

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Grease layer thickness measuring device *SonicControl*



Picture shows No. 917821

Product Advantages

- Measurement, display and control of the depth of the grease layer
- Free of charge download software available at www.kessel.de
- Ultrasonic sensor for precision measurement accurate to centimetres
- Monitoring of wastewater temperature in the separator
- Protective rating ultrasonic probe IP 68
- Battery-buffered alarm in the event of power failure
- Can be combined with all KESSEL grease separators
- Easy installation (inc. installation set)



☐ Installation ☐ Service

of this unit should be carried out by a licensed professional servicer:

Company / Telephone No.

 **KESSEL**

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1. Security Instructions

Dear customer,

Before you put your KESSEL SonicControl into operation, please read through the installation instructions carefully and follow them.

Check first whether the system has arrived undamaged. In case of any transport damage, please refer to the instructions in chapter 12 "Warranty".

1. Safety instructions:

During installation, operation, maintenance or repair of the system, the regulations for the prevention of accidents, the pertinent DIN and VDE standards and directives, as well as the directives of the local power supply industry must be heeded.

Before putting the device into operation, make sure through professional examination

on that the necessary protective features are available. Grounding, neutral, residual current-operated protective circuit etc. must correspond to the requirements of the local power supply industry.

The system must not be operated in potentially explosive areas.

The system contains electric charges. Non-compliance with the operating instructions may result in considerable damage to property, personal injuries or even fatal accidents.



The system must be disconnected from the mains before any work is carried out on it.

It must be ensured that the electric cables as well as all other electrical system equipment are in a faultless condition. In case of damage, the system may on no account be put into operation or must be stopped immediately.

The regulations set out by the directive VDE 0100 must be heeded. The switch unit must not be installed in rooms where there is an explosion hazard.

The system must be inspected and serviced regularly to maintain its operational ability. We recommend that you conclude a servicing contract with your installation company.

2. General

Dear customer,

we are pleased that you have decided to buy a KESSEL product.

The entire system was subjected to a stringent quality control before it left our factory. Nevertheless, please check immediately whether the system has been delivered to you complete and undamaged. In case of any transport damage, please refer to the instructions in the chapter “Warranty” in this manual.

These installation, operating and maintenance instructions contain important information that has to be observed during assembly, operation, maintenance and repair. Prior to carrying out any work on the system, the operator and the responsible technical personnel must carefully read and heed these installation and operating instructions.

Areas of application for the switch unit:

The switch unit monitors the depth of the grease layer in KESSEL grease separators accurate to centimetres.

3. Installation and Assembly

3.1 Wall mounting of the control unit

The control unit must be installed in a dry and frost free area – preferable indoors where any alarms and control unit message can be seen / heard. Do not install the control unit in direct sunlight!



Caution!!!! The control unit is not to be installed inside the oil or coalescence separator!!!

In order to mount the control unit the control unit cover does not need to be opened. Pre-drill 2 x 6mm diameter holes 168mm apart (use the drilling template if required)

Installation:

1. Drill two holes
2. Insert two dowels
3. Screw in two screws to proper depth
4. Hang control unit on two screws
5. Affix the control unit on the screws by pushing the control unit down until it seat firmly on both screws.

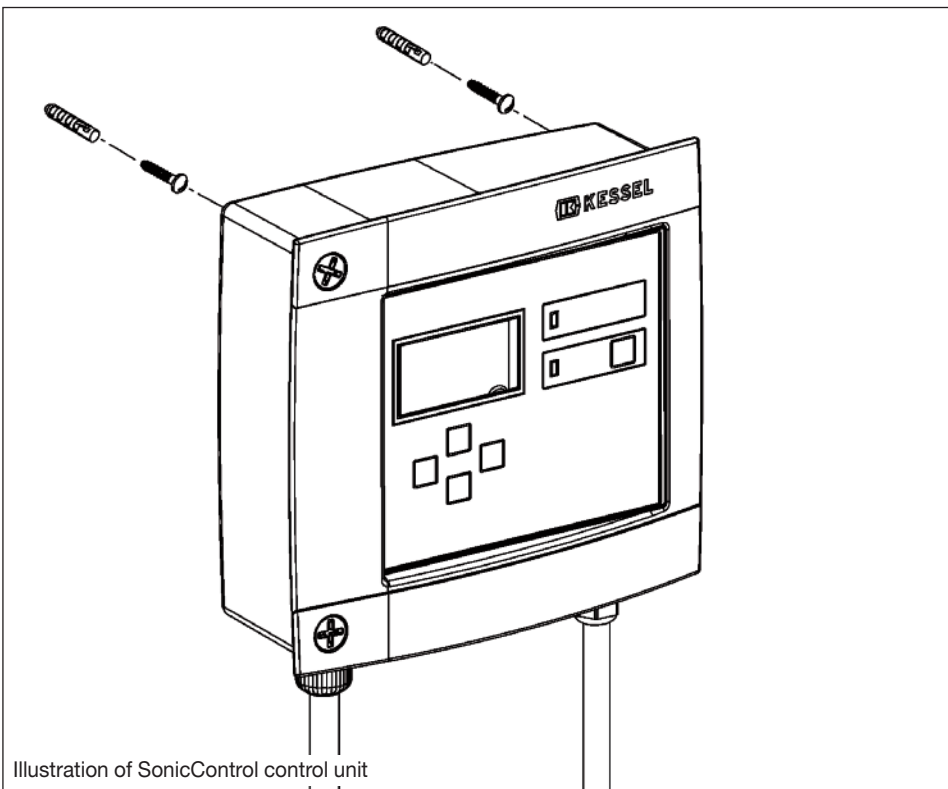
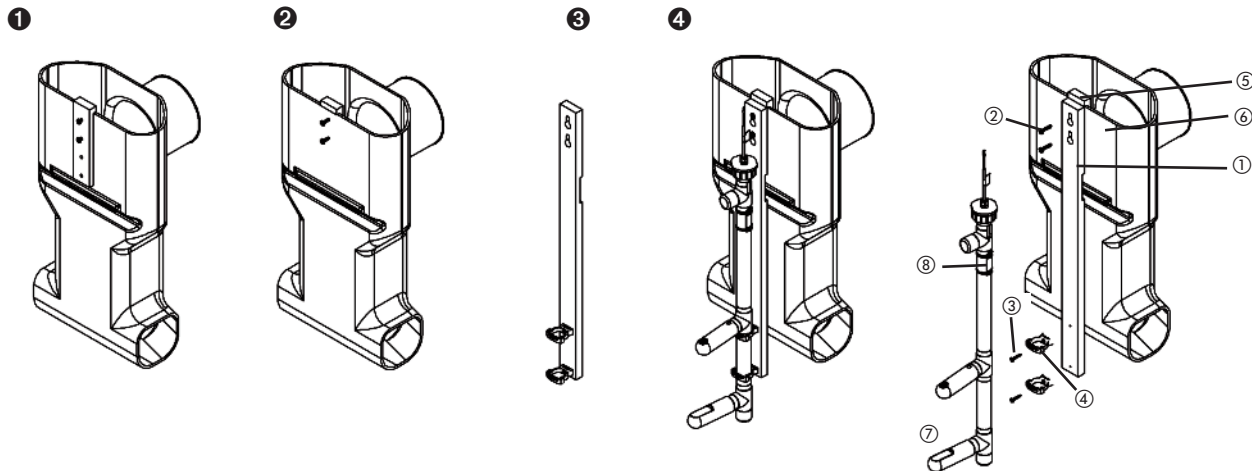


Illustration of SonicControl control unit

3. Installation and Assembly

3.2 Installation of sensor and sensor bracket



- 1 Place the drilling template on the outside of the outlet structure and drill 2 x Ø 5,5 mm holes (top two holes!).
- 2 Place the drilling template on the inside of the outlet structure and fix in place from the outside (see 2).
- 3 Put the sensor and the pipe clamps together to the sensor bracket.
- 4 Screw the sensor bracket to the outlet structure using a torque of 1 Nm and clip the sensor in place (see page 10).

- 1 sensor bracket
- 2 PT screw Torx 40x12
- 3 PT screw Torx K 50x20
- 4 Pipe clamp PE d25
- 5 Drilling template/ screw cover
- 6 Outlet structure partition
- 7 SonicControl sensor
- 8 Red arrow marking

3. Installation and Assembly

3.3 Installation dimensions of sensor

free standing	Article No.	NS	Distance between the upper edge of the lower "finger" and the lower edge of the outlet (water line)	Drill holes in drilling template	Alarm level = max. grease layer thickness in cm	Recommended preliminary alarm level in cm (= 2/3 of the max. storage volume)	max. sludge layer in cm (= 50% of sludgetrap volume)
	EURO "G"						
	93002	2	50 cm	Top two drill holes	23	15	20
	93004	4	50 cm	Top two drill holes	24	16	25
	93007	7	50 cm	Top two drill holes	27	18	30
	93010	10	50 cm	Top two drill holes	24	16	27
	EURO "D"						
	93002.00 / D1	2	50 cm	Top two drill holes	23	15	20
	93004.00 / D1	4	50 cm	Top two drill holes	24	16	25
	93007.00 / D1	7	50 cm	Top two drill holes	27	18	30
	93010.00 / D1	10	50 cm	Top two drill holes	24	16	27
	EURO "DS"						
	93002.50 und .00 / DS1	2	50 cm	Top two drill holes	23	15	20
	93004.50 und .00 / DS1	4	50 cm	Top two drill holes	24	16	25
	93007.50 und .00 / DS1	7	50 cm	Top two drill holes	27	18	30
	93010.50 und .00 / DS1	10	50 cm	Top two drill holes	24	16	27
	EURO E+S "M"						
	93002.50 und .00 / M1	2	50 cm	Top two drill holes	23	15	20
	93004.50 und .00 / M1	4	50 cm	Top two drill holes	24	16	25
	93007.50 und .00 / M1	7	50 cm	Top two drill holes	27	18	30
	93010.50 und .00 / M1	10	50 cm	Top two drill holes	24	16	27
	EURO E+S "PV"						
	93002.50 und .00 / P1	2	50 cm	Top two drill holes	23	15	20
	93004.50 und .00 / P1	4	50 cm	Top two drill holes	24	16	25
	93007.50 und .00 / P1	7	50 cm	Top two drill holes	27	18	30
	93010.50 und .00 / P1	10	50 cm	Top two drill holes	24	16	27
	DIN 4040 "G" rund						
	98201	1	58 cm	Top two drill holes	16	11	46
	98202	2	58 cm	Top two drill holes	16	11	54
	DIN 4040 "D" rund						
	98201.00/D1	1	58 cm	Top two drill holes	16	11	14
	98202.00/D1	2	58 cm	Top two drill holes	16	11	23

3. Installation and Assembly

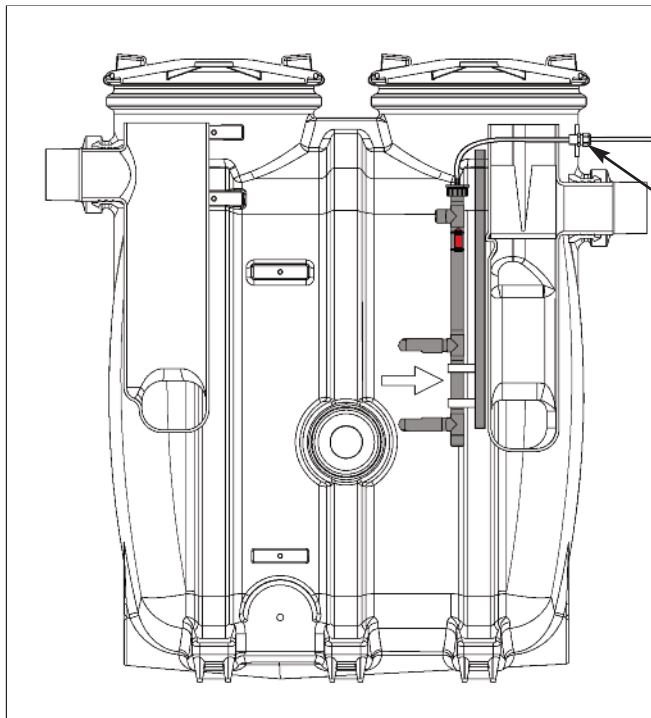
Installation dimensions of sensor

Underground Installtaion	Article No.	NS	Distance between the upper edge of the lower "finger" and the lower edge of the outlet (water line)	Drill holes in drilling template	Alarm level = max. grease layer thickness in cm	Recommended preliminary alarm level in cm (= 2/3 of the max. storage volume)	max. sludge layer in cm (= 50% of sludgetrap volume)
	EURO "G"						
	93002 / 80 / 120 B und D	2	50 cm	Top two drill holes	17	11	15
	93004 / 80 / 120 B und D	4	50 cm	Top two drill holes	17	11	27
	93007 / 120 B und D	7	48 cm	Top two drill holes	17	11	23
	93010 / 120 B und D	10	48 cm	Top two drill holes	17	11	23
	93015 / 120 B und D	15	56 cm	Bottom two drill holes	17	11	32
	93020 / 120 B und D	20	56 cm	Bottom two drill holes	17	11	31
	DIN 4040 "G"						
	98201 / 00 / 80 / 120 B und D	1	58 cm	Bottom two drill holes	16	11	46
	98202 / 00 / 80 / 120 B und D	2	58 cm	Bottom two drill holes	16	11	54
	98204 / 00 / 80 / 120 B und D	4	58 cm	Bottom two drill holes	16	11	54

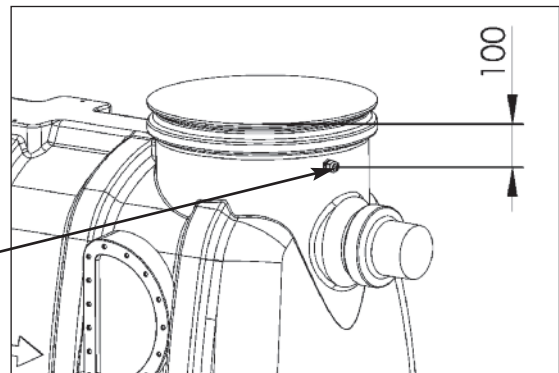
Note: For more articles please contact the KESSEL customer service.
 After installation completely fill the separator with water, check height and correct if necessary!
 Completely filled separator must perform the "manual mode" (2.1.) SonicControl "0 cm" show.
 Should be no mechanical correction possible change in "Parameters -> level adjustment"(3.1.7) to perform.
 The parameters are password protected - please contact the KESSEL customer service at +49 (0) 8456/27462.

3. Installation and Assembly

3.4 Installation suggestion



Cable entry for
SonicControl®



Grease separator < NS 15

Tank wall < = 10 mm

Cable screw connection*

Drill hole $\varnothing$ 19 mm

Grease separator > NS 15

Tank wall > = 10 mm

Cable screw connection*

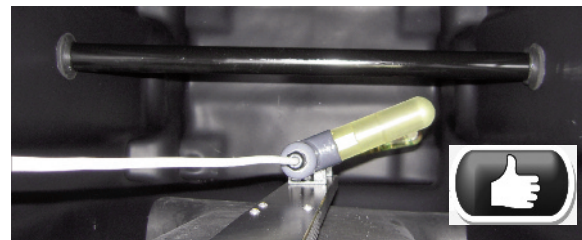
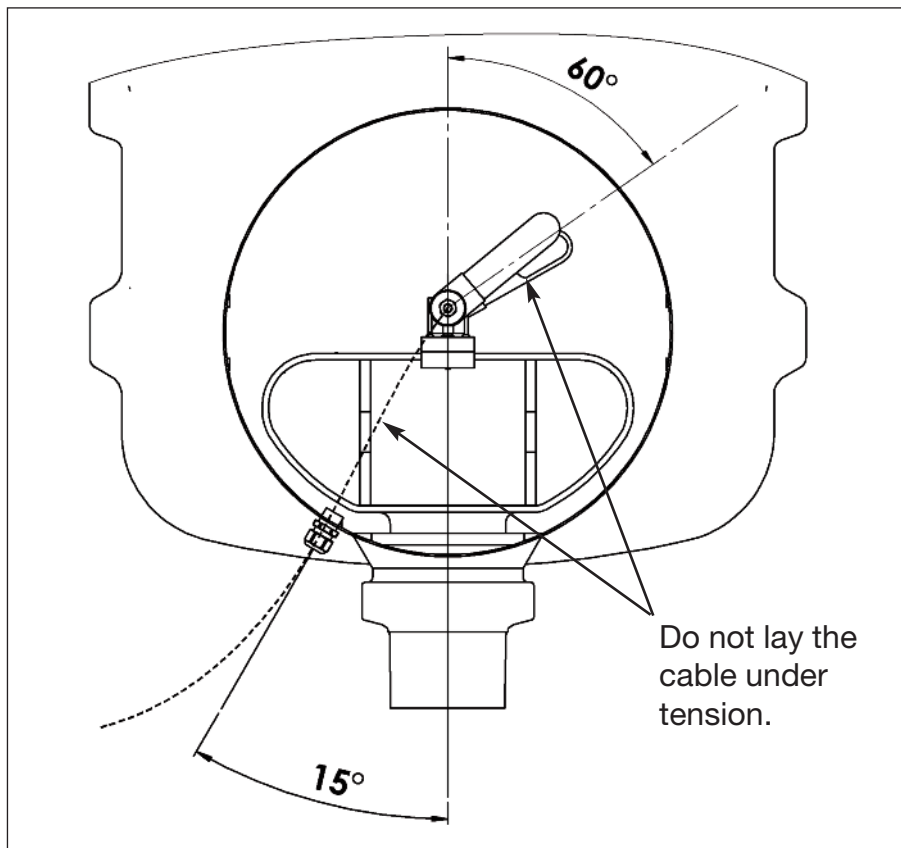
Sensor cable

Thread PG 11

* To avoid odour pollution, fasten the cable screw connection tightly.

Illustration shows free-standing grease separator Euro NS 2

3. Installation and Assembly



The sensor must be attached (approx. 60° angle) in such a way that there is no strutting between the two “fingers”.

3. Installation and Assembly

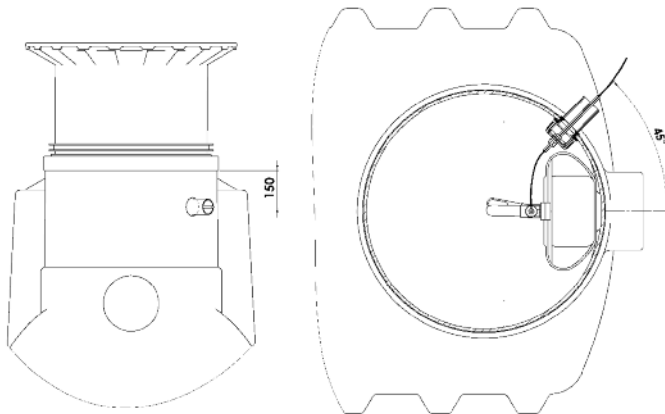


Illustration shows grease separator for underground installation NS 7-20

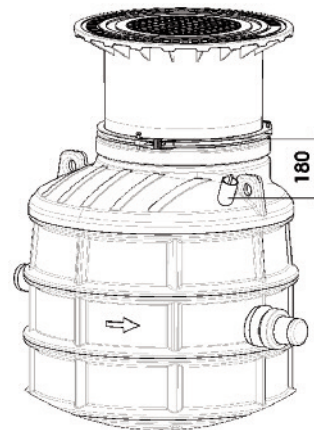
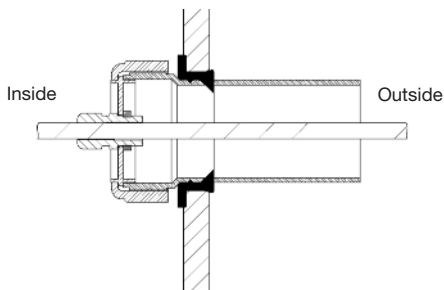
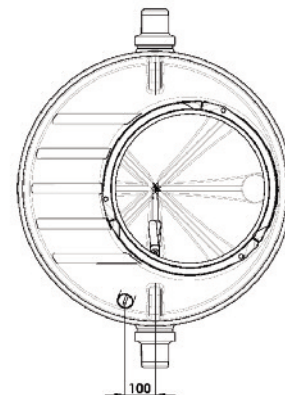


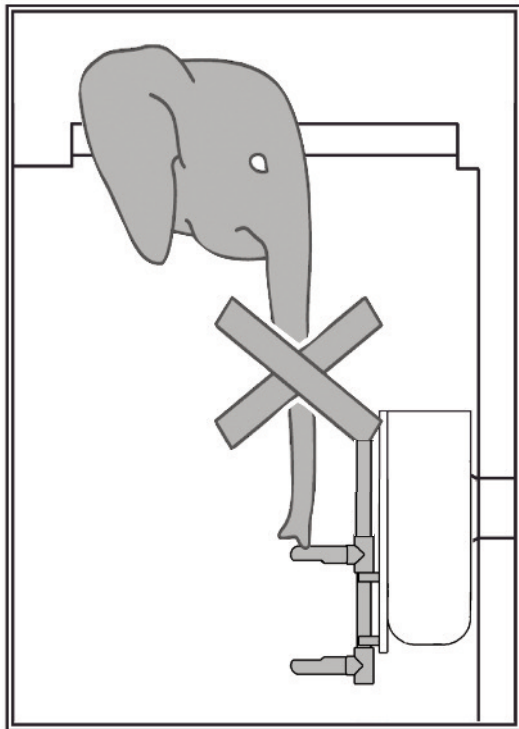
Illustration shows grease separator for underground installation NS 1-4



Art. -Nr. 917822

During ground-moving work, a PE-HD cable conduit DN 40 (outer dia. 50 mm) must be laid. For this purpose, the tank must be scored using a 60 mm saw cap. The connection distance between separator and switch unit must be kept as short as possible. Unnecessary changes of direction, particularly ones at angles greater than 45° must be avoided. The cable conduit must have a continuous gradient to the separator. Condensation inside the cable conduit can be minimised through an airtight seal on the conduit on the switch unit side. A cable pull wire can be included for any later cable installation. The cable can be extended to a max. 30 m. When the cable is drawn into the conduit to the switch unit, the cable screw connection at the conduit cover must be tightened firmly. Then the union nut must be fixed on the end of the pipe.

3. Installation and Assembly



The enclosed sticker serves as a reminder for the disposer, in order to avoid damage to the sensor during disposal.

The sticker must be attached as follows:

Free-standing grease separator

At eye level on the outside of the tank

Grease separator for underground installation

On the inside of the attachment piece

Note: Draw the respective disposers' attention to the sensor!

4. Electrical connection

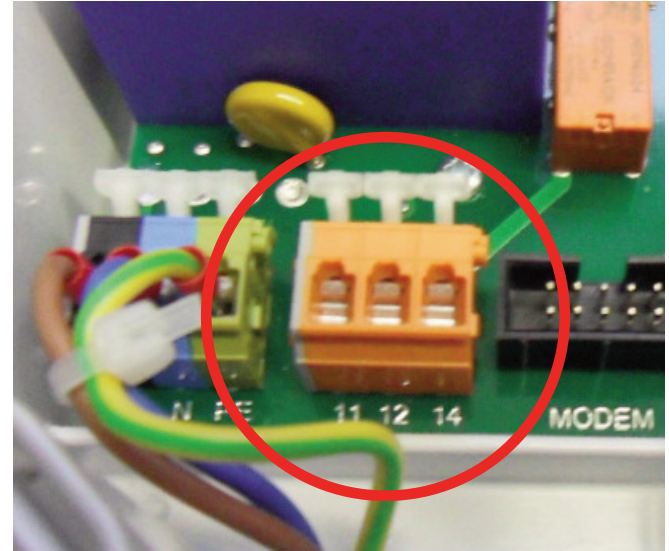
4.1 1 External signal generator

The external signal generator (order no. 20162) for transmitting the acoustic warning to other rooms can be connected if required.

4.2 Shortening the sensor cables

The sensor cables can be shortened if required. We only recommend subsequently tin-plating the wire ends. When cable end sleeves are used, care must be taken that the connection terminals are designed for a max. cross-section of 2.5 mm². This cross-section must not be exceeded.

4.3 Potential-free switch contact



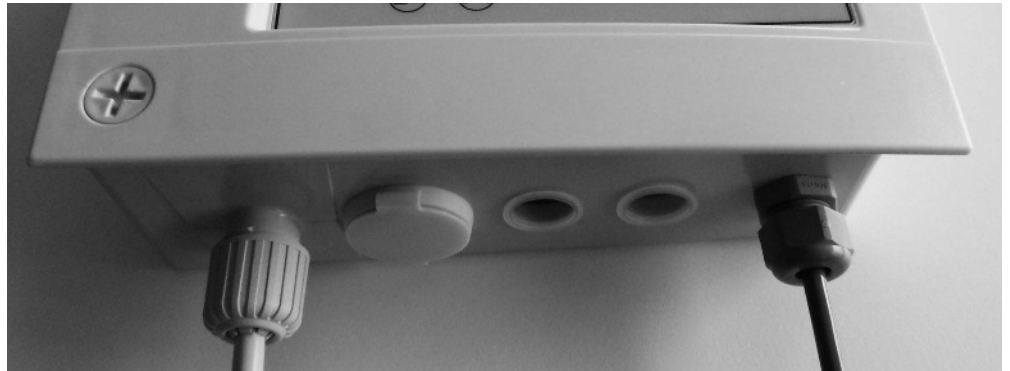
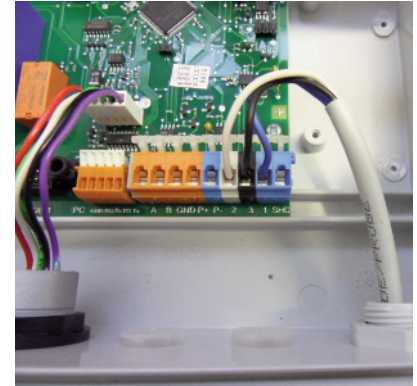
4. Electrical connection

4.4 Installation / Cable Connections

The SonicControl cable may not be laid with together with any other electrical systems / circuits. Do not lay the cable parallel with any other cables in order to prevent an electrical interference which can cause the SonicControl to malfunctions. The sensor itself should not be grounded.

IMPORTANT:

All cables entering the control unit should be secured properly secured with a tie-wrap or cable clip to prevent any danger to the unit or the operator in the case that a cable connection comes loose. The sensor cable should be laid separately from the control unit's power cable to prevent interference



4. Electrical connection

Possibilities of professional cable extension on site (IP 68)

The SonicControl cable is ten metres long. On site, this cable can be extended by a qualified electrician up to max. 30 metres without any change in cross-section being necessary. If the cable is extended to more than 30 metres, proper function can no longer be guaranteed since the induction forces which occur can lead to interference.

SonicControl probe extension to max. 30 metres 0,75 mm²

Note:

The regulations set out by the directive VDE 0100 must be heeded. The switch unit must not be installed in potentially explosive areas. The 510 m cable can be extended on site to up to 30 m. If the cable is routed in a cable channel with cables from other frequency-controlled units, a shielded cable has to be used!

Fig.1

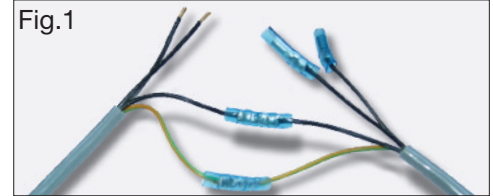


Fig.2



Fig.3



Fig.4



Fig. 1: Crimp cable extension with butt joint

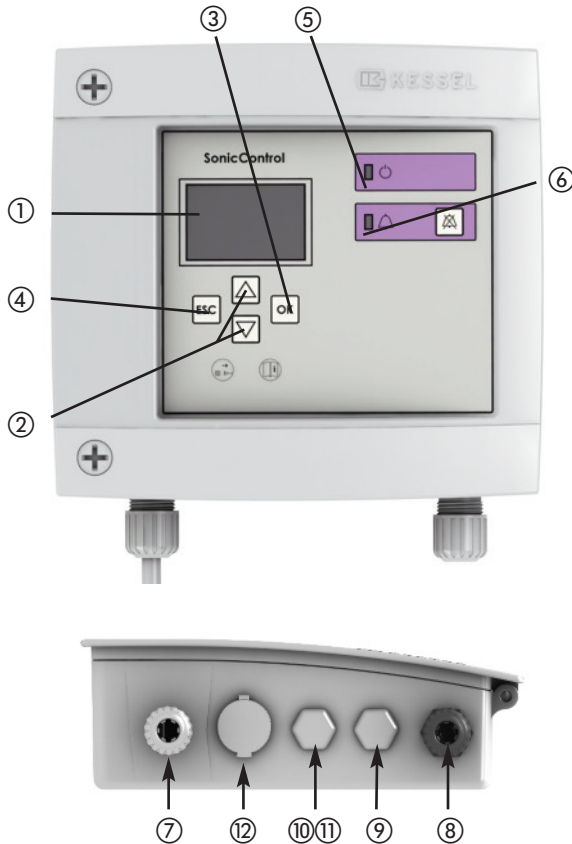
Fig. 2: Shell is placed around the cable, both shell ends are sealed

Fig. 3: Cast the shell with prepared casting resin

Fig. 4: Final state with sealing plug

Individual parts on request

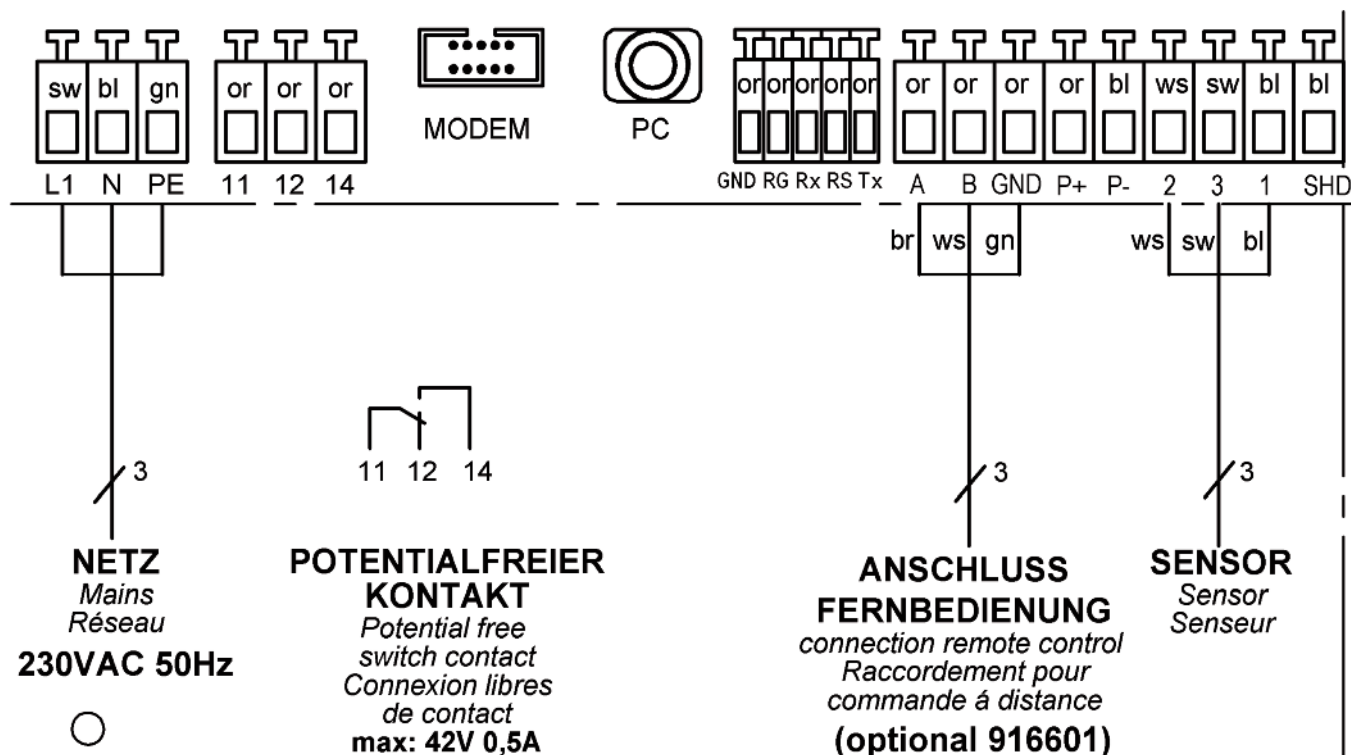
4. Electrical connection



- ① Display
- ② Movement keys / direction keys
for moving through the program menu
- ③ Enter key/OK key
- ④ Back key/ESC key
- ⑤ Pilot lamp indicating readiness for operation
- ⑥ Pilot lamp for malfunction message
- ⑦ Mains power supply cable
- ⑧ Modem connection
- ⑨ Connection for ultrasonic sensor
- ⑩ Connection options
for external signal generator
- ⑪ Connecting socket for potential-free
switch contact
- ⑫ USB-Slot

4. Electrical connection

4.5 Connection diagram



5. Operation

5.1 Getting the system ready for operation

Plug the mains plug of the control unit into the socket. The system will initialise automatically. During initial initialisation of the system, the control unit requests four basic settings.

- | | |
|------------------------------|---|
| 1. Language | } Correct enter
necessary for
measuring |
| 2. Date/time | |
| 3. Type of system* | |
| 4. Type of grease separator* | |

- Selection using 
- Stored in system memory by pressing "OK"
- After setting 1 to 4.
- Switch unit loads program memory
- Start operating mode
- System is ready for operation

* see page 29

5.2 Operator's duties Checking

- for transport or installation damage
- for structural defects of all electrical and mechanical components for seat and function
- the cable connections

Customer instruction based on the installation and operating instructions

- Go through installation and operating instructions with the customer
- System operation (explaining and describing)
- Explanation to the customer about the operator's duties
- Remind about regular servicing (see chapter 6)

5.3 Instruction / handover

The chapter "Safety instructions" must be heeded (page 4)!

Commissioning is carried out by a specialised firm or by an authorised KESSEL agent (at an additional charge). The following persons should be present for the handover:

- Person authorised to perform the acceptance on behalf of the building owner
- Specialised firm

In addition, we recommend the participation of operating personnel/operator and the waste disposal contractor.

Summary of instruction:

- Get the system ready for operation
- Check the system
- Instruction based on the installation and operating instructions
- Preparation of the handover certificate (see chapter 13)

- Once instruction is completed, the system must be made ready for operation.

6. Inspection and Maintenance

Please heed the safety instructions in chapter 1.

The switch unit must be completely disconnected from the mains for cleaning. When replacing the batteries, use Mignon AA 1200 mAh. Repairs may only be carried out by the manufacturer.

The switch unit does not require any maintenance.

The connection cables must be checked for damage. If any damage can be detected, the system must be put out of operation immediately.

The sensor has to be cleaned at regular intervals.

Every time disposal takes place the sensor must be cleaned with warm/hot water*. When a high-pressure jet cleaner is used, maintain a safe distance of 30 cm.

The sensor does not have to be removed for cleaning.

* In the case of KESSEL M and PV grease separator systems, cleaning can wait until the next servicing date since the separator is automatically cleaned with warm water. If necessary (heavy sensor soiling) carry out cleaning every time disposal is carried out.

7. Errors and Malfunction

Please heed the safety instructions in chapter 1.

7.1 Incident display (only in the log book):

Incident display	Cause	Remedy
First initialisation	First initialisation	--
Parameters changed	Parameters have been changed	--
Type of system changed	Type of system has been changed	--
Servicing	Servicing date has been entered	--
Manual mode	Manual mode has been entered	--
Readout log book	Log book has been read out	--
Close down switch unit	Switch unit has been closed down	--
Acknowledge acoustic alarm	Acoustic alarm has been acknowledged	--
Acknowledge fault	Fault has been acknowledged	--
Default settings	Reset to default settings	--

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7. Errors and Malfunction

7.2 Fehleranzeige:

Incident display	Fault	Cause	Remedy
PRE-ALARM layer thickness	Flashing (alarm)	Depth of grease layer for Pre-alarm level has been reached (see 3.3)	Heed depth of grease height and inform the disposer if appropriate
No rest phase detected	Flashing (alarm)	Measurement takes place during operating phases (inaccuracies possible)	Check measuring range in the Parameters menu item and set again if necessary
ALARM layer thickness	Acoustic signal and flashing	Maximum grease layer thickness has been reached	Inform the disposer
ALARM temperature	Acoustic signal and flashing	Inlet temperature too high (heed standard requirements when setting the level)	Reduce temperature of inlet water
Battery fault	Acoustic signal and flashing	Battery contact error	Check battery polarity and seat
	Acoustic signal and flashing	Battery defective or service life exceeded	Replace the battery
Mains failure	Acoustic signal and flashing ; Power LED is flashing	- The system is currentless - The display is defective	- Check pre-fuse and / or RCD - Call Customer Services

7. Errors and Malfunction

Incident display	Fault	Cause	Remedy
Communication error	Acoustic signal and flashing	Faulty modem reception	Step 1: Check basic reception possibility; Step 2: If no reception is possible then a modem cannot be used; if reception is basically possible, replace the modem

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7. Errors and Malfunction

7.3 General faults::

Recognised fault	Fault	Cause	Remedy
Deviation between the grease layer depth in the inspection window and the measured depth of grease layer	Faulty function caused by faulty measurement	- Faulty sensor installation - Positioning during installation - Faulty initial initialisation - Dirt deposited on the sensor - Sensor is in the blind spot - Grease separator type / and/or system type not set correctly	- Tighten the cable a little and then tighten the screw connection by hand - Take the type of separator into account - Re-calibration of the sensor - Check the position of the sensor - Set the type of grease - Set the type of grease - Clean the sensor - Reposition the sensor (see Page 11) - Correct settings
Text message cannot be sent and/or remote servicing is not possible	Faulty function of remote servicing	Faulty modem reception	Step 1: Check basic reception possibility; Step 2: If no reception is possible, then a modem cannot be used; if reception is basically possible, replace the modem

7. Errors and Malfunction

7.4 System faults

Recognised fault	Cause	Remedy
Odour pollution	Leak in the cable duct through faulty installation	Tighten the cable screw connection in the tank wall so that it is odour-proof (see the operating instructions of your grease separator as well)
Water in the service room	Leak in the cable duct through faulty installation	Tighten the cable screw connection in the tank wall so that it is “odour”-proof

In the case that a control unit alarm notification can not be acknowledged, keeping the alarm button pressed for 5 seconds will initiate a master-reset.

8. Switch unit

8.1 Menu guidance

The control unit's menu navigation is subdivided into the system information as well as three different main menu items. The background lighting is activated if one of the control keys is pressed once.

OK key Skip to the next higher level

ESC key : Skip to the next lower level



Navigation within a level

Alarm key The acoustic signal can be acknowledged by pressing this key once..



If the fault has been eliminated, the visual fault can also be acknowledged by pressing the alarm key once more.

If the fault has not been eliminated, the acoustic alarm is triggered again when the alarm key is pressed again.

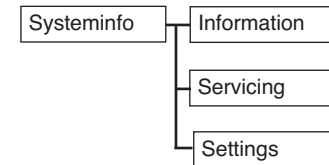
In case of a mains power failure, the system is not ready for operation. The control unit switches to stand-by mode (battery operation). This becomes noticeable by means of an acoustic and visual alarm. The acoustic alarm can be acknowledged by pressing the alarm key. Stand-by mode is maintained for at least 72 hours. Afterwards, the control unit switches off automatically. If the mains connection is re-established within one hour, the program will automatically continue with the last program phase. If this is not the case, the device re-initialises itself when the mains connection returns (programming already carried out remains). This can also be carried out manually by prolonged pressing of the alarm key.

Note:

Certain menus are password-protected. This serves to protect the system against inappropriate use.

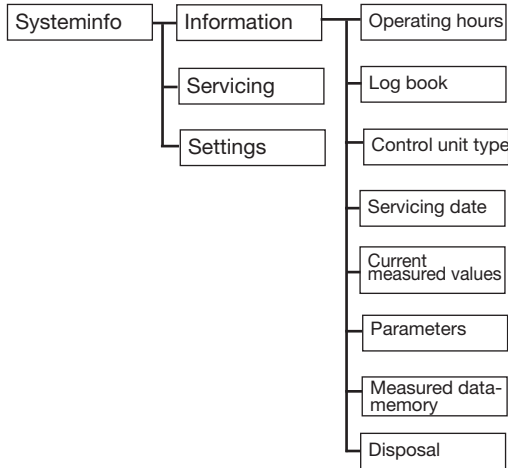
If you have any questions, please contact KESSEL Customer Services (Phone +49 (0) 8456 / 27462)

8.2 System menu



8. Switch unit

8.3 Information menu



8.3.1 Operating hours

Display of all system operating times.

8.3.2 Log book

Chronological display of incidents and faults (see also chapter 7 “Incidents and faults / remedial measures”)

All changes made to the settings are saved at this point.

8.3.3 Control unit type

Display of system time, grease separator type, language and software status.

8.3.3 Servicing date

Display of the next necessary and last performed servicing.

Note: Data are only available if these have been stored in the “Settings” menu by the servicing partner.

8.3.5 Current measured values

Pressing the OK key carries out a measurement of the current grease layer thickness.

8.3.6 Parameters

Display of all set control parameters of the system It is not possible to change the parameters in this menu.

8.3.7 Measured data memory

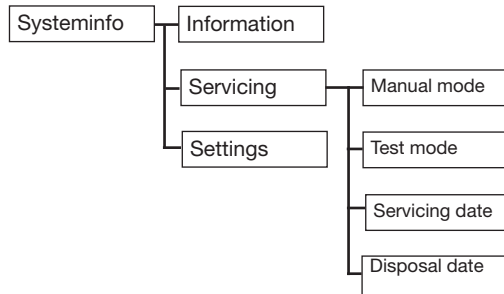
Display of the last layer thickness and temperature stored (max. 400 values).

8.3.8 Disposal

Display of details of the last disposal carried out (if stored)

8. Switch unit

8.4 Servicing menu



8.4.1 Manual mode

Manual operation overrides automatic operation.

In the case that a grease layer thickness reading is taken while the grease separator is in operation (which can occur by pressing the button on the control unit), the reading will be inaccurate. Inaccuracy is due to too much suspended matter inside the separator during operation.

8.4.2 Automatic test mode

8.4.3 Servicing date

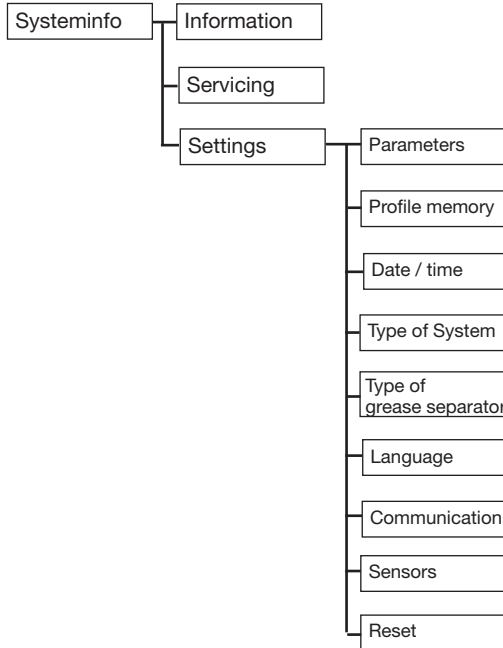
Entry of the last servicing to be carried out and the next servicing date by the servicing partner. Password: 1000

8.4.4 Disposal date

Entry of the last disposal carried out (e.g. by the disposal partner)

8. Switch unit

8.5 Settings menu



8.5.1 Parameters

Changes to default parameter settings (refer also to 3.3)

Note: Every change is immediately accepted when the OK key is pressed. In addition, on quitting this menu it is possible to save these values in the profile memory under a separate name.

8.5.2 Profile memory

Loading of the values accepted on initialisation and of the values added under a new name (see 8.5.1).

8.5.3 Date/time Setting the current date and time.

8.5.4 Type of system

Selection of the average grease content occurring and type of grease.

8.5.5 Type of grease separator Selection of the type of grease separator.

8.5.6 Language Display / change the language.

8.5.7 Communication

Input / change of the station name, the device number, the modem type, the PINS and the number of the mobile phone to which possible malfunctions can be sent by text message (for a detailed description see separate operating instructions).

8.5.8 Sensors Sensor address assignment.

8.5.9 Reset

Reset the switch unit to the default setting (operating hours are not reset).

9. Technical data

General technical data

Housing dimensions (L x W x H)	180 x 200 x 70 mm
Weight of switch unit	approx 1 kg
Permissible temperature range	0 bis 50 °C
Mains standby (ready for operation)	14 mA
Mains current in operation	35 mA
Protective class	I
Type of protection	IP 54
Electrical connections suitable for all copper conductors	0,08 - 2,5 mm
Cable sheath diameter	5 - 9 mm

Supply

Operating voltage	230 V AC 1~
	50 Hz ± 10% L / N
Mains connection	Safety plug on the switch unit with 1.4 m connection cable
Pre-fuse required	max. C 16 A (provide on installation side), all-pole main switch in the supply cable

Inputs

Sensor input	SonicControl sensor input
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Outputs

<i>Potential-free switch contact</i> contact, (#no. 80072)	• Changeover contact: centre • Make contact; break contact • max. 42 VAC / 0.5 A • With fuse protection within device - With protective cut-off for inductive load within device
<i>Option: Signal generator</i> nal Artikel-Nr. 20162)	Connection possibility for an external signal generator

10. Accessories

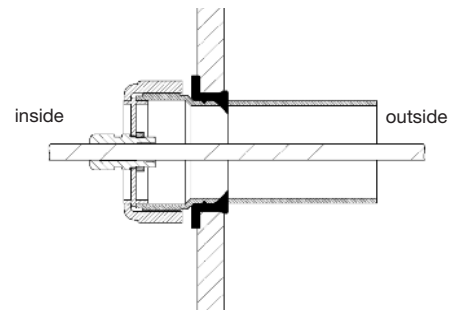
①



②



③



Order-Nr.

1. Control unit	395-105
2. Ultrasonic sensor	395-104
3. Duct set for installation in the ground	917822



EC DECLARATION OF CONFORMITY

According to the Low Voltage Guidelines 2006/95/EG, Electromagnetism Guidelines 2004/108/EG

KESSEL AG, Bahnhofstraße 31, D-85101 Lenting

Herewith we declare, that the product

**KESSEL- SonicControl
917821**

is in agreement with

EN 60204-1 (2006), EN 61000-6-1 (2007), EN 61000-6-2 (2006), EN 61000-6-3 (2007), EN 61000-6-4 (2007)

Lenting, 8.12.2009


A. Kessel
Managing Board


E. Thiemt
Managing Board

12. Guarantee

1. In the case that a KESSEL product is defective, KESSEL has the option of repairing or replacing the product. If the product remains defective after the second attempt to repair or replace the product or it is economically unfeasible to repair or replace the product, the customer has the right to cancel the order / contract or reduce payment accordingly. KESSEL must be notified immediately in writing of defects in a product. In the case that the defect is not visible or difficult to detect, KESSEL must be notified immediately in writing of the defect as soon as it is discovered. If the product is repaired or replaced, the newly repaired or replaced product shall receive a new warranty identical to that which the original (defective) product was granted. The term defective product refers only to the product or part needing repair or replacement and not necessarily to the entire product or unit. KESSEL products are warranted for a period of 24 month. This warranty period begins on the day the product is shipped from KESSEL to its customer. The warranty only applies to newly manufactured products. Additional information can be found in section 377 of the HGB.

In addition to the standard warranty, KESSEL offers an additional 20 year warranty on the polymer bodies of class I / II fuel separators, grease separators, inspection chambers, wastewater treatment systems and rainwater storage tanks. This additional warranty applies to the watertightness, usability and structural soundness of the product.

A requirement of this additional warranty is that the product is properly installed and operated in accordance with the valid installation and user's manual as well as the corresponding norms / regulations.

2. Wear and tear on a product will not be considered a defect. Problems with products resulting from improper installation, handling or maintenance will also be considered a defect.

Note: Only the manufacturer may open sealed components or screw connections. Otherwise, the warranty may become null and void

01.06.2010

13. Handover certificate

Type description *	_____
KESSEL order number *	_____
Date of manufacture * (* according to type plate/invoice)	_____
Object description / system operator	_____
Planner	_____
Adress / Telephone	_____
Planner	_____
Adress / Telephone	_____
Installation company involved	_____
Adress / Telephone	_____
Person authorised to perform the acceptance	_____
Adress / Telephone	_____
Person responsible for handover	_____
Other remarks	_____

The initial installation and instruction listed was carried out in the presence of the person authorised to perform the acceptance and the system operator.

Place, date

Signature of authorised person

Signature of system operator

13. Handover Certificate

Übergabeprotokoll (Ausfertigung für das einbauende Unternehmen)

- ☐ Die Inbetriebnahme und Einweisung wurde im Beisein des Abnahmeberechtigten und des Anlagenbetreibers durchgeführt.
- ☐ Der Anlagenbetreiber/Abnahmeberechtigte wurde auf die Wartungspflicht des Produktes gemäß der beiliegenden Bedienungsanleitung hingewiesen.
- ☐ Die Inbetriebnahme und Einweisung wurde **nicht** durchgeführt

Dem Auftraggeber/Inbetriebnehmer wurden folgende Bauteile und/oder Produktkomponenten übergeben**:

Die Inbetriebnahme und Einweisung wird durchgeführt durch (Firma, Adresse, Ansprechpartner, Tel.):

Die exakte Terminabstimmung der Inbetriebnahme/Einweisung wird durch den Anlagenbetreiber und Inbetriebnehmer durchgeführt.

Ort, Datum

Unterschrift Abnahmeberechtigter

Unterschrift Anlagenbetreiber

Unterschrift einbauendes
Unternehmen



- ☐ Backwater protection
- ☐ Lifting Stations and pumps
- ☐ Drains and shower channels
- ☐ Separators
 - Grease Separators
 - Oil-/Fuel-/Coalescence Separators
 - Starch Separators
 - Sediment Separators
- ☐ Septic Systems
- ☐ Inspection Chambers
- ☐ Rainwater Management Systems

