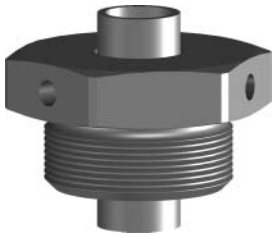
Operating Instructions

Lock fitting ARV-SG63.1
for VEGASWING 63
– unpressurised operation



Contents

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1 About this document

1.1 Function

This operating instructions manual has all the information you need for quick setup and safe operation of ARV-SG63.1. Please read this manual before you start setup.

1.2 Target group

This operating instructions manual is directed to trained 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, warning, danger
This symbol informs you of a dangerous situation that could occur. Ignoring this cautionary note can impair the person and/or the instrument.

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.

1 **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, specialised 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-SG63.1 is used for for infinite locking with tube extension.

Detailed information on the application range of ARV-SG63.1 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-SG63.1 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.

2.5 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified acc. to DIN EN ISO 14001.

Please help us fulfil this obligation by observing the environmental instructions in this manual:

- Chapter "*Storage and transport*"
- Chapter "*Disposal*"

3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- Lock fitting ARV-SG63.1 for VEGASWING 63 vibrating level switch
- Documentation
  - this operating instructions manual

3.2 Principle of operation

Area of application

The lock fitting ARV-SG63.1 is a threaded fitting and can be used together with a level sensor in tube version (VEGASWING 63). Depending on the version, the tube extension of the sensor must have a diameter of 21.3 mm (ø 0.84 in):

ARV-SG63.1 cannot be used in coated tubes.

The wetted parts of the ARV-SG63.1 are made of steel (316L).

The ARV-SG63.1 must only be used in unpressurized vessels.

Physical 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:

- ø 21.3 mm - G1A or 1 NPT (SW 41)
- ø 21.3 mm - G1½A 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 acc. 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 procedure

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

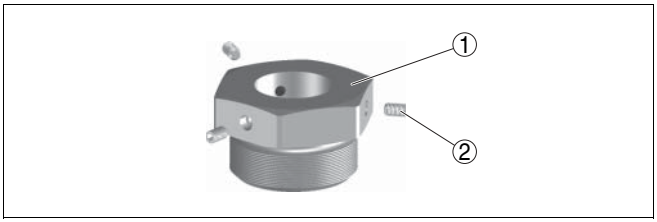

Fig. 1: Lock fitting ARV-SG63.1 - unpressurised
1 Lock fitting
2 Terminal screws (3 pcs.)

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, lock fitting ARV-SG63.1 is completely maintenance-free.

5.2 Instrument repair

If a repair of ARV-SG63.1 should be necessary, please send the instrument to the following address:

VEGA Grieshaber KG; Abteilung Reparatur; Am Hohenstein 113; 77761 Schiltach / Germany

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6 Dismounting

6.1 Dismounting procedure

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

The ARV-SG63.1 consists of materials which can be recycled by special recycling companies. Mark the instrument as scrap and dispose it according to the legal regulations.

Materials: see "*Technical data*"

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

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7 Supplement

7.1 Technical data

General data

Material 316L corresponds to 1.4404 or 1.4435

Process fitting
- G1A or 1 NPT
- G1½A or 1½ NPT

Tube diameter of the sensor	ø 21.3 mm (ø 0.84 in)
Materials	
– Lock fitting	316L
– Process seal	Klingersil C-4400[1)]
Terminal screws	Pin with hexagon DIN 913 M5 x 8
Torque	
– Terminal screws (M5)	4 ±1 Nm (3 ±0.7 lbf ft)

Process conditions

Operating pressure	unpressurized
Product temperature	-50 … +250°C (-58 … +482°F)

Approvals

The lock fittings have no own approvals

[1)] not with thread NPT

7.2 Dimensions

Lock fitting ARV-SG63.1 for VEGASWING 63

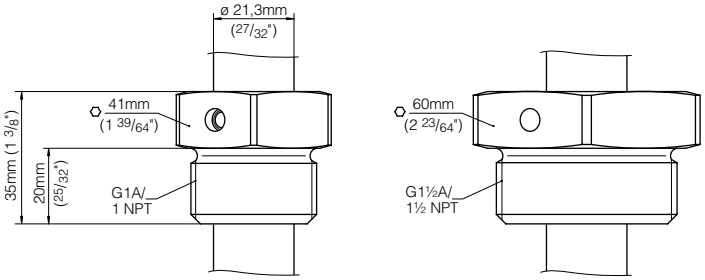

Fig. 2: Lock fitting ARV-SG63.1 unpressurized for VEGASWING 63

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All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.