary display.
- **TAR**: Tares the measured value. It makes sense to do this after mounting the force transducer on the chain, for example, in order to compensate for the weight of the force transducer.
- **AVG**: Activates the AVG measurement. The average value of the last 10 measurements is shown in the auxiliary display.
- LGT: Switches the display lighting on/off.

2.2 Chain hoist testing set KPS35 advanced

2.2.1 Scope of supply KPS35 advanced



Item	Designation	ltem	Designation	Item	Designation
1	ViSens-display device	6	Chain centring shell 3 (4-5mm)	11	Aluminium box
2	Signal cable, 10 metre	7	Chain centring shell 2 (6-7mm)	12	ViSens software / ACTISYS-software/ USB- RS232 software
3	Charging device 220-240 V	8	Chain centring shell 1 (8-11mm)	13	IR interface -RS232
4	EU adapter	9	Chain adapter B (4-6mm)	14	Adapter USB-RS232
5	Force transducer	10	Chain adapter A (7-11mm)		

2.2.2 Overview of chain hoist testing set KPS35 advanced

Purpose

The chain hoist testing set KPS35 tests slip couplings on chain hoists.

Components

The chain hoist testing set KPS35 consists of three components:

- ViSens display device (1) with signal cable (2) for the measurement, display and evaluation of the test.
- Force transducer (3) with chain adapter (5) and chain centring shell (4).
- ViSens software (6) for the transmission and storage of the measured data on the PC.



ViSens display device

Measurements are made, stored and displayed with the ViSens display equipment.

The ViSens display device has the following keys and connections.

Keys

- Soft key buttons to move around in the menu. The function of the soft keys depends on the soft key display.
- Arrow keys \leftarrow , \rightarrow , \uparrow . \downarrow to move around in the menus.
- On/Enter key ← for switching on / off and to confirm the inputs.

Connections

- Connection signal cable force transducer
- Connection charging device
- Infra-red interface IRDA for the data transmission to the PC



ViSens menu levels

The ViSens display device has a start indicator and three menus:

- the chain hoist menu for measurement,
- the Data menu to display the measured set of data and
- the Editing menu to input customers and chain hoist data.

Start display



The start display shows the version number 2 seconds after switching on.

Chain hoist menu (HOIST)



Info line: HOIST#12345600000/04

The info line gives information on:

- Status of the device: HOIST# = Device in measuring mode LOAD = Display device is charged by the charger. Device is ready to measure. -BAT: = Accumulator voltage is too low. No measurement can be carried out.
 Chain hoist number
- Chain hoist number 123456000000 The chain hoist number (Hoist) is a 12 digit number. This number is given by the soft key **NEW**.
- Data set number

/04 The data set number gives the number of the measurement. The data set number is increased by 1 each time the soft key SAV is pressed. A maximum of 96 sets of data can be saved.

Measured figures display; +00295 kg

• The value actually measured is displayed in kg. The display goes up to 4660 kg (without tare) above that the display shows "-----".

Auxiliary display: Min/max values: Min+02090 Max +02125

• The minimum and maximum values of the measurement are displayed. The min / max values are automatically measured. The automatic measurement starts when a maximum value is reached. The value measured 2 seconds



after the maximum measurement is the minimum value. When the soft key "SAV" is pressed the minimum/maximum values are stored and replaced.

 If there are unusual conditions the following messages appear: OVERLOAD = Overload at the input CHECK SENSOR = input current too high: Input is switched off by equipment. Before making further measurements the defect must be repaired and the ViSens display device switched off and on again.

Soft keys: NEW SAV COM TAR LGT >

- **NEW**: Opens the Editing menu to process the customer number, the chain hoist number and the nominal load.
- **SAV**: Saves the minimum / maximum values with the customer number, the chain hoist number and the nominal load. The saved data can be displayed in the Data menu.
- **COM:** Transmits all data in the data memory over the IR interface to the PC. The data in the data memory is not deleted.
- **TAR:** Tares the measured values. This is, for example, sensible after the assembly of the force transducer on the chain, in order to compensate for the weight of the force transducer.
- LGT: Switches the display lighting on / off.
- >: further to the Chain Hoist menu.

Data menu

11 +02090 +02125 684 12 +02090 +02125 684 13 +02090 +02125 684 14 +02090 +02125 684 15 +02090 +02125 684	•	Data set: custome
AN1 AN2 AN3 AN4 AN5 >	•	Soft keys

• Data set: Data set number, min / max value, customer number

Line data set: 11 +02090 +02125 684

- Data set number 11
 The data set can be marked with the soft key "AN1".
 It is then shown inverted.
- Saved maximum / minimum values +02090 +02125;
 5 figure numbers without a comma in kg.
- Saved customer number 684

Soft keys: AN1 AN2 AN3 AN4 AN5 >

- AN1: (cancel) marks the data set; AN1 marks the dataset in the first line. This marking is transmitted to the PC if the data is transmitted.
- >: further to the Data menu.

Edit menu

1 Dataset #: 04 2 Customer #: 684 3 Hoist#:123456000000 4 Nominal Load#:00000 2 3 4 CLR > • Soft keys

Editable values: Customer number, chain hoist number and nominal load. These values are displayed and saved together with the max / min values.

The values are edited after pressing the appropriate soft key and putting in the figures with the numbers keys. The data set number cannot be edited.

Soft keys: 2 3 4 CLR >

- 2: Open the customer number to edit it with the figure keys. The input is locked with the key ← .
- CLR: (Delete) deletes all values and all data in the ViSens display device after pressing for 5 seconds.

3 Commissioning

3.1 Put in accumulators and charge them

The ViSens display device is delivered ready to use. It is only necessary to put in the accumulators and charge them.

▲ WARNING

There is a danger of overheating if non-rechargeable batteries are used. Do not put non-rechargeable batteries in the charger. If these are charged they can overheat and explode.

Non-rechargeable batteries are not to be used under any circumstances! Please use only rechargeable batteries (see section 7.1, page 40).

MARNING

There is a danger of overheating if the accumulators are wrongly put in the charger.

Incorrectly installed batteries can lead to short circuits and over heating of the accumulators. Put in the accumulators as shown. Take care that the + pole is in the correct position.

The use of non-rechargeable batteries results in measurement deviations or shutdown of the ViSens indicator.



Steps:

Danger when using in damp environments

The ViSens display device and the charging device are only suitable for use in dry environments. Only operate and charge the ViSens display device in a dry environment.

- 1. Choose a suitable AC adapter for your country (2) and plug it into the charging device (1)
- 2. Check whether the local voltage supply is 220 240 V and 50/60 Hz. If not, the charging device must not be connected.
- 3. Insert the accumulators supplied correctly into the accumulator compartment.
- 4. Connect the charging device to the socket charger on the ViSens display device and connect the charger to the plug.
- 5. The ViSens display device switches itself on and shows "LOAD".
- 6. Charge the accumulators for about 4 hours.

4 Carry out measurements

	Electrical danger when used in damp environments
	The ViSens display device and the charging device are only suitable for use in dry environments. Only operate and charge the ViSens display device in dry environments.
•	
	There is a danger of injury due to falling parts
	It cannot be excluded that parts of the force transducer become detached from the chain hoist, fall down and injure people in the danger area. Stand clear of the danger area when the measurements are being made and wear a hard hat and safety shoes.
Overview	
	The measurement takes place in three stages:
	 Preparation of the measurement: Among the preparation for the measurement are the check to see whether the chain hoist or the chain is suitable and the check to see that all necessary safety measures have been taken.

- Put the force transducer in the chain and connect to the ViSens display device.
- **Measure:** For the measurement the force transducer moves upwards with the chain against the bottom of the chain hoist and blocks the chain.
- On the ViSens display device the weight at which the slip coupling operates is displayed and stored.

4.1 **Preparation for the measurement**

Preconditions

The ViSens display device must be charged. "HOIST" appears after the display has been switched on.

4.1.1 Check whether the chain is suitable for the measurement

The chain is suitable if the chain adapter fits in the chain and when the chain is blocked on the bottom of the chain hoist it does not jump out or slip through.

Chains as specified in DIN 5684, DIN EN 818

Chains as specified in DIN 5684 and DIN EN 818 with a nominal thickness of 4 to 11 mm are suitable.

Other chains



If you are unable to classify the chain, you must carefully check when you connect the force transducer to the chain whether the chain adapter (2) sits perfectly in the chain (1). The chain adapter must be able to transmit the expected operating force of the slip coupling without slipping through.



Danger of injury due to parts falling from an unsuitable chain

A chain adapter that does not sit correctly can lead to an unusable measurement, damage the chain, slip through or in the worst case the complete force transducer becomes detached from the chain and falls down.

In case of doubt do not make measurements with the chain hoist testing set.

4.1.2 Check that the chain hoist is suitable

Maximum measuring range

The measuring range of the force transducer is up to 4735 kg. The chain hoist testing set is not suitable if the triggering load of the slip coupling of the chain hoist lies above this range.

Checking whether the feeding hopper (1) is suitable

The chain centring shell (3) leads the force transducer on the bottom of the chain hoist (1) when the chain (2) is blocked.

Check whether the chain centring shell fits onto the feed hopper on the bottom of the KPS35 or whether it can cause damage on the bottom of the chain hoist. If there is any doubt do not make measurements with the chain hoist testing set.



4.1.3 Safety measures

The following safety measures are essential, since it cannot be ruled out with absolute certainty that the force transducer will become detached from the chain, fall down and injure somebody.

Personal protection equipment PSA



Everybody involved in the measurement must wear a hard hat and safety footwear.

The personal protection equipment must correspond to Cat II.

Protection of the danger area



During the measurement on the chain hoist (1) nobody must enter the danger area B, which is an area fixed by the management around the measuring chain (2), Management must prevent access to the danger area B by suitable means.

4.2 Hang the force transducer in the chain

The force transducer must be securely connected with the chain and be connected to the ViSens display device.

Steps





Nominal thickness of the chain as specified in DIN 5684 and DIN EN 818	Usable chain adapters			
4 mm to 6 mm	Chain adapter B			
7 mm to 11 mm	Chain adapter A			

- B Hang the force transducer (3) in the chain (4).
- C Check whether the force transducer (5) sits securely in the chain (6) as it pulls it down.

D Select a suitable chain centring shell (8) and plug it in the force transducer (7).

Nominal thickness of the chains as specified in DIN 5684 and DIN EN 818	Useable chain centring shell			
4 mm to 5 mm	Chain centring shell 3			
6 mm to 7 mm	Chain centring shell 2			
8 mm to 11 mm	Chain centring shell 1			

WARNING

Danger of injury due to falling force transducer

An incorrectly fitted chain centring shell does not connect the force transducer correctly with the chain. Always put in the chain centring shell as shown in the previous illustration.

- E Check whether the chain centring shell (10) clicks into place in the force transducer (9)
- F Connect the ViSens display device (11) and force transducer (13) with the signal cable (12). Only use the signal cable delivered with the instrument (length 10 m). The use of longer cables is forbidden.

4.3 Measurement:

4.3.1 Measuring with chain hoist testing set KPS35 Basic

Overview

Measuring is carried out in 6 steps:

- 1 Leave the danger zone
- 2 Switch on the ViSens display device
- 3 Tare the force transducer and switch on the MAX display
- 4 Raise the force transducer until the chain blocks.
- 5 Evaluate the measurement results
- 6 If necessary, repeat the measurement

1 Leave the danger zone



Leave the danger zone B around the measuring chain (2) and secure the danger zone against unauthorised access; see also section 4.1.3, page 21.

2 Switch on the ViSens display device

- Switch on the ViSens display device using key ← On.
- The device must show a numerical value for the battery state e.g."-65%" and 2-4 kg

 the untared weight of the force transducer.



3 Tare the force transducer and switch on the MAX display

The weight of the force transducer must be tared since otherwise it will be included in the measurement:

- Press the soft key "TAR".
- The device must show 0000 kg.
- Press the soft key "MAX".
- The auxiliary display must show 0000.

-65% 020ms RNG01 +00000 kg 00000 MIN MAX HLD TAR AVG LGT

4 Raise the force transducer until the chain blocks



- Raise the force transducer (2) until it strikes the chain hoist (1) and releases the slipping clutch.
- Stop the lifting drive of the chain hoist.
- The device shows the max. value measured in the auxiliary display "01104".
- If necessary: erase the MAX value by pressing the soft key "MAX" again.



5 Evaluate the measurement results

- It is recommended that several measurements are made. The first measured value is generally higher because the slipping clutch heats up when slipping and its release load then falls.
- Always take note of the data provided by the manufacturer of the chain hoist when evaluating the measured results.

6 If necessary, repeat the measurement

- Lower the force transducer a little using the chain hoist control.
- Ensure that the MAX measurement was activated with soft key "MAX".
- Repeat step 4, Raise the force transducer.

4.3.2 Measuring with chain hoist testing set KPS35 Advanced

Overview

The measurement is carried out in 10 steps:

- 1 Leave the danger area
- 2 Switch on the ViSens display device
- 3 Input the customer number and chain hoist parameters
- 4 Tare of the force transducer
- 5 Run up the force transducer until the chain is blocked.
- 6 Assess the measured results
- 7 If necessary: Repetition of the measurement
- 8 Display all measurements in the Data menu
- 9 Transmit data to the PC
- 10 Delete data

1 Leaving the danger area



Leave the danger area B around the measuring chain (2) and protect the danger area against unauthorised entry, see also Section 4.1.3. Page 21.

kg

2 Switching on the ViSens display device

- Switch on the ViSens display device with the key ←.
- The device must show "HOIST" and 2-4 kg, the untared weight of the force transducer.
- If minimum and maximum values >0 are displayed, then unsaved measurements are in the display.

3 Input the customer number and chain hoist parameters

Inputting the customer number and chain hoist parameters is not necessary to carry out the measurements, but sensible, in order to be able to differentiate the measured values from several chain hoists.

- Press the soft key "NEW".
- The Editing menu opens.
- If you want to delete all entries: Press the soft key "CLR" for 5 seconds.
- Press the soft key "2" and input the customer number with the figure keys. End the input with the key ↓.
- Input the chain hoist number with soft key "3" and the nominal load with soft key "4".
- Back to the Chain Hoist menu: Press the soft key ">".

4 Taring of the force transducer

The weight of the force transducer must be tared, since otherwise it will be included in the measurement.

- Press the soft key "TAR".
- The device must show 0000 kg.

HOIST#00000000000/01

Min+00000 Max +00000

NEW SAV COM TAR LGT >

+00003

NEW SAV COM TAR LGT >

1	Dataset	#: (00		
2	Customer	r #:	68	4	
3	Hoist#:	L234	560	0000	00
4	Nominal	Loa	d#:	0000	00
	2	3	4	CLR	>

HOIST#123456000000/01 +00000 kg Min+00000 Max +00000 NEW SAV COM TAR LGT >

5 Running up the force transducer until the chain is blocked.

- Run up the force transducer (2) until it strikes the chain hoist (1) and releases the slip coupling.
- Stop the lifting drive of the chain hoist.
- The device shows "the minimum and maximum values measured".
- Save the measurement by pressing the soft key "SAV" The minimum / maximum values are put back by the device, the dataset number is raised by 1.

HOIST#123456000000/01					
+00000 kg					
Min+01095 Max +01104					
NEW SAV COM TAR LGT >					
HOIST#123456000000/02					
+00000 kg					

Min+00000 Max +00000 NEW SAV COM TAR LGT >

6 Assessment of the measured results

- It is recommended that several measurements are made. In general the first measurement is higher, since the slip coupling heats up by slipping and the release load of the slip coupling falls.
- Always note the data provided by the manufacturer of the chain hoist when assessing the measured results.

7 If necessary: Repeat the measurement

- Bring the force transducer down a little with the chain hoist control.
- Ensure that the last measurement was saved with soft key "SAV".
- Repeat step 5, raising the force transducer.

8 Display of all measurements in the Data menu

The data menu shows all the measurements, which were saved with the soft key.

- Press the soft key ">".
- The Data menu opens.

In the display example 14 measurements were saved, the last 5 measurements are shown. Use the \uparrow,\downarrow keys to display the other sets of data.

For each data set, the data set number (10), with the minimum – maximum value (02090), the maximum value (02125) in kg and the customer number (684) are shown.

Not shown, but stored with the data set are the chain hoist number (12 characters) and the nominal load.

The data sets can be marked with the soft keys, for example, for unusable measurement results

- Press the soft key "AN1"
- The data set 10 is marked and shown inverted.
- Back to the Chain Hoist menu: Press the soft key ">".

HOIST#123456000000/15 +00003 kg Min+00000 Max +00000 NEW SAV COM TAR LGT >

11	+02090	+02125	694 694
10	+02000	+02120	C04
12	+02091	+02124	684
13	+02090	+02126	684
14	+02091	+02125	684
AN1	AN2 A	N3 AN4 2	•м5 >

10	+02090 +02125 684
11	+02090 +02125 684
12	+02090 +02125 684
13	+02090 +02125 684
14	+02090 +02125 684
AN	L AN2 AN3 AN4 AN5 >

9 Data transmission to the PC

With the soft key "COM" all data sets are sent to the PC.

- Press the soft key "COM".
- The data is sent to the PC. In the ViSens there is no display, regardless of whether the data transmission was successful or not. This can only be assessed on the PC.

The following is sent:

- Data set number (10)
- Minimum value (02090), maximum value (02125)
- Customer number
- Chain hoist number
- Nominal load
- Cancelled measured value

INSTRUCTION The data is not deleted with the sending command. All data is deleted with soft key "CLR" in the Editing menu.

10 Delete data

After conclusion of the measurement and transmission to the PC it can be sensible to delete the data.

INSTRUCTION In the deletion process all data in the display device is deleted, both the edited data, such as the customer number, and all measured results stored in the memory.

- Press the soft key "NEW".
- The Editing menu opens.
- Press the soft key "CLR" for 5 seconds.
- All data is deleted.



5 ViSens software

5.1 ViSens software: Function

With the ViSens software, data from the ViSens display device is transmitted over an infra-red interface to the PC data and displayed on the PC.

5.2 Installation

For communication between the ViSens display device and the PC

- the ViSens software and
- the ACTISYS IR interface and corresponding driver

must be installed on the PC.

5.2.1 System requirements

PC

- PC Pentium or higher with CD-ROM drive
- Microsoft Windows XP operating system
- RS232 interface or USB interface

INSTRUCTION An integrated IR interface that may be installed in the PC is not suitable for data transmission.

ViSens display device

ViSens display device Version 1.6 and higher.

5.2.2 Installation ViSens software

- Remove any older versions that may be present of the ViSens software with the uninstaller in Windows XP.
- Start the installation by running the setup.exe file from the ViSens installation CD.
- The installation menu takes you through the installation.
- Chose the language.

Sp	orache / Language	×
	VOK X Abbrechen	
	• Deutsch	
	C English	
100		
055		

• When the installation is complete the ViSens software is available on the PC.



5.2.3 Installation ACTISYS IR interface

The ACTISYS IR interface supplied with the device is provided for connection to the RS232 interface (COM1) on the PC. For PCs which do not have an RS232 interface (COM1) the additional USB delivered with the device must be connected to the RS232 adapter.

PC with RS232 interface

- To install the ACTISYS software runs the setup.exe file from the ACTISYS installation CD.
- The installation menu takes you through the installation.
- In the ViSens-Program under "Options" put the corresponding COM port; in general COM1.

OK X Cancel	
serial Interface:	
read data	
 automatic O only manual 	
I save read-protocol "RdProt.txt"	

• Connect the ACTISYS IR interface to the RS232 interface of the PC.



PC with USB interface

- Start the installation by running the setup.exe file from the ACTISYS installation CD. The Installation menu takes you through the installation.
- Start the installation by running the setup.exe file from the USB to RS232 installation CD. The Installation menu takes you through the installation.
- In the ViSens-Program under "Options", show "Read data" the corresponding COM port; in general COM5.

VOK X Cancel	
serial Interface: Com1 🔻	
read data • automatic	
C only manual	
🔽 save read-protocol "RdProt.txt"	

- Connect the ACTISYS IR interface to the adapter USB to RSR232.
- Connect the adapter USB to RSR232 to the USB interface of the PC.



5.3 Configuration of the ViSens software

With the installation and selection of the corresponding COM ports the software is ready to operate for data transmission.

However under "Options" you can adjust the data storage and the reading-in of data to meet your requirements.



Read in data: automatic/only manual

	OK X Cancel	
	serial Interface:	
	read data	
	automatic Conly manual	
	☞ save read-protocol "RdProt.txt"	
1000		

• Automatic: The ViSens software monitors the IR interface on the COM port. Transmitted data is automatically read-in. The IR interface cannot use other programs.

• **Only manual:** The reading-in of data must be started anew for each data transmission with "Data", "Read device". The IR interface cannot use other programs.

Data protection settings

Directory:	
C:\Programme\TECSIS\Kettenzug\DataDir	
C fix filename:	
TestFile	
will be overwritten	
Datum-encoded: DA_YYYMMDD (e.g. DA_20073101)	
C consecutively numbered (e.g. DA_1625), from:	
0	

- Choose directory for data storage
 - Choose file name for the saved file fixed file name: Input a file name; with each data transmission the content of the file will be overwritten with new data. Coded date DA_YYYYMMDD e.g. DA_20070101: with each data transmission on the same day the content of the file will be over-written with new data.
 - Consecutively numbered DA_0008;
 - Input of the beginning of the numbering.

INSTRUCTION With each new start of the software it begins again from the given number.

• The data saved from a previous run of the software with the same file name will be overwritten with the new data.

5.4 Data transmission and storage

The data transmission is carried out in the following steps.

- 1. Start of the ViSens software
- 2. Transmission of the data and storage

1. Start of the ViSens software, steps

• Start the ViSens software with a double click on the ICON.



• The main menu with window without data appears.

		\$ 100						
								tec si
Dataset#	Customer#	Hoist#	Nominal Load	Unit	Max	Min	Valid	
			j		ĺ	Ì		

2. Transmission of the data and storage

- Check whether the read-in takes place automatically ("Options", "Read Data"). If not, activate the read-in with "Data" "Read device".
- Hold the ViSens display device on the IR interface and press the soft key "COM".



• The data is transmitted, it appears in the list and is stored (as *.txt and .xls format). If the data transmission and storage are successful you will see:

Dataset#	Customer #	Hoist#	Nominal Loa	d Unit	Max	Min	Valid	
01	122	000000000000	00000	kg	+00000	+00000		
02	122	00000000000	00000	kg	+00000	+00000		
03	122	00000000000	00000	kg	+00000	+00000		
04	122 Inform	nationen	×I	kg	+00000	+00000		
05	122			kg	+00000	+00000		

- Confirm the report with OK.
- The *.txt produced has the following content. The data are separated by TAB.

ſ	DATASET	#CUSTOMER	#HOIST#	NOMNAL LOAD	UNIT	MAX	MIN	VALID
	01	000	00000000000	00000	kg	+00000	+00000	
	02	000	00000000000	00000	kg	+00000	+00000	AN
	03	000	00000000000	00000	kg	+00000	+00000	

Close ViSens software

With the closure of the ViSens software all data is deleted from the list. The data is only available in the saved *.txt and *.xls files.

• Close the ViSens software

5.5 Resolving defects in data transmission

Status reporting error	Cause	Remedy
Fehler X ERROR The transmission was interrupted, The data are incomplete! A data interpretation is not possible. III Do not delete any data on the 'ViSens" III Please start transmission again.	 Interruption of the IR- data transmission by movement of the interface Faulty sending due to low accumulator voltage in the ViSens display device 	 Repetition of the data transmission Checking of the charge condition of the accumulators
Informationen Image: Constraint of the state of th	There is no data in the data store of the ViSens: "no data stored"	
No reaction of the PC software to the data transmission	 Parameter "Read Data" stands on "only manual". The IR interface is not monitored IR interface not correctly activated at COM port RS232 to USB adapter not correctly activated on the COM port ViSens display device has Version No. less than 1.6 ViSens display device defective 	 Activate the IR interface with "Data", "Read device" Check the setting of the interface with "Options", "Read data" Check the installation of the ACTISYS software Check the installation of the USB to RS232 software ViSens display device: Run a new version Check ViSens display device

6 Servicing

6.1 Servicing interval

Force transducer and display device are maintenance free.

6.2 Calibration interval

Force transducer and display device are calibrated together as a measuring chain. It is recommended that they should be recalibrated every 12 months. Tecsis provide this service quickly and reliably in the calibration laboratory of their own factory.

6.3 Repairing defects

Display ViSens display device	Cause	Remedy
OVERLOAD	Overload on the input, load is between 4725 and 4985 kg (corresponds to 22- 22.9 mA)	Remove overload
kg CHECK SENSOR INSTRUCTION ViSens display device has switched off input and is no longer ready to measure	 Overload at the input, load > 4985 kg (corresponds to > 22.9 mA) Load transducer defective Signal cable has a short circuit 	 Remove overload, switch off device, switch on device Check force transducer Check signal cable
-BAT INSTRUCTION ViSens display device is no longer ready to measure	Accumulators empty	Charge accumulators

7 Technical data

7.1 Chain hoist testing set KPS35

Series	FRKPS	
Carrying capacity/string	3500 kg	
Rangeability of the force transducer	4725 kg	
Accuracy	1.0 kg	
Display device	LCD 5 character, lit,	
	optional infra-red interface for	
	data evaluation on the PC	
Memory function (optional)	99 sets of data over 12 character chain hoist number	
Additional display functions	MIN, MAX	
Operating time	8 h (per accumulator charge)	
Charging device		
Input Voltage	• 220 240 V AC	
Input Frequency	• 50 60 Hz	
Input Current	• 0.4 A	
Adapter	• EU, UK, US	
Accumulators	2 each, 9V-Block/E-Block/6F22, 9 V, 250mAh	
Chain adapters	2 pieces	
Chain centring shell	3 pieces	
Temperature range		
ViSens display device	• 20°C 60°C, storage: -20°C 60°C	
Force transducer	• -20°C 80°C, storage: -40°C 85°C	
Charging device	• 0°C 45°C, storage: -20°C 80°C	
Installation environment damp		
ViSens display device	 10 90 % rel. humidity, not condensing; storage 5 90 % 	
Charging device	 10 90 % rel. humidity, not condensing; storage 5 90 % 	
Method of protection as specified in DIN EN 60529	Force transducer IP67 Display device IP40 Charging device IP40	
Weight	< 7 kg	
Dimensions (B x H x D)	445 x 165 x 350 mm	

7.2 ViSens software

System requirements	
PC	Pentium or higher with CD-ROM drive and connection RS232 (COM1) or USB interface
Operating system	Microsoft Windows WIN XP
IR interface	RS232 with software
Adapter	RS232 – USB with software

Appendix

Technologies for Sensors Indicators and Systems

EG-Konformitäts-

erklärung

Dokument Nr.:

DC09.105.002

Wir erklären in alleiniger

Baureihe:

Beschreibung:

Kettenzugprüfset

FRKPS

DD985

Richtlinien

erfüllen.

Verantwortung, dass die mit ${f C}{f E}$

gekennzeichneten Produkte

gemäß gültigem Datenblatt:

- 89/336/EWG (EMV) (1)

Die Prüfung der Geräte wurde

entsprechend den EMV-Normen

EN 61326: 2002

die grundlegenden Anforderungen der

| Kraft | Druck | Temperatur | Schalten

EC Declaration of

Conformity

Document No.:

DC09,105,002

We declare under our sole

responsibility, that the ${f C}{f E}$

marked products

Model:

FRKPS

DE 985

the directives

Description:

Chain hoist testing set

- 89/336/EEC (EMC) (1)

The devices have been tested

EN 61326: 2002

according to the EMC norm:

According to the actual leaflet:

fulfills the essential requirements of



zertifiziert nach DIN ISO 9001 DQS Reg. Nr. 4355 Centified according to DIN ISO 9001 DQS Reg. Nr. 4355 Certifié suivant DIN ISO 9001 No. d'enredistrement DQS 4355

Déclaration de Conformité CE

Document Nr.:

DC09.105.002

Nous déclarons sous notre seule responsabilité que les appareils marqués **C €**

Série:

FRKPS

Description:

Kit à contrôl de palans électriques à chaîne

selon bulletin en vigueur:

DE 985

sont conformes aux exigences essentielles des directives

- 89/336/CEE (CEM) (1)

Les appareils ont été vérifés suivant les normes EMC:

EN 61326: 2002

durchgeführt.

(1) 3 / 4 -Leiter: mit geschirmter Leitung

(1) 3 / 4 -wire : with shielded cable

(1) 3/4 fils: avec câble blindé

tecsis GmbH

Frankfurt, 5.02.2008

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