

NEW

charis
MEASUREMENT & CONTROL

Multi-Sense LEVEL CONTROLLER DATA SHEET

DESCRIPTION

The Multi-Sense is a new type of level sensor which uses an array of small sensors built into one body. Each sensor acts as a separate micro-sensor which is used to measure the material adjacent to it. This allows very high accuracy and enables a number of separate parameters to be measured at the same time. The micro-sensors also act together in an array to give more information on the material and to detect interfaces between phases in the material, e.g. liquid and foam or different liquids.

The system comprises a sensor and a controller. The sensor is entered into the material being measured e.g. a fermenter or mixing vessel and is connected to the controller by special cables. The system makes use of Charis proprietary IMA sensing technology to give fouling immunity and high precision.

Initially the system is available to measure and control liquid only. There will be an upgrade available to measure and control foam. The level control will accommodate the generation of foam to prevent overflows. Foam will be controlled by means of a separate output to a pump or process adjustment carried out.

APPLICATIONS

- Bioreactor Level Control
- Water Treatment Level Control
- Foam Level Sensing With Varying Liquid Level
- Accurate Liquid Level with Foam
- Automatic Batch Control
- Level Control For Changing Material Density



Registered Trade Mark

FUNCTIONAL LEVELS

- Liquid Level Control
- Foam & Liquid Level

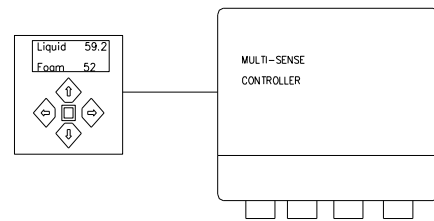
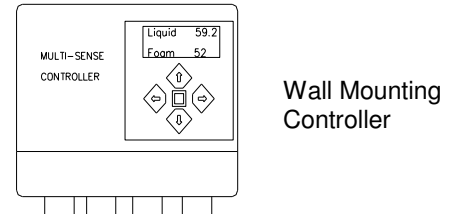


Multi-Sense LEVEL CONTROLLER

CONTINUED ...

FEATURES

- Solid State Design
- Hygienic Construction
- FDA approved materials
- High Resolution ~0.2 mm
- Immune to Fouling
- Liquid Level Control Function – pump interface
- Foam Height Control
- Volume Measurement



Option with Panel Mounting Interface

TECHNICAL DATA

| | |
|--------------------|--|
| Power Supply | 110/230 Volts a.c., |
| Outputs | 4-20 mA x 2 off. |
| Pump Control | 'Volt-free' c/o contacts rated at 240 Volts a.c., 2 amps. |
| Enclosure | Wall Mounting 260 width x 215 depth x 230 height mm with option for panel mounted display to fit 80 x 80mm cut out. |
| Sensor Diameter | 12mm ,or 22mm |
| Sensor Length | 250 mm - 3 M |
| Temperature | 200 C max. |
| Pressure | 25 bars max. |
| Sensor Fitting | PG13.5 standard , with adaptors to many process entry types. (photograph of sensor shows a tri-clamp adapter) |
| Height Resolution | 0.2 mm |
| Conductivity range | 2 – 100,000 microSiemens (reduced resolution at low conductivity) |