



Measuring Chamber A699 3500/3501

with parking and measurement position





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Dear Customer,

Thank you for choosing our product.

The operating instructions must be read in full and carefully observed before starting up the device. The manufacturer cannot be held liable for any damage which occurs as a result of non-observance or noncompliance with this manual.

Should the device be tampered with in any manner other than a procedure which is described and specified in the manual, the warranty is cancelled and the manufacturer is exempt from liability.

The device is destined exclusively for the described application.

SUTO offers no guarantee for the suitability for any other purpose. SUTO is also not liable for consequential damage resulting from the delivery, capability or use of this device.

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1 Safety Instructions

Please check if this instruction manual matches with the product type.

Please observe all notes and instructions indicated in this manual. It contains essential information which have to be observed before and during installation, operation and

maintenance. Therefore this instruction manual has to be read carefully by the technician as well as by the responsible user / qualified personnel.

This instruction manual has to be available at the operation site of the device at any time. In case of any obscurities or questions, regarding this manual or the product, please contact the manufacturer.



WARNING!

Compressed air!

Any contact with quickly escaping air or bursting parts of the compressed air system can lead to serious injuries or even death!

- Do not exceed the maximum permitted pressure range (see chamber label).
- Only use pressure tight installation material.
- Avoid that persons get hit escaping air or bursting parts of the instrument.
- The system must be pressureless during maintenance work.



WARNING!

Permitted operating parameters!

Observe the permitted operating parameters, any operation exceeding this parameters can lead to malfunctions and may lead to damage on the instrument or the system.

- Do not exceed the permitted operating parameters.
- Make sure the product is operated in its permitted limitations.
- Do not exceed or undercut the permitted storage and operation temperature and pressure.
- The product should be maintained frequently, at least annually.

General safety instructions

- It is not allowed to use the product in explosive areas.
- Please observe the national regulations before/during installation and operation.

Remarks

- It is not allowed to disassemble the product.
- Always use spanner to mount the product properly.



ATTENTION!

Measurement values can be affected by malfunction!

The product must be installed properly and frequently maintained, otherwise it may lead to wrong measurement values, which can lead to wrong results.

Storage and transportation

- Make sure that the transportation temperature of the device is between -30°C ... +70°C.
- For transportation it is recommended to use the packaging which comes with the device.
- Please make sure that the storage temperature of the device is between -40°C ... +65°C.
- Avoid direct UV and solar radiation during storage.
- For the storage the humidity has to be <90%, no condensation.

2 Registered Trademarks

SUTO[®] Registered trademark of SUTO iTEC

MODBUS[®] Registered trademark of the Modbus Organization, Hopkinton, USA

HART[®] Registered trademark of the HART Communication Foundation, Austin, USA

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3 Application

The measuring chamber is designed to bypass the air and gases through the chamber to the measured instrument within the permissible operating parameters. These parameters can be found in the technical data section.

The measuring chamber is not developed to be used in explosive areas. For the use in explosive areas please contact the manufacturer.

The measuring chamber is mainly used in compressed air systems in industrial environment.

4 Features

- Parking and measuring position for a quick measuring result.
- With desiccant to keep the sensor try.
- Easy installation through hose quick connector.
- Convenient to the dew point sensor S505 and S520.
- mounted to the S505 or S520 through the 1/2" G-type thread connection.

5 Technical Data

CE		
Measuring medium	Air, gas (non corrosive gas)	
Operating temperature	0°C 50°C	
Humidity of the meas. medium	< 90%, no condensation	
Operating pressure	0.3 MPa 1.5 MPa (A699 3500) 0.001 MPa 1.0 MPa (A699 3501)	
Housing material	Aluminium	
Dimensions	See dimensional drawing on the page 7	
Weight	250 g	

6 Dimensional Drawing



7 Installation

Please make sure that all components listed below are included in your package.

Qty	Description	Item No.
1	Measuring chamber	A699 3500/A699 3501
1	Instruction manual	No P/N

7.1 Installation Requirements

The chamber is mounted to the S505 or S520 through the 1/2'' G-type thread connection.

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7.2 Installation Procedure

The following steps explain the procedure of an appropriate installation.

Installation of the measuring chamber

1. Screw the measuring chamber on the S505 or S520 through the 1/2'' G-type thread connection.



2. Connect the teflon hose with the measuring chamber. The hose is connected to the 6 mm connector at the chamber.

 Connect the tip of the teflon hose with a quick connector. The teflon hose with quick connector is used to connect the measuring chamber to the process.

4. The parking measuring chamber is mounted permanently on the sensor head to keep the sensor try. For measuring the handle on the chamber has to be turned into measuring position.

5. After finishing the measurement, please return to the park position.





Remark

Please ensure that the teflon hose remains dry and clean. Wet and contaminated hoses can effect the measurement and should be exchanged.

By-pass version

This chamber is equipped with a check valve 6mm connector which can be used to pass the air / gas through the chamber in one direction. It will not allow any back flow. To ensure the forward flow a minimum pressure of 10 hPa is required.



6 mm exit connector for 6 mm hose with check valve integrated.

Removal of the measuring chamber

- 1. Please turn the handle back to the parking position.
- 2. Disconnect the teflon house with the quick connector.

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8 Maintenance



Please replace the desiccant if the dew point in parking position is above 2°C. Use a key to open the desiccant chamber and replace it. Please contact the manufacturer if a new desiccant is needed.

Please replace the PE filter every 6 months. Use a key to open the quick connector for the 6 mm hose. The PE filter is behind the connector. Please contact the manufacturer if a new filter is needed.



ATTENTION!

Contaminated filters can cause pressure drops and this result in wrong dew point measurements.

To clean the measuring chamber it is recommended to use distilled water or isopropyl alcohol only.

9 Disposal or Waste



Electronic devices are recyclable material and do not belong in the household waste.

The sensor, the accessories and its packings must be disposed according to your local statutory requirements. The dispose can also be carried by the manufacturer of the product, for this please contact the manufacturer.

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