Peristaltic condensate and metering pumps

CPsingle, CPdouble

Installation and Operation Instructions

Original instructions
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.

All rights reserved. Bühler Technologies GmbH 2017
Contents

1 Introduction ........................................................................................................................................................................................................ 2
  1.1 Intended use ........................................................................................................................................................................................................... 2
  1.2 Scope of delivery ................................................................................................................................................................................................................. 2
  1.3 Type plate ........................................................................................................................................................................................................................... 2
  1.4 Peristaltic pump ordering information ........................................................................................................................................................................... 3

2 Safety instructions ....................................................................................................................................................................................................... 4
  2.1 Important advice .......................................................................................................................................................................................................................... 4
  2.2 General hazard warnings ................................................................................................................................................................................................... 4

3 Transport and storage ....................................................................................................................................................................................................... 6

4 Installation and connection .......................................................................................................................................................................................... 7
  4.1 Installation site requirements........................................................................................................................................................................................... 7
  4.2 Mounting ................................................................................................................................................................................................................................. 7
    4.2.1 Installing the built-in style ........................................................................................................................................................................................... 8
  4.3 Electrical connections ........................................................................................................................................................................................................... 9
    4.3.1 Electrical Connections (housing version / 115 V or 230 V) ................................................................................................................................................................................ 9
    4.3.2 Electrical Connections (built-in version / 115 V or 230 V) ................................................................................................................................................................................ 9
    4.3.3 24 V DC ............................................................................................................................................................................................................................................ 9

5 Operation and control ................................................................................................................................................................................................... 10

6 Maintenance ...................................................................................................................................................................................................................... 11

7 Service and repair........................................................................................................................................................................................................... 12
  7.1 Safety instructions .......................................................................................................................................................................................................................... 12
  7.2 Replacing the hose ...................................................................................................................................................................................................................... 13
  7.3 Spare parts and accessories .............................................................................................................................................................................................. 13
    7.3.1 Ordering information replacement hoses for 0.3 l/h pumps .............................................................................................................................. 13

8 Disposal ................................................................................................................................................................................................................................. 14

9 Appendices ...................................................................................................................................................................................................................... 15
  9.1 Technical data .............................................................................................................................................................................................................................. 15
  9.2 Dimensions 115 / 230 V .......................................................................................................................................................................................................... 16
  9.3 Dimensions 24 V ................................................................................................................................................................................................................... 17

10 Attached documents .................................................................................................................................................................................................... 18
1 Introduction

1.1 Intended use
This unit is intended to discharge condensate from cooled process fluids. The temperature of these mediums is approx. 5 °C. The unit is suitable for use in normal, non-hazardous areas and according to FM for general areas.

Pump models for the USA and Canada 4492*** in non-explosive areas
The peristaltic pumps must be installed inside a housing which requires a tool to open and meets the requirements of the overall installation with respect to the housing, layout, space requirement and condensate separation.
Select a housing which meets the requirements of the pump's intended use with respect to mounting, spacing and creepage paths. The housing must be suitable for operating temperatures of 0 °C to min. 52 °C.
It must be fully wired inside the housing. The cables and terminals used must be US-listed or (if applicable) CSA certified. They must be designed for the nominal voltage, the nominal current and an operating temperature range of 0 °C to 52 °C.

1.2 Scope of delivery
- 1 x Peristaltic pump
- Product documentation
- Connection- and mounting accessories (only optional)

1.3 Type plate
Example:

<table>
<thead>
<tr>
<th>Manufacturer and address</th>
<th>Model designation, electrical connection</th>
<th>Purchase order no.+Item no.+Counter</th>
<th>Materials in contact with mediums</th>
<th>Temperature specifications</th>
<th>Year of manufacture, Operating instructions no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bühler Technologies GmbH Harkortstr.29, D-40880 Ratingen</td>
<td>CPsingle-SA-AC 230/115V 50/60Hz 25/44mA 101001080015 44921120101</td>
<td></td>
<td>Material: PVDF, Norprene</td>
<td>Medium max: see manual; Tamb: 0°C-50°C</td>
<td>Year: 2016 Manual doc.no.: BX450021</td>
</tr>
</tbody>
</table>
1.4 Peristaltic pump ordering information

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

<table>
<thead>
<tr>
<th>4492</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th><strong>Product characteristic</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Gas path</strong></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Single gas path</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Double gas path</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Version</strong></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Housing version</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Built-in version</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Supply voltage</strong></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>115 / 230 V AC</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24 V DC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Area of application</strong></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard applications – CE</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>for common locations with FM approval</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Hose material</strong></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Norprene</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fluran</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Marprene</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Flow rate / hour</strong></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.3 L/h</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 L/h (only 115 / 230 V AC, single gas path)</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13 ml/h (only 115 / 230 V AC, single gas path)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61 ml/h (only 115 / 230 V AC, single gas path)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25 ml/min or 1.5 L/h (only 24 V DC, single gas path, for standard applications – CE)</td>
</tr>
</tbody>
</table>

|      |   |   |   |   |   | **Hose connection**         |
| 1    |   |   |   |   |   | straight hose nipple        |
| 2    |   |   |   |   |   | angled hose nipple          |
| 3    |   |   |   |   |   | straight and angled hose nipple |
| 4    |   |   |   |   |   | Screw connection (metric) DN 4/6 |
| 5    |   |   |   |   |   | Screw connection (US) 1/6"-1/4" |
| 6    |   |   |   |   |   | angled hose nipple and screw connection (metric) |
| 7    |   |   |   |   |   | angled hose nipple and screw connection (US) |
| 8    |   |   |   |   |   | straight hose nipple and screw connection (metric) |
| 9    |   |   |   |   |   | straight hose nipple and screw connection (US) |

1) Please note hose material information during selection.

2) For 1 L/h pumps as well as 13 ml/h and 61 ml/h metering pumps the only hose material option is Norprene.

3) For 1 L/h pumps as well as 13 ml/h and 61 ml/h metering pumps the only hose connections choices are "Option 4 and 5".
2 Safety instructions

2.1 Important advice

Operation of the device is only valid if:

- the product is used under the conditions described in the installation- and operation instruction, the intended application according to the type plate and the intended use. In case of unauthorized modifications done by the user Bühler Technologies GmbH can not be held responsible for any damage,
- when complying with the specifications and markings on the nameplates.
- the performance limits given in the datasheets and in the installation- and operation instruction are obeyed,
- monitoring devices and safety devices are installed properly,
- service and repair is carried out by Bühler Technologies GmbH,
- only original spare parts are used.

This manual is part of the equipment. The manufacturer keeps the right to modify specifications without advanced notice. Keep this manual for later use.

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**

These instructions use the following warning signs:

- **Exclamation mark**: Warns of a general hazard
- **Triangle**: General information
- **Lightning bolt**: Warns of voltage
- **Plug**: Unplug from mains
- **X**: Warns not to inhale toxic gasses
- **Respirator**: Wear respiratory equipment
- **Corrosive liquid**: Warns of corrosive liquids
- **Safety mask**: Wear a safety mask
- **Explosion sign**: Warns of explosive areas
- **Gloves**: Wear gloves

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,
CPsingle, CPdouble

- Inspections prior to initial operation and routine inspections according to the Ordinance on Industrial Safety and Health (Be-
trSichV) are performed,
- 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.

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.

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

<table>
<thead>
<tr>
<th>DANGER</th>
<th>Electrical voltage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electrocuton hazard.</td>
<td>a) Disconnect the device from power supply.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Make sure that the equipment cannot be reconnected to mains unintentionally.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) The device must be opened by trained staff only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Regard correct mains voltage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DANGER</th>
<th>Toxic, corrosive condensate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) Protect yourself from toxic, corrosive condensate when performing any type of work.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Wear appropriate protective equipment.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Please note the national safety rules!</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DANGER</th>
<th>Use in explosive areas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The equipment is not suitable for use in explosive areas.</td>
<td></td>
</tr>
</tbody>
</table>
3 Transport and storage

The products should be transported only in its original packaging or a suitable replacement.

When not in use, protect the equipment against moisture and heat. Keep it in a covered, dry and dust-free room.
4 Installation and connection

4.1 Installation site requirements
Be sure to maintain the approved ambient temperature. Please also note the technical data of the add-on gas cooler.
When mounting to a subframe, it is screwed directly to the cooler housing.
The unit is intended for use in enclosed areas. Adequate protection from the weather must be provided when used outdoors.

Pump models for the USA and Canada 4492****I**** in non-explosive areas
The peristaltic pumps must be installed inside a housing which requires a tool to open and meets the requirements of the overall installation with respect to the housing, layout, space requirement and condensate separation.
Select a housing which meets the requirements of the pump's intended use with respect to mounting, spacing and creepage paths. The housing must be suitable for operating temperatures of 0 °C to min. 52 °C.
It must be fully wired inside the housing. The cables and terminals used must be US-listed or (if applicable) CSA certified. They must be designed for the nominal voltage, the nominal current and an operating temperature range of 0 °C to 52 °C.
Water and contaminants must be prevented from entering the unit.

4.2 Mounting

<table>
<thead>
<tr>
<th>WARNING</th>
<th>Hazardous electrical voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The device must be installed by trained staff only.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAUTION</th>
<th>Wrong mains voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wrong mains voltage may damage the device.</td>
</tr>
<tr>
<td></td>
<td>Regard the correct mains voltage as given on the type plate.</td>
</tr>
</tbody>
</table>

There are two holes at the bottom of the mounting bracket. These can be used for screws.
Connect the tubes to the connectors and assure they are close. The pump direction is given on the cover.
### 4.2.1 Installing the built-in style

The built-in style (without housing) of the CPsingle is delivered pre-assembled. Proceed as follows to install:

Prepare the mounting plate for the pump. The locations of the bores are indicated in the adjacent drawing. The mounting plate must not be thicker than 3 mm.

Remove the knurled nuts M3 (1) at both ends.

Pull the entire pump head off the gear axle with a slight back and forth motion.

You will see two hex nuts M3 (2).

Remove the two hex nuts and insert the drive motor including retaining plate and pressfit stubs into the prepared coupler from the back.

Tighten the hex nuts M3.

Attach the pump head bracket (3) to the gear axle.

Insert the rotor (4) – cylindrical neck forward - into the pump head bracket, now slide the entire assembly onto the gear axle and the retaining bolts.

Tighten (1) knurled nuts.

Insert the hose fitting (5) with hose into the square breakouts.

Finally, attach the hood (6) and secure with the knurled nut.
4.3 Electrical connections

4.3.1 Electrical Connections (housing version / 115 V or 230 V)

Make sure that mains voltage and frequency meet the specifications of the motor (voltage tolerance ± 5 % and frequency tolerance ± 2 %).

Peristaltic pumps of housing version type SA-AC (230/115 V) are delivered as standard with a 2 m connecting cable.

The fixed connection cable for the housing version has three numbered braids and one PE connection.

⚠️ The protective earth has to be connected to the green/yellow of the connection cable.

Select mains and protection earth cross section according to the rated current.

For the electrical connections especially for the protective conductor use a cable cross-section from minimum 0,5 mm².

Obey differing specifications on the type plate. The conditions at the installation site must meet all specifications on the type plate.

When connecting to a 115 V or 230 V supply, connect the following braids:

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Connection</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>115 V</td>
<td>Braid 2; 3 and PE</td>
<td>▶️ Braid 1 is live and must be professionally insulated!</td>
</tr>
<tr>
<td>230 V</td>
<td>Braids 1; 3 and PE</td>
<td>▶️ Braid 2 is live and must be professionally insulated!</td>
</tr>
</tbody>
</table>

4.3.2 Electrical Connections (built-in version / 115 V or 230 V)

The three strands (500 mm long) moulded to the motor are white, yellow and blue.

When connecting to a 115 V or 230 V supply, connect the following braids:

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Connection</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>115 V</td>
<td>white and blue</td>
<td>▶️ The yellow strand is live and must be professionally insulated!</td>
</tr>
<tr>
<td>230 V</td>
<td>yellow and blue</td>
<td>▶️ The white strand is live and must be professionally insulated!</td>
</tr>
</tbody>
</table>

4.3.3 24 V DC

The drive motor features two braids (AWG 24, 250 mm long), which must be connected to the 24 V DC supply as follows:

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Connection</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 V</td>
<td>red: + U</td>
<td>Positive terminal supply</td>
</tr>
<tr>
<td></td>
<td>black: - U</td>
<td>Negative terminal supply</td>
</tr>
</tbody>
</table>
5 Operation and control

**NOTICE**

The device must not be operated beyond its specifications.

The pump does not have a power switch. It starts running as soon as the power supply is turned on.

**NOTICE**

Installing peristaltic pumps CPsingle / CPdouble limits the maximum permissible operating pressure in the system!

Operating pressure ≤ 1 bar
6 Maintenance

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.

<table>
<thead>
<tr>
<th>DANGER</th>
<th>Electrical voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Warning Icon]</td>
<td>Electrocution hazard.</td>
</tr>
<tr>
<td>a)</td>
<td>Disconnect the device from power supply.</td>
</tr>
<tr>
<td>b)</td>
<td>Make sure that the equipment cannot be reconnected to mains unintentionally.</td>
</tr>
<tr>
<td>c)</td>
<td>The device must be opened by trained staff only.</td>
</tr>
<tr>
<td>d)</td>
<td>Regard correct mains voltage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DANGER</th>
<th>Toxic, corrosive condensate</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Warning Icon]</td>
<td>Protect yourself from toxic, corrosive condensate when performing any type of work.</td>
</tr>
<tr>
<td>![Warning Icon]</td>
<td>Wear appropriate protective equipment.</td>
</tr>
</tbody>
</table>

The hose inside the pumps is a wear item and must regularly be checked for leaks. Replace as described in chapter “Replacing the hose”.
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 attached 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 Safety instructions

– The device must be operated within its specifications.
– All repairs must be carried out by Bühler authorised personnel only.
– Only perform modifications, servicing or mounting described in this manual.
– Only use original spare parts.

**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 condensate**

Protect yourself from toxic, corrosive condensate when performing any type of work.

Wear appropriate protective equipment.
7.2 Replacing the hose
- Turn off gas supply.
- Switch the device off and disconnect power supply.
- Remove the supplying and draining hoses from the pump (Take care of the safety instructions!).
- Loosen the centre knurled screw but do not remove it. Push the screw aside.
- Pull off the cover.
- Pull the connections sidewards and remove the hose.
- Replace the hose (Bühler spare part) and remount the pump in reverse order.
- Reconnect power supply.

7.3 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:

7.3.1 Ordering information replacement hoses for 0.3 l/h pumps

<table>
<thead>
<tr>
<th>4492</th>
<th>0</th>
<th>0</th>
<th>3</th>
<th>X</th>
<th>X</th>
<th>Product characteristics</th>
</tr>
</thead>
</table>

| 0     | 0.3 l/h |
| 1     | 1 l/h or 1.5 l/h |
| 2     | 0.01 l/h or 0.06 l/h |

Hose material
- 1 Norprene
- 2 Fluran
- 3 Marprene

Hose connection
- 1 straight hose nipple
- 2 angled hose nipple
- 3 straight and angled hose nipple
- 4 Screw connection (metric)
- 5 Screw-in connection (US)
- 6 angled hose nipple and screw connection (metric)
- 7 angled hose nipple and screw connection (US)
- 8 straight hose nipple and screw connection (metric)
- 9 straight hose nipple and screw connection (US)

* for required flow capacity, see technical data.

Information about hose materials
The standard hose in Norprene has excellent mechanical properties with high chemical resistance to many substances. Marprene offers a long life for many applications with high chemical resistance, particularly when oxidation agents are present. This is therefore the first alternative to the standard Norprene hose.
Fluran is particularly beneficial if the condensate contains oils, petrols and other solvents. The mechanical properties should rather be assessed weaker, so we only recommend this hose material for the specified chemicals.
The flow capacity of Fluran and Marprene hoses is slightly lower.
Other materials are available on request.
8 Disposal

Dispose of parts so as not to endanger the health or environment. Follow the laws in the country of use for disposing of electronic components and devices during disposal.
9 Appendices

9.1 Technical data

Technical Data Peristaltic Pumps CPsingle / CPdouble

<table>
<thead>
<tr>
<th>Nominal voltage / power input:</th>
<th>230 V 50 Hz, 0.025 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>at $T_{amb}$ = 20 °C and under load</td>
<td>115 V 60 Hz, 0.044 A</td>
</tr>
<tr>
<td></td>
<td>24 V DC, 0.1 A $^\dagger$</td>
</tr>
</tbody>
</table>

| Flow rate: | 0.3 L/h (50 Hz) / 0.36 L/h (60 Hz) with standard hose |
|           | 1.0 L/h (50 Hz) / 1.2 L/h (60 Hz) |
|           | 13 ml/h |
|           | 61 ml/h |
|           | 25 ml/min or 1.5 L/h (for 24 V DC) |

| Inlet vacuum: | max. 0.8 bar |
| Inlet pressure: | max. 1 bar |
| Output pressure: | 1 bar |
| Protection class: | IP 44 (housing version) |
|                   | IP 40 (built-in version) |

| Ambient temperatures: | $T_{amb}$ = 55 °C (housing version) |
|                       | $T_{amb}$ = 60 °C (built-in version) |
|                       | 0 ... 50 °C (FM versions) |

| Cable lengths: | 2 m (housing version 115/230 V) |
|                | 500 mm (built-in version 115/230 V) |
|                | 250 mm (24 V DC) |

| Materials | Hose: Norprene (standard), Marprene, Fluran |
|           | Connections: PVDF |
| FM approval no.: | 3058168 |

$^\dagger$ Life 24 V DC 3000 h
9.2 Dimensions 115 / 230 V

Housing version

Housing version with 1 gas path

Housing version with 2 gas paths

Built-in versions

Built-in version with 1 gas path

Built-in version with 2 gas paths

(All dimensions in mm)
9.3 Dimensions 24 V

Housing version

Housing version with 1 gas path

Housing version with 2 gas paths

Built-in versions

Built-in version with 1 gas path

Built-in version with 2 gas paths

(All dimensions in mm)
10 Attached documents

- Declaration of Conformity KX 450012
- RMA - Decontamination Statement
Hiermit erklärt Bühler Technologies GmbH, dass die nachfolgenden Produkte den wesentlichen Anforderungen der Richtlinie 2006/42/EG (MRL) in ihrer aktuellen Fassung entsprechen.

Die Produkte sind Maschinen nach Artikel 2 a).

Folgende Richtlinie wurde berücksichtigt:

2014/30/EU (EMV/EMC)

Produkt / products: Peristaltische Kondensatpumpe / Peristaltic condensate pump
Typ / type: CPSingle, CPdouble

Das Betriebsmittel ist zur Ableitung von Kondensat aus Gasanalysystemen bestimmt.
The equipment is designed to discharge condensate from gas analysis 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 809:2012
EN 61326-1:2013

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 authorised to compile the technical file is Mr. Stefan Eschweiler located at the company’s address.

Ratingen, den 05.02.2019

Stefan Eschweiler
Geschäftsführer – Managing Director

Frank Pospiech
Geschäftsführer – Managing Director
RMA-Formular und Erklärung über Dekontaminierung
RMA-Form and explanation for decontamination

RMA-Nr. / RMA-No. __________

Die RMA-Nummer bekommen Sie von Ihrem Ansprechpartner im Vertrieb oder Service/ You may obtain the RMA number from your sales or service representative.

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

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

Grund der Rücksendung / Reason for return
☐ Kalibrierung / Calibration
☐ Modifikation / Modification
☐ Reklamation / Claim
☐ Reparatur / Repair
☐ 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:

 Wilde, explosive explosive, entzündlich flammable
 brandfördernd oxidizing
 komprimierte Gase/ compressed gases
 ätzend caustic
 giftig/ poisonous/ risk of death
 gesundheitsschädlich/ harmful to health
 gesundheitsschädlich/ health hazard
 umweltgefährlich/ environmental hazard

Bitte Sicherheitsdatenblatt beiliegen! / Please enclose safety data sheet.

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


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.

Bitte sicherheitsdatenblatt beiliegen! / Please enclose safety data sheet.

Datum / Date

rechtsverbindliche Unterschrift / Legally binding signature

DE000011
Bühler Technologies GmbH, Harkortstr. 29, D-40880 Ratingen
Tel. +49 (0) 21 02 / 49 89-0, Fax: +49 (0) 21 02 / 49 89-20
E-Mail: service@buehler-technologies.com
Internet: www.buehler-technologies.com

06/2018
Die Analyse defekter Baugruppen ist ein wesentlicher Bestandteil der Qualitätssicherung der Firma Bühler Technologies.

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.


Analysing defective assemblies is an essential part of quality assurance at Bühler Technologies.

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.

Electronic assemblies may be sensitive to static electricity. Be sure to handle these assemblies in an ESD-safe manner. Where possible, the assemblies 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.

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.