
	Mounting instructions Gradient control	
	Re: SA2000, SM2Plus, Compact and Vario	
	Date June 22, 2007	
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Gradient control

1 General information



Note: The following instructions are also valid for the automatic feeders Vario only if the gradient control is not part of the IFS-station.

2 Use

If the automatic feeder is located at a higher level than the feeding station (see the illustration on the next page), a gradient control is used, thus preventing the feed from leaking out of the teat.

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Gradient control

M01.2e

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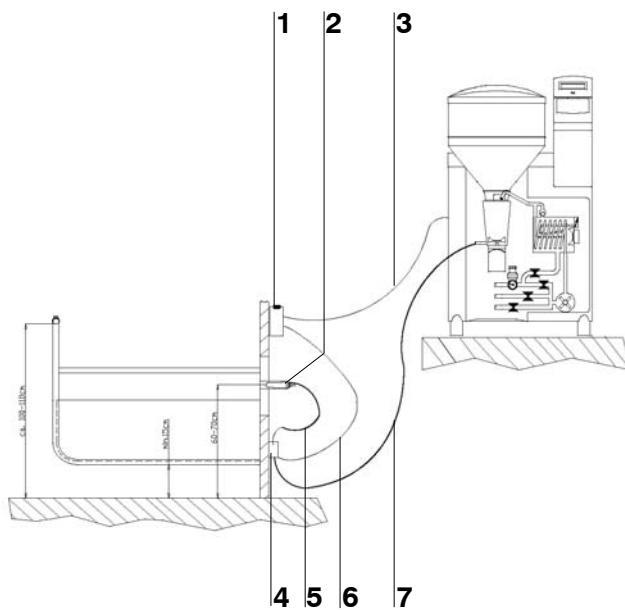
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3 Overview of the gradient control



1 Remote control with push-buttons (Esc, entitled animals, teat symbol = manual feed supply. LEDs: entitled animal, last portion, sensor)	5 Hose connection: teat > pressure sensor
2 Teat	6 Cable connection: remote control > pressure sensor
3 Cable connection: remote control > automatic feeder control	7 Hose connection: pressure sensor > hose nozzle box valve
4 Pressure sensor	

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4 Functioning

If an entitled animal enters the feeding station, the feed is mixed in the mixer jar. From there, the "milk" is delivered via a hose to the box valve and then to the suction sensor. As soon as an animal starts sucking at the teat, the suction sensor releases the milk. When an animal stops sucking, the box valve closes.

To facilitate sucking to the animals and reduce wear of the solenoid valve, the turn-off delay can be set via the operation menu.

The gradient control is controlled via the motherboard of the automatic feeder, which has been equipped with „fast outputs“ (not valid for Compact and Vario) for that purpose (electrical relay for box valves).

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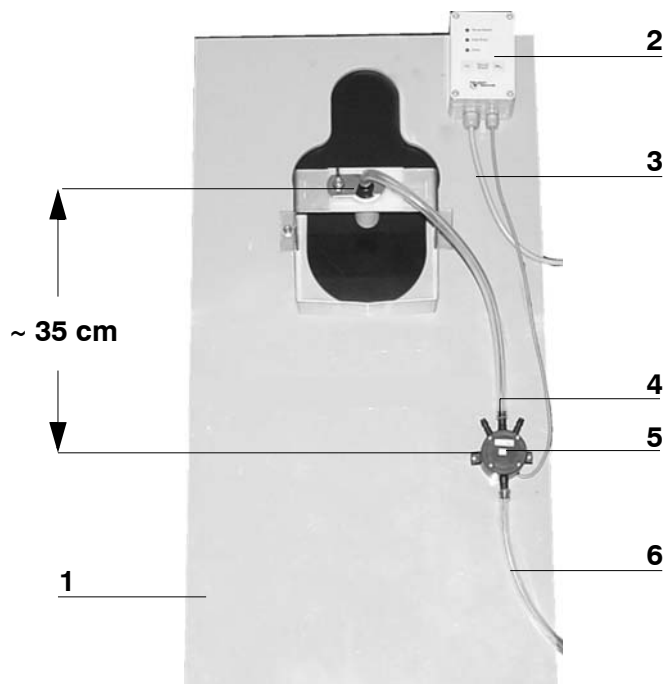
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5 Mounting

1. Mount the pressure sensor at least 35 cm at the bottom right or left of the teat. The rear of the front plate would be appropriate for this purpose.



1 Rear of the front plate	4 Hose nozzle at the pressure sensor which is connected to the hose nozzle at the teat via a hose.
2 Remote control with push-buttons	5 Pressure sensor
3 Cable connection: remote control > automatic feeder	6 Hose connection: pressure sensor > box valve

2. Slip a hose on the mid hose nozzle of the pressure sensor. Slip the other end of the hose on the hose nozzle of the teat.

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3. Slip a hose on the hose nozzle at the bottom of the pressure sensor. Slip the other end of the hose on the hose nozzle of the box valve.



Note: The right and left hose nozzles at the top of the pressure sensor remain closed.

4. Replace the serially built-in motherboard with the one contained in the scope of delivery (not valid for Compact and Vario).
 - 4.1 Remove all the plugs.
 - 4.2 Loosen the nut at the top edge of the mounting plate, remove the "old" board and insert the new one. Reinsert the plugs.
5. Clamp the connecting cable of the remote control to the board of the automatic feeder according to the wiring diagram.
6. For connection of the connecting cable (230 V) of the gradient control to the automatic feeder, refer to the wiring diagram.
7. Plug the female power connector of the automatic feeder on the male power connector of the gradient control.
8. Plug the female power connector of the gradient control on the male power connector of the box valve.

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6 Wiring diagrams

- SA2000: Double priority / Double box remote control with sensors: pl10185_e
- SA2000: Double priority / Box valve 1 and 2 / Servo pumps: plan405a_e
- SA2000: Quadruple priority / Double box remote control with sensors: pl10186_e
- SA2000: Quadruple priority / Box valve 1 to 4 / servo pumps: plan412a_e
- SM2Plus: Double box remote control with sensors for servo and gradient control: pl10122_e
- SM2Plus: Double valve unit: pl10187_e
- Compact and Vario: pl20075_e