



Assembly Instruction

Ex-Sensors WIKA IL10 with SERTO-screw connection

Item no.: 224 010 006, 224 010 007, 224 020 006, 224 050 006

Translation of the
original operating manual

Important!

The operating manual is always to be read before commissioning the equipment. No warranty claim will be granted for faults and damage to the equipment arising from insufficient knowledge of the operating manual.

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1 Safety instructions

The device is a state of the art piece of equipment and has been constructed according to recognised safety specifications. It is nevertheless possible that use of the device will present hazards to the operator or to third parties, or may damage the device or other property. It is therefore essential to act in accordance with these safety instructions, and in particular with those sections identified as warnings.

Warning notices and symbols

In the operating manual, the following signs are used for highlighting important information.



Special information for economical use of the equipment.



Special information or "dos and don'ts" for damage prevention.



Information or "dos and don'ts" for the prevention of damage to persons or equipment.

Appropriate use



The device may only be used if it is in perfect condition, and then only for its intended purpose, in compliance with all safety regulations, with an awareness of the potential risks, and according to the operating manual. Any faults that may impair the safety must be rectified immediately.



The device and its components are only to be used for handling the liquids listed and the purpose described. Using the machine for any other purpose would constitute inappropriate use. The manufacturer is not responsible for any loss arising as a result of this, the risk for this is borne only by the operating company.


Organisational measures

- ! This operating manual should always be kept readily available at the site of operation! Each person concerned with the assembly, commissioning, maintenance and operation of the equipment must have read and understood the entire operating manual. It is essential that the type plate and the warning notices attached to the device are observed, and are maintained in a fully readable condition.


Qualified personnel

- ! The operating, maintenance and assembly personnel must be appropriately qualified for their work. The areas of responsibility, competences and supervision of the personnel must be precisely regulated by the operating company. If the personnel do not have the required knowledge, they must be trained and instructed. The operating company must also ensure that the contents of the operating manual are properly understood by the personnel.


Waters protection

-  The device has been designed to handle water hazardous substances. The regulations on the operating place (e.g. Water Resources Act WHG, = ordinance on installations for handling of substances hazardous to water VAWS) must be adhered to.


Hydraulics

-  Only persons with special knowledge and experience with hydraulic systems may carry out work on hydraulic parts and equipment. All lines, hoses and screw joints should regularly be checked for leaks and visible external damage. Any damage must be rectified immediately. Any oil spurting out can cause injuries and fire. The relevant safety regulations for the product must be followed when handling oils, greases or other chemical substances!

Maintenance and Service

-  According to the regulations of the water resources law only authorized services may work on devices for flammable and/or water endangering substances. During such works, appropriate tools are to be used (avoid sparking). Before any kind of work on the device, all fuel lines are to be completely emptied and aerated. Do not make any changes. Modifications or additions to the device which may affect the safety cannot be carried out without consent of the manufacturer. Exclusively genuine spare parts made by the manufacturer may be used.

Electric power

-  Work on the electrical equipment may only be carried out by a qualified electrician or by trained persons under the guidance and supervision of a qualified electrician according to electro-technical guidelines. Machine or system components, on which inspection, maintenance or repair work is to be carried out must be de-energised.

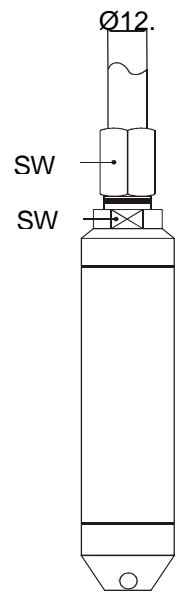
2 Description

The LevelMaster ex sensors with SERTO screw connection must be provided with a stainless steel tube for cable run. The completion with that corresponding stainless steel tube should preferably take place at company HORN.

If this is not possible, then assembly with the appropriate stainless steel tubes can be done also by a specialized company.

3 Affected Sensor

- | | |
|--------------------|--|
| 224 010 006 | Ex-Sensor 200 mbar, max 2,3 m tank height, 5 m cable length |
| 224 020 006 | Ex-Sensor 300 mbar, max 3,4 m tank height, 5 m cable length |
| 224 050 006 | Ex-Sensor 500 mbar, max 5,4 m tank height, 7 m cable length |
| 224 010 007 | Ex-Sensor 200 mbar, max 2,3 m tank height, 20 m cable length |



4 Accessories

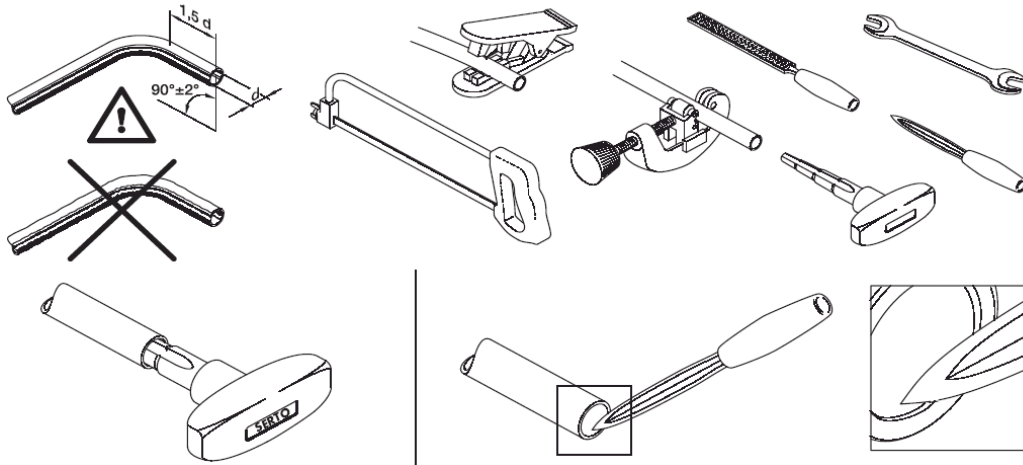
Item no.:

- | | |
|--------------------|--|
| 256 200 010 | Complete assembly of ex sensor (without sensor and stainless steel pipe) |
| 224 070 004 | Stainless steel pipe 2,3 m long |
| 224 070 005 | Stainless steel pipe 3,4 m long |
| 224 070 006 | Stainless steel pipe 5,4 m long |

Tubes with a clean smooth external surface and with an outside diameter within the tolerance $12 \text{ mm} \pm 0.1 \text{ mm}$ should be used. Tube wall $< 1.5 \text{ mm}$.

5 Proceeding

1. Cut the tube to length and deburr it. The tube must be straight and free from blemishes for approximately 20 mm from the end.



2. Insert enclosed stiffener sleeves into the sensor lateral tube and push tube with support sleeve over sensor cable. Align tube and union. Insert the tube as far as the stop.



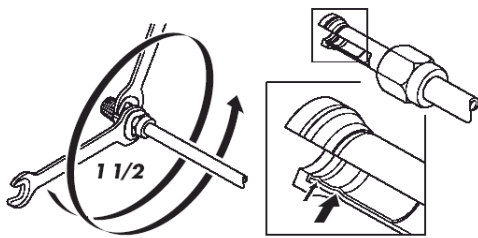
3. Screw on the union nut by hand until finger tight. At the same time, push the tube against the fitting. Tighten down the union nut $1 \frac{1}{2}$ rotation using an open ended spanner. (Making a mark will assist in correct rotation.)



4. Slightly release the nut once again to take the radial stress off the tube. Screw on the union nut until finger tight again and tighten down the union nut with $\frac{1}{4}$ rotation for the final fit. (Hold adaptor from turning with a second wrench).

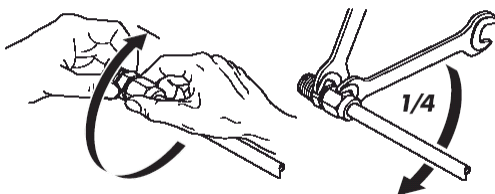


5. Checking of fit: Release the union nut completely. A distinct bead or deformation must be visible on the inside of the tube. It is of no detriment to the efficiency of the connection if, after assembly, the ferrule can be turned on the tube, or the tube in the union nut.

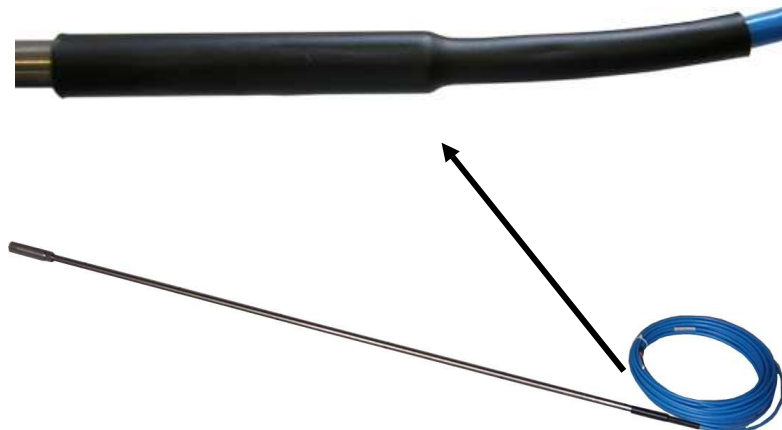


6. When refitting the same tube union, screw the union nut back on until finger tight and tighten down the union nut with an open ended spanner $\frac{1}{4}$ rotation for the final fit.

In case of repeated assembly, parts must be lubricated.



7. The upper end of the tube is to be sealed with the enclosed heat. Shrink hose in order to prevent the penetration of foreign bodies or humidity into the tube. Hot-air temperature min. 175°C



6 Disposal

The device is to be emptied completely and the liquids properly disposed of in case it is taken out of service.

The equipment is to be disposed of properly when taken permanently out of service:



- Return old metal for recycling.
- Return plastic parts for recycling.
- Return electronic waste for recycling.



The water legal regulations are to be followed.

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