



## Multiterminal MT

# Installation and Operation Instructions

Original instructions





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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.

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Document information

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# 1 Introduction

## 1.1 Intended Use

The multiterminal has connections for custom applications such as components for installing a level and temperature monitor. The design of the new multiterminal allows a quite flexible equipment so the device can easily be adapted to the requirements of the specific application.

## 1.2 Product Description

The multiterminal consists of a cast base plate, which the head of the return filter is built into. The head has three G1" threaded connections hat offset by 90° for changing the supply direction plus an G1/2" filling port. Two sampling ports in different positions enable sampling from the tank, a third port enables sampling from the return line. The base plate has a DIN 24550/T2 connecting flange. Depending on the application, a series 7x Nivovent with level and temperature monitor and attached vent filter can be mounted here.

The illustration below shows the fully equipped multiterminal:

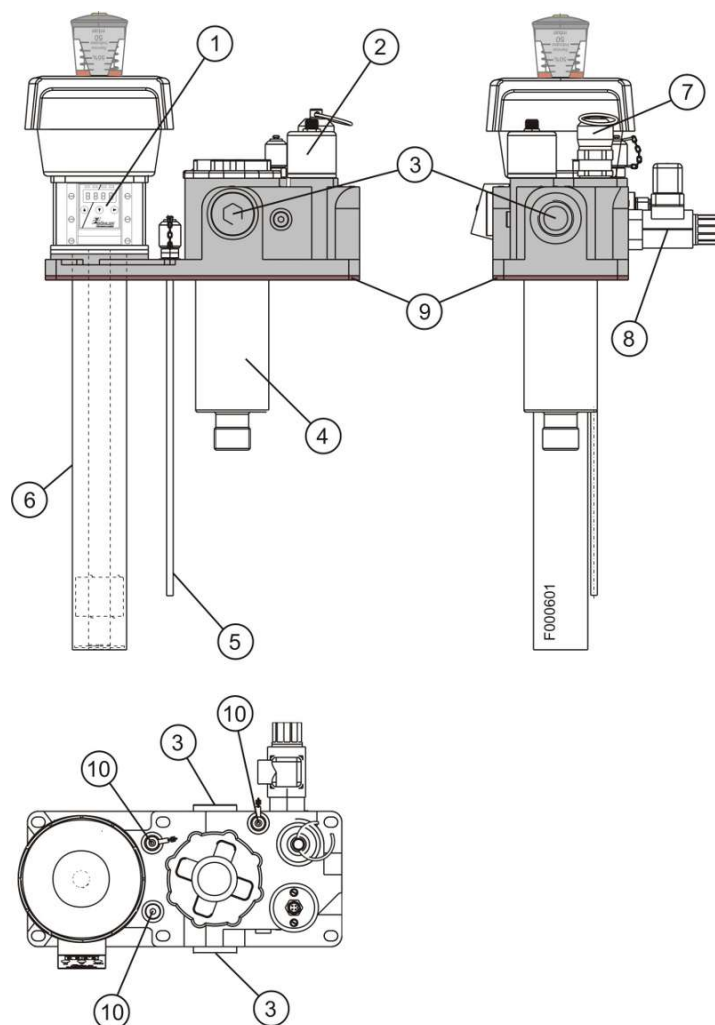


Fig. 1: Example of a fully equipped multiterminal

1	7x series Nivovent level- and temperature switch with vent filter	6	Stilling tube
2	Contamination indicator for return filter (connection D)	7	G1/2 filling coupler for manual filling (connection E)
3	Possible connections (T1, T2, T3) for return line and sampling from the return line	8	Filling control with Flutec 2/2-way pilot valve for automatic filling (connection F)
4	Return filter	9	Rubberised cork seal
5	Sampling tube with Minimes connection for sampling from the tank	10	possible sampling tube connections (X1, X2, X3)

## The basic multiterminal includes:

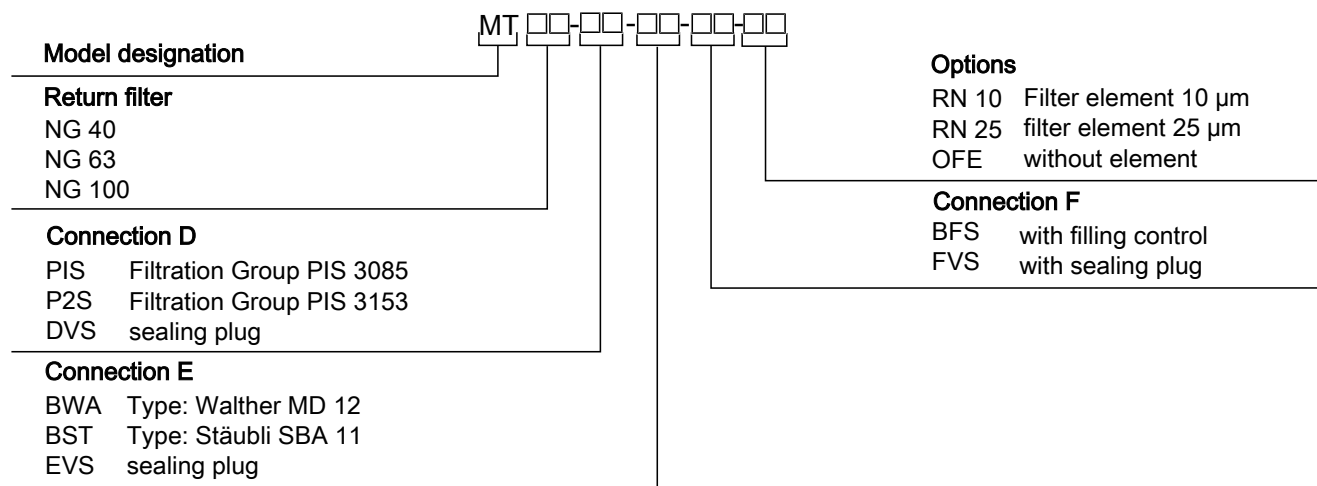
- integrated NG40, NG63 or NG100 return filter (without filter element).
- integrated bypass valve for the return filter.
- Minimesse screw connection G1/8 with tube for sampling from the tank.
- Minimesse screw connection G1/8 for sampling from the return filter.

## Optional add-ons:

- Return filter contamination indicator.
- Filling coupler/filling control.
- The multiterminal can be equipped with a filling coupler for filling the tank, which is used to manually add oil.
- The filling control is a convenient solution for automatic filling. This requires mounting a 2/2-way pilot valve, controlled by the output signals from the level switch. The entire control unit for automatic filling with level switch is available on request from Bühler Technologies GmbH.
- Nivovent series level/temperature switch with attached vent filter.
- Filter element for return filter.

Please note, the multiterminal may be equipped differently based on the order. Please refer to the purchase order and the type plate for the exact configuration. In addition to the job number, this also includes the model key.

## 1.3 Model Key



Please refer to the included operating and installation instructions of the level switch for the model key of the level/temperature switch installed.

## 1.4 Scope of Delivery

- Multiterminal
- Product documentation
- Connection/mounting accessories (optional)

## 2 Safety instructions

### 2.1 Important advice

Operation of the device is only permitted 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

<b>DANGER</b>	Signal word for an imminent danger with high risk, resulting in severe injuries or death if not avoided.
<b>WARNING</b>	Signal word for a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.
<b>CAUTION</b>	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.
<b>NOTICE</b>	Signal word for important information to the product.

### Warning signs

These instructions use the following warning signs:

	Warns of a general hazard		Unplug from mains
	Voltage warning		Wear respiratory equipment
	Warns not to inhale toxic gasses		Wear a safety mask
	Warns of corrosive liquids		Wear gloves
	General information		

## 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.

The method for cleaning the devices must be adapted to the IP protection class of the devices. Do not use cleaners which could damage the device materials.

#### DANGER



#### Toxic, acidic gases/liquids

Protect yourself from toxic, corrosive gasses/liquids when performing any type of work. Wear appropriate protective equipment.



#### DANGER



#### Electrical voltage

Electrocution hazard.

- Disconnect the device from power supply.
- Make sure that the equipment cannot be reconnected to mains unintentionally.
- The device must be opened by trained staff only.
- Regard correct mains voltage.



#### 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.

## **3 Transport and storage**

Only transport the product inside the original packaging or a suitable alternative.

The equipment must be protected from moisture and heat when not in use. It must be stored in a covered, dry, dust-free room at room temperature.



## 4 Installation and connection

### 4.1 Installation Size

The multiterminal comes fully assembled. Installation only requires cutting an opening and the mounting holes (M6) per the drawing in the tank cover. The base plate with cork seal is then inserted in the cover and secured with 6 M6x8 screws.

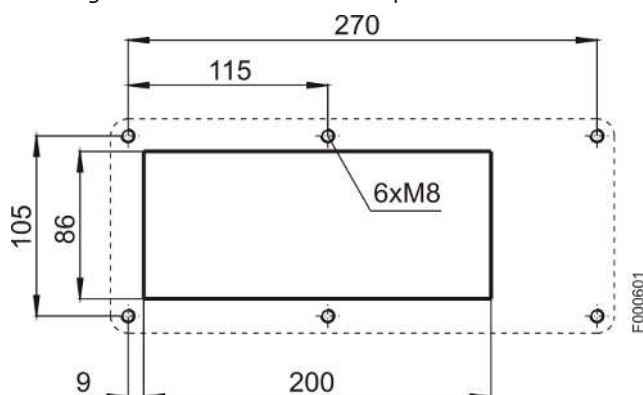


Fig. 2: Hole pattern for MT installation opening

### 4.2 Hydraulic Connection

#### 4.2.1 Connecting The Return Line

The return line connects via the G1" connections T1, T2 or T3. Only the T1 is prepared for connection from the factory.

To use one of the alternative connections

- unscrew the sealing plug from the respective bore and seal the connection T1 with it.
- Be sure the seal of the screw connection is clean.

#### NOTICE



#### Hazard type and source of the connection lines

Install all connection lines strain-free!.

#### 4.2.2 Sample Port Arrangement (Optional)

The G1/8" sampling port with Minimes screw connection for sampling from the tank is factory installed at the X1 connection. Please refer to Fig. 1 for the location of the connections. The length of the sampling tube corresponds with the length of the installed level switch.

Both the position of the sampling port and the length of the sampling tube can be adapted to the situation on site. The sampling ports must be selected to always be easy to access. If necessary, proceed as follows:

- Unscrew the Minimes screw connection with sampling tube from connection X1.
- Unscrew the sealing plug from connection X3 and seal connection X1 with it.
- Trim the tube to the desired length. Carefully clean and deburr the tube. Swarf can impair the function of the level switch.
- Reinstall the sampling port in port X3.

### 4.2.3 Electrical Connections

The device must be installed by an authorised 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.

Be sure to comply with the data specified in the data sheet, operating instructions and type plate.

#### CAUTION



#### Wrong mains voltage

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

With the multiterminal, the level- and temperature switch and the contamination indicator require electrical commissioning. Please refer to the respective (separate) operating instructions for the necessary data of the level/temperature switch!

#### 4.2.3.1 Version With Contamination Indicator

#### DANGER



#### Electrical voltage

Electrocution hazard.

- Disconnect the device from power supply.
- Make sure that the equipment cannot be reconnected to mains unintentionally.
- The device must be opened by trained staff only.
- Regard correct mains voltage.



The sensor connects with a cable using the M3 plug-in connector. Please refer to Fig. 3 for the pin assignment. The maximum connection voltage is 250 VAC or 200 VDC.

The switching function of the electrical signal can be switched from "NO contact" "NC contact" by turning the electrical top 180°.

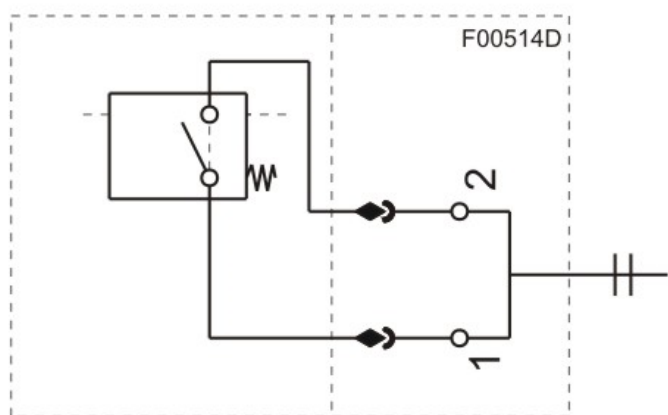


Fig. 3: Pin assignment for type Mahle PIS 3085/2.2

Please refer to the appendix or the separate operating instructions for the technical data of the contamination indicator!

#### 4.2.3.2 Versions With Filling Control (Optional)

For valve control, please refer to the included Flutec documentation. On the version with Bühler filling control, the 2/2-way pilot valve comes with the control level switch fully wired. In this case, wiring is not required.

#### 4.2.3.3 Versions With Level/Temperature Switch

Please refer to the included operating and installation instructions for the level/temperature switch for the information about connection the level switch.

## 5 Operation and control

### 5.1 Initial operation

Before startup, verify

- all electrical and hydraulic connections on the multiterminal are tight and show no signs of damage.
- the return filter has a filter element (the standard version of the multiterminal comes without element).

### 5.2 Sampling

To ensure the fluid still has its original performance characteristics and is still suitable for all workloads, regularly sampling the fluid for analysis is advisable. The location of the sample in the circuit does not affect the composition of the fluid. The multiterminal therefore has two sampling locations: In addition to sampling from the tank, the fluid can also be sampled from the return flow.

Both sampling locations have at least two connecting bores. The sampling ports must be selected to always be easy to access. Please refer to the drawing in chapter “Product description” for the location of the sampling ports.

#### 5.2.1 Sampling From the Tank

When sampling from the oil tank, it can empirically be assumed the sample will be the representative average oil quality.

Depending on the configuration, the sampling port will be equipped with quick-release couplers or Minimes couplers. A hand pump with the corresponding mating component for coupling is required for sampling.

When using the Minimes coupler, we recommend modifying the coupler on the pump with a transverse slot. This increases the suction cross-section to make pumping down considerably easier.

The sampling point is fixed based on the immersion depth of the terminal, ruling out any depth-related measuring errors. Be sure the instruments and the sample bottle are clean to ensure reliable sampling.

#### 5.2.2 Sampling From The Return Filter

To obtain additional information about the condition of the oil it can be helpful to also analyse the unmixed oil from the return flow. The return filter housing has two bores for this purpose for attaching a Minimes coupler.

Since the return line is in part pressurised, a hand pump is not required for sampling. In this case the Minimes tube can be used to directly draw into the sample bottle.

### 5.3 Return Filter

The purpose of filters in a hydraulic system is to reduce fluid contamination due to particles to the necessary level and keep it at a low level long-term during operation. The filtration system cleans the oil to a level of purity which permits continuing to use the oil. The contamination indicators are used to monitor the filter capacity in oil circuits.

We recommend fixing a tag to the filter housing. This ensures the warning “no element installed” is clearly visible to the user. Accidentally using the system without filter can then be avoided.

#### 5.3.1 Contamination Indicator PIS 3085

This indicator responds to the back pressure upstream from the filter element. Back pressure can increase due to the oil viscosity (cold start) or a dirty filter element and can only be measured when oil flows back into the tank. When a certain pressure level is exceeded, a red button pops out and the electrical switching signal is activated. When this signal deactivates again with oil flowing and the red button can be pushed in again, the alert was caused by cold oil or excessive volume. If the switching signal persists and the red button straight away pops out again after being pushed in, the filter element needs to be changed at the end of the shift.

#### 5.3.2 Without Contamination Indicator

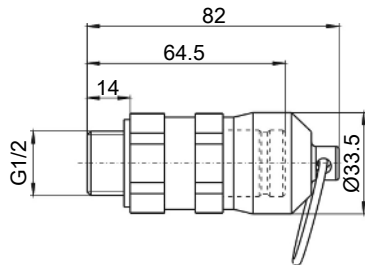
During normal use, the alert “Filter element installed on...” along with the date indicates the ordinary state. This prevents changing an element before the installed filter element is depleted

## 5.4 Filling

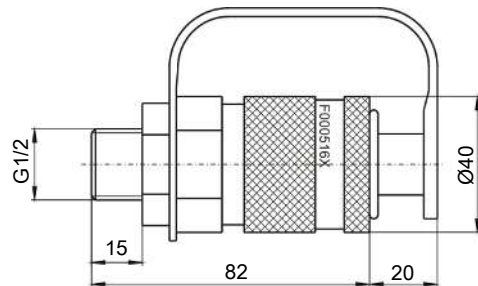
### 5.4.1 Manual Filling

There are two types of connections for filling:

A Stäubli receptacle and a Walther coupler. Oil can be added manually via these ports.



Stäubli SBA 11/CN (receptacle)



Walther MD-012 (coupler)

### 5.4.2 Filling Control Via 2/2-Way Pilot Valve

The filling control is used for automatic tank filling.

If the level switch indicates a low liquid level, the valve opens and oil is added. If the level switch indicates the operating level is reached, the valve closes and filling stops.

If the liquid level continues to drop due to automatic filler failure, the level switch with emits an alarm at the minimum level. The system can then be switched off to prevent damage.

For more information about the 2/2-way pilot valve, please refer to the Flutec documentation.

## 5.5 Level Switch

The following level switches are available for the multiterminal:

- NV 77 / NV 77D
- NV 74 / NV 74D
- NV 73
- NV 71

For more information about the installed level switch, please refer to the included operating and installation information for the level switch.

## 6 Maintenance and repair

### 6.1 Return Filter Elements

Version	Interval
No contamination indicator	The user determines the intervals for changing the element.
with contamination indicator Filtration Group PIS 3085	The reset button will not reset when the operating temperature is reached; alarm output activated

For more information about contamination indicator signals, please refer to the included operating and installation instructions.

### 6.2 Vent Filter Element

Version	Interval
no contamination indicator	The filter element must be replaced as needed, at least 1x annually.
with contamination indicator	Since the contamination is indicated differently depending on the manufacturer, please refer to the respective manufacturer documentation or the separate operating and installation instructions for the level switch for when to change the filter.

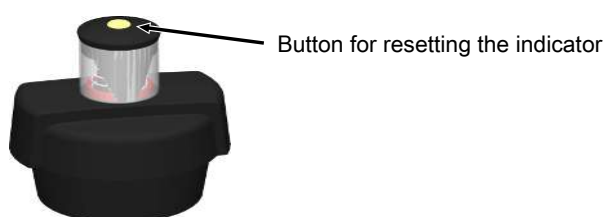
### 6.3 Replacing the filter element

Replace the filter element as follows:

- Temporarily shut down the system.
- The filter cover counter-clockwise to open.
- Remove the filter element and dispose according to legal regulations.
- Insert the new filter element. Be sure to use the correct filter fineness!
- Screw on the filter cover.
- For filters with optical contamination indicator: Set the display to zero.

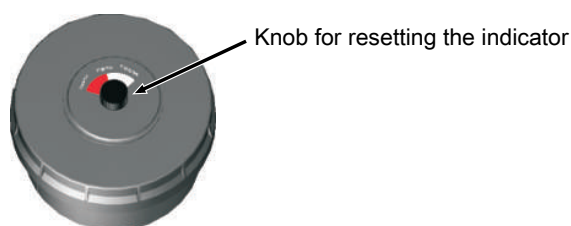
#### Hydac filter

When the maximum display value is reached, the red indicator piston will lock in place, indicating the filter service is required. Press the yellow Reset button to reset the display to zero.



#### Filtration Group filter

Filter contamination is indicated in percent (50%, 75% and 100 %). To reset the display to zero, turn the knob in the direction of the arrow until the red part of the indicator disc is turned all the way back.



## 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

For further information about our services and customised maintenance visit <http://www.buehler-technologies.com/service>.

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.**

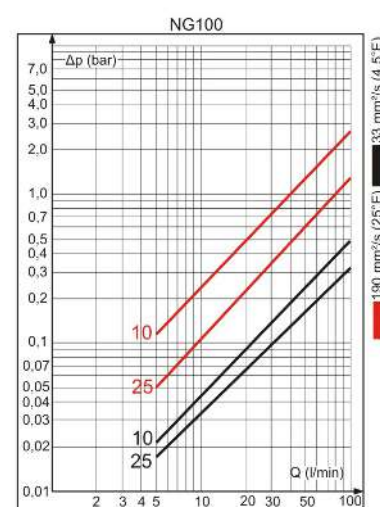
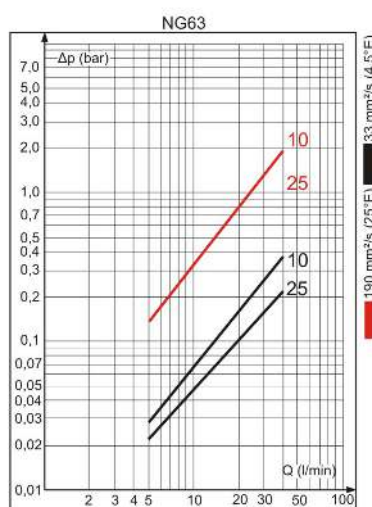
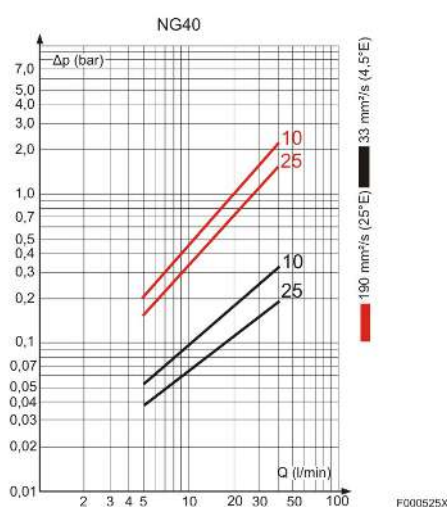
### 7.1 Spare Parts And Consumables

#### Return filter replacement elements:

Filter	Filter unit	Filter element	Item no.
NG 40	10 µm	N0040RN2010	76910962
	25 µm	N0040RN2025	76911127
NG 63	10 µm	N0063RN2010	76910970
	25 µm	N0063RN2025	76911135
NG 100	10 µm	N0100RN2010	76910988
	25 µm	N0100RN2025	76911143

For air filter elements, please refer to the respective operating and installation instructions for the level switch or the documentation from the air filter manufacturer.

#### Return filter performance curves:



## 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

#### Multiterminal

##### Material

Multiterminal block	GK-ALSi12
Block seal	GI cork
Filter cover and bell cover	Plastic

##### Filter data (return filter)

Bypass opening pressure	$\Delta p$ 3.5 bar $\pm$ 10 %
Filter sizes	NG 40/NG 63/NG 100
for filter elements per	DIN 24550

##### Weight

Multiterminal base version (NG 40, NG 63 or NG 100)	~ 3.5 kg
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##### Capacity Sensor

Filtration Group PIS 3085/2.2

Max. operating voltage	250 VAC/200 VDC
Max. switching current	1 A
Max. switching output	24 VA 70 W
Rated pressure/temperature	10 bar / -10 ... +80°C
Display pressure alert/alarm	--- / 2.2 bar
Display type	Visual
	Electric
	Yes
	Yes
IP rating (mated)	IP65
Alert contact type	
Alarm contact type	NO/NC
Electrical connection	DIN EN 175301-803 PG11
Material	PA 66/PA 6

##### Filling port

Stäubli SBA 11/CN

Walther MD-012

Nominal width	11	12
Thread	G 1/2	G 1/2
Material:	Chromium steel/tempered steel	X
	Galvanised/bronzed steel	X



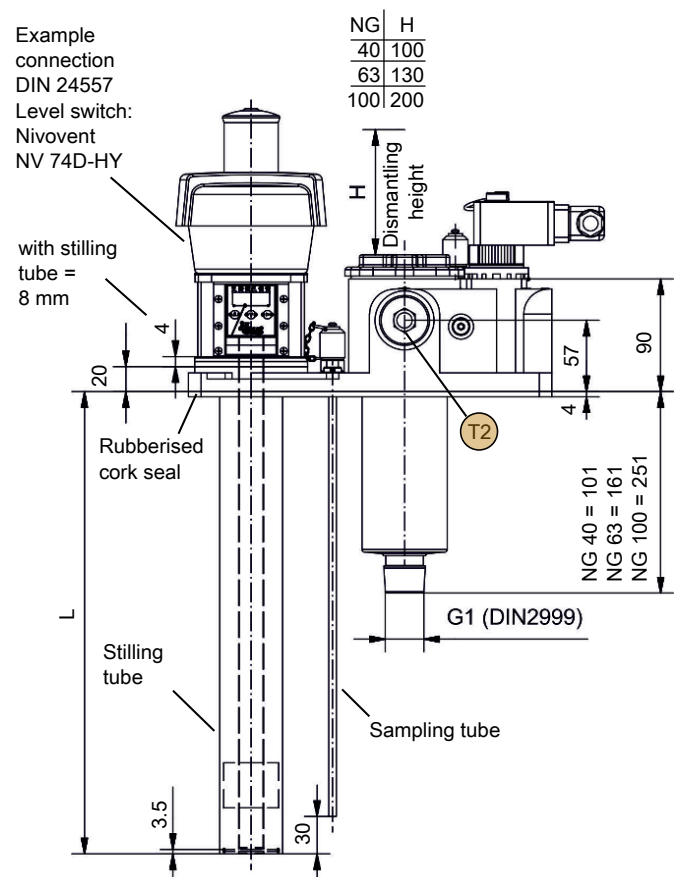
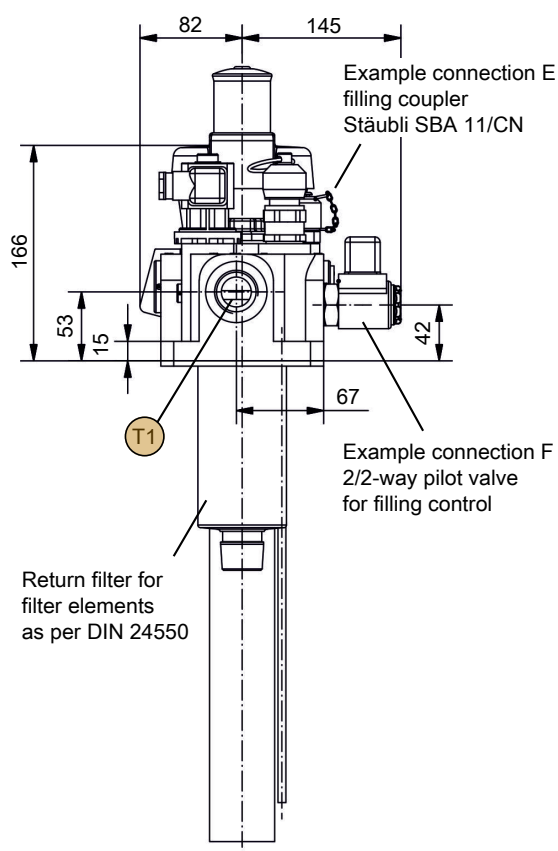
**Filling control with Flutec 2/2-way pilot valve**

Q max.	100 L/min.
p max.	280 bar
Nominal voltage	24 VDC (-5/+10%)
Nominal current	1.04 A
IP rating	IP65
Hydraulic fluid temperature range	min. -20 °C, max. +80 °C
Viscosity range	min. 10 mm <sup>2</sup> /s, max. 380 mm <sup>2</sup> /s
Connector	DIN EN 175301-803, PG11
Hydraulic fluid	DIN 51524-1/-2
Max. operating fluid contamination as per NAS 1638	Class 10

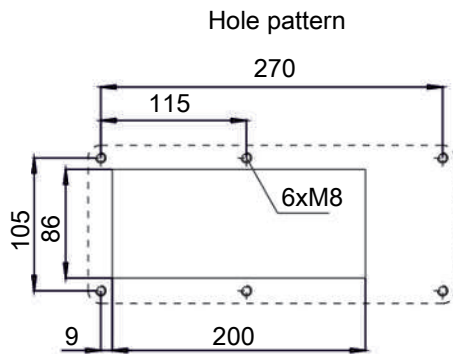
## 9.2 Dimensions

**NOTICE**
**Sample multiterminal equipment**

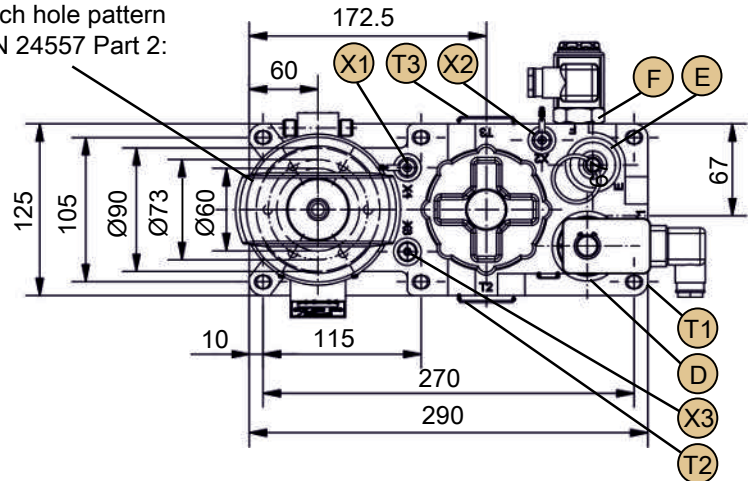

The drawing shows the sample equipment of the multiterminal. The hole pattern as per DIN 24557 and the connections D, E, F can optionally be equipped as specified below. Die connections T1, T2, T3, X1, X2 and X3 are prefixed as specified. The built-in return filter (without filter element) is available in three different nominal sizes and is part of the basic multiterminal.

**Dimensions**


## Hole pattern



Level switch hole pattern  
as per DIN 24557 Part 2:  
6xM5



## Optional connections:

- D = back pressure sensor or sealing plug M30x1.5
- E = G1/2 filling coupler
- F = Flutec 2/2-way pilot valve or M27x2 sealing plug
- DIN 24557/T2 = Nivovent 7 series level- and temperature switch (others on request), as desired

## Prefixed connections:

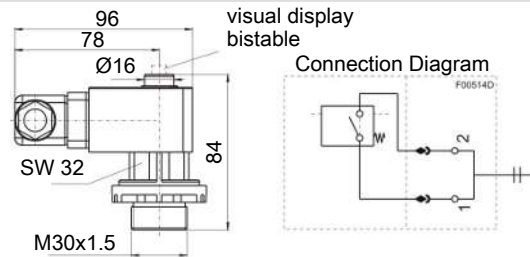
- T1 = available G1 connection to return filter
- T2/T3 = G1 sealing plug (alternative connections for return filter - connection T1)
- X1 = G1/8 Minimesse screw connection with attached tube for sampling from the tank
- X2 = G1/8 Minimesse screw connection for sampling upstream from the return filter
- X3 = G1/8 sealing plug (alternative connection for X1)

(The equipment on connection T1, T2 and T3 as well as connections X1 and X3 can be interchanged by the customer.)

## 9.2.1 Connection D - Back Pressure Sensor Or Sealing Plug

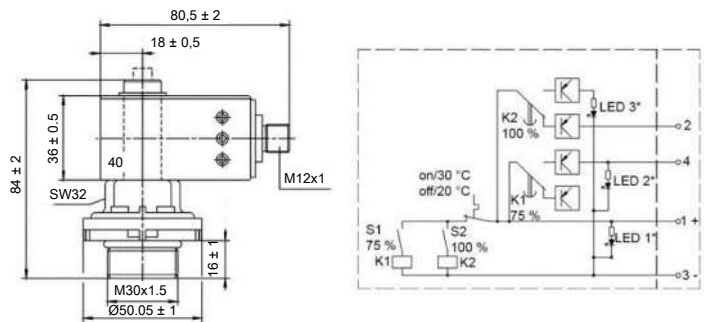
### Type Filtration Group PIS 3085/2.2

Max. operating voltage	250 VAC / 200 VDC
Max. switching current	1 A
Max. switching output	70 W
Rated pressure / temperature	10 bar / -10 to +80°C
Gauge pressure	2.2 bar
Display type	Visual / electric
IP rating	IP65 (mated)
Contact type:	NO contact / NC contact
Electrical connection	DIN EN 175301-803, PG11
Material	PA 66 / PA 6



### Type Filtration Group PIS 3153/1.7/2.2

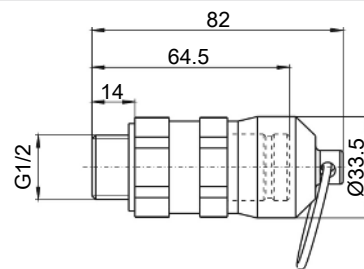
Max. operating voltage	10-30 V
Max. switching current	1 A
Max. switching output	20 W
Rated pressure / temperature	10 bar / -10 to +80°C
Gauge pressure	1.7 / 2.2 bar
Display type	Visual / electric
IP rating	IP65 (mated)
Contact type:	NO contact / NC contact
Electrical Connection	M12x1
Material	PA 66 / PA 6



## 9.2.2 Connection E - Filling Coupler Or Sealing Plug

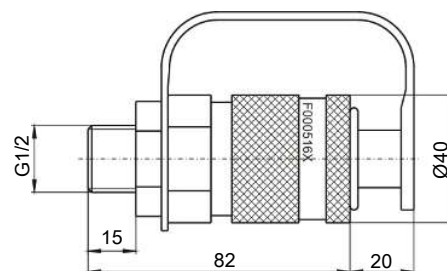
### Type Stäubli SBA 11/CN

	(receptacle)
Nominal width	11
Thread	G ½
Material	Chromium steel / tempered steel



### Type Walther MD-012

	(filling coupler)
Nominal width	12
Thread	G ½
Material	Galvanised / bronzed steel



## 9.2.3 Connection F - Filling Control Or Sealing Plug

### Function description of the filling control:

The filling control is used to automatically stop tank filling once the maximum level is reached. The valve is controlled using the top level contact Lx.

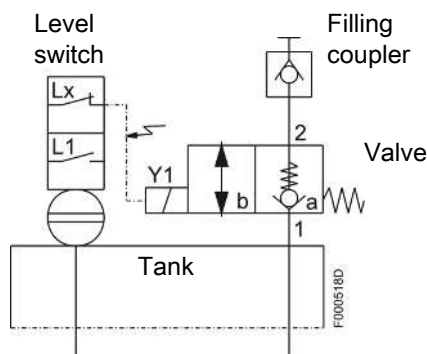
When the system is switched on, the valve switches to position "b", i.e. the valve is flowing freely from 2 to 1, oil can be added using the filling coupler.

When the top level contact (NC contact on Lx) is reached, the valve returns to position "a". The valve is closed from 2 to 1 and oil cannot enter the tank through the filling coupler.

During operation, a second level contact (NO contact on L1) emits an alert when the oil level is low. In the case of external control, the tank can now automatically be filled via the filling coupler or service staff be prompted to add oil.

In both cases, when the top level contact Lx is reached, the valve is switched back to position "a" and filling stops.

The entire control unit for automatic filling with NV 7x series level switch (except NV73 K/KN) of your choice is also available from Bühler Technologies GmbH.

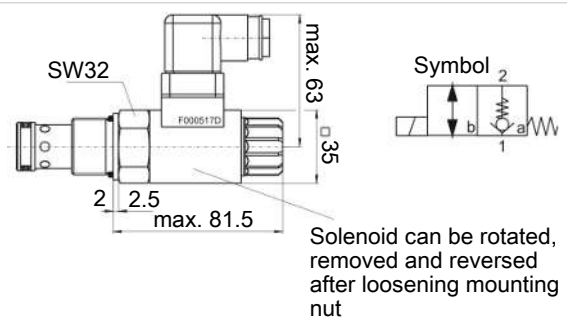


### Type Flutec (2/2-way pilot valve)

Q max.	100 L/min.
p max.	280 bar
Nominal voltage	24 VDC (-5/+10%)
Nominal current	1.04 A
IP rating	IP65
Hydraulic fluid temperature range	min. -20 °C, max. +80 °C
Viscosity range	min. 10 mm <sup>2</sup> /s, max. 380 mm <sup>2</sup> /s
Connector	DIN EN 175301-803, PG11

For hydraulics as per DIN 51524 Part 1 and 2

Max. operating fluid contamination as per NAS 1638 Class 10.



## **10 Attached documents**

- Declaration of Conformity KX100025
- RMA - Decontamination Statement

**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.*

Folgende Richtlinie wurde berücksichtigt:

*The following directive was regarded:*

**2014/30/EU (EMV/EMC)**

**Produkt / products:** Multiterminal mit variablen Ausbaustufen /  
*Multiterminal with versatile configuration*

**Typ / type:** MT

Das Betriebsmittel verfügt über Anschlussmöglichkeiten für individuelle Applikationen wie  
beispielsweise Komponenten zum Einbau von Niveau- und Temperaturüberwachung.  
*The equipment has several connection facilities for individual applications as for example the  
installation of components for level and temperature control.*

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 61326-1:2013**

**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*

## 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**

The following legislation were regarded:

### **Electromagnetic Compatibility Regulations 2016**

**Product:** Multiterminal with versatile configuration  
**Type:** MT

The equipment has several connection facilities for individual applications as for example the installation of components for level and temperature control.

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

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

**EN 61326-1:2013**

Ratingen in Germany, 17.02.2023

A handwritten signature in blue ink, appearing to read 'Stefan Eschweiler'.

Stefan Eschweiler  
Managing Director

A handwritten signature in blue ink, appearing to read 'Frank Pospiech'.

Frank Pospiech  
Managing Director

# 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

Gerät/ Device

Anzahl/ Quantity

Auftragsnr./ Order No.

### Ansprechpartner/ Person in charge

Name/ Name

Abt./ Dept.

Tel./ Phone

E-Mail

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



☐  
gesundheitsge-  
fährdend/  
harmful to  
health



☐  
gesund-  
heitsschädlich/  
health hazard



☐  
umweltge-  
fährdend/  
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 commission an external service provider to clean the goods and invoice it to your account.

Firmenstempel/ Company Sign

Datum/ Date

rechtsverbindliche Unterschrift/ Legally binding signature





### 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 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.

### 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.

