BÜHLER TECHNOLOGIES

Gas Analysis

Portable Heated Sample Tube

Smart-Sample-Tube

Installation and Operation Instructions

Original instructions

BE464009
10/2021

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Read this instruction carefully prior to installation and/or use. Pay attention particularly to all advises and safety instructions to prevent injuries. Bühler Technologies can not be held responsible for misusing the product or unreliable function due to unauthorised modifications.

Document information
Document No.....BE464009
Version.....10/2021

Contents

1 Introduction

1.1 Intended Use

The portable sample gas probe is intended for portable use in industrial applications and a key component in a gas conditioning systems. It is particularly suitable for use with mobile sample gas conditioning. Please note the related drawing in the appendix.

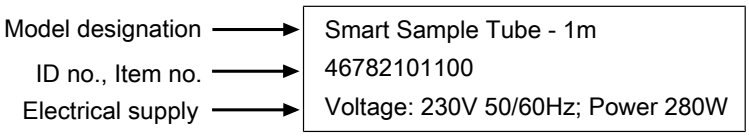
– Before installing the device, verify the listed technical data meet the application parameters.
– Further verify all contents are complete.

Please refer to the type plate to identify your model.

Please note the specific values of the device when connecting, and the correct versions when ordering spare parts.

1.2 Type plate

Example:



1.3 Scope of Delivery

– 1 x portable sample gas probe incl. 3 m connection cable with CEE-7/7 plug
– Product Documentation
– Connection- and mounting accessories (only optional)

1.4 Ordering instructions

The item number is a code for the configuration of your unit. Please use the following model key.

4678	X	X	X	1	X	0	0	**Product Characteristics**
								Voltage
	1							115 V AC
	2							230 V AC
								Sample tube length
		0	5					0.5 m
		1	0					1.0 m
		1	5					1.5 m
		2	0					2.0 m
								Temperature control
				1				Regulated (control range 60 °C - 185 °C)
								Connection for heated line / calibrating gas port
					1			Pipe fitting Ø6 mm / none
					2			Pipe fitting Ø6 mm / hose coupling DN 4/6
					3			Pipe fitting Ø1/4" / none
					4			Pipe fitting Ø1/4" / hose coupling 1/4"-1/6"

1.5 Product description

The Smart Sample Tube series portable heated sample gas probe is ideally operated with the Smartline. Since it is heated, the Smart Sample Tube can be used for sample gases in challenging measurements and when thermal bridges occur at the sample point. The temperature can be set up to 185 °C (365 °F) to even safely sample gas with high acid dew points. Combining the Smart Sample Tube with the Smartline allows particle filtration near the sampling point. However, other heated lines can also be connected with universal insulation.

Probe	Description
Smart Sample Tube	Portable probe for heated gas sampling and connecting a heated sample gas line
Accessories	Please refer to the data sheet at the end of this manual for accessories for this probe

The probe's sample tube is equipped with a temperature-controlled heating system which then curtails it when the set operating temperature is reached as indicated by a status LED.

2 Safety instructions

2.1 Important advice

This unit may only be used if:

- the product is being used under the conditions described in the operating- and system instructions, used according to the nameplate and for applications for which it is intended. Any unauthorized modifications to the device will void the warranty provided by Bühler Technologies GmbH,
- the specifications and markings in the type plate are observed,
- the limits in the data sheet and instructions must be observed,
- Monitoring equipment / protection devices must be connected correctly,
- service and repairs not described in these instructions is performed by Bühler Technologies GmbH,
- Using genuine replacement parts.

These operation instructions are a part of the equipment. The manufacturer reserves the right to change characteristics, specifications or technical data without prior notice. Please keep these instructions for future reference.

Signal words for warnings

DANGER	Signal word for an imminent danger with high risk, resulting in severe injuries or death if not avoided.
WARNING	Signal word for a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.
CAUTION	Signal word for a hazardous situation with low risk, resulting in damaged to the device or the property or minor or medium injuries if not avoided.
NOTICE	Signal word for important information to the product.

Warning signs

In this manual, the following warning signs are used:

	Warning against hazardous situations		General notice
	Warning against electrical voltage		Disconnect from mains
	Warning against respiration of toxic gases		Wear respirator
	Warning against acid and corrosive substances		Wear eye/face protection
	Warning against potentially explosive atmospheres		Wear protection gloves
	Warning against hot surface		

2.2 General hazard warnings

The equipment must be installed by a professional familiar with the safety requirements and risks.

Be sure to observe the safety regulations and generally applicable rules of technology relevant for the installation site. Prevent malfunctions and avoid personal injuries and property damage.

The operator of the system must ensure:

- Safety notices and operating instructions are available and observed,
- The respective national accident prevention regulations are observed,
- The permissible data and operational conditions are maintained,
- Safety guards are used and mandatory maintenance is performed,
- Legal regulations are observed during disposal,
- compliance with national installation regulations.

Maintenance, Repair

Please note during maintenance and repairs:

- Repairs to the unit must be performed by Bühler authorised personnel.
- Only perform conversion-, maintenance or installation work described in these operating and installation instructions.
- Always use genuine spare parts.
- Do not install damaged or defective spare part. If necessary, visually inspect prior to installation to determine any obvious damage to the spare parts.

Always observe the applicable safety and operating regulations in the respective country of use when performing any type of maintenance.

DANGER — **Electrical voltage**

Electrocution hazard.

a) Disconnect the device from power supply.

b) Make sure that the equipment cannot be reconnected to mains unintentionally.

c) The device must be opened by trained staff only.

d) Regard correct mains voltage.

DANGER — **Toxic, corrosive gases**

The measuring gas led through the equipment can be hazardous when breathing or touching it.

a) Check tightness of the measuring system before putting it into operation.

b) Take care that harmful gases are exhausted to a save place.

c) Before maintenance turn off the gas supply and make sure that it cannot be turned on unintentionally.

d) Protect yourself during maintenance against toxic / corrosive gases. Use suitable protective equipment.

DANGER — **Potentially explosive atmosphere**

Explosion hazard if used in hazardous areas.
The device is not suitable for operation in hazardous areas with potentially explosive atmospheres.
Do not expose the device to combustible or explosive gas mixtures.

WARNING — **Risk of breakage**

a) Protect the equipment against being hit.

b) Protect the device against falling objects.

NOTICE

Accessories may limit critical operating parameters of the base unit

Adding accessories may limit critical operating parameters. Ambient temperatures, zone classifications, explosion groups, temperature classes or chemical resistances of accessories may vary from the base unit.
Always include all technical data in the operating instructions and data sheets of all components in the safety assessment.

3 Transport and storage

Only transport the product inside the original packaging or a suitable alternative. The sample gas probe must cool down sufficiently prior to transport. Depending on the operating conditions, this can take up to one hour.

CAUTION

Risk of injuries and fire

Never transport devices which have not cooled down sufficiently!

The equipment must be protected from moisture and heat when not in use. They must be stored in a covered, dry and dust-free room at a temperature between -20 °C to 50 °C (-4 °F to 122 °F).

4 Installation and connection

Remove all on-site dust covers before installing the Smart Sample Tube. These are located inside the G3/8" thread of the sampling lance and inside the 35 mm (1.38 inch) port for connecting a heated line.

4.1 Installation site requirements

CAUTION

Equipment damage

Protect the device from falling objects as well as external blows.

Lightning

On principle, the operator must meet all applicable standards with respect to preventing damage to the equipment due to lightning, which could result in equipment damage.

The sample gas probes are intended for temporary, portable gas sampling.

- Installation site and installation position are determined based on requirements specific to the application.
- If necessary, the connection piece should be slightly tilted toward the centre of the channel.
- Also ensure adequate and safe access during mobile use. Particularly note the length required to install and uninstall the sample tube.

4.2 Installation

WARNING

Gas leakage, condensate, hot surfaces

Burns and / or health hazards due to gas / condensate!

a) The sample gas and/or condensate may be hazardous to the health.

b) Parts near the sampling point may be hot.

c) The probe may become very hot due to the process gasses.

⇨ Close the gas supply, if necessary flush the probe with air, and allow the probe to cool down before beginning installation or maintenance.

⇨ Wear safety gloves and goggles.

4.3 Installing a heated sample gas line

Connecting a Smartline (recommended)

- Remove the plug from the probe casing (Fig. 1 and 2)
- Remove the nut and lock rings for the fitting (Fig. 3) through this assembly opening and properly mount to the Smartline tube
- Insert the Smartline into the casing from below and attach the nut to the fitting through this assembly opening
- Tighten the nut with an SW14 open-end spanner
- Reinsert the plug in the casing

CAUTION! Never trim the connection pipe of the Smartline, or a proper connection can no longer be guaranteed.

Fig. 1

Fig. 2

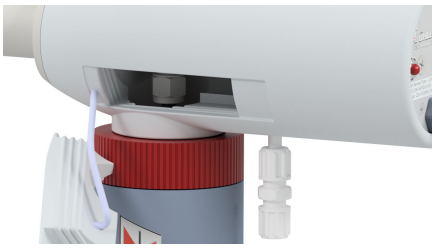


Fig. 3

Connecting a universal heated line

You can use the same procedure as for the Smartline, however to maintain the IP rating and to minimise thermal bridges, this may require an additional adapter between the heating line and probe casing (Fig. 4). These are sold separately (spare parts and accessories) and can be tailored to the specific application. Trim the connection pipe for your sample gas line to minimise the adaptation, thus thermal bridge.

Fig. 4

NOTICE

IP degree of protection

The degree of protection (IP 44) was determined in laboratory tests with heated line type Smartline connected. Compliance requires a properly connected Smart Sample Tube. Other types of heated lines can achieve the same degree of protection with adaptations. Due to the variety of universal heating lines, however, this must be ensured by the operating company.

4.4 Connecting the calibrating gas line (optional)

The calibrating gas line (DN 4/6 or 1/4"-1/6" hose) can be connected directly to the factory hose connection.

An optional check valve is sold separately.

4.5 Electrical connections

The device is equipped with a CEE-7/7 Schuko plug and may only be connected to the corresponding sockets. Never modify the plug in any way. Never use adapter plugs with earthed electrical devices.

The operator must ensure the separator of the prevailing building installation is working properly. This must cut out the load within the prescribed amount of time, cut all live conductors of the supply connection and be suitable for the highest load conditions. Furthermore, the electric circuit being used must be equipped with a circuit breaker (line circuit breaker) (max. release current 16 A).

In the case of mobile applications where the safeguards of sockets are unknown, a PRCD (Portable Residual Current operated Device) is also recommended.

WARNING

Dangerous voltage due to equipment damage

Never use devices with damaged connection line - doing so increases the risk of electric shock.

CAUTION

Wrong mains voltage

Wrong mains voltage may damage the device.
Regard the correct mains voltage as given on the type plate.

CAUTION

Equipment damage

Supply cable damage

a) Never misuse the cable to carry or hang the device or to disconnect the plug from the socket.

b) Route the cable carefully to prevent it from coming into contact with hot surfaces and sharp edges.

c) Do not kink the connection cable, always loosely wrap in a large loop.

5 Operation and Control

NOTICE

The device must not be operated beyond its specifications.

CAUTION

Hot surface

Risk of burns
Depending on the operating parameters, surface temperatures of exposed parts may reach up to 200 °C (392 °F) during operation.
Depending on the installation conditions on site, these areas may require a warning sign.
Allow the unit to cool down before performing maintenance.

5.1 Before Start-Up

Before starting the device, verify:

- the supply cable is not damaged and routed carefully (no hot surfaces or sharp edges).
- Precautions have been taken.
- the earth is proper and functional.
- the gas inlet and outlet on the gas probe are not blocked (e.g. due to factory dust plug).
- ambient parameters are met.
- Probe parts are resistant to media to be conveyed and in the surrounding area.
- the heated sample gas line to transport gas is installed correctly.
- the plug in the assembly opening is properly installed in the housing.
- the calibrating gas line is correctly installed or, if necessary, sealed with a plug.
- the performance specifications in the type plate are met.
- the monitoring equipment is connected and set as specified.
- the properly is properly installed at the sampling point.
- measures have been taken to ensure the connection between the connection piece and sample tube is tight.

Suitable measures must be taken when installing the probe at the sampling point, as hand-held operation is not permissible due to the high surface temperatures. We recommend handing it with a mounting bracket and chain (see figures; sold separately).

5.2 Operating the sample gas probe

When all requirements for startup are met, the probe plug can be connected to power.

The desired sample tube temperature can be set on the thermostat in the middle of the front panel using a slot screwdriver. The position of the flat side on the adjusting shaft indicates the set value.

Flat side down = heater off

Flat side up = heater set to approx. 125 °C (257 °F)

Flat side on right = heater set to approx. 185 °C (365 °F)

The heater is variable and can also be set to other temperatures. To reduce turn anti-clockwise, to increase turn clockwise.

The heating phases are indicated by the status LED lighting up. When the set temperature is reached, the status LED goes out.

The LED regularly switching on and off indicates the heating phase is levelling off.

6 Service

During maintenance, remember:

- The equipment must be maintained by a professional familiar with the safety requirements and risks.
- Only perform maintenance work described in these operating and installation instructions.
- When performing maintenance of any type, observe the respective safety and operation regulations.

DANGER

Electrical voltage

Electrocution hazard.

a) Disconnect the device from power supply.

b) Make sure that the equipment cannot be reconnected to mains unintentionally.

c) The device must be opened by trained staff only.

d) Regard correct mains voltage.

DANGER

The gas inside the filter, condensate and used filter elements may be caustic or corrosive.

Sample gas can be harmful.

a) Before maintenance turn off the gas supply and surge with air if necessary.

b) Exhaust sample gas to a safe place.

c) Protect yourself against toxic / corrosive gas during maintenance. Wear appropriate personal protection equipment.

CAUTION

Hot surface

Risk of burns
Depending on the operating parameters, surface temperatures of exposed parts may reach up to 200 °C (392 °F) during operation.
Depending on the installation conditions on site, these areas may require a warning sign.
Allow the unit to cool down before performing maintenance.

6.1 Cleaning the sample probe

Regularly clean any dust and other dirt on the device. Wipe off stubborn dirt with a damp, clean cloth (do not use solvent-containing cleaning products).

If necessary, the inside of the sample tube can also be cleaned by blowing it out or using a cleaning wand.

7 Service and repair

This chapter contains information on troubleshooting and correction should an error occur during operation.

Repairs to the unit must be performed by Bühler authorised personnel.

Please contact our Service Department with any questions:

Tel.: +49-(0)2102-498955 or your agent

If the equipment is not functioning properly after correcting any malfunctions and switching on the power, it must be inspected by the manufacturer. Please send the equipment inside suitable packaging to:

Bühler Technologies GmbH

- Reparatur/Service -

Harkortstraße 29

40880 Ratingen

Germany

Please also attach the completed and signed RMA decontamination statement to the packaging. We will otherwise be unable to process your repair order.

You will find the form in the appendix of these instructions, or simply request it by e-mail:

service@buehler-technologies.com.

7.1 Troubleshooting

CAUTION

Risk due to defective device

Personal injury or damage to property

a) Switch off the device and disconnect it from the mains.

b) Repair the fault immediately. The device should not be turned on again before elimination of the failure.

Problem/malfunction/status	Status LED	Possible cause	Action
No or reduced gas flow	---	– Gas path clogged	– Clean sample tube
No heat output	Always ON	– Heater failure	– Send in unit
No heat output	Always OFF	– No power	– Power supply
		– Thermostat set to minimum	– Turn the thermostat clockwise to the desired temperature
		– Thermostat defective	– Send in unit
Sample tube continuously heating without noticeable control behaviour	Always ON	– Thermostat defective	– Disconnect device from mains immediately and discontinue use – Send in unit
Mild smoke and odour	---	– The heater may emit smoke on initial use	– This is normal and not harmful

Tab. 1: Troubleshooting

7.2 Spare parts and accessories

Please also specify the model and serial number when ordering parts.

Upgrade and expansion parts can be found in our catalog.

Available spare parts:

7.2.1 Spare parts and accessories

Item no.	Description
46770005	Mounting bracket with 2 m chain; EPDM/galvanised steel
4678010	Transition insulation – hose: Outside Ø40 mm; inside Ø20 mm; length 100 mm; customisable; silicone material (max. 200 °C) Required when using universal heating line to prevent thermal bridges.
4300010	Check valve 5R400TA DN 4/6 hose connection both ends
4300011	Check valve 5R400TA DN 1/4"-1/6" hose connection both ends
see data sheet 461099	Gas sample tubes see probe accessories
see data sheet 464002	Smartline
see data sheet 464006	PCS.smart+

8 Disposal

The applicable national laws must be observed when disposing of the products. Disposal must not result in a danger to health and environment.

The crossed out wheelie bin symbol on Bühler Technologies GmbH electrical and electronic products indicates special disposal notices within the European Union (EU).

The crossed out wheelie bin symbol indicates the electric and electronic products bearing the symbol must be disposed of separate from household waste. They must be properly disposed of as waste electrical and electronic equipment.

Bühler Technologies GmbH will gladly dispose of your device bearing this mark. Please send your device to the address below for this purpose.

We are obligated by law to protect our employees from hazards posed by contaminated devices. Therefore please understand that we can only dispose of your waste equipment if the device is free from any aggressive, corrosive or other operating fluids dangerous to health or environment. **Please complete the "RMA Form and Decontamination Statement", available on our website, for every waste electrical and electronic equipment. The form must be applied to the packaging so it is visible from the outside.**

Please return waste electrical and electronic equipment to the following address:

Bühler Technologies GmbH
WEEE
Harkortstr. 29
40880 Ratingen
Germany

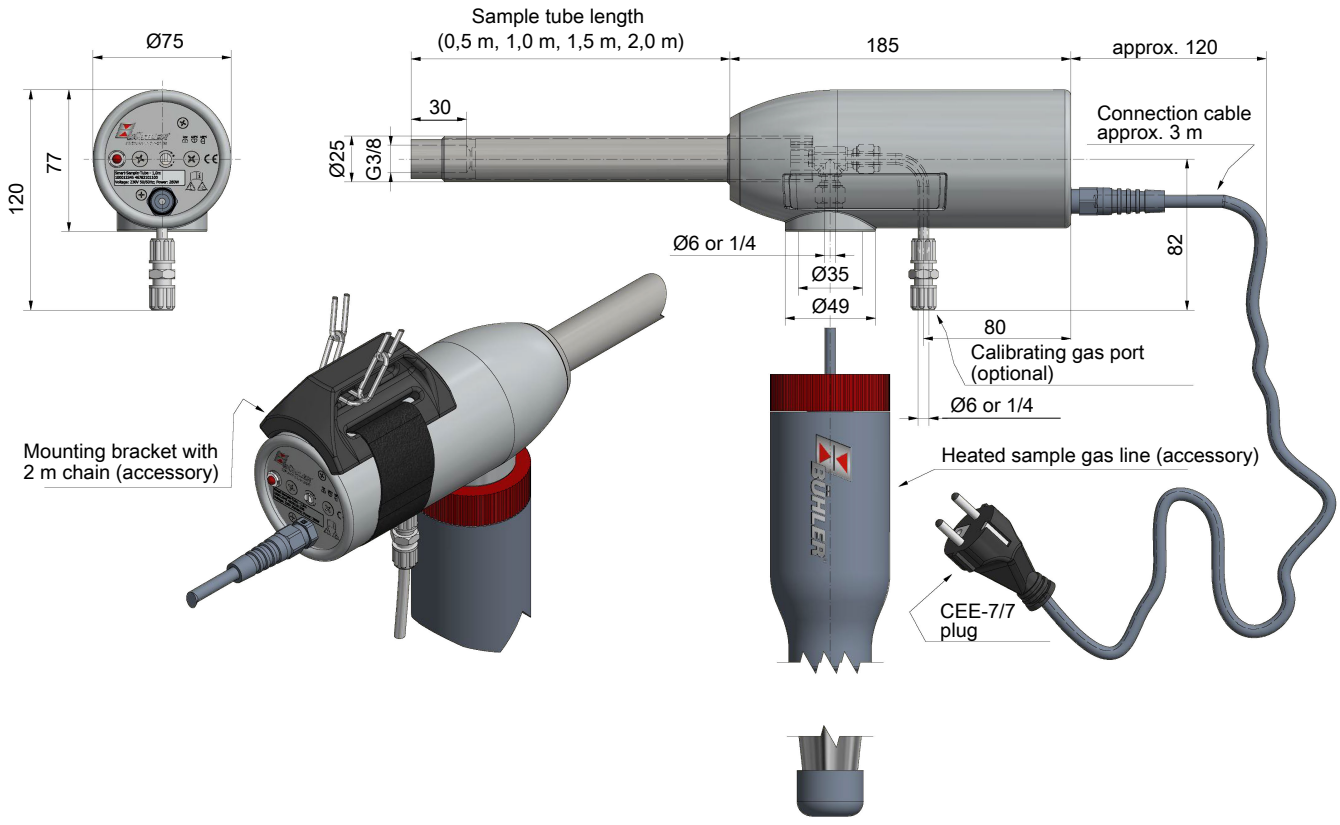
Please also observe data protection regulations and remember you are personally responsible for the returned waste equipment not bearing any personal data. Therefore please be sure to delete your personal data before returning your waste equipment.

9 Appendices

9.1 Technical Data

Technical Data		
Heat-up time for 25 °C:	approx. 10 minutes (regulating point thermostat)	
Ambient temperature:	-20 °C to +50 °C	
Max. Process temperature:	200 °C	
Heater:	Temperature-controlled from 60 °C to 185 °C	
Pressure:	max. 6 bar	
IP rating:	IP 44 (with properly installed heated line type Smartline)	
Protection class:	I	
Voltage:	230 V AC, 50/60 Hz 115 V AC, 50/60 Hz Output varies by sample tube length:	
	230 V	115 V
	0.5 m = 115 W 1.0 m = 280 W 1.5 m = 500 W 2.0 m = 450 W	0.5 m = 103 W 1.0 m = 200 W 1.5 m = 450 W 2.0 m = 400 W
Lengths:	0.5 m; 1 m; 1.5 m; 2 m	
Weight:	approx. 1.9 kg at 0.5 m length approx. 2.6 kg at 1 m length approx. 3.3 kg at 1.5 m length approx. 4.0 kg at 2 m length	
Parts in contact with media:	Stainless steel 1.4571, 1.4401 (with calibrating gas port additionally PVDF, PTFE)	

9.2 Dimensions



9.3 Flow chart

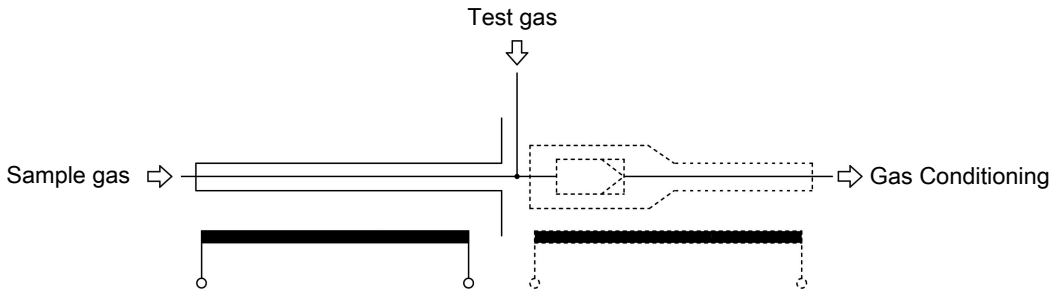


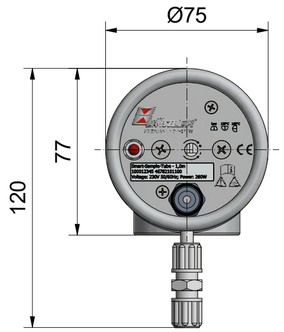
Fig. 1: Example with Smartline connection (dashed line drawing)

9.4 User book (Please make copies)

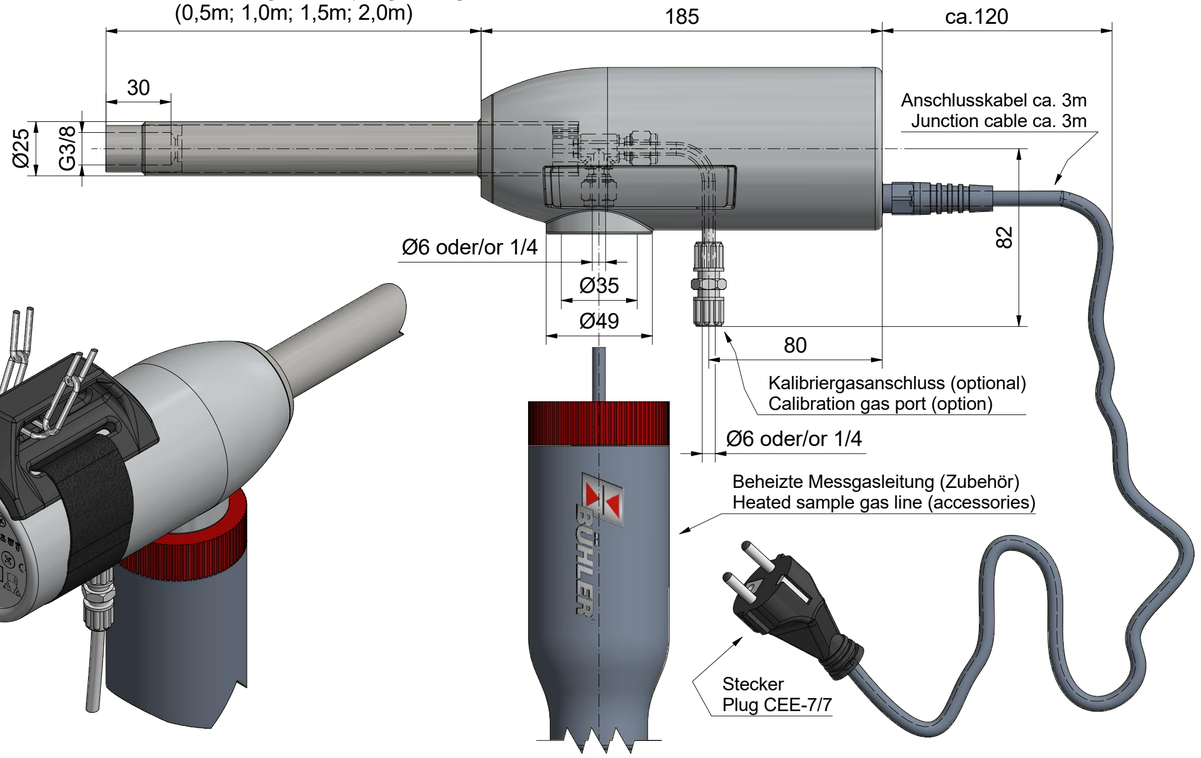
Maintained on	Unit no.	Operating hours	Remarks	Signature

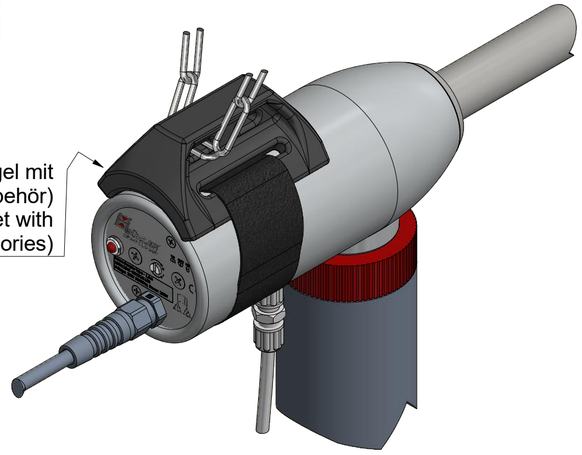
10 Attached documents

- Drawing 46/142-Z01-10-2
- Declaration of Conformity KX460038
- RMA – Decontamination Statement



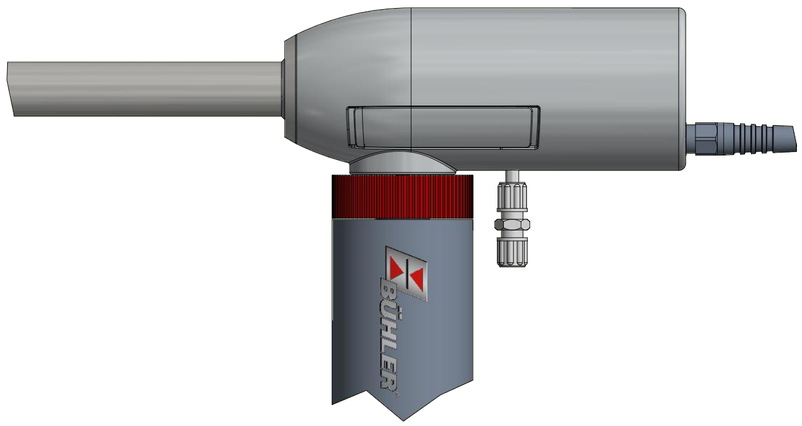
Entnahmerohrlänge - Sample gas length
(0,5m; 1,0m; 1,5m; 2,0m)



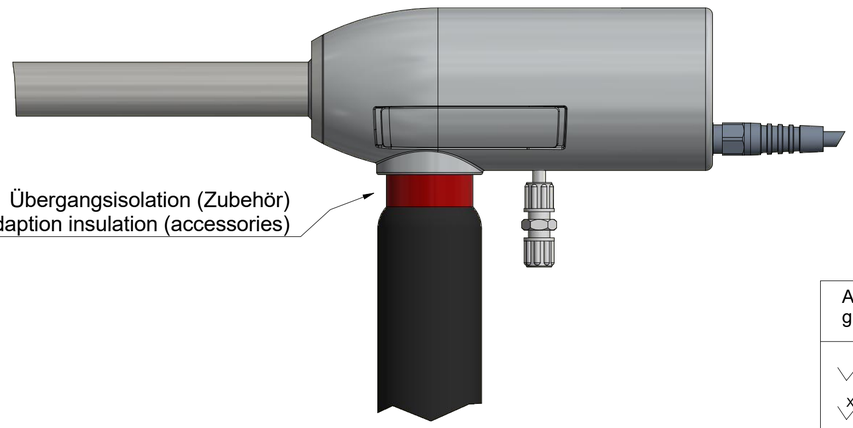


Applikations-Beispiel / Application-example

Anbindung mit einer Smartline
Connection with a Smartline



Anbindung mit einer universellen Heizleitung
Connection with an universal heated line



Alle Kanten gratfrei	Alle Rechte vorbehalten	Maße ohne Toleranzangabe nach ISO 2768-mK		Maßstab: 1:2	Masse:
				Werkstoff:	
		Datum:	Name:	Benennung: Smart-Sample-Tube Übersichtszeichnung	
		Bearb. 09.03.2020	Sundergeld		
		Gepr.			
		BÜHLER Technologies GmbH 40880 Ratingen		ZeichnungsNr.: 46/142-Z01-10-2	
				Art.Nr.: 4678---	
	Zust. Änd. Datum Name	Ers.für:		Arbeitsanweisung:	

√ = √ Roh
X √ = √ Rz 63
Y √ = √ Rz 16
Z √ = √ Rz 4

EU-Konformitätserklärung
EU Declaration of Conformity

Hiermit erklärt Bühler Technologies GmbH, dass die nachfolgenden Produkte den wesentlichen Anforderungen der Richtlinie

Herewith declares Bühler Technologies GmbH that the following products correspond to the essential requirements of Directive

2014/35/EU
(Niederspannungsrichtlinie / *low voltage directive*)

in ihrer aktuellen Fassung entsprechen.

in its actual version.

Produkt / products: Tragbare Gasentnahmesonde / *Portable sample gas probe*
Typ / type: Smart-Sample-Tube

Das Betriebsmittel dient zum Betrieb in Gasanalysensystemen, insbesondere für den Einsatz mit einer mobilen Messgasaufbereitung.
The equipment is intended for conditioning of sample gas, especially for use with portable sample gas conditioning systems.

Das oben beschriebene Produkt der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EN 61010-1:2010/A1:2019/AC:2019-04

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Dokumentationsverantwortlicher für diese Konformitätserklärung ist Herr Stefan Eschweiler mit Anschrift am Firmensitz.
The person authorized to compile the technical file is Mr. Stefan Eschweiler located at the company's address.

Ratingen, den 17.02.2023

Stefan Eschweiler
Geschäftsführer – *Managing Director*

Frank Pospiech
Geschäftsführer – *Managing Director*

Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen,
Tel. +49 (0) 21 02 / 49 89-0, Fax. +49 (0) 21 02 / 49 89-20
Internet: www.buehler-technologies.com

UK Declaration of Conformity

The manufacturer Bühler Technologies GmbH declares, under the sole responsibility, that the product complies with the requirements of the following UK legislation:

Electrical Equipment Safety Regulations 2016

Product: Portable sample gas probe
Type: Smart-Sample-Tube

The equipment is intended for conditioning of sample gas, especially for use with portable sample gas conditioning systems.

The object of the declaration described above is in conformity with the relevant designated standards:

EN 61010-1:2010/A1:2019/AC:2019-04

Ratingen in Germany, 17.02.2023

Stefan Eschweiler
Managing Director

Frank Pospiech
Managing Director

Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen,
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Internet: www.buehler-technologies.com

RMA-Formular und Erklärung über Dekontaminierung
RMA-Form and explanation for decontamination

RMA-Nr./ RMA-No.

Die RMA-Nr. bekommen Sie von Ihrem Ansprechpartner im Vertrieb oder Service. Bei Rücksendung eines Altgeräts zur Entsorgung tragen Sie bitte in das Feld der RMA-Nr. "WEEE" ein./ You may obtain the RMA number from your sales or service representative. When returning an old appliance for disposal, please enter "WEEE" in the RMA number box.

Zu diesem Rücksendeschein gehört eine Dekontaminierungserklärung. Die gesetzlichen Vorschriften schreiben vor, dass Sie uns diese Dekontaminierungserklärung ausgefüllt und unterschrieben zurücksenden müssen. Bitte füllen Sie auch diese im Sinne der Gesundheit unserer Mitarbeiter vollständig aus./ This return form includes a decontamination statement. The law requires you to submit this completed and signed decontamination statement to us. Please complete the entire form, also in the interest of our employee health.

Firma/ Company

Firma/ Company	
Straße/ Street	
PLZ, Ort/ Zip, City	
Land/ Country	

Ansprechpartner/ Person in charge

Name/ Name	
Abt./ Dept.	
Tel./ Phone	
E-Mail	

Gerät/ Device	
Anzahl/ Quantity	
Auftragsnr./ Order No.	

Serien-Nr./ Serial No.	
Artikel-Nr./ Item No.	

Grund der Rücksendung/ Reason for return

- ☐ Kalibrierung/ Calibration
- ☐ Modifikation/ Modification
- ☐ Reklamation/ Claim
- ☐ Reparatur/ Repair
- ☐ Elektroaltgerät/ Waste Electrical & Electronic Equipment (WEEE)
- ☐ andere/ other

bitte spezifizieren/ please specify

Ist das Gerät möglicherweise kontaminiert?/ Could the equipment be contaminated?

☐ Nein, da das Gerät nicht mit gesundheitsgefährdenden Stoffen betrieben wurde./ No, because the device was not operated with hazardous substances.

☐ Nein, da das Gerät ordnungsgemäß gereinigt und dekontaminiert wurde./ No, because the device has been properly cleaned and decontaminated.

☐ Ja, kontaminiert mit:/ Yes, contaminated with:

☐ explosiv/ explosive	☐ entzündlich/ flammable	☐ brandfördernd/ oxidizing	☐ komprimierte Gase/ compressed gases	☐ ätzend/ caustic	☐ giftig, Lebensgefahr/ poisonous, risk of death	☐ gesundheitsgefährdend/ harmful to health	☐ gesundheitsschädlich/ health hazard	☐ umweltgefährdend/ environmental hazard

Bitte Sicherheitsdatenblatt beilegen!/ Please enclose safety data sheet!

Das Gerät wurde gespült mit:/ The equipment was purged with:

Diese Erklärung wurde korrekt und vollständig ausgefüllt und von einer dazu befugten Person unterschrieben. Der Versand der (dekontaminierten) Geräte und Komponenten erfolgt gemäß den gesetzlichen Bestimmungen.

This declaration has been filled out correctly and completely, and signed by an authorized person. The dispatch of the (decontaminated) devices and components takes place according to the legal regulations.

Falls die Ware nicht gereinigt, also kontaminiert bei uns eintrifft, muss die Firma Bühler sich vorbehalten, diese durch einen externen Dienstleister reinigen zu lassen und Ihnen dies in Rechnung zu stellen.

Should the goods not arrive clean, but contaminated, Bühler reserves the right, to comission an external service provider to clean the goods and invoice it to your account.

Firmenstempel/ Company Sign

Datum/ Date

rechtsverbindliche Unterschrift/ Legally binding signature

Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen
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Internet: www.buehler-technologies.com

Vermeiden von Veränderung und Beschädigung der einzusendenden Baugruppe

Die Analyse defekter Baugruppen ist ein wesentlicher Bestandteil der Qualitätssicherung der Firma Bühler Technologies GmbH. Um eine aussagekräftige Analyse zu gewährleisten muss die Ware möglichst unverändert untersucht werden. Es dürfen keine Veränderungen oder weitere Beschädigungen auftreten, die Ursachen verdecken oder eine Analyse unmöglich machen.

Umgang mit elektrostatisch sensiblen Baugruppen

Bei elektronischen Baugruppen kann es sich um elektrostatisch sensible Baugruppen handeln. Es ist darauf zu achten, diese Baugruppen ESD-gerecht zu behandeln. Nach Möglichkeit sollten die Baugruppen an einem ESD-gerechten Arbeitsplatz getauscht werden. Ist dies nicht möglich sollten ESD-gerechte Maßnahmen beim Austausch getroffen werden. Der Transport darf nur in ESD-gerechten Behältnissen durchgeführt werden. Die Verpackung der Baugruppen muss ESD-konform sein. Verwenden Sie nach Möglichkeit die Verpackung des Ersatzteils oder wählen Sie selber eine ESD-gerechte Verpackung.

Einbau von Ersatzteilen

Beachten Sie beim Einbau des Ersatzteils die gleichen Vorgaben wie oben beschrieben. Achten Sie auf die ordnungsgemäße Montage des Bauteils und aller Komponenten. Versetzen Sie vor der Inbetriebnahme die Verkabelung wieder in den ursprünglichen Zustand. Fragen Sie im Zweifel beim Hersteller nach weiteren Informationen.

Einsenden von Elektroaltgeräten zur Entsorgung

Wollen Sie ein von Bühler Technologies GmbH stammendes Elektroprodukt zur fachgerechten Entsorgung einsenden, dann tragen Sie bitte in das Feld der RMA-Nr. „WEEE“ ein. Legen Sie dem Altgerät die vollständig ausgefüllte Dekontaminierungserklärung für den Transport von außen sichtbar bei. Weitere Informationen zur Entsorgung von Elektroaltgeräten finden Sie auf der Webseite unseres Unternehmens.

Avoiding alterations and damage to the components to be returned

Analysing defective assemblies is an essential part of quality assurance at Bühler Technologies GmbH. To ensure conclusive analysis the goods must be inspected unaltered, if possible. Modifications or other damages which may hide the cause or render it impossible to analyse are prohibited.

Handling electrostatically conductive components

Electronic assemblies may be sensitive to static electricity. Be sure to handle these assemblies in an ESD-safe manner. Where possible, the assembles should be replaced in an ESD-safe location. If unable to do so, take ESD-safe precautions when replacing these. Must be transported in ESD-safe containers. The packaging of the assemblies must be ESD-safe. If possible, use the packaging of the spare part or use ESD-safe packaging.

Fitting of spare parts

Observe the above specifications when installing the spare part. Ensure the part and all components are properly installed. Return the cables to the original state before putting into service. When in doubt, contact the manufacturer for additional information.

Returning old electrical appliances for disposal

If you wish to return an electrical product from Bühler Technologies GmbH for proper disposal, please enter "WEEE" in the RMA number box. Please attach the fully completed decontamination declaration form for transport to the old appliance so that it is visible from the outside. You can find more information on the disposal of old electrical appliances on our company’s website.

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