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Dear Customer,

Congratulations on your purchase of our 8225 digital conductivity transmitter.

**BEFORE INSTALLING OR USING THIS PRODUCT, PLEASE TAKE OUR ADVICE AND READ THE ENTIRE MANUAL THOROUGHLY.**

This will enable you to benefit fully from all of the advantages which the product can offer.

## 1.1 Unpacking and Control

Please verify that the product is complete and free from any damage and that you have received the following as a standard delivery:

- 1 8225 Digital Conductivity Transmitter
- 1 Operating Instruction Manual

To ensure that you have received the product required, please compare the Type specification (Bürkert identification number) on the label to the lists on the following pages. If there are any problems such as loss or damage, please contact your local Bürkert subsidiary.

## 1.2 About this Manual

This manual does not contain any form of warranty or statement and full referral to our general terms of sale and delivery should be noted.

This product should only be installed and/or repaired by correctly trained staff. If any difficulties may occur with the product during installation, please do not hesitate to contact your nearest Bürkert sales office for assistance.

## 1.3 User's Responsibility for Safety

Bürkert manufactures a broad range of conductivity transmitters designed to operate in a wide variety of applications. It is the customer's responsibility to select an appropriate transmitter for the application, ensure the unit is installed correctly, and maintain all components. Special attention must be made to the chemical resistance of the transmitter and the fluids/medium which maybe in direct contact with the product.



If this symbol appears, it indicates that special attention should be made to the instructions, as they may affect the safe installation, function or/ and use of the product.

## 1.4 Electromagnetic compatibility

This device conforms to the EMC-Directive of the European Union 89/336/EEC. In order to comply with the above directive, the wiring instructions must be followed as instructed.

## 2.1 Type Specification

### 2.1.2 Transmitter 8225 with 12-30 VDC power supply

Conductivity transmitter	Gasket	Sensor	Cable entry	Ident N°
<b>STANDARD TYPES WORLDWIDE</b>				
8225 with 4-20 mA	FPM	K=0,01	DIN 43650 PG9	418950
8225 with 4-20 mA	FPM	K=0,1	DIN 43650 PG9	418951
8225 with 4-20 mA	FPM	K=1,0	DIN 43650 PG9	418952
8225 with 4-20 mA	FPM	K=10	DIN 43650 PG9	418953
8225 with 4-20 mA, 2 Relays	FPM	K=0,01	2xPG 13,5	418954
8225 with 4-20 mA, 2 Relays	FPM	K=0,1	2xPG 13,5	418955
8225 with 4-20 mA, 2 Relays	FPM	K=1,0	2xPG 13,5	418956
8225 with 4-20 mA, 2 Relays	FPM	K=10	2xPG 13,5	418957
<b>STANDARD TYPES WORLDWIDE WITHOUT RELAYS</b>				
8225 with 4-20 mA	EPDM	K=0,01	DIN 43650 PG9	418958
8225 with 4-20 mA	EPDM	K=0,1	DIN 43650 PG9	418959
8225 with 4-20 mA	EPDM	K=1,0	DIN 43650 PG9	418960
8225 with 4-20 mA	EPDM	K=10	DIN 43650 PG9	418961
8225 with 4-20 mA	FPM	K=0,01	PG 13,5	418962
8225 with 4-20 mA	FPM	K=0,1	PG 13,5	418963
8225 with 4-20 mA	FPM	K=1,0	PG 13,5	418964
8225 with 4-20 mA	FPM	K=10	PG 13,5	418965
8225 with 4-20 mA	EPDM	K=0,01	PG 13,5	418966
8225 with 4-20 mA	EPDM	K=0,1	PG 13,5	418967
8225 with 4-20 mA	EPDM	K=1,0	PG 13,5	418968
8225 with 4-20 mA	EPDM	K=10	PG 13,5	418969
<b>STANDARD TYPES WORLDWIDE WITH RELAYS</b>				
8225 with 4-20 mA, 2 Relays	EPDM	K=0,01	2xPG 13,5	418970
8225 with 4-20 mA, 2 Relays	EPDM	K=0,1	2xPG 13,5	418971
8225 with 4-20 mA, 2 Relays	EPDM	K=1,0	2xPG 13,5	418972
8225 with 4-20 mA, 2 Relays	EPDM	K=10	2xPG 13,5	418973
<b>STANDARD TYPES NORTH AMERICA</b>				
8225 with 4-20 mA	FPM	K=0,01	DIN 43650 G 1/2"	418974
8225 with 4-20 mA	FPM	K=0,1	DIN 43650 G 1/2"	418975
8225 with 4-20 mA	FPM	K=1,0	DIN 43650 G 1/2"	418976
8225 with 4-20 mA	FPM	K=10	DIN 43650 G 1/2"	418977
8225 with 4-20 mA, 2 Relays	FPM	K=0,01	2xG 1/2"	418978
8225 with 4-20 mA, 2 Relays	FPM	K=0,1	2xG 1/2"	418979
8225 with 4-20 mA, 2 Relays	FPM	K=1,0	2xG 1/2"	418980
8225 with 4-20 mA, 2 Relays	FPM	K=10	2xG 1/2"	418981
<b>STANDARD TYPES NORTH AMERICA WITHOUT RELAYS</b>				
8225 with 4-20 mA	EPDM	K=0,01	DIN 43650 G 1/2"	418982
8225 with 4-20 mA	EPDM	K=0,1	DIN 43650 G 1/2"	418983
8225 with 4-20 mA	EPDM	K=1,0	DIN 43650 G 1/2"	418984
8225 with 4-20 mA	EPDM	K=10	DIN 43650 G 1/2"	418985
<b>STANDARD TYPES NORTH AMERICA WITH RELAYS</b>				
8225 with 4-20 mA, 2 Relays	EPDM	K=0,01	2xG 1/2"	418986
8225 with 4-20 mA, 2 Relays	EPDM	K=0,1	2xG 1/2"	418987
8225 with 4-20 mA, 2 Relays	EPDM	K=1,0	2xG 1/2"	418988
8225 with 4-20 mA, 2 Relays	EPDM	K=10	2xG 1/2"	418989

## 2.1.2 Transmitter 8225 with 115/230 VAC power supply

Conductivity transwithter	Gasket	Sensor	Cable entry	Ident N°
<b>STANDARD TYPES WORLWIDE</b>				
8225 with 4-20 mA	FPM	K=0,01	2XPG 13,5	426935
8225 with 4-20 mA	FPM	K=0,1	2XPG 13,5	426936
8225 with 4-20 mA	FPM	K=1,0	2XPG 13,5	426937
8225 with 4-20 mA	FPM	K=10	2XPG 13,5	426938
8225 with 4-20 mA	EPDM	K=0,01	2XPG 13,5	426939
8225 with 4-20 mA	EPDM	K=0,1	2XPG 13,5	426940
8225 with 4-20 mA	EPDM	K=1,0	2XPG 13,5	426941
8225 with 4-20 mA	EPDM	K=10	2XPG 13,5	426942
<b>STANDARD TYPES WORLWIDE WITH RELAYS</b>				
8225 with 4-20 mA, 2 Relays	FPM	K=0,01	2xPG 13,5	426943
8225 with 4-20 mA, 2 Relays	FPM	K=0,1	2xPG 13,5	426944
8225 with 4-20 mA, 2 Relays	FPM	K=1,0	2xPG 13,5	426945
8225 with 4-20 mA, 2 Relays	FPM	K=10	2xPG 13,5	426946
8225 with 4-20 mA, 2 Relays	EPDM	K=0,01	2xPG 13,5	426947
8225 with 4-20 mA, 2 Relays	EPDM	K=0,1	2xPG 13,5	426948
8225 with 4-20 mA, 2 Relays	EPDM	K=1,0	2xPG 13,5	426949
8225 with 4-20 mA, 2 Relays	EPDM	K=10	2xPG 13,5	426950
<b>STANDARD TYPES NORTH AMERICA</b>				
8225 with 4-20 mA	FPM	K=0,01	2xG 1/2"	427851
8225 with 4-20 mA	FPM	K=0,1	2xG 1/2"	427864
8225 with 4-20 mA	FPM	K=1,0	2xG 1/2"	427865
8225 with 4-20 mA	FPM	K=10	2xG 1/2"	427866
8225 with 4-20 mA	EPDM	K=0,01	2xG 1/2"	427867
8225 with 4-20 mA	EPDM	K=0,1	2xG 1/2"	427868
8225 with 4-20 mA	EPDM	K=1,0	2xG 1/2"	427869
8225 with 4-20 mA	EPDM	K=10	2xG 1/2"	427870
<b>STANDARD TYPES NORTH AMERICA WITH RELAYS</b>				
8225 with 4-20 mA, 2 Relays	FPM	K=0,01	2xG 1/2"	427871
8225 with 4-20 mA, 2 Relays	FPM	K=0,1	2xG 1/2"	427872
8225 with 4-20 mA, 2 Relays	FPM	K=1,0	2xG 1/2"	427983
8225 with 4-20 mA, 2 Relays	FPM	K=10	2xG 1/2"	427984
8225 with 4-20 mA, 2 Relays	EPDM	K=0,01	2xG 1/2"	427985
8225 with 4-20 mA, 2 Relays	EPDM	K=0,1	2xG 1/2"	427986
8225 with 4-20 mA, 2 Relays	EPDM	K=1,0	2xG 1/2"	427987
8225 with 4-20 mA, 2 Relays	EPDM	K=10	2xG 1/2"	427988

### 2.2 Design and Measuring Principle

#### Design

The compact conductivity transmitter combines a sensor and a transducer with display in a splash-proof plastic IP65 enclosure.

The sensor component consists of easily replaceable sensors. Sensors with cell constants of 0.01 and 0.1 are fitted with stainless steel electrodes, and those with a higher cell constant 1.0 and 10 are fitted with graphite electrodes. The Pt1000 for automatic temperature compensation is a standard feature in all sensor housings.

The transducer component converts the measured signal and displays the actual value.

The output signal is provided within a 4-pole plug according to DIN 43 650 or via one PG 13.5 (version without relays) or via 2 PG 13.5 (version with relays).

#### Measuring Principle

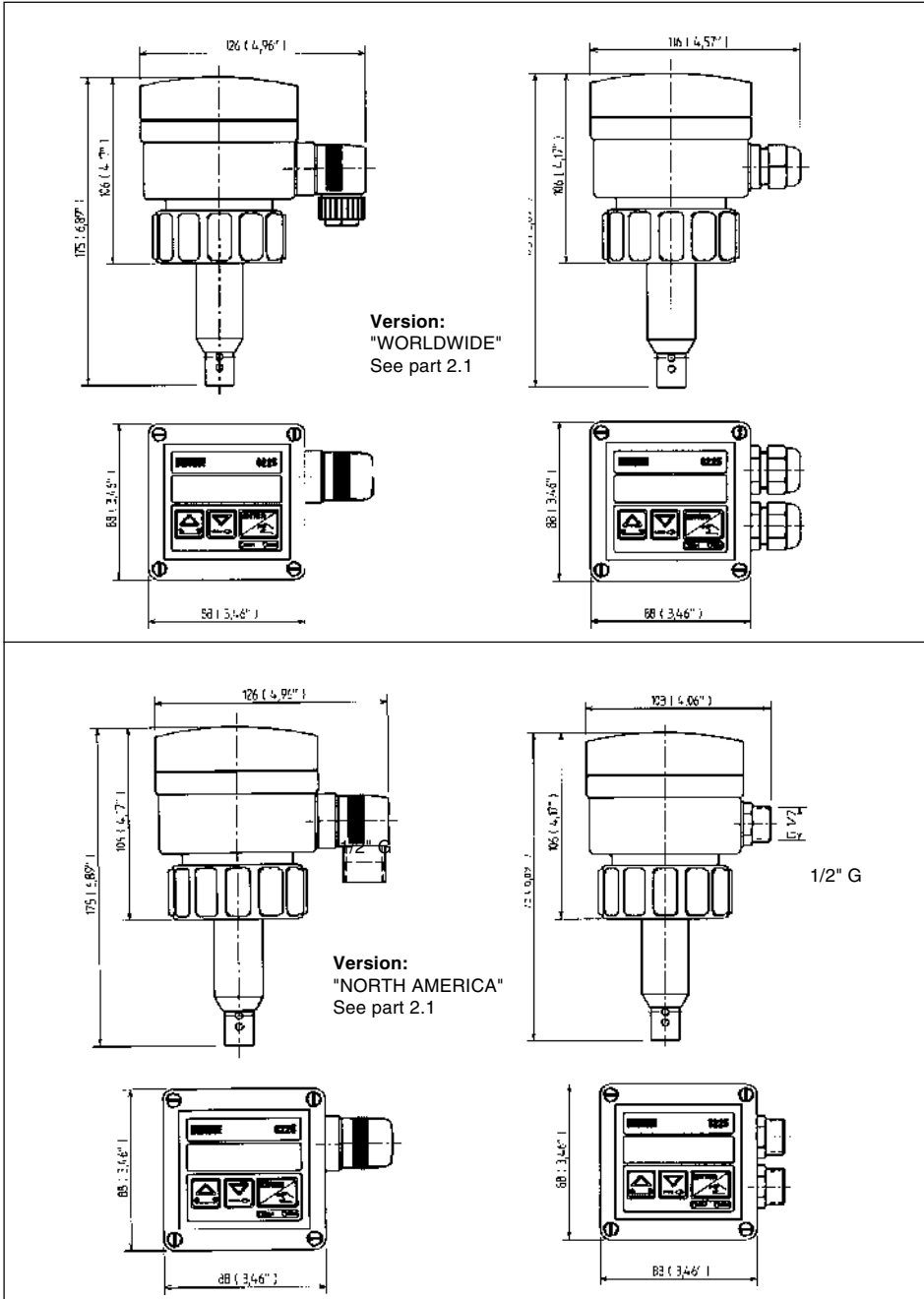
Conductivity is defined as the ability of a solution to conduct electrical current. The load carriers are ions (e.g. dissolved salts or acids). In order to measure the conductivity, 2 electrodes are used which are set at a fixed distance apart and with a known specified surface. An AC voltage source is connected to the electrodes. The measured current is a direct function of the conductivity of the solution.

The transducer without relays functions has a 2-wire circuit and requires a power supply of 12-30 VDC. The device is available with an integrated power supply of 115/230 VAC. A standard output signal of 4-20 mA is available, although it is proportional to the conductivity.

The transducer with 2 additional relays has a 3-wire circuit. Limit values are freely adjustable.



2.3 Dimensions



**2.4 Technical Data**

Pressure class	PN 6
Fluid temperature	0 to 100 °C (32 to 212 °F) (*)
Ambient temperature	0 to 60 °C (32 to 140 °F)
Storing temperature	0 to 60 °C (32 to 140 °F)
Relative humidity	max. 80 %
Enclosure	IP 65
Measuring range	0,05 µS/cm...200 mS/cm, depending on cell constant
Measuring error	typical: 3 % of measured value max.: 5 % of measured value
Temperature compensation	automatic with standardized integrated Pt1000 with reference temperature of 25 °C (77 °F)
Supply Voltage	12-30 VDC or 115/230 VAC
Output signal	4-20 mA
Load	max. 700 Ohm at 30 V max. 400 Ohm at 24 V max. 100 Ohm at 15 V
Display	15 x 60 mm LCD 8 digits, alphanumeric, 15 segments, 9 mm high
Relay output (optional)	2 relays, 3 A, 230 V, freely adjustable
Sensor housing	PVDF
O-rings	FPM/EPDM
Electronic housing	PC
Front plate	polyester
Measuring electrodes	K=0.01 stainless steel electrodes K=0.1 stainless steel electrodes K=1.0 graphite electrodes K=10 graphite electrodes

(\*) Refer to fittings instruction manual.

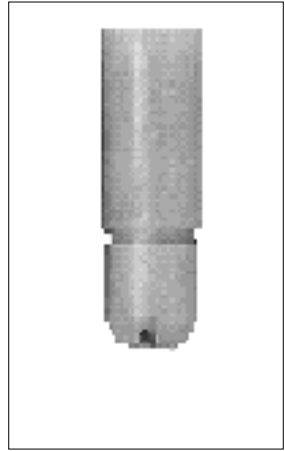
## 2.5 Measuring range of electrodes



K = 0.1 und K = 0.01



K = 1.0



K = 10

The conductivity transmitter can be fitted with 4 different electrodes with cell constants 0.01; 0.1; 1.0 and 10. The electrode is selected according to the measuring range and medium by using the table below.

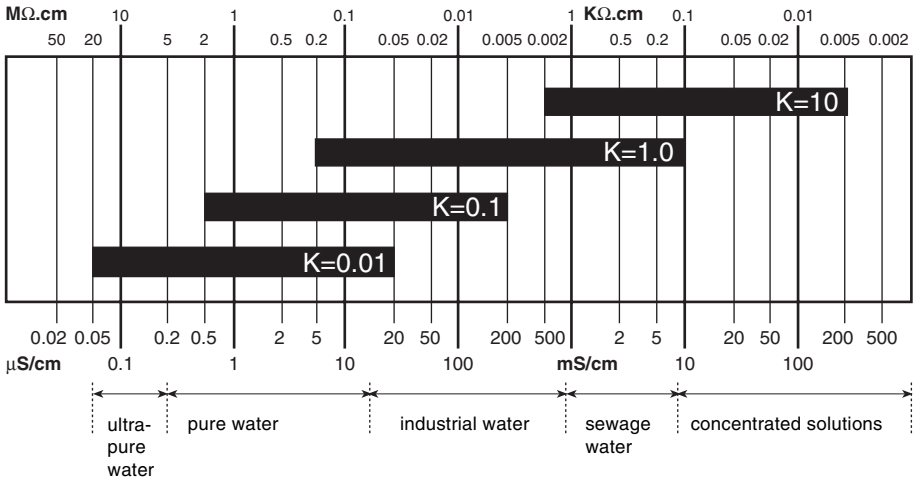


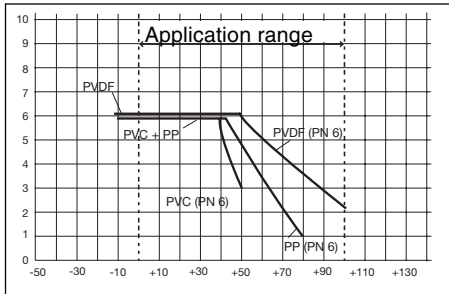
Fig. 2.1 Measuring ranges of electrodes



## 3.1 Installation Guidelines

### Pressure-Temperature Diagram

Please be aware of the pressure-temperature dependence according to the respective fitting material.



### Installation Guidelines

The conductivity transmitter must be installed in a vertical position onto a horizontal pipe or a weld-in fitting must be used through a tank wall to obtain the vertical position.

With a cell constant  $K=10$ , the opening hole of the small channel must be located on the flow side.

The device must be protected against constant heat radiation and other environmental influences, such as magnetic fields or direct exposure to sunlight.

Do not mount the device behind turbulence generating fittings such as elbows, valves, T-pieces, etc..

**Caution:** only tighten the plastic nut by hand

## 3.2 Installation

The conductivity transmitter 8225 can be easily installed into pipes using our specially designed fitting system. (S020/1500)

1. The fitting **4** must be installed into the pipe according to the installation specifications in section 3.1.
2. Insert the plastic nut **3** onto the fitting and let the plastic ring **2** snap into the guide bush **5**.
3. Carefully insert the transmitter 8225 **1** into the fitting. If installed correctly, the transmitter cannot be rotated.
4. Tighten transmitter housing to the fitting with the plastic nut **3**.

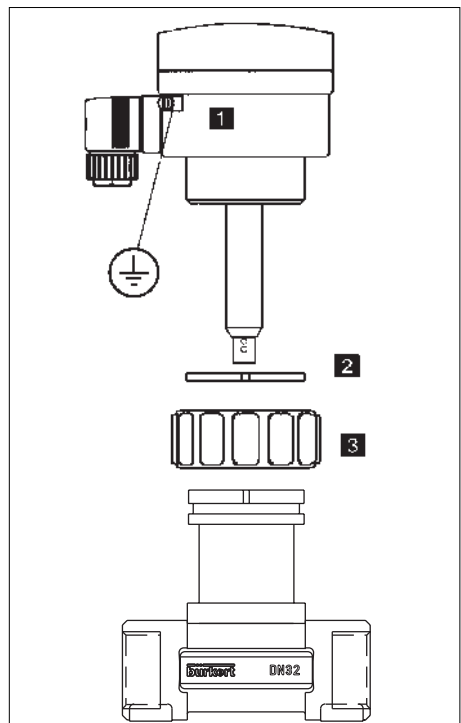


Fig. 3.1 Installation on a fitting S020

## 3.3 General Electrical Connection

The connecting cable conducts the measuring signal and power supply and must not be installed in combination with high voltage or high frequency lines. If a combined installation cannot be avoided, either keep a min. space of 30 cm (approx. 1 ft) or use coax cables. When using coax cables observe faultless grounding of the shield. For normal operating conditions, the measuring signal can be transmitted by a simple cable of 0.75 mm<sup>2</sup> cross section. If in doubt, always use a coax cable. The power supply must be of good quality (filtered and regulated).

**An earthing point is provided via an earth lug on the side of the enclosure (see fig. 3.1). For EMC purposes, this point must be connected locally to a good earth.**

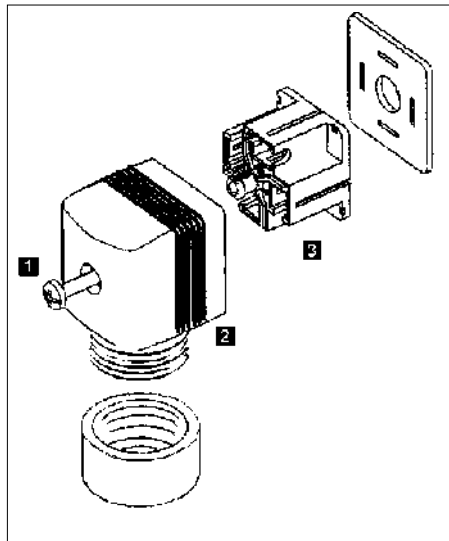


Fig. 3.2 Plug assembly DIN43650

## 3.4 Electrical Wiring 12-30 VDC

### 3.4.1 8225 without relays

Electrical wiring either via cable plug to DIN 43 650 or PG 13.5 cable gland.

#### Wiring via cable plug

Standard DIN 43 650 plug connector with PG9-cable glands, cross section max. 1.5 mm<sup>2</sup>, IP65 rating (cf. fig. 3.2).

1. To open the connector remove the screw **1** (cf. fig. 3.2).
2. Remove internal part **3** from external part **2**.
3. Connect according to the pin assignment in fig. 3.3.
4. When re-assembling, the internal part may be inserted into the plastic case in 90 °-step intervals as required.

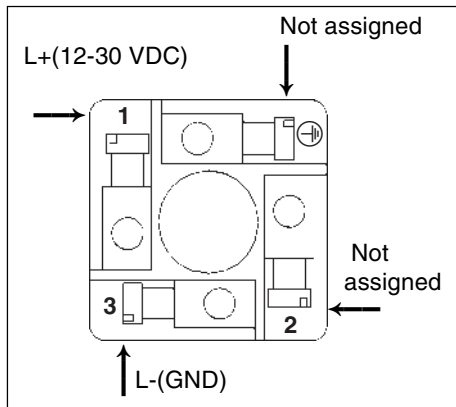
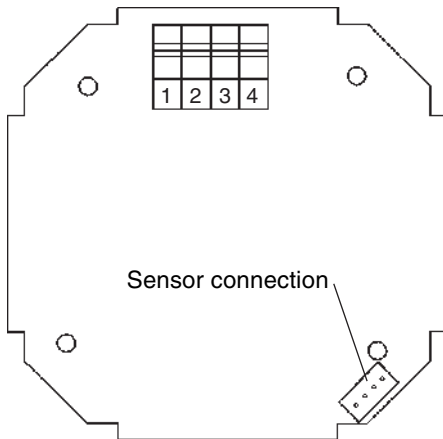


Fig. 3.3 Connection with cable plug

## Connection to PG 13.5 cable gland

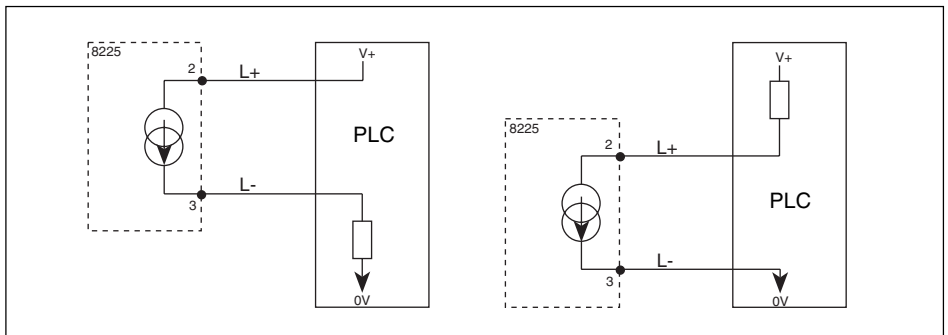
Remove the cover, pull the cable through PG 13.5 cable gland and wire according to pin assignment cf. fig. 3.4.

- 1: Not assigned
- 2: L+ (12-30 VDC)
- 3: L-
- 4: Earth (earth lug)



**Fig. 3.4 Pin assignment with cable gland**

**Note:** The device can be easily connected to a PLC, independently of the respective version (cf. fig. 3.5).



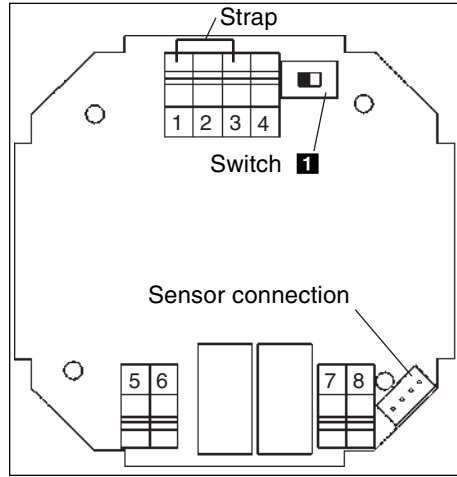
**Fig. 3.5: PLC-connection**

## 3.4.2 Connection 8225 with relays

The electrical wiring is possible via 2 cable glands.

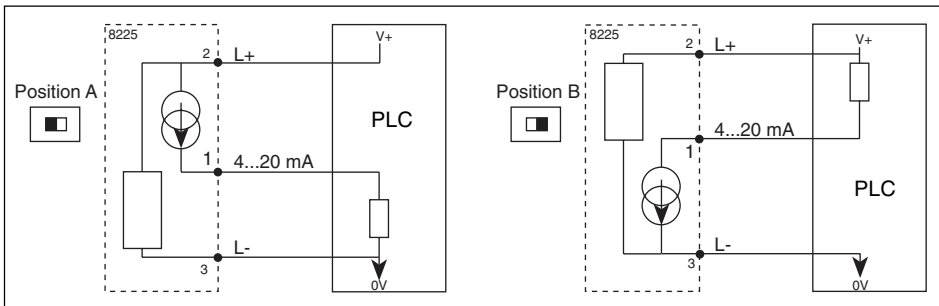
Remove the cover, pull the cable through PG 13.5 and wire according to pin assignment (cf. fig. 3.6).

- 1: Current output 4-20 mA
- 2: L+ (12-30 VDC)
- 3: L-
- 4: Earth (earth lug)
- 5: Relay 2
- 6: Relay 2
- 7: Relay 1
- 8: Relay 1



**Fig. 3.6 Pin assignment with relays**

**Note:** Depending on the PLC-version, the switch **1** on the circuit board must be put to position A or B (cf. fig. 3.6 and 3.7). In this case remove the strap (cf. fig. 3.6).



**Fig. 3.7 PLC-connection**



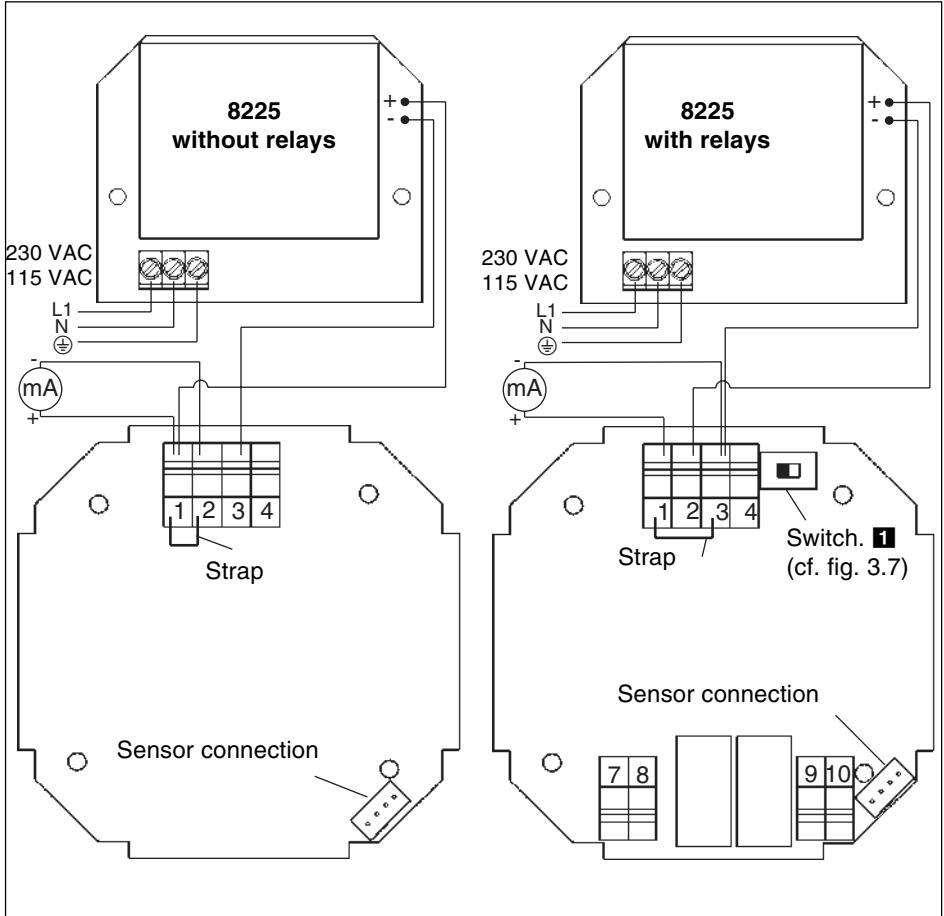
**Attention:** If the current output 4-20 mA is not utilised, it must be connected to L- with switch **1** in position A. For this purpose, use the strap (see fig. 3.6).

## 3.4.3 Electrical Wiring 8225 with Power Supply 230/115 VAC

Remove the cover, the power supply board is in the bottom of the housing. Pull the cable through PG 13,5 cable gland and wire according to fig. 3.8

The connection of the output signals (current and relays) are not affected.

If the current output of 4-20 mA is used, remove the strap (see fig. 3.6).



**Fig. 3.8 Electrical wiring 8225 with power supply 230/115 VAC**

The operation is divided into 3 main menus

## 1 Display

Conductivity, temperature and output current are displayed within this menu, and the "HOLD" function can also be obtained.

## 2 Parameter Definition

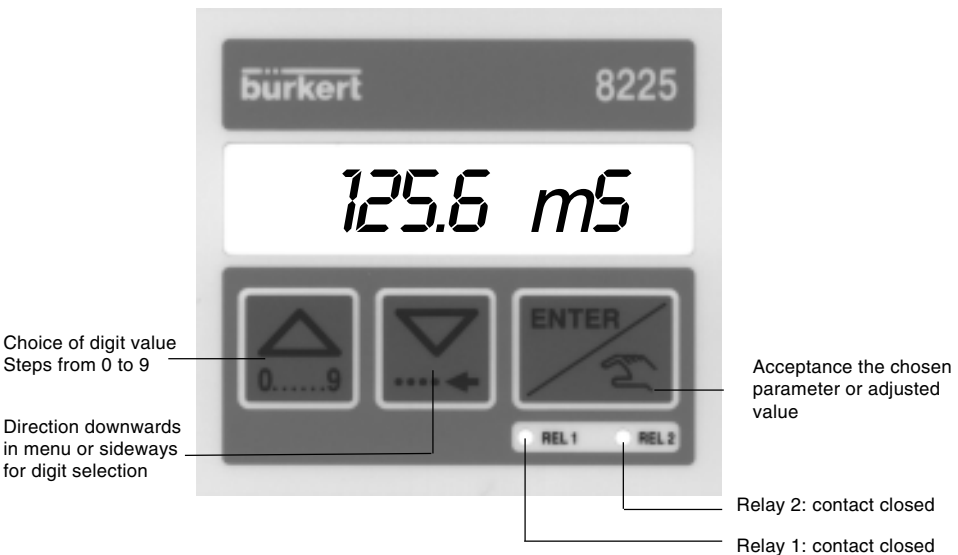
All the necessary adjustments, such as language, engineering units, cell constant, temperature compensation factor, 4-20 mA measuring range, relay and filter are set within this menu.

## 3 Testing

Conductivity can be simulated within this menu, allowing the user to test the process in the "dry condition".

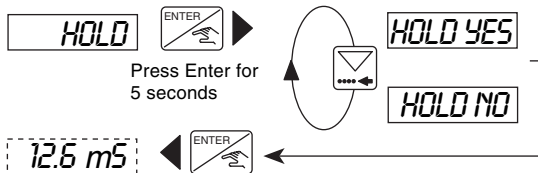
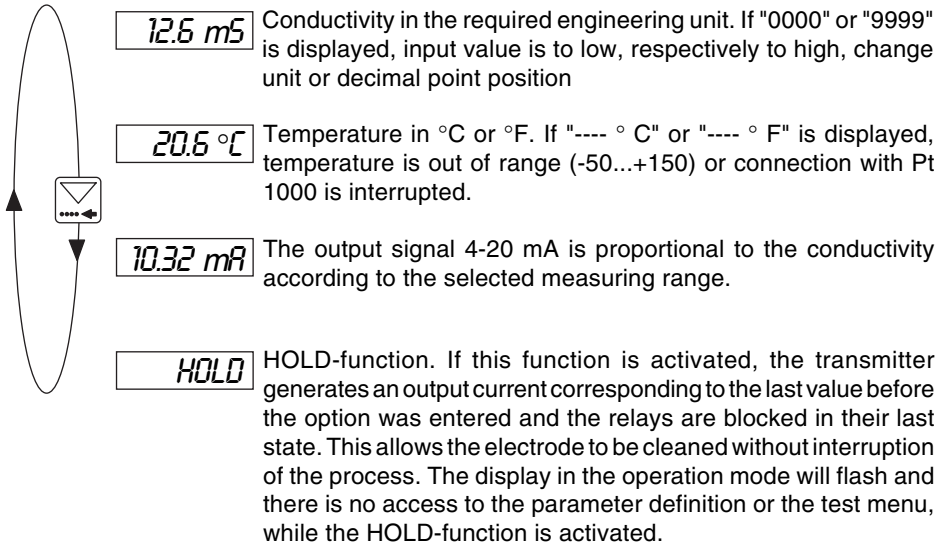
The non-compensated conductivity of the transmitter is also displayed within this menu. The basic settings (Offset, Span) of the device can be changed within this menu.

## 4.1 Operating and Control Elements



## 4.2 Operation Mode Display

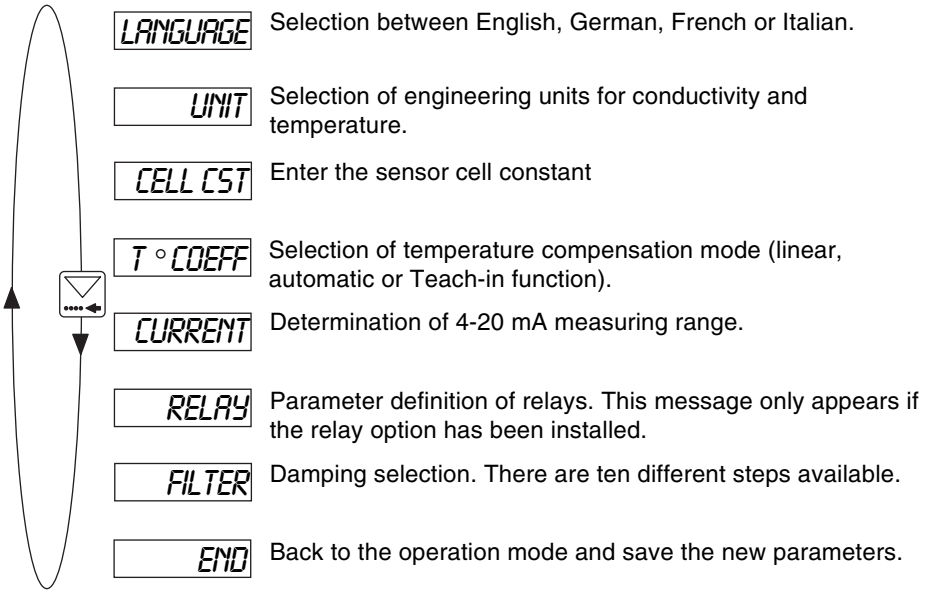
The following units are indicated within the operation mode display:



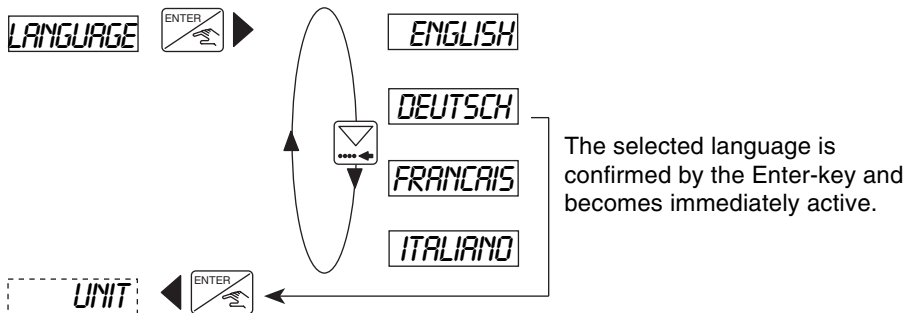
To deactivate the HOLD function, enter the "HOLD" option again and select "HOLD NO".

## 4.3 Calibration Mode: Press simultaneously for 5 seconds

The following adjustments are set in the calibration mode display:

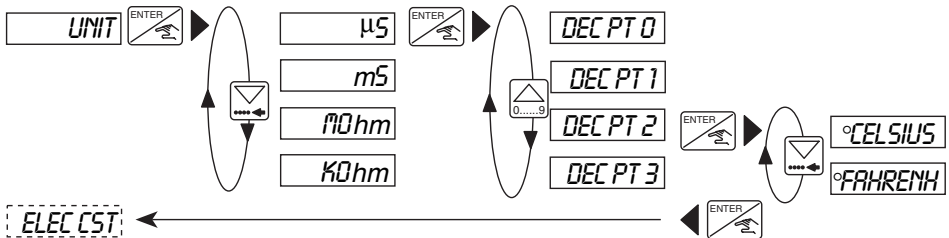


### 4.3.1 Language





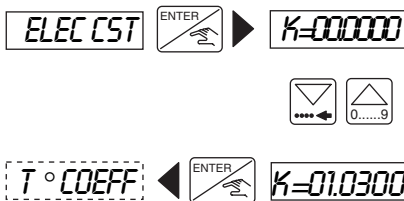
## 4.3.2 Engineering Units



The conductivity can be displayed in any engineering unit with 0, 1, 2 or 3 decimal points but always with 4 digits.

## 4.3.3 Cell Constant

The cell constant of the sensor is entered within this mode. This value is indicated on a sticker on the enclosure and on the sensor cable.



The cell constant is an average value over the whole measuring range. This can be adjusted depending on the application as follows:

**K-new = (Cond. reference / Cond. 8225) x K-real.**  
The reference conductivity can be given either by a buffer solution or reference device.

If K=00.0000, the device is blocked and the displayed conductivity is equal to zero.

## 4.3.4 Temperature-Compensation Coefficient

The transmitter offers three different modes of temperature compensation.

### Linear compensation

The user enters one value for a compensation over the entire conductivity and temperature range (e.g. 2,1 %/ °C). For no compensation enter 0,0 %/ °C within this option.

### Compensation with memorized coefficient (AUTO)

The user can select between 4+1 products, whose temperature compensation coefficients have been memorized over the entire temperature range (NaOH, HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, NaCl and "special"). The memorized coefficients for NaCl apply for concentrations between 0.5 mg/l up to 270 g/l. In most cases, the compensation with NaCl is sufficient. The option "special" is explained in the following part.

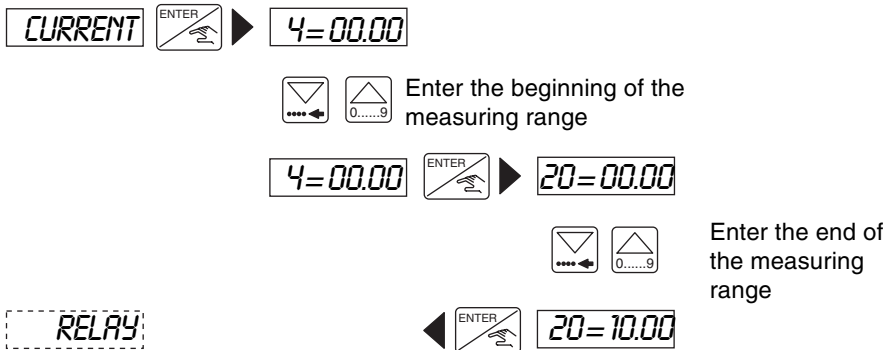
### Teach-in function

This function allows the practical definition of the temperature compensation coefficient of a liquid over the required temperature range. The user enters first the temperature range (T- and T+) of the fluid (the difference between T+ and T- must exceed 5 °C). The point 25 °C needs not be included, however, it must be exceeded during the measurement.



## 4.3.5 Output Current

Within this mode, the measuring range of the conductivity measuring range is entered, which corresponds to the output current 4-20 mA. E.g. 0 to 10 mS/cm corresponds to 4-20 mA. The beginning of the measuring range might be larger than the end of it, e.g. 0 to 10 mS/cm corresponds to 20-4 mA (inverted output signal). The adjustments (engineering unit and decimal point), which have been selected for the conductivity display will be valid within this option.



## 4.3.6 Relay

Within this menu, the setting of the parameter limits can be defined. 2 limit values are entered for each relay: 1- and 1+ or 2- and 2+. The user has also the option to invert the relays and to set a delay time between 0 and 180 seconds. This delay shall prevent the relays from being activated too quickly, e.g. when time for homogenization is required (e.g. measurements in tanks with agitator). If the conductivity exceeds a limit value, the transmitter awaits the set delay time before activating the relay in order to introduce a hysteresis effect. Units and decimal points as selected in the submenu "*UNIT*" are activated within this menu.



**Caution!** The following condition must be observed  $1- \leq 1+$ ,  $2- \leq 2+$ .

RELAY  **1=00.00**





Enter the lowest value of threshold 1

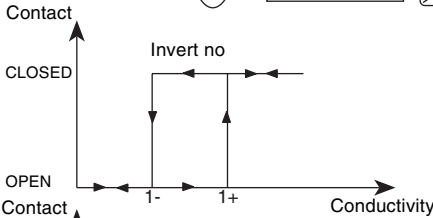
**1=01.50**  **1+=00.00**



Enter the highest value of threshold 1

 **INV NO**  **1+=02.50**  
**INV YES**  **DEL1=000**

Enter the delay (seconds), which will effect both of the thresholds of relay 1



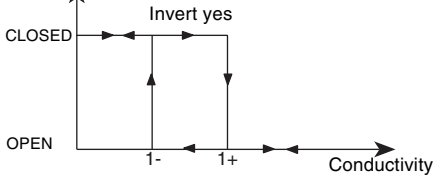
**DEL1=030**  **2=00.00**




Enter the lowest value of threshold 2



**2+=00.00**  **2-=08.50**

Enter the highest value of threshold 2

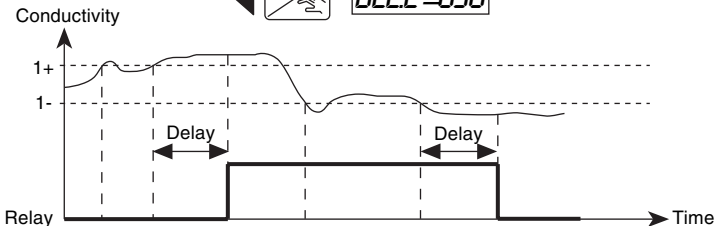


 **INV NO**  **2+=09.50**  
**INV YES**  **DEL2=000**

Enter the delay (seconds), which will effect both of the thresholds of relay 2

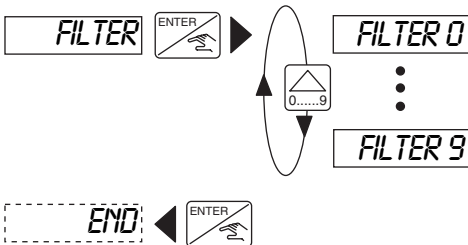
**FILTER**

 **DEL2=030**



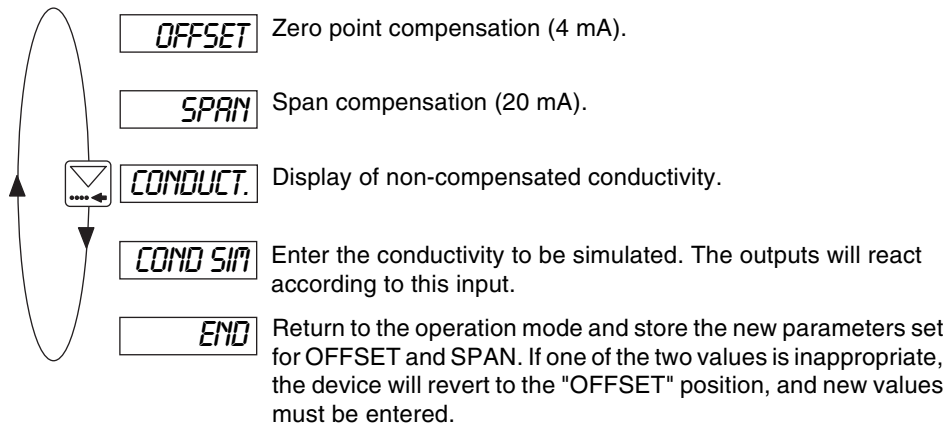
## 4.3.7 Filter Function

The damping set within this sub-menu prevents display and output current fluctuations. There are 10 steps available. However, the first step ("FILTER 0") has no damping function.



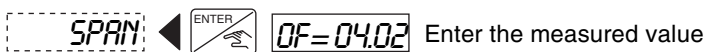
## 4.4 Test Menu: Press simultaneously for 5 seconds

The following compensations and controls are carried through in the test menu:



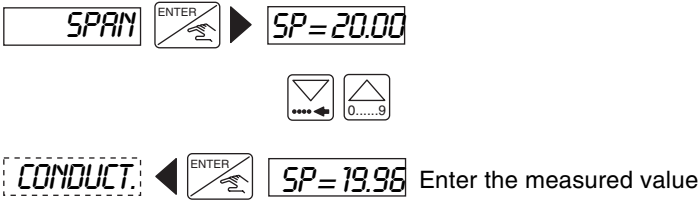
### 4.4.1 Offset Compensation

Within this mode, the user has the possibility of correcting the basic setting of 4 mA. An ammeter is required. The transmitter generates 4 mA, if the ENTER key is pressed when "OFFSET" is displayed. If the displayed value is incorrect, it can be corrected by enter the measured value.



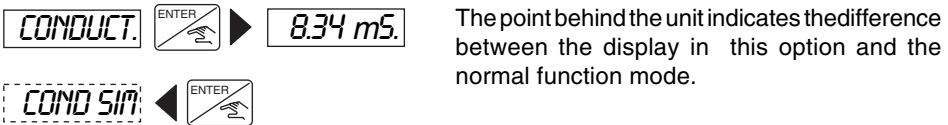
## 4.4.2 Span-Compensation

Within this mode, the user can change the basic setting of 20 mA. The procedure is identical to the Offset-compensation. The transmitter generates 20 mA, if the Enter key is pressed when "OFFSET" is displayed. If the displayed value is incorrect, it can be corrected by entering the measured value.



## 4.4.3 Display of non-compensated Conductivity

To display the non-compensated conductivity is displayed, press the ENTER key to change the display.



## 4.4.4 Conductivity-Simulation

The conductivity can be simulated within this menu allowing the user to test the system in "dry condition". The simulated value influences the current output and the relays. The units and decimal points selected in the submenu "UNIT" are activated.



The simulation will remain active until the user enters another sub-menu.

## 5.1 Storing and Cleaning of the Electrode

Graphite and stainless steel conductivity measuring cells do not require any special maintenance. However, the electrodes must always be kept in clean condition. In case of contamination, they can easily be cleaned with slightly acidic solutions or solvents. Before use or during extended measuring interruptions (several weeks) the graphite measuring cells should always be kept wet in order to shorten the rise time and avoid fractures on the electrode surface. While cleaning the HOLD function can be activated, allowing the process to continue.

Torque for electrode installation 2N.m

## 5.2 Trouble-shooting guide

"*ERROR*" on the display (except in Teach-in function) indicates that the calibration data has been lost. By pressing the ENTER key, the user can access the main menu although the device works with the factory settings (see § 5.3). The transmitter will need recalibrating. If this message appears persistently, please return the device to the factory.

## 5.3 Factory-settings of 8225 at Delivery

Language:	English	Relay:	1-:	00.00
Unit of conductivity:	µS/cm		1+:	00.00
Unit of temperature:	°C		2-:	00.00
Decimal points:	2		2+:	00.00
Cell constant:	01.0000		DEL1:	000
Temperature compensation			DEL2:	000
coefficient:	00.00 %/ °C	Filter:		Filter 2
Current:	4 mA: 00.00			
	20 mA: 00.00			

## User settings of 8225 Transmitter N°:

Language:		Relay:	1-:	
Unit of conductivity:			1+:	
Unit of temperature:			Inverted:	
Decimal points:			2-:	
Cell constant:			2+:	
T°C coefficient:			Inverted:	
Current:	4 mA:		DEL1:	
	20 mA:		DEL2:	
		Filter:		

## 5.4 Spare Parts List

Position	Specification	Order-No.
1	Complete sensor housing with plug connector, ring and union nut	425524
2	Sensor housing for one PG with ring and union nut	425525
3	Sensor housing for 2 PG with ring and union nut	425526
4	Cable plug Worldwide version	424205
5	Cable plug North America version	424206
6	PG 13.5 Worldwide version with gasket	444778
7	PG 13.5 North America version (G 1/2 ") with gasket	444779
8	Cover with screws, sheeting and printed circuit board Transmitter without relays and Software version F1	425550
9	Cover with screws, sheeting and printed circuit board Transmitter with relays and Software version F1	425551
10	Power supply board 230/115 VAC	419581
11	Ring	619205
12	Union nut	619204
13	Sensor K=0,01	633367
14	Sensor K=0,1	631647
15	Sensor K=1,0	418217
16	Sensor K=10	634759
17	FPM seal kit	425554
	EPDM seal kit	425555



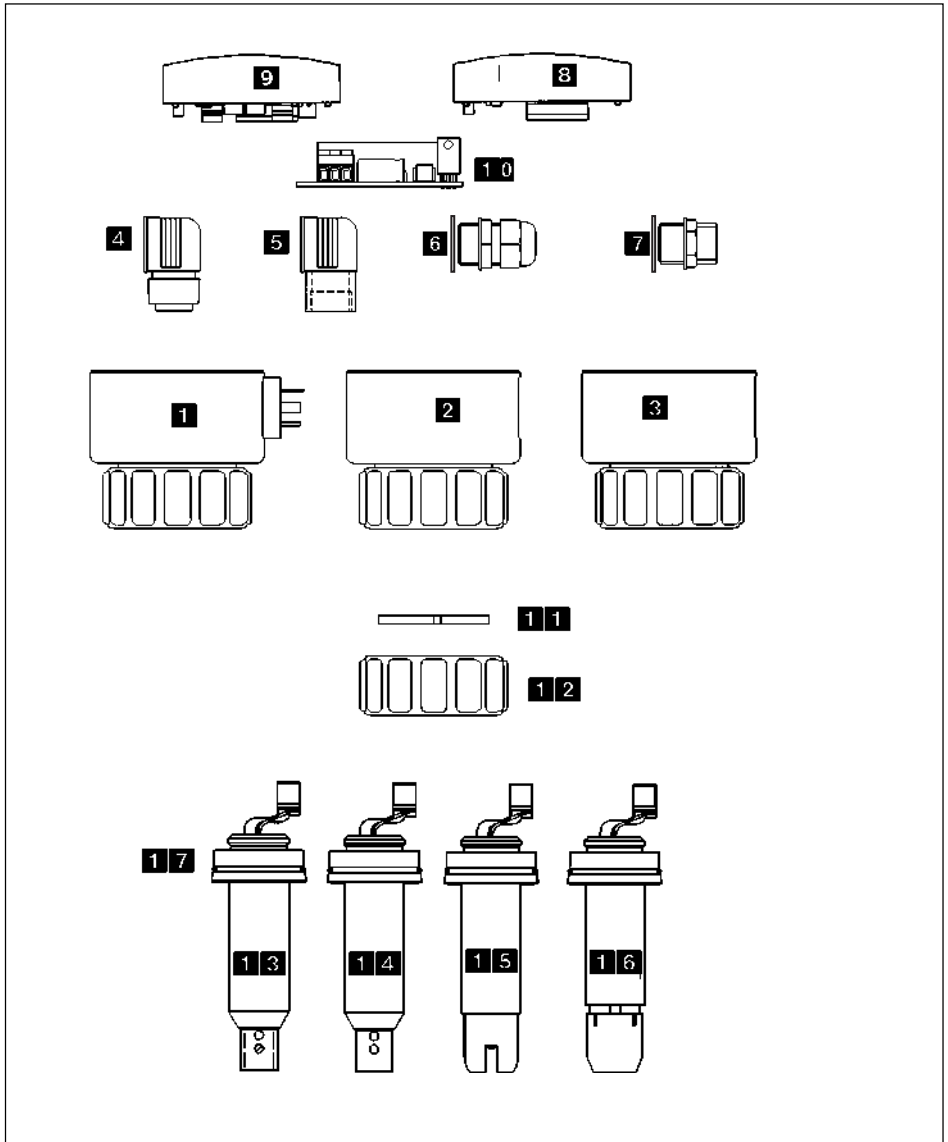
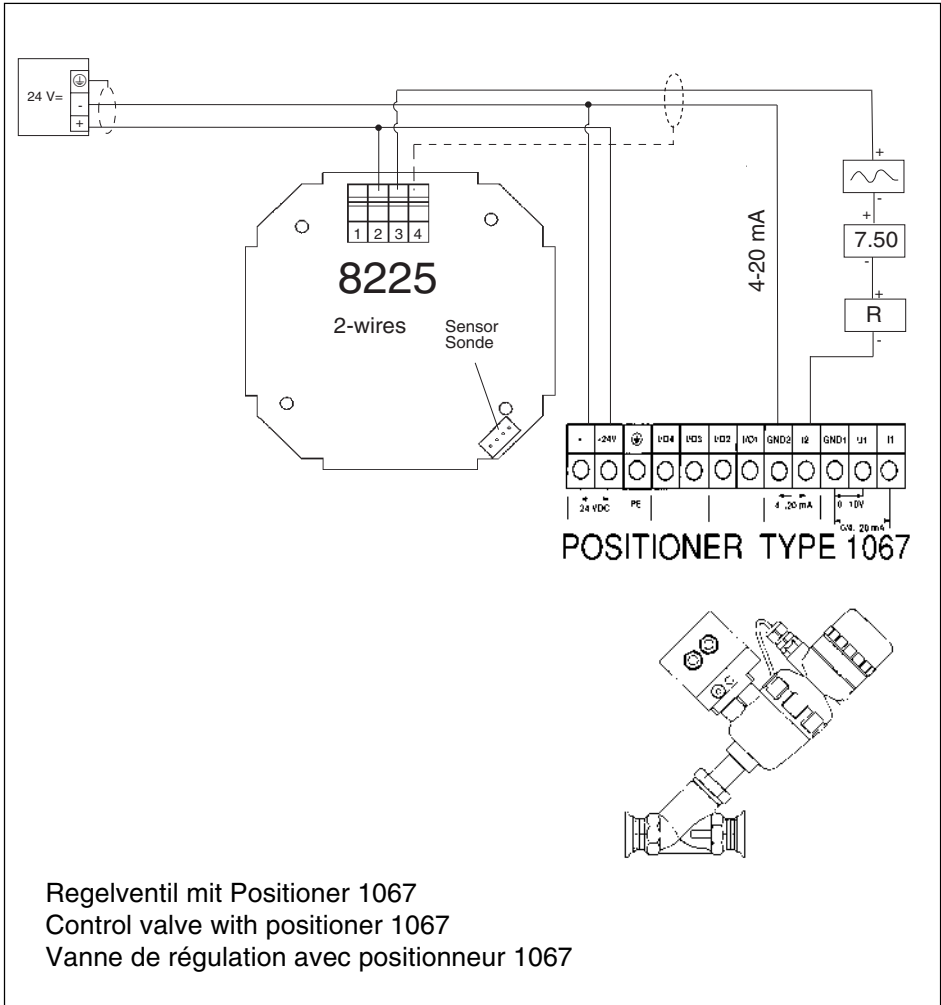


Fig. 5.1 Spare Parts Explosion Drawing



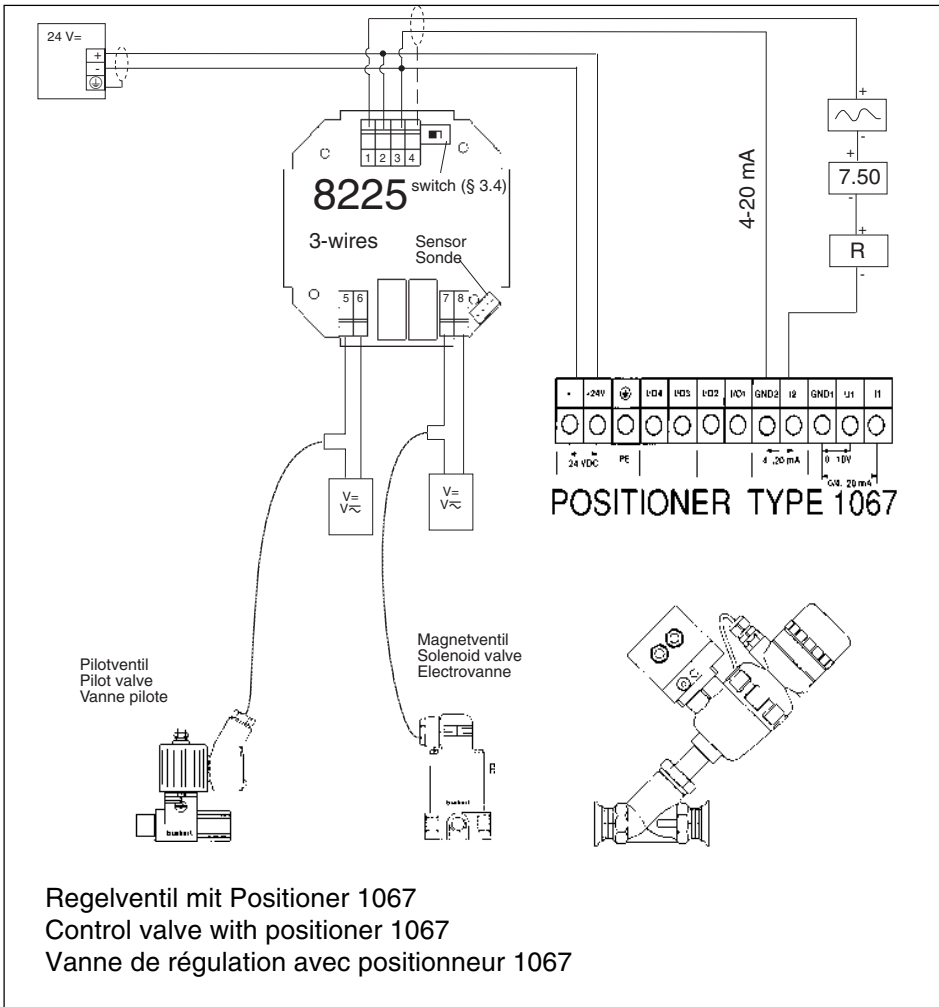


**Beispiel - Example - Exemple: *Easy* LINK - 1067**

Leitfähigkeit Transmitter 8225 Kompakt 12/30VDC ohne Relais

Connection Conductivity transmitter 8225 compact 12/30 VDC without relay

Connexion transmetteur de conductivité 8225 compact 12-30 VCC sans relais

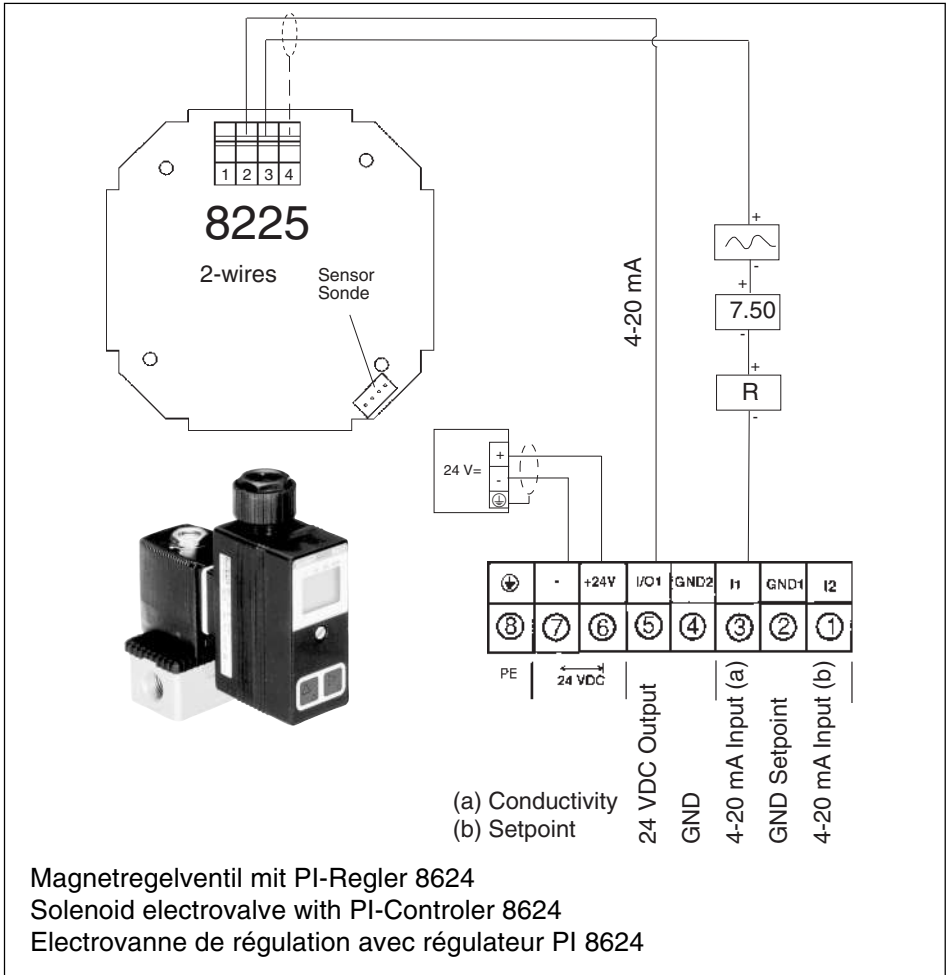


**Beispiel - Example - Exemple: *Easy* LINK - 1067**

Leitfähigkeit Transmitter 8225 Kompakt 12/30VDC mit Relais

Connection Conductivity transmitter 8225 compact 12/30 VDC with relays

Connexion transmetteur de conductivité 8225 compact 12-30 VCC avec relais

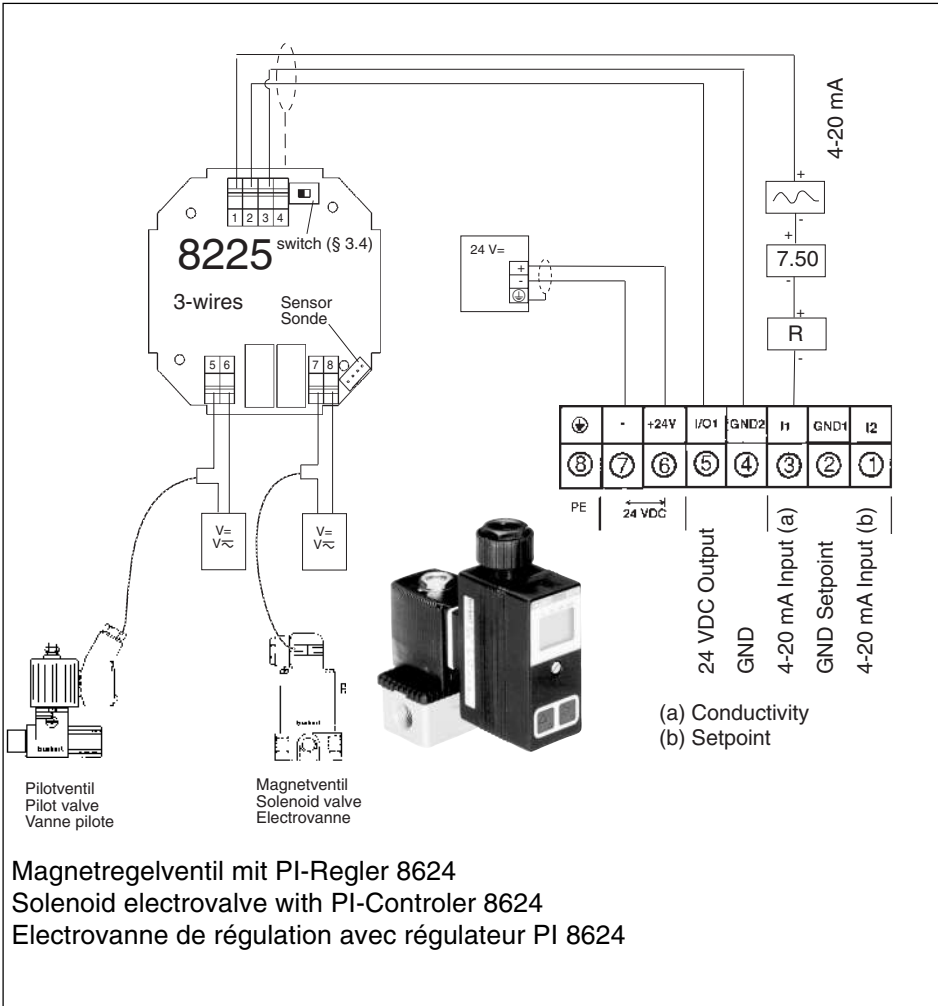


**Beispiel - Example - Exemple: *Easy* LINK - 8624**

Leitfähigkeit Transmitter 8225 Kompakt 12/30VDC ohne Relais

Connection Conductivity transmitter 8225 compact 12/30 VDC without relay

Connexion transmetteur de conductivité 8225 compact 12-30 VCC sans relais



**Beispiel - Example - Exemple: *Easy* LINK - 8624**

Leitfähigkeit Transmitter 8225 Kompakt 12/30VDC mit Relais

Connection Conductivity transmitter 8225 compact 12/30 VDC with relays

Connexion transmetteur de conductivité 8225 compact 12-30 VCC avec relais

# SERVICE

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## Australia

Bürkert Fluid Control Systems  
Unit 1 No.2, Welder Road  
Seven Hills NSW 2147  
Tel +61 (0) 2 967 461 66  
Fax +61 (0) 2 967 461 67

## Austria

Bürkert Contromatic GmbH  
Central and Eastern Europe  
Diefenbachgasse 1-3  
A-1150 Wien  
Tel +43 (0) 1 894 13 33  
Fax +43 (0) 1 894 13 00

## Belgium

Bürkert Contromatic N.V./S.A  
Middelmolenlaan 100  
B-2100 Deurne  
Tel +32 (0) 3 325 89 00,  
Fax +32 (0) 3 325 61 61

## Canada

Bürkert Contromatic Inc.  
760 Pacific Road, Unit 3  
Oakville, Ontario, L6L 6M5  
Tel +1 905 847 55 66,  
Fax +1 905 847 90 06

## China

Bürkert Contromatic  
(Suzhou) Co. Ltd.  
9-2, Zhu Yuan Road  
New District, Suzhou  
Jiangsu, 215011 P.R.C  
Tel +86 512 808 19 16  
Fax +86 512 824 51 06

Bürkert Contromatic  
China/HK Ltd.  
Rm. 1313  
No. 103, Cao Bao Road  
200233 Shanghai P.R.C  
Tel +86 21 6427 1946  
Fax +86 21 6427 1945

Bürkert Contromatic  
China/HK Ltd.  
Beijing Office  
Rm. 808, Jing Tai Building  
No. 24, Jianguomen  
Waidajie  
100022 Beijing P.R.C  
Tel +86 10 65 15 65 08  
Fax +86 10 65 15 65 07

Bürkert Contromatic  
China/HK Ltd.  
Cheng Du Representative Office  
Rm. 502, Fuji Building  
No. 26 Shududadao  
Dongfeng Street  
Chengdu P.R.C  
Tel +86 28 443 1895  
Fax +86 28 445 1341

Bürkert Contromatic  
China/HK Ltd.  
Guangzhou Representative Office  
Rm. 1305, Tower 2  
Dong-Jun Plaza  
Dongfeng, Road East  
Guangzhou P.R.C  
Tel +86 28 443 1895  
Fax +86 28 445 1341

## Denmark

Bürkert-Contromatic A/S  
Hørkær 24  
DK-2730 Herlev  
Tel +45 44 50 75 00  
Fax +45 44 50 75 75

## Finland

Bürkert Oy  
Atomitie 5  
SF-00370 Helsinki  
Tel +358 (0) 9 549 706 00  
Fax +358 (0) 9 503 12 75

## France

Bürkert Contromatic  
B.P. 21  
Triembach au Val  
F-67220 Villé  
Tel +33 (0) 388 58 91 11  
Fax +33 (0) 388 57 09 61

## Germany / Deutschland

Bürkert Steuer- und Regeltechnik  
Christian-Bürkert-Straße 13-17  
D-74653 Ingelfingen  
Tel +49 7940 10-0  
Fax +49 7940 10 361

Niederlassung NRW  
Holzener Straße 70  
D-58708 Menden  
Tel +49 2373 96 81-0  
Fax +49 2373 96 81-52

Niederlassung Frankfurt  
Am Flugplatz 27  
D-63329 Egelsbach  
Tel +49 6103 94 14-0  
Fax +49 6103 94 14-66

Niederlassung München  
Paul-Gerhardt-Allee 24  
D-81245 München  
Tel +49 89 82 92 28-0  
Fax +49 89 82 92 28-50

Niederlassung Berlin  
Bruno-Taut-Straße 4  
D-12524 Berlin  
Tel +49 30 67 97 17-0  
Fax +49 30 67 97 17-66

Niederlassung Dresden  
Christian Bürkert Straße 2  
D-01900 Großbröhrsdorf  
Tel +49 35952 3 63 00  
Fax +49 35952 3 65 51

Niederlassung Hannover  
Rendsburger Straße 12  
D-30569 Hannover  
Tel +49 511 9 02 76-0  
Fax +49 511 9 02 76-66

Niederlassung Stuttgart  
Karl-Benz-Straße 19  
D-70794 Filderstadt (Bernh.)  
Tel +49 711 4 51 10-0  
Fax +49 711 4 51 10-66

## Great Britain

Bürkert Contromatic Ltd.  
Brimscombe Port Business Park  
Brimscombe, Stroud, Glos.  
GL5 2QF  
Tel. +44 (0) 1453 73 13 53  
Fax +44 (0) 1453 73 13 43

## Hong Kong

Bürkert Contromatic  
(China/HK) Ltd.  
Unit 708, Prosperity Centre  
77-81 Container Port Road  
Kwai Chung N.T.

Hong Kong  
Tel +852 248 012 02  
Fax +852 241 819 45

## Italy

Bürkert Contromatic Italiana S.p.A.  
Centro Direzionale 'Colombiolo'  
Via Roma 74  
I-20060 Cassina De' Pecchi (MI)  
Tel +39 02 959 071  
Fax +39 02 959 07 251

## Japan

Bürkert Contromatic Ltd.  
3-39-8 Shoan  
Suginami-ku  
Tokyo 167-0054  
Tel +81 (0) 3 3247 3411  
Fax +81 (0) 3 3247 3472

## Korea

Bürkert Contromatic Korea Co. Ltd.  
4-10 Yangjae-Dong  
Seocho-Ku  
Seoul 137-130  
Tel. +82 (0) 2 346 255 92  
Fax +82 (0) 2 346 255 94

# SERVICE

## Malaysia

Bürkert Malaysia Sdn. Bhd.  
N° 22 Lorong Helang 2  
11700, Sungai Dua  
Penang  
Tel. +60 (0) 4 657 64 49  
Fax +60 (0) 4 657 21 06

## Netherlands

Bürkert Contromatic BV  
Computerweg 9  
NL-3606 AV Maarssen  
Tel. +31 (0) 346 58 10 10  
Fax +31 (0) 346 56 37 17

## New Zealand

Burkert Contromatic Ltd.  
Unit 5, 23 Hannigan drive  
Mt Wellington  
Auckland  
Tel +64 (0) 9 570 25 39  
Fax +64 (0) 9 570 25 73

## Norway

Bürkert Contromatic A/S  
Hvamstubben 17  
Box 243  
N-2026 Skjetten  
Tel +47 63 84 44 10  
Fax +47 63 84 44 55

## Philippines

Bürkert Contromatic Inc.  
8467, West Service Rd Km 14  
South Superhighway, Sunvalley  
Paranaque City, Metro Manila  
Tel +63 (0) 2 776 43 84  
Fax +63 (0) 2 776 43 82

## Poland

Bürkert Contromatic Sp.z.o.o.  
Bernardynska street  
PL-02-904  
Warszawa  
Tel +48 (0) 22 840 60 10  
Fax +48 (0) 22 840 60 11

## Singapore

Burkert Contromatic Singapore Pte.Ltd.  
No.11 Playfair Road  
Singapore 367986  
Tel +65 383 26 12  
Fax +65 383 26 11

## Spain

Bürkert Contromatic Española S.A.  
Avda. Barcelona, 40  
E-08970 Sant Joan Despi,  
Barcelona  
Tel +34 93 477 79 80  
Fax +34 93 477 79 81

## South Africa

Burkert Contromatic Pty.Ltd.  
P.O.Box 26260, East Rand 1462  
Republic of South Africa  
Tel +27 (0) 11 397 2900  
Fax +27 (0) 11 397 4428

## Sweden

Bürkert Contromatic AB  
Skeppsbron 13 B  
S-21120 Malmö  
Tel +46 (0) 40 664 51 00  
Fax +46 (0) 40 664 51 01

## Switzerland

Bürkert Contromatic AB  
Havsörnstorget 21  
Box 1002  
S-12349 Farsta  
Tel +46 (0) 40 664 51 00  
Fax +46 (0) 8 724 60 22

## Switzerland

Bürkert-Contromatic AG Schweiz  
Bösch 71  
CH-6331 Hünenberg / ZG  
Tel +41 (0) 41 785 66 66  
Fax +41 (0) 41 785 66 33

## Taiwan

Bürkert Contromatic Taiwan Ltd.  
3F No. 475 Kuang-Fu South Road  
R.O.C - Taipei City  
Tel +886 (0) 2 275 831 99  
Fax +886 (0) 2 275 824 99

## Turkey

Bürkert Contromatik  
Akiskan Kontrol Sistemleri Ticaret  
A.S  
1203/8 Sok. No. 2-E  
Yenisehir  
Izmir  
Tel +90 (0) 232 459 53 95  
Fax +90 (0) 232 459 76 94

## Tzechia

Bürkert Contromatic Spol.s.r.o  
Prosenice c. 180  
CZ - 751 21 Prosenice  
Tel +42 0641 226 180  
Fax +42 0641 226 181  
**USA/West/Main office**  
Burkert Contromatic Corp.  
2602 McGraw Avenue  
Irvine, CA 92614, USA  
Tel. +1 949 223 31 00  
Fax +1 949 223 31 98

## USA/South

Burkert Contromatic Corp.  
6724 Alexander Road  
Charlotte, North Carolina, 28270  
Tel. +1 704 367 11 73  
Fax +1 704 367 11 74

## USA/North-East

Burkert Contromatic Corp.  
7173 Thermal Road  
Charlotte, North Carolina, 28211  
Tel. +1 704 386 21 41  
Fax +1 704 366 24 28

## USA/West

Burkert Contromatic Corp.  
4449 East Bradford  
Orange, CA 92867  
Tel. +1 714 637 26 39  
Fax +1 714 637 21 62

## USA/Mid-West

Burkert Contromatic Corp.  
726 Evergreen Street North  
Royalton, MN 56373  
Tel. +1 320 584 58 47  
Fax +1 320 584 58 71