Operating Instructions
Lock fitting ARV 52
for OPTISWITCH 5200 C, 5250 C
- unpressurised operation
## Contents

1. **About this document**
   1.1 Function ............................................. 3  
   1.2 Target group ......................................... 3  
   1.3 Symbolism used ..................................... 3  

2. **For your safety**
   2.1 Authorised personnel ................................. 4  
   2.2 Appropriate use ...................................... 4  
   2.3 Warning about misuse ................................. 4  

3. **Product description**
   3.1 Configuration ........................................ 5  
   3.2 Principle of operation ................................. 5  
   3.3 Storage and transport ................................ 5  

4. **Mounting**
   4.1 Mounting sequence .................................... 6  

5. **Maintenance and fault rectification**
   5.1 Maintenance .......................................... 7  
   5.2 Instrument repair .................................... 7  

6. **Dismounting**
   6.1 Dismounting steps .................................... 8  
   6.2 Disposal .............................................. 8  

7. **Supplement**
   7.1 Technical data ........................................ 9  
   7.2 Dimensions .......................................... 10
1 About this document

1.1 Function
This operating instructions manual has all the information you need for quick setup and safe operation. Please read this manual before you start setup.

1.2 Target group
This operating instructions manual is directed to trained, qualified personnel. The contents of this manual should be made available to these personnel and put into practice by them.

1.3 Symbolism used

Information, tip, note
This symbol indicates helpful additional information.

Caution: If this warning is ignored, faults or malfunctions can result.
Warning: If this warning is ignored, injury to persons and/or serious damage to the instrument can result.
Danger: If this warning is ignored, serious injury to persons and/or destruction of the instrument can result.

Ex applications
This symbol indicates special instructions for Ex applications.

List
The dot set in front indicates a list with no implied sequence.

Action
This arrow indicates a single action.

Sequence
Numbers set in front indicate successive steps in a procedure.
2 For your safety

2.1 Authorised personnel
All operations described in this operating instructions manual must be carried out only by trained specialist personnel authorised by the operator. For safety and warranty reasons, any internal work on the instruments must be carried out only by personnel authorised by the manufacturer.

2.2 Appropriate use
ARV 52 is used for for infinite locking with tube extension.
Detailed information on the application range of ARV 52 is available in chapter "Product description".

2.3 Warning about misuse
Inappropriate or incorrect use of the instrument can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting or adjustment.

2.4 General safety instructions
ARV 52 is a high-tech instrument requiring the strict observance of standard regulations and guidelines. The user must take note of the safety instructions in this operating instructions manual, the country-specific installation standards (e.g. the VDE regulations in Germany) as well as all prevailing safety regulations and accident prevention rules.
3 Product description

3.1 Configuration

Scope of delivery
The scope of delivery encompasses:

- Lock fitting ARV 52 for OPTISWITCH 5200 C, 5250 C vibrating level switches
- Documentation
  - this operating instructions manual

3.2 Principle of operation

Area of application
The lock fitting ARV 52 is a threaded fitting and can be used together with a level sensor in tube version (OPTISWITCH 5200 C, 5250 C). Depending on the version, the tube extension of the sensor must have a diameter of 21.3 mm (0.84 in):

ARV 52 cannot be used in coated tubes.
The wetted parts of ARV 52 are made of steel (316L).
The ARV 52 must only be used in unpressurized vessels.

Functional principle
With the lock fittings, sensors with tube extension can be fixed infinitely.
The terminal screws protect the tube against sliding through.
The following versions are available:

- \( \varnothing \) 21.3 mm - G1 A or 1 NPT (SW 41)
- \( \varnothing \) 21.3 mm - G1½ A or 1½ NPT (SW 60)

3.3 Storage and transport

Packaging
Your instrument was protected by packaging during transport. Its capacity to handle normal loads during transport is assured by a test according to DIN EN 24180.
The packaging of standard instruments consists of environment-friendly, recyclable cardboard. For special versions, PE foam or PE foil is also used. Dispose of the packaging material via specialised recycling companies.

Storage and transport temperature

- Storage and transport temperature see "Supplement - Technical data - Ambient conditions"
- Relative humidity 20 … 85 %
4 Mounting

4.1 Mounting sequence

The numbers in brackets refer to the figures on the following pages.

![Diagram of lock fitting ARV 52 - unpressurised](image)

**Fig. 1: Lock fitting ARV 52 - unpressurised**
1 Lock fitting
2 Terminal screws (3 pcs.)

1 Screw the lock fitting (1) with a resistant seal ring into the thread of your vessel and tighten the lock fitting (1) on the hexagon

2 Clean the connection tube of the sensor and the lock fitting carefully and remove grease, oil and dirt. Insert the sensor into the lock fitting. Slide the tube into the requested position and hold it

3 Make sure that the sensor is in the correct position (height). The height adjustment of the sensor determines also the switching point

4 Tighten the terminal screws (2) with a torque of 4 ± 1 Nm (3 ± 0.7 lbf ft)

The terminal screws (2) press lightly into the tube and fix the tube of the sensor in this position.
5 Maintenance and fault rectification

5.1 Maintenance

When used as directed in normal operation, ARV 52 is completely maintenance free.

5.2 Instrument repair

If a repair is necessary, please proceed as follows:

You can download a return form from our website http://www.krohne-mar.com/fileadmin/media-lounge/PDF-Download/Specimen_e.pdf.

By doing this you help us carry out the repair quickly and without having to call for needed information.

- Print and fill out one form per instrument
- Clean the instrument and pack it damage-proof
- Attach the filled in form and if necessary, a safety data sheet to the instrument
6 Dismounting

6.1 Dismounting steps

Note chapter "Mounting" and carry out the described steps in reverse order.

If you proceed as follows, it is not necessary to readjust the switching point and the lock fittings must not be dismounted completely.

1. Switch off power supply of the sensor
2. Remove all connection cables
3. Loosen lock fitting with a screwdriver
4. Remove the sensor together with the lock fitting

6.2 Disposal

ARV 52 consists of materials which can be recycled by specialised recycling companies. Mark the instrument as scrap and dispose it according to the national, legal regulations.

Materials: see chapter "Technical data"

If you cannot dispose of the instrument properly, please contact us about disposal methods or return.
7 Supplement

7.1 Technical data

General data
Material 316L corresponds to 1.4404 or 1.4435

Process fitting
- G1 A or 1 NPT
- G1½ A or 1½ NPT

Tube diameter of the sensor
ø 21.3 mm (0.84 in)

Materials
- Lock fitting
- Process seal
  - Klingersil C-4400\(^{1}\)

Terminal screws
Pin with hexagon DIN 913 M5x8

Torque
- Terminal screws (M5)
  4 ±1 Nm (3 ±0.7 lbf ft)

Process conditions
Operating pressure
unpressurized

Product temperature
-50 \(\ldots\) +250 °C (-58 \(\ldots\) +482 °F)

Approvals
The lock fittings have no own approvals

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\(^{1}\) not with thread NPT
7.2 Dimensions

Lock fitting ARV 52 for OPTISWITCH 5200 C, 5250 C

Fig. 2: Lock fitting ARV 52 unpressurised for OPTISWITCH 5200 C, 5250 C