

Assembly Instructions M8155-EN

Spare part flow rate measuring board DFM-53 (O/ID T27868)

Purpose

Replacing flow rate measuring board DFM-53 (A 9)

Precondition



WARNING!

Danger for unauthorized persons!

Conversion work may only be carried out by specialist staff who have been trained accordingly.

Therefore:

- Keep unauthorized persons away from the work area.



NOTE!

Knowledge of the Instruction Manual is a precondition for carrying out conversion work on the unit.

Procedure



DANGER!

Danger to life caused by electric current!

Touching conductive parts causes a direct danger to life.

Therefore:

- For all work on the electrical system, for maintenance, cleaning or repair work, disconnect from the mains or disconnect all phases of the external power supply and secure them against being switched on again. Check unit is isolated from power supply.



WARNING!

Danger of crushing due to rolling away or tipping

With an uneven floor or when the castors are not locked, there is a danger that the unit tips over or rolls away causing crushing.

Therefore:

- Only install the unit on an even floor.
- Ensure that the castors are locked.

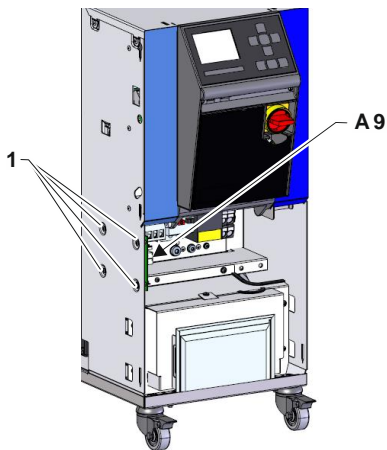


Fig. 1.: Electric part HB200/230Z2B

1. Proceed as follows in order to cool down the unit.
 - Display menu page **Functions**.
 - Select the function **Cooling** and activate with the **OK** key.

→ The activated function is indicated with the **✓** symbol.
2. Switch off master switch and disconnect from mains supply.
3. Remove the cover from the unit (see Instruction Manual Chapter Maintenance).
4. Proceed as follows in order to replace the DFM-53 (A 9):
 - Remove all the plug connections of DFM-53.
 - Remove 4 x screws (Label 1 → Fig. 1) on the electric part
 - Remove the printed circuit board DFM-53 (A 9) from the electric part.
 - Take screws with spacer bolts on new printed circuit board DFM-53.
 - Attach new DFM-53 (A 9) in the electric part and fasten it with 4x screws (Label 1 → Fig. 1) .
 - Connect all the plug connectors to the DFM-53 (A 9). Unmarked ribbon cables are to be connected as follows:

Thermo-5, single unit

X 533 (DFM-53) → X106 (USR-51)

X 534 (DFM-53) → X 21 (GIF-51)

Thermo-5, Module unit

X 533 (DFM-53) → X 80 (plug HB IN)

X 534 (DFM-53) → X 21 (GIF-51)

5. Close the unit correctly again.
6. Reconnect mains plug and switch on main switch.



NOTE!

The unit will maybe perform an automatic software update.

→ The initialisation window (Fig. 2) is displayed at the individual device or operation module as soon as a new DFM-53 was detected.

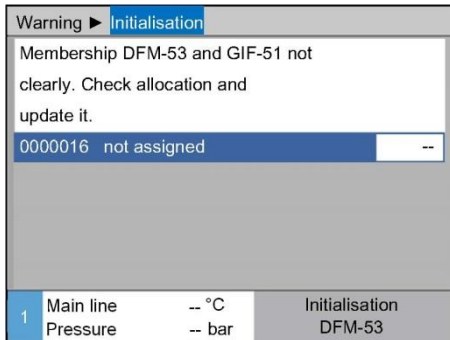


Fig. 2: Assignment DFM-53

7. Proceed as follows to set the affiliation of a flow rate meter board DFM-53 to a device:

- Assign flow rate meter board ID (left column) to a unit by entering the device address (right column).
- Acknowledge assignment with the **OK** key.
- Exit initialisation window using the **C** key.



NOTICE!

Failure to assign the DFM-53 will render the unit unusable.

The affiliation can be subsequently set via *Service \ Configuration \ Assignment DFM-53*. The *Service \ Konfiguration* menu is accessed via the 1?? code.

8. Main switch off and switch on again after 30 s

9. Switch the unit on with the **⏻** key.

10. Flow rate calibration

- Operate unit in regular mode at 40 °C for at least 10 minutes.
- Set **Pressure relief with unit OFF** parameter in *Setting \ Miscellaneous* to "OFF".
- Switch off unit using **⏻** button and wait at least 10 seconds.
- Set **Flow rate calibration DFM-53** parameter in *Service / Calibrating / Flow rate* internally to "ON".

→ The flow rate is calibrated automatically.

- Set **Pressure relief for unit OFF** parameter in *Setting \ Miscellaneous* to "ON".

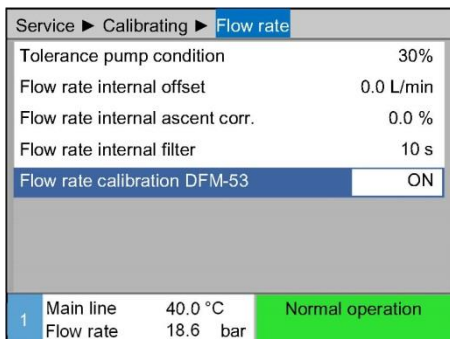


Fig. 3: Calibrating the flow rate DFM-53

11. Check flow rate calibration:

- After calibration, run the unit for at least 5 minutes at 40 °C in normal mode.
- Close shut-off valve between feed and return lines.
- Flow rate switches to 0 l/min and alarm indication ‚Flow rate zero’ is given.




NOTE!

The alarm message ‚Flow rate zero’ is delayed in time.

- If this is not the case, repeat the flow rate calibration.

12. Check unit functions.

- 13. Switch the unit off by press the  key.**

14. Main switch off.

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Parts list

Pos	Description	O/ID	Pcs
01	Flow rate measuring board DFM-53	T27737	1
02	Assembly instruction German	M8155-DE	1
03	Assembly instruction English	M8155-EN	1
04	Assembly instruction French	M8155-FR	1