## Contents

1. **General** ................................................................................................................................................... 3
2. **Safety** ..................................................................................................................................................... 3
3. **Transport** ................................................................................................................................................ 3
4. **Design of the control panel.** .................................................................................................................... 3
   4.1 Description of the indicating and operating elements of the control panel .............................................. 8
   4.1.1 PUMP ON indicator ................................................................................................................................. 8
   4.1.2 HAND/OFF/AUTO button .......................................................................................................................... 8
   4.1.3 Pump alarm indicator ............................................................................................................................... 8
   4.1.4 MOTOR OFF (Pump Automatic Function Disabled) ............................................................................... 8
   4.1.5 Inlet indicators ......................................................................................................................................... 8
   4.1.6 High-level alarm indicator ...................................................................................................................... 8
   4.1.7 Phase fault indicator ............................................................................................................................... 8
   4.1.8 Alarm reset button ................................................................................................................................... 8
   4.1.9 Common alarm indicator ........................................................................................................................ 8
   4.1.10 Program selection ................................................................................................................................. 8
   4.1.11 Acoustic alarm ....................................................................................................................................... 8
   4.1.12 Backup battery ...................................................................................................................................... 8
5. **Installing the control panel** ...................................................................................................................... 9
   5.1 Electrical connection ............................................................................................................................... 9
   5.2 Mounting of the control panel .................................................................................................................. 9
6. **Commissioning** ....................................................................................................................................... 9
7. **Maintenance** ............................................................................................................................................. 9
8. **Appendix** .............................................................................................................................................. 10
    8.1 Connection diagrams ............................................................................................................................ 10

Sulzer reserves the right to alter specifications due to technical developments.
1 General
Controllers for use with pneumatic level sensing.

1.1 Control unit

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<th>Part no.</th>
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2 Safety
The general and specific health and safety hints are described in detail in the separate booklet “Safety Instructions for Sulzer Products Type ABS”. If anything is not clear or you have any questions as to safety make certain to contact the manufacturer Sulzer.

3 Transport
During transport the unit should not be dropped or thrown.

4 Design of the control panel.
The pump controllers are supplied in plastic enclosure of protection type IP54.

Figure 1: Switch box wiring Sanimat 1002
1. PUMP ON indicator (green)  
2. HAND (AUTO) button  
3. Pump alarm indicator (red)  
4. 180 mm inlet indicator  
5. 220 mm inlet indicator  
6. High-level alarm indicator  
7. Alarm reset button  
8. Common alarm indicator  
9. Acoustic alarm  
10. Backup battery compartment

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*Figure 2: Operating elements CP 151*

*Figure 3: Fault key CP 151*
1. PUMP ON indicator (green)
2. HAND (AUTO) button
3. Pump alarm indicator (red)
4. 180 mm inlet indicator
5. 220 mm inlet indicator
6. High-level alarm indicator
7. Phase fault indicator
8. Alarm reset button
9. Common alarm indicator
11. Acoustic alarm
12. Backup battery compartment

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### Fault Key

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*Figure 4: Operating elements CP 153*

*Figure 5: Fault key CP 153*
1. PUMP ON indicator (green)
2. HAND (AUTO) button
3. Pump alarm indicator (red)
4. MOTOR OFF
5. 180 mm inlet indicator
6. 220 mm inlet indicator
7. 340 mm inlet indicator
8. High-level alarm indicator
9. Phase fault indicator
10. Alarm reset button
11. Common alarm indicator
13. Acoustic alarm
14. Backup battery compartment

### Fault Key

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*Figure 6: Operating elements CP 253*

*Figure 7: Fault key CP 253*
1. PUMP ON indicator (green)
2. HAND (AUTO) button
3. Pump alarm indicator (red)
4. MOTOR OFF
5. 250 mm inlet indicator
6. 470 mm inlet indicator
7. High-level alarm indicator
8. Phase fault indicator
9. Alarm reset button
10. Common alarm indicator
12. Acoustic alarm
13. Backup battery compartment

### Fault Key

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*Figure 8: Operating elements CP 254*

*Figure 9: Fault key CP 254*
4.1 Description of the indicating and operating elements of the control panel.

4.1.1 PUMP ON indicator
The PUMP ON indicator (green) will light when the pump is running.

4.1.2 HAND/OFF/AUTO button
When the hand/auto button is pressed the pump will run. The pump on indicator will light. When the button is released the pump is in automatic mode. In automatic mode the pump is controlled by the pneumatic level sensor. In addition the pump controller is programmed to activate the pump every 24 hours regardless of water level.

4.1.3 Pump alarm indicator
The pump alarm indicator (red) will light when there is a pump fault.

4.1.4 MOTOR OFF (Pump Automatic Function Disabled)
This indicator illuminates if the pump's automatic function is disabled. The automatic function is disabled by pressing the reset button and either pump 1 or pump 2 button together. To re-enable the automatic function repeat the procedure.

4.1.5 Inlet indicators
If the 180 mm tank inlet port is used, press and hold the reset button for 5 seconds until the 180 mm light activates (180 mm is set at the manufacturer). If the 220 mm tank inlet port is used, press and hold the reset button for 5 seconds until the 220 mm light activates. If the 340 mm tank inlet port is used, press and hold the reset button for 5 seconds repeatedly until the 340 mm inlet light activates. If the 250 mm tank inlet port is used, press and hold the reset button for 5 seconds until the 250 mm light activates (250 mm is set at the manufacturer). If the 470 mm tank inlet port is used press and hold the reset button for 5 seconds until the 470 mm light activates.

4.1.6 High-level alarm indicator
The high level alarm indicator will light when the water level in the lifting station is too high.

4.1.7 Phase fault indicator
The phase fault indicator will light when there is a fault with the three phase power supply (not for CP151).

4.1.8 Alarm reset button
The alarm reset button is used to reset the control panel when a fault is indicated. If the fault remains the common alarm indicator will stop flashing and will permanently illuminate. If this happens, contact your local Sulzer service center.

4.1.9 Common alarm indicator
The common alarm indicator will flash (Red) when a new alarm occurs.

4.1.10 Program selection
Press and to change program.

4.1.11 Acoustic alarm
The acoustic alarm will sound when a fault occurs.

4.1.12 Backup battery
In the case of loss of power to the control panel the 9V PP3 NiMH backup battery will activate the alarm (not included).

Risk of explosion if battery is incorrectly replaced.
5 Installing the control panel

5.1 Electrical connection.

Isolate at mains before opening the control panel.

⚠️ Before starting up the unit, a qualified person should check that all necessary electrical protective devices are present. Earthing, neutral line, earth leakage circuit breaker, etc. must comply with the regulations of your local electricity board and a qualified person should check that they are functioning correctly.

ATTENTION The power supply system on site must comply with VDE or other local regulations with regard to cross-sectional area and maximum voltage drop. The voltage stated on the nameplate of the pump must correspond to that of the mains

The power supply cable must be protected by an adequately dimensioned slow-blow fuse corresponding to the rated power of the pump

5.2 Mounting of the control panel

ATTENTION The control panel should be fitted above possible flood level in a well ventilated room and in an easily accessible position. Protection Class of the control unit is IP 54.

The control panel should be secured at all fixing points. The fixing holes are accessible after unscrewing the lower housing cover.

ATTENTION Do not drill through the housing of the control panel itself.

6 Commissioning

⚠️ The safety hints in the previous sections must be observed!

Before commissioning the unit should be checked and a functional test carried out. Particular attention should be paid to the following:

- Have the electrical connections been carried out in accordance with regulations?
- Is the direction of rotation correct - even if run via an emergency generator?
- Has the venting of the collection tank been installed in accordance with regulations?

ATTENTION After the control panel has been commissioned, the unit is run in AUTOMATIC mode.

7 Maintenance

⚠️ Before commencing any maintenance work the unit should be completely disconnected from the mains by a qualified person and care should be taken that it cannot be inadvertently switched back on.

⚠️ When carrying out any repair or maintenance work, the safety regulations covering work in enclosed areas of sewage installations as well as good general technical practises should be followed.

NOTE The maintenance hints given here are not designed for “do-it-yourself” repairs as special technical knowledge is required.

NOTE A maintenance contract with our Service Department will guarantee you the best technical service under all circumstances.
8 Appendix

8.1 Connection diagrams

Figure 10: Pump connections CP 151

Figure 11: Pump connections CP 153 (230 V - three phase)

Figure 12: Pump connections CP 153 (400 V)

Figure 13: Pump connections CP 253 & CP 254