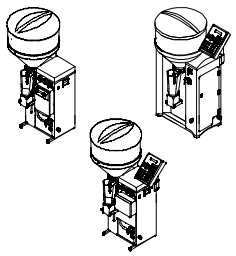
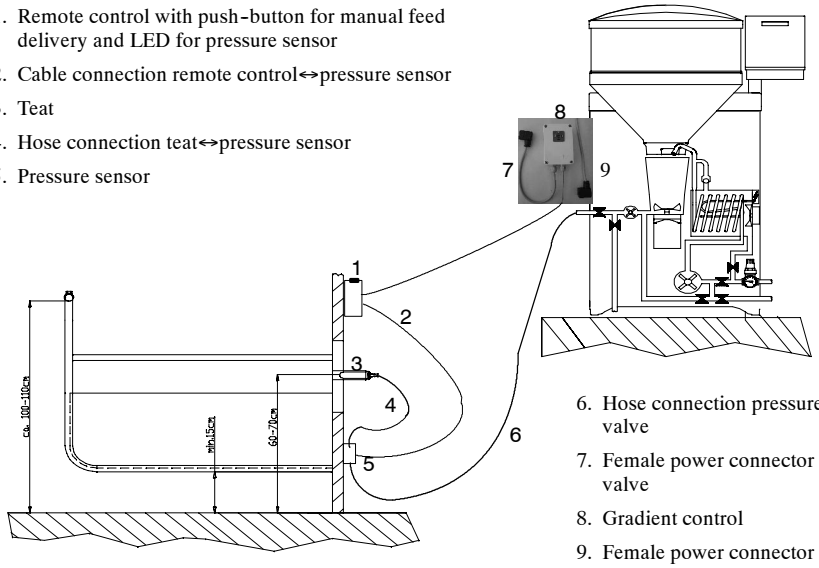


Gradient Control for one Feeding Station SA 2 (+) and SM 1

Usage

The gradient control should be used in case the automatic feeder is located at a higher level than the feeding station (see illustration). The gradient control prevents the feed from flowing out of the teat.

1. Remote control with push-button for manual feed delivery and LED for pressure sensor
2. Cable connection remote control↔pressure sensor
3. Teat
4. Hose connection teat↔pressure sensor
5. Pressure sensor



6. Hose connection pressure sensor↔connecting nozzle for valve
7. Female power connector of control for connection to box valve
8. Gradient control
9. Female power connector of automatic feeder for connection to control

Functioning

When a calf with feed entitlement enters the feeding station, the automatic feeder starts mixing the feed in the mixer jar. The „milk“ is then conveyed via a hose connection to the box valves and then to the suction sensor where it will stay until the calf starts sucking at the teat.

As soon as the feed has moved past the pressure sensor, the stop-/box valve will close. If the calf sucks once again at the teat, the pressure sensor will briefly open the valve.

In order to facilitate sucking to the calves and reduce wearing of the solenoid valve, the turn-off delay may be set via a potentiometer.

The gradient control is controlled via electronics that is located inside a small plastic box (see illustration). This box can be mounted on any part of the automatic feeder or e.g. on the stable wall (see illustration at page 3 and wiring diagram at page 4).

Mounting:

Hose Connection Teat↔Pressure Sensor↔Automatic Feeder

The suction sensor is connected to the teat via the upper mid hose nozzle. The suction sensor is linked with the connecting nozzle of the feeding box via the lower hose nozzle.

The right and left hose nozzles of the pressure sensor (top side) remain closed.

Connection Valves↔Gradient Control

The connecting cable (230V) for the gradient control has to be connected to the automatic feeder like the one that is normally used for the box valve (see connection diagram for the feeding box). The female power connector at the cablehead has to be linked with the male power connector of the gradient control.
The female power connector that is located at the valve cable of the device control has to be connected to the relevant box valve.

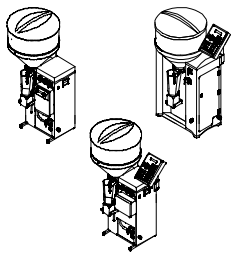
Control Gradient Control↔Automatic Feeder

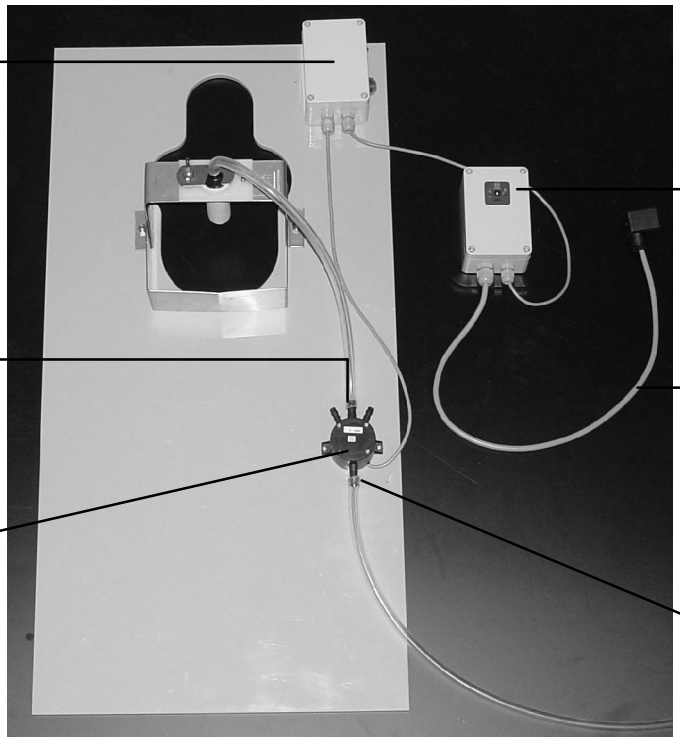
The female power connector on the control box has to be coupled with the relevant box valve on the automatic feeder. The valve plug of the automatic feeder has to be connected to the male power connector.

Positioning the Gradient Control and the Pressure Sensor

The gradient control box should be preferably mounted inside the left inner room of the automatic feeder next to the box- and draining valve (see illustration).

The pressure sensor must always be mounted at least 35 cm at the bottom right or left of the teat. The rear of the front plate could be a good solution.





Connection Diagrams:

Gradient control SM 1 / SA 2 / SA 2 Plus
see: “PL10104_e”