Operation and Service Manual
for HERMetic Sampler A.4

Note: before using the instrument please read this book.

This document is subject to changes without notice.
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2. Recommendation for safe use

1. This Operation and Service Manual is a guide in order to help the user to operate the instrument to our best knowledge.

2. Nevertheless the maker disclaims all responsibility and liability for damage resulting from the use of the equipment regardless of the cause of the damage.

3. **Attention is drawn to the possible hazard due to electrostatic charges which may be present in the tank.** This may happen in particular with static accumulator liquids, i.e. liquids which have low conductivity of 50 picoSiemens/metre (pS/m) or less.

4. **It is very important that the instrument is grounded to the tank before the probe is introduced into the tank and remains grounded until after complete withdrawal from the tank.**

4.1. If the instrument is installed with the quick connect coupler, grounding is effected through the quick connect coupler and the mating nipple of the valve provided that these parts are kept clean and free from corrosion in order to guarantee electrical conductivity. If a grease is used for this purpose, it must be one which contains graphite.

4.2. If the instrument is not connected to the mating deck valve, the instrument has to be also earthed by means of the grounding cable and clamp.

5. **It is anticipated that the user will have specific operating methods laid down to ensure safety when using this type of apparatus. In this case the user’s instructions shall be strictly observed.**

6. **In the absence of such instructions the following should be noted:**

6.1. If a metal sounding pipe is fitted beneath the deck valve or tank is inerted, then ullaging, etc. is permissible at any time with no restriction.

6.2. If there is no sounding tube or tank is not inerted, the following precautions shall be taken:

6.2.1. If the cargo is not a static accumulator liquid, i.e. its conductivity is more than 50 pS/m, then ullaging is permitted provided that the instrument is properly grounded and earthed before the probe is inserted into the tank and remains earthed until the probe has been removed from the tank.

6.2.2. If the cargo is a static accumulator liquid, i.e. its conductivity is less than 50 pS/m, then ullaging is permitted provided that:

6.2.2.1. The instrument is properly grounded and earthed before the probe is inserted into the tank and remains earthed until the probe has been removed from the tank.

6.2.2.2. The apparatus is not introduced into a tank until at least 30 minutes have elapsed after completion of any loading operation or stopping the injection of inert gas.

6.3. For further guidance refer to International Safety Guide for Oil Tankers and Terminals (ISGOTT), ISBN 1-85609-291-7, Fifth Edition 2006, or consult the appropriate Legislative Authority for the installation.

7. **This product and his use is / may be related to international, national, local or company regulations or standards. It is the customer / user responsibility to ensure that the way to use the device complies with such applicable regulations or standards.**

8. **This device is a protable product. It must not be permanently installed on the tank and must be disconnected after use and stored in a safe and dry area.**
3. General information

3.1 Shipment note
The following parts should be included in the shipment:
- 1 instrument;
- One or more bottles as ordered;
- 1 Operation and Service Manual.

3.2 Initial inspection
Check the contents of the shipment for completeness and note whether any damage has occurred during transport. Carry out the "Initial test before installing the instrument" to verify the good functioning. If the contents are incomplete, or if there is damage, not use the device. A claim should be filed with the carrier immediately, and Enraf Tanksystem SA Sales or Service organization should be notified in order to facilitate the repair or replacement of the instrument.

3.3 Documentation discrepancies
The design of the instrument is subject to continuous development and improvement. Consequently, the instrument may incorporate minor changes in detail from the information contained in the manual.

3.4 Warranty
12 months after installation but max. 18 months after delivery ex works.

The Vendor undertakes to remedy any defect resulting from faulty design materials or workmanship. The Vendor's obligation is limited to the repair or replacement of such defective parts by his own plant or one of his authorized service stations. The Purchaser shall bear the cost and risk of transportation of defective parts and repaired parts supplied in replacement of such defective parts.

When returned to Enraf Tanksystem SA or any of its agreed Service Stations equipment must be contamination-free. If it is determined that the Purchaser's equipment is contaminated, it will be returned to the Purchaser at the Purchaser's expense. Contaminated equipment will not be repaired, replaced, or covered under any warranty until such time that the said equipment is decontaminated by the Purchaser.

The Purchaser shall notify by fax, telex or in writing of any defect immediately upon discovery, specifying the nature of the defect and/or the extend of the damage caused thereby.

Where no other conditions have been negotiated between the Vendor and the Purchaser "General Conditions 188" of United Nations shall apply.

This equipment has been certified as non-electrical equipment for potentially explosive atmospheres for only those classes or categories of hazardous areas stated on the instrument label, bearing the mark of the applicable approval authority. No other usage is authorized.

Unauthorized repair or component replacement by non original spare parts by the Purchaser will void this guarantee and may impair the good functioning of the instrument.

In no event shall Enraf Tanksystem SA be liable for indirect, incidental or consequential loss or damage or failure of any kind connected with the use if its products or failure of its products to function or operate properly.

Enraf Tanksystem SA do not assume the indemnification for any accident or damage caused by the operation of its product and the warranty is limited to the replacement of parts or complete goods.
3.5 **Certification**

Enraf Tanksystem SA is an ISO 9001 certified company by QMI and MED-D by Det Norske Veritas Certification GmbH.

3.6 **Spare parts**

Substitution of components may impact safety. Use only original spare parts.

When ordering spares identify the spare part by TS number and description. Refer to section “Drawings”.

Some spares might be repairable; in this case send part to any authorized service center or to the factory.

In case of urgency replacement units can be available while stocks last.

3.7 **Service and Repair**

The customer should take care of the freight and customs clearance charges. If units are sent on “freight collect» the charges will be invoiced to the customer.

When returning units or parts for repair to the factory please fill out a service request form (see next page).

Traceability information is engraved on a plate fixed to the sampler. The serial number of the unit is as follows:

S4 followed by a 4 digits number.

When returned to Enraf Tanksystem SA equipment must be contamination-free. If it is determined that the customers equipment is contaminated, it will be returned to the customer at the customers expense. Contaminated equipment will not be repaired until such time that the customer decontaminates the said equipment.
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<thead>
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<tr>
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<td><strong>Type of unit or part:</strong> ........................................</td>
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<td><strong>Short description of defective unit or part:</strong> ..........</td>
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<td><strong>Do you want a quotation before repair is started:</strong> yes / no</td>
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<td><strong>Repaired unit has to be returned to the following address:</strong></td>
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### 4. Worldwide Service Stations network

*The updated list can be found on our website [www.tanksystem.com](http://www.tanksystem.com)*

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<tr>
<th>COUNTRY</th>
<th>ADDRESS</th>
<th>TELEPHONE/FAX/E-MAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWITZERLAND</td>
<td>ENRAF TANKSYSTEM SA&lt;br&gt;2, rue de l'Industrie&lt;br&gt;CH-1630 BULLE</td>
<td>Tel : +41-26-91 91 500&lt;br&gt;Ch : +41-26-91 91 505&lt;br&gt;<a href="mailto:Tanksystem@honeywell.com">Tanksystem@honeywell.com</a></td>
</tr>
<tr>
<td>CANADA</td>
<td>PYLON ATLANTIC&lt;br&gt;A Div. Of Pylon Electronics Inc.&lt;br&gt;31 Trider Crescent., DARTMOUTH, N.S. B3B 1V6</td>
<td>Tel : +1-902-4683344&lt;br&gt;Fax : +1-902-4681203&lt;br&gt;<a href="mailto:halifax_csr@pylonelectronics.com">halifax_csr@pylonelectronics.com</a></td>
</tr>
<tr>
<td>CHINA</td>
<td>HUA HAI EQUIPMENT &amp; ENGINEERING&lt;br&gt;CO LTD&lt;br.Factory 7, Lane 1365, East Kang Qiao Road Kang Qiao Industrial Zone, Pu Dong SHANGHAI, P.C. 201315</td>
<td>Tel : +86-21-68183183&lt;br&gt;Fax : +86-21-68183115&lt;br&gt;<a href="mailto:huahaish@huahaiee.com">huahaish@huahaiee.com</a></td>
</tr>
<tr>
<td>GREECE</td>
<td>SPANMARIN&lt;br&gt;86, Filonos Street&lt;br&gt;GR-185 36 PIRAEUS</td>
<td>Tel : +30-210-4294498&lt;br&gt;Fax : +30-210-4294495&lt;br&gt;<a href="mailto:spanmarin@ath.forthnet.gr">spanmarin@ath.forthnet.gr</a></td>
</tr>
<tr>
<td>JAPAN</td>
<td>DAIWA HANBAI CORPORATION LTD&lt;br&gt;2-10-31, Mitejima, Nishiyodogawa-ku&lt;br&gt;OSAKA 555-0012</td>
<td>Tel : +81-6-64714701&lt;br&gt;Fax : +81-6-64729008&lt;br&gt;<a href="mailto:daiwa471@silver.ocn.ne.jp">daiwa471@silver.ocn.ne.jp</a></td>
</tr>
<tr>
<td>KOREA</td>
<td>World Ocean CO., LTD&lt;br&gt;Rm1001, Hae-deok Bldg., 1212-11 Choryang-dong Dong-Gu BUSAN</td>
<td>Tel : +82-51-462-2554/5&lt;br&gt;Fax : +82-51-462-0468&lt;br&gt;<a href="mailto:marine@worldocean.co.kr">marine@worldocean.co.kr</a></td>
</tr>
<tr>
<td>MEXICO</td>
<td>URBAN DEL GOLFO S.A. DE C.V.&lt;br&gt;Ave. Ejército Mexicano 1902&lt;br&gt;Col. Loma del Gallo&lt;br&gt;89460 CD. MADERO, TAMPS. MEXICO</td>
<td>Tel : +52-833-2170190&lt;br&gt;Fax : +52-833-2170190&lt;br&gt;<a href="mailto:urbansa@prodigy.net.mx">urbansa@prodigy.net.mx</a></td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td>B.V. TECHNISCH BUREAU&lt;br&gt;UITTENBOGAART&lt;br&gt;Brugwachter 13&lt;br&gt;NL-3034 KD ROTTERDAM</td>
<td>Tel : +31-10-4114614&lt;br&gt;Fax : +31-10-4141004&lt;br&gt;<a href="mailto:info@tbu.nl">info@tbu.nl</a></td>
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The updated list can be found on our website www.tanksystem.com

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<tbody>
<tr>
<td>PORTUGAL</td>
<td>CONTROLIS</td>
<td>Tel : +351-21-2740606</td>
</tr>
<tr>
<td></td>
<td>Rua Conceiçao Sameiro Antunes, 26E</td>
<td><a href="mailto:controlis@netc.pt">controlis@netc.pt</a></td>
</tr>
<tr>
<td></td>
<td>2800-379 COVA DA PIEDADE</td>
<td></td>
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<tr>
<td>RUSSIA</td>
<td>NPP &quot;GERDA&quot;</td>
<td>Tel : +7-495-7558845</td>
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<td></td>
<td>Vilisa Latsisa str. 17</td>
<td>Fax : +7-495-7558846</td>
</tr>
<tr>
<td></td>
<td>Building 1</td>
<td><a href="mailto:info@gerda.ru">info@gerda.ru</a></td>
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<td>125480 MOSCOW</td>
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<tr>
<td>SINGAPORE</td>
<td>HUBBELL INT'L (1976) PTE LTD</td>
<td>Tel : +65-6-2557281</td>
</tr>
<tr>
<td></td>
<td>322 Thomson Road</td>
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<tr>
<td></td>
<td>SINGAPORE 307665</td>
<td><a href="mailto:hubbell@mbox2.singnet.com.sg">hubbell@mbox2.singnet.com.sg</a></td>
</tr>
<tr>
<td>SPAIN</td>
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<tr>
<td></td>
<td>Electronica y Neumatica Industrial, S.A.</td>
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<tr>
<td></td>
<td>C/Jon Arrospide, 20 (Int.)</td>
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<tr>
<td></td>
<td>48014 BILBAO</td>
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<td>SWEDEN</td>
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<td>Varholmsgatan 1</td>
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<tr>
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<td>414 74 GÖTEBORG</td>
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<tr>
<td>TURKEY</td>
<td>YEDI DENIZ</td>
<td>Tel : +90.212.251 64 10 / 3 lines</td>
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<td></td>
<td>Servistu, Izzetpasa Yok.1</td>
<td>Fax : +90.212.251 05 75</td>
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<td></td>
<td>TR 34427 Kabatas ISTANBUL</td>
<td><a href="mailto:servicestation@yedideniz.net">servicestation@yedideniz.net</a></td>
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<tr>
<td>UNITED ARAB</td>
<td>MARITRONICS TRADING L.L.C.</td>
<td>Tel : +971-4-3247500</td>
</tr>
<tr>
<td>EMIRATES</td>
<td>P.O. Box 6488</td>
<td>Fax : +971-4-3242500</td>
</tr>
<tr>
<td></td>
<td>Shed # 72, Jadaf Ship Docking Yard</td>
<td><a href="mailto:service@maritronics.com">service@maritronics.com</a></td>
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<tr>
<td></td>
<td>DUBAI</td>
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<tr>
<td>UNITED KINGDOM</td>
<td>ENERGY MARINE (INTERNATIONAL) LTD.</td>
<td>Tel : +44-1525-851234</td>
</tr>
<tr>
<td></td>
<td>12 Clipstone Brook Industrial Estate</td>
<td>Fax : +44-1525-852345</td>
</tr>
<tr>
<td></td>
<td>Cherccourt Way</td>
<td><a href="mailto:info@engmar.com">info@engmar.com</a></td>
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<tr>
<td></td>
<td>LEIGHTON BUZZARD, BEDS LU7 4TX</td>
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<tr>
<td>U.S.A / TEXAS</td>
<td>HONEYWELL HERMETIC</td>
<td>Tel : +1-281-930 1777</td>
</tr>
<tr>
<td></td>
<td>4522 Center Street</td>
<td>Fax : +1-281-930 1222</td>
</tr>
<tr>
<td></td>
<td>DEER PARK, TX 77536</td>
<td>Toll free call in the USA: 1-800-900-1778</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:hermetic@honeywell.com">hermetic@honeywell.com</a></td>
</tr>
</tbody>
</table>
5. Description

5.1 General

The HERMetic Samplers are designed for sampling of liquids or chemicals, which present a Fire-, Health- or Air pollution Hazard.

The equipment is designed and certified for use in potentially explosive atmospheres area.

5.2 Sampling types

Several kinds of samples can be realised with this sampler. To get different samples, 4 bottles are available: Zone bottle, Spot bottle, Running bottle and Bottom bottle.

The Zone bottle allows sampling of the upper level inside the tank.

The Spot bottle allows sampling at a determinate height.

The running bottle allows sampling all along the displacement of the bottle inside the tank.

The Bottom bottle allows sampling of the tank bottom.

As far as the kinds of sampling are concerned, please refer to ISO 3170 “Petroleum liquids – Manual sampling”.

All these bottle are interchangeable, please refer to § 6.1.

For specific application, other bottles exist. For further information, please contact.

The sampler is delivered as standard with zone sampling bottle. All other sampling bottles are available as option.
5.3 **Sampling principle**

5.3.1 **Connection and grounding system**

All HERMetic products are easy to connect. This HERmertic sampler is connected by 3 wing screws to top of the valve.

If the instrument is connected to genuine HERMetic valve, grounding is effected through the connection on the valve. No additional grounding strap is necessary. For further information, please refer to §2 “Recommendation for safe use”.

![Diagram of HERMetic sampler and valve connection](image)
5.3.2 Sampling method
The sample is taken by a vertical move of the bottle inside the fluid.

The bottle is linked with a graduated tape. A reading window allows monitoring the bottle location.

For complete explanation of sampling procedures, please refer to §6 “Operation”.

Important note: to avoid contamination of the sample taken by the sampler itself, check and clean the unit and the bottle prior to use. Clean the unit with an appropriate cleaner without impacting the unit or contamination risk of the next sample.

5.3.3 Liquid transfer
After sampling, the liquid can be transferred into a laboratory bottle through a transfer valve.

The transfer of the liquid from the sampling bottle to a laboratory bottle occurs by gravity.

The opening of the bottle valve is realized by lowering the sampling bottle until its sitting on the ball of the valve.
6. Operation

6.1 Checking before use

Before using the sampler:

- Check the good state of the device.
- Check the cleanliness of the unit (sampler and bottle) to prevent any contamination of the sample.
- Inspect the bottle tape end for breaks, kinks and wear. If there is some damage, replace the tape before use.
- Check of the attachment of the hook locking device on the tape.
- Check the closure of the hook locking device according to Fig. 1. The swivel hook has to be locked in use.

Nota: Clean the instrument of any excess of liquid after use. Open and rotate the carter winder and clean the storage tube. This cleaning must be done very properly, in particular when corrosive liquids are gauged, such as strong acids or caustic soda for instance.

Store the instrument in a dry location.
6.2 **Operation with ZONE SAMPLING BOTTLE**

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<tr>
<td>30617</td>
<td>21091</td>
<td>Zone bottle 1,8 liter</td>
</tr>
</tbody>
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1. Install the sampler with the sampling bottle on top of the 4” valve.

2. Prepare the connection between the transfer valve at the bottom of sampler and the laboratory bottle. Check that the laboratory bottle content is at least 2 l.

3. Open the 4” ball valve.

4. Lower the bottle at a speed of at least 0,5 m/sec. If the lowering speed is too low the liquid will not flow through the bottle as the ball resistance to flowing has to be higher than its weight in order to keep open the bottom of the container.

5. When the appropriate depth has been reached lift the bottle back into the sampler housing. Turn the crank until getting a catch that keeps the tape fully tight.

6. Close the 4” ball valve.

7. Open the transfer valve at the bottom of the sampler.

8. Lower the sampling bottle until it is sitting on the valve ball. This opens the valve of the sampling bottle. The liquid will flow from the sampling bottle through the transfer valve into the laboratory bottle.

9. When sampling is completed (or in case of partial transfer of liquid), close transfer valve, lift sampling bottle, open 4” ball valve no more than 30° to drain residual liquid back in the tank.

10. Close the 4” ball valve.

11. Remove the sampler from the ball valve.

12. If required clean the sampling device prior to the next sampling. The top part of the sampler housing and winder can be removed as well and the sampling bottle dismounted from the tape. If the tape requires cleaning it can be unwound, preferably on another reel.
6.3 **Operation with BOTTOM SAMPLING BOTTLE**

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<td>30516</td>
<td>21056</td>
<td>Bottom bottle 0.50 l FFKM assy</td>
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</tbody>
</table>

1. Install sampler with sampling bottle on top of 4” valve.

2. Prepare connection between transfer valve at bottom of sampler and laboratory bottle. Check that laboratory bottle content is at least 0.5 L.

3. Open 4” ball valve.

4. Lower bottom bottle to reach tank bottom.

5. When bottle bottom valve hits tank bottom bottle fills up automatically.

6. Lift bottle back into sampler housing; turn the crank until getting a catch that keeps the tape fully tight.

7. Close 4” ball valve.

8. Open transfer valve at bottom of sampler.

9. Lower sampling bottle until it is sitting on valve ball. This releases bottle stem and open bottom valve of sampling bottle. Liquid will flow from sampling bottle through transfer valve into laboratory bottle.

10. When sampling is completed (or in case of partial transfer of liquid), close transfer valve, lift sampling bottle, open 4” ball valve no more than 30° to drain residual liquid back in the tank.

11. Close 4” ball valve.

12. Remove sampler from ball valve.

13. If required clean sampling device prior to next sampling. Top part of sampler housing and winder can be removed as well and sampling bottle detached from tape. If tape requires cleaning it can be unwound, preferably on another reel.
6.4 **Operation with SPOT SAMPLING BOTTLE**

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<td>21070</td>
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</table>

1. Install sampler with sampling bottle on top of 4” valve.

2. Prepare connection between transfer valve at bottom of sampler and laboratory bottle. Check that laboratory bottle content is at least 2 L.

3. Open 4” ball valve.

4. Lower spot bottle to level where sample is to be taken.

5. Stop bottle at this level and shake it rapidly up and down about 10 times on a 200 mm stroke. This movement has a pumping effect as bottom and upper valves open and close.

6. Lift bottle back into sampler housing; turn the crank until getting a catch that keeps the tape fully tight.

7. Close 4” ball valve.

8. Open transfer valve at bottom of sampler.

9. Lower sampling bottle until it is sitting on valve ball. This releases bottle rod and open bottom valve of sampling bottle. Liquid will flow from sampling bottle through transfer valve into laboratory bottle.

10. When sampling is completed (or in case of partial transfer of liquid), close transfer valve, lift sampling bottle, open 4” ball valve no more than 30° to drain residual liquid back in the tank.

11. Close 4” ball valve.

12. Remove sampler from ball valve.

13. If required clean sampling device prior to next sampling. Top part of sampler housing and winder can be removed as well and sampling bottle detached from tape. If tape requires cleaning it can be unwound, preferably on another reel.
### 6.5 Operation with RUNNING SAMPLING BOTTLE

<table>
<thead>
<tr>
<th>ND</th>
<th>TS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>30505</td>
<td>21064 Running bottle 1.8 L FFKM assy</td>
</tr>
</tbody>
</table>

0. Adjust calibration cap on top of bottle according to liquid to be sampled. **Note:** adjustment is right when the transferred quantity of liquid falls between 70 and 85% of the capacity of the sampling bottle, i.e. between 1.3l and 1.5l (API MPMS Chapter 8.1, § 8.3.3.3).

1. Install sampler with sampling bottle on top of 4” valve.

2. Prepare connection between transfer valve at bottom of sampler and laboratory bottle. Check that laboratory bottle content is at least 2 L.

3. Open 4” ball valve.

4. Lower running bottle regularly to appropriate depth but do not hit tank bottom to keep bottom plug closed all the time.

5. When appropriate depth has been reached lift running bottle back into sampler housing at same regular speed. Turn the crank until getting a catch that keeps the tape fully tight.

6. Close 4” ball valve.

7. Open transfer valve at bottom of sampler.

8. Lower sampling bottle until it is sitting on valve ball. This releases bottle stem and open bottom plug of sampling bottle. Liquid will flow from sampling bottle through transfer valve into laboratory bottle.

9. When sampling bottle is empty, close transfer valve, lift sampling bottle.

10. Check that the transferred liquid falls between the two marks 1.3l and 1.5l in order to comply with API MPMS Chapter 8.1 requirements.

11. Open 4” ball valve no more than 30° to drain residual liquid back in the tank.

12. Close 4” ball valve.

13. Remove sampler from ball valve.

14. If required clean sampling device prior to next sampling. Top part of sampler housing and winder can be removed as well and sampling bottle detached from tape. If tape requires cleaning it can be unwound, preferably on another reel.
7. Care & Maintenance

7.1 Safety warning

As this equipment has been certified as non-electrical equipment for potentially explosive atmospheres. Specific precautions have to be taken regarding maintenance of the device. The user can exchange parts and modules if following points are observed:

1. Never carry out any repair or trouble shooting in a hazardous area.
2. Substitution of components may impact safety. Use only original spare parts.
3. Work shall be done only by maintenance personnel who has experience with equipment certified for use in potentially explosive atmosphere.

The design of the equipment is modular, i.e. in case of damage, check which modules or spare parts have to be replaced. Order new parts according to enclosed drawings and specific item number TS -----. The instrument consists of the following modules:

- Mechanical parts
- Tape assembly
- Tape cleaner

7.2 Care

Clean the instrument of any excess liquid after use. Open and rotate the carter winder and clean the storage tube. This cleaning must be done very properly, in particular when corrosive liquids are sampled, such as strong acids or caustic soda for instance.

Store the instrument in a dry location.

Check periodically whether the general state of the device is still OK.

Check periodically whether all sealings are still OK.

Check the tape wiper for wear.

Clean periodically the sampling bottle. Check the valves of sampling bottles for liquid leakage.

Check periodically tape from kinks.

Check periodically the carter coating, no metal should be visible.

Check periodically the bearings state. Bearings have limited lifespan.

Check periodically (at least every 6 months) the continuity of grounding by measuring the electrical resistance between the hook lock (or the sampling bottle) and the quick connect coupler. Resistance should not exceed 100 Ω.
7.3 **Sampler cleaning**

To clean HERMetic Sampler, carter winder can be easily opened as well and sampling bottle detached from tape.

It is required to fit the cleanliness level with the sample goals. Where appropriate, dismantle the winder holder and clean the parts with an appropriate cleaner to prevent any contamination of the sample by the sampler itself.

7.4 **Tape cleaning**

If tape requires cleaning it has to be unwound. Clean it during its winding-up operation on the winder.

7.5 **Tape wiper replacement**

- Unscrew the 4 screws of the winder tightening it to the sampler.
- Remove the washer wiper holder.
- Change the wiper.
- Put back the washer wiper holder and tighten the 4 screws again.

7.6 **Tape replacement**

- Open carter winder from sampler;
- Unwind totally the old tape;
- Remove it and unscrew the screw tightening to the core;
- Put the new tape;
- Fasten the tape to the core with the screw;
- Wind the new tape;
- Close the carter winder with the 2 wing screws.

7.7 **Bearings**

Bearings are involved in the electrical safety of this device. In case of exchange, use only original spare parts.

7.8 **Coated aluminium parts**

PA 11: Rilsan = grey color.

The coating should be subject to regular and careful inspection. The continued used of the apparatus should not be permitted if inspection reveals that the protective material has become damaged to the extend that the underlying protected metal is visible, until such damage has been satisfactorily repaired.
## 8. Specifications

### General Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape length</td>
<td>up to 30 m/100 ft</td>
</tr>
<tr>
<td>Tape graduation</td>
<td>Metric/English</td>
</tr>
<tr>
<td>Tape resolution</td>
<td>1 mm / 1/16&quot;</td>
</tr>
<tr>
<td>Tape accuracy</td>
<td>±6.3mm/30 m (±1/4&quot;/100 ft approx.)</td>
</tr>
<tr>
<td>Liquid density</td>
<td>up to 8kg/dm³</td>
</tr>
<tr>
<td>Ambient temperature range</td>
<td>-20°C to 80 °C (−4°F to 176°F)</td>
</tr>
<tr>
<td>Mechanical coupling</td>
<td>4”</td>
</tr>
<tr>
<td>Weight</td>
<td>7.4 kg approx.</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Ø220 x 769 mm approx.</td>
</tr>
</tbody>
</table>

Meets ISO 3170 “Petroleum liquids – Manual sampling”

### Tape cleaning device

Non adjustable tape cleaner

### Available bottles

Zone, bottom, spot, running sampling bottles

### Maintenance

Modular design / easy exchange of parts

Specifications subject to change without notice.
9. Drawings

These documents are enclosed in following pages.

O = Option, according to specific order.

<table>
<thead>
<tr>
<th>ND</th>
<th>TS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>20333</td>
<td>10043</td>
<td>Sampler A-4 assy 30 m</td>
</tr>
<tr>
<td>20332</td>
<td>21094</td>
<td>Winder assembly 30 m</td>
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<tr>
<td>40520</td>
<td>10368</td>
<td>Tape assy w/o winder 30m</td>
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<tr>
<td>30617</td>
<td>21091</td>
<td>Zone bottle 1.8 liter</td>
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<tr>
<td>O</td>
<td>30505</td>
<td>Running bottle 1.8 L FFKM assy</td>
</tr>
<tr>
<td>O</td>
<td>30516</td>
<td>Bottom bottle 0.50 l FFKM assy</td>
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<tr>
<td>O</td>
<td>30510</td>
<td>Spot bottle 1.8 liter</td>
</tr>
<tr>
<td>20252</td>
<td>10053</td>
<td>Deck valve A-4” SS</td>
</tr>
</tbody>
</table>
ATEX Certified Product

No modifications permitted without the approval of the "authorised person"

Bande coupée à 478 mm
Tape cut at 478 mm

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>Weight</th>
<th>Description</th>
<th>Material</th>
<th>TS</th>
<th>ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>643.3</td>
<td>Tape 30 m Metric/inch</td>
<td>T.4021</td>
<td>19503</td>
<td></td>
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<tr>
<td>2</td>
<td>2</td>
<td>0.0</td>
<td>Rivet ø 2 x 2.1</td>
<td>A2</td>
<td>-</td>
<td>41367</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>42.1</td>
<td>Swivel hook with clasp</td>
<td></td>
<td></td>
<td>20502</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1.7</td>
<td>Washer for tape connector</td>
<td>1.4301</td>
<td>11238</td>
<td>41200</td>
</tr>
</tbody>
</table>

TOLERANCES UNLESS OTHERWISE SPECIFIED

<table>
<thead>
<tr>
<th>Norm. Size</th>
<th>Over</th>
<th>6</th>
<th>30</th>
<th>100</th>
<th>300</th>
<th>1000</th>
<th>2000</th>
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</thead>
<tbody>
<tr>
<td>Fit</td>
<td>6</td>
<td>30</td>
<td>100</td>
<td>300</td>
<td>1000</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Fine</td>
<td>±</td>
<td>0.05</td>
<td>0.1</td>
<td>0.15</td>
<td>0.2</td>
<td>0.3</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Weight: 687.2 Eff.

REMOVED ALL BURRS AND SHARP EDGES

1:1

Sampler 2" GT
Tape assy w/o winder 30m

This drawing is our property and must not without our permission be copied or made available to others.
The receiver is responsible for every misuse.

Enraf Tanksystem SA
RUE DE L'INDUSTRIE 2 CH-1630 BULLE
Tel. +41 26 91 91 500 - Fax +41 26 91 91 505
Retourner la demi goupille autours de l'axe pour l'empêcher de tourner sur son axe

Retourner la demi goupille autours de l'axe pour l'empêcher de tourner sur son axe

DÉTAIL B
ECHELLE 1 : 1
ATEX Certified Product
No modifications permit-
ed without the approval of the "authorised person"

Sampler 4" GT SS
Bomb bottle 0,5 l. assy

This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.
Retourner la demi goupille autour de l’axe pour l’empêcher de tourner sur son axe

Retourner la demi goupille autour de l’axe pour l’empêcher de tourner sur son axe

DETAIL B
ECHELLE 1 : 1

Sample 4” GT SS
Spot bottle 1,8 l. assy

This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.
Fit flange
ANSI 150 lbs 4" (100mm.)
JIS 10K 100 mm.
DIN PN 16 DN 100

COUPE A-A

COUPE B-B

This drawing is our property and must not without our permission be copied or made available to others.
The receiver is responsible for every misuse.

Enraf Tanksystem SA
Rue de l'Industrie 2 CH-1935 Bulle
Tel: +41 26 91 51 500 - Fax: +41 26 91 51 505
Honeywell
Enraf Tanksystem SA

Declaration of Conformity

Apparatus Identification
HERMetic Sampler Type GT / GT Chem / GTX Chem / GTN Chem / A4 / GT4

Apparatus Classification
Sampling Equipment

Statement of Conformity

Based on sample product test results using appropriate standards (industrial environment), and in accordance with the following EC Directives, we, Enraf Tanksystem SA, hereby declare under our sole responsibility that the above HERMetic Samplers are in conformity with:

EC Type Examination Certificate: KEMA 06ATEX0027 II 1 G c IIB T6

Sample Product Testing for ATEX

Tested by
Kema Quality B.V., Utrechtseweg 310, P.O. Box 5185, 6812 AR Arnhem, The Netherlands

Standards Used
EN13463-1:2001, Non-electrical equipment for potentially explosive atmospheres – Part 1: Basic method and requirements
EN13463-5:2003, Non-electrical equipment for potentially explosive atmospheres – Part 5: Protection by constructional safety

Notified Body
Kema Quality B.V., Utrechtseweg 310, P.O. Box 5185, 6812 AR Arnhem, The Netherlands

Notified Body Number
0344

Report ID
KEMA 2090419

Quality Assurance notification
Baseefa ATEX 1536

Notified Body
Baseefa, Rockhead Business Park, Staden Lane, Buxton, Derbyshire, SK17 9RZ. United Kingdom

Notified Body Number
1180

Manufacturer
ENRAF TANKSYSTEM SA, Rue de l'Industrie 2, 1630 BULLE, Switzerland

Philipppe Despagnie
General Manager

Created / modified  Approved  Released  Remarks
1  2006/06/01  2006/06/08  2006/06/12  Creation
2  2007/04/02  2007/04/02  2007/04/02  Update of the ATEX references
3  2008/08/28  2008/09/03  2008/09/03  Update of the company logo - Honeywell

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