



# QUADBEAM TECHNOLOGIES

~ Specialists in process suspended solids & turbidity ~

## MSSD33I Transmitter

The MSSD33I transmitter is an advanced microprocessor based suspended solids controller capable of accurately determining the milk/water interface (also known as Transition or Phase Detection) in product recovery and CIP applications. The MSSD 33I transmitter was designed as a complimentary instrument to the MSSD33R for customers who require a 4 to 20 mA output instead of control relays for interface measurement.

## Simple Set-up & Calibration

Although microprocessor based, the MSSD33I is simple to set-up, calibrate and install. The only equipment needed is a screw driver and a general purpose digital multi-meter with a 0 to 10 volt DC range.

## Function

The MSSD33I has a fully isolated 4 to 20 mA output so it can be connected to any PLC input, isolated or non isolated. When used in an interface measurement application the PLC looks at the 4 to 20 mA signal and determines the appropriate switch point for switching product between waste, product recovery or forward to processing.

## Fault Detection

The MSSD33I has advanced diagnostics which includes both sensor and transmitter faults. When any fault is detected the current output will go to 22 mA and the alarm light on the front panel will flash. Most PLC's monitor any signals which are in excess of 20 mA. The PLC will recognise the 22 mA signal as a fault and bring up an alarm flag.



## Series 20 Hygienic Sensor

The most commonly used sensor with the MSSD33I Transmitter is a S20 Hygienic sensor. This sensor will cover most of the applications in the dairy industry. It comes with a food industry standard 3" Triclover process connection.

Hygienic style sensors are designed for installation directly into food product lines where CIP cleaning is used.

The one piece polypropylene construction of the S20 has a surface finish of better than  $Ra = 0.9\mu m$  to eliminate bacteria traps.



## SPECIFICATIONS\*

### Measurement Input:

For use with Quadbeam™ "S"  
Series Suspended Solids Sensors.

### Measurement Units:

Probe Signal Units.

### Calibration:

This unit is pre-calibrated from 0 to  
10,000 probe signal units.

### Accuracy:

+/- 1%.

### Repeatability:

+/-0.1%.

### Ambient Operating Range:

-20°C to +60°C

## SENSOR

### Operating Temperature Range:

0 to 85°C, when on CIP we  
recommend the sensors is switched  
off

### Pressure:

10 BarG

## MODEL NO. SELECTION GUIDE

### Basic Model No:

**MSSD33** - Surface mounted enclosure to **IP66**.

### Output:

**I** - Single 4 to 20 mA DC driving into 500 Ω load

### Supply Voltage:

**LV** - Nominal 24 Volt DC only.

### Mounting Bracket:

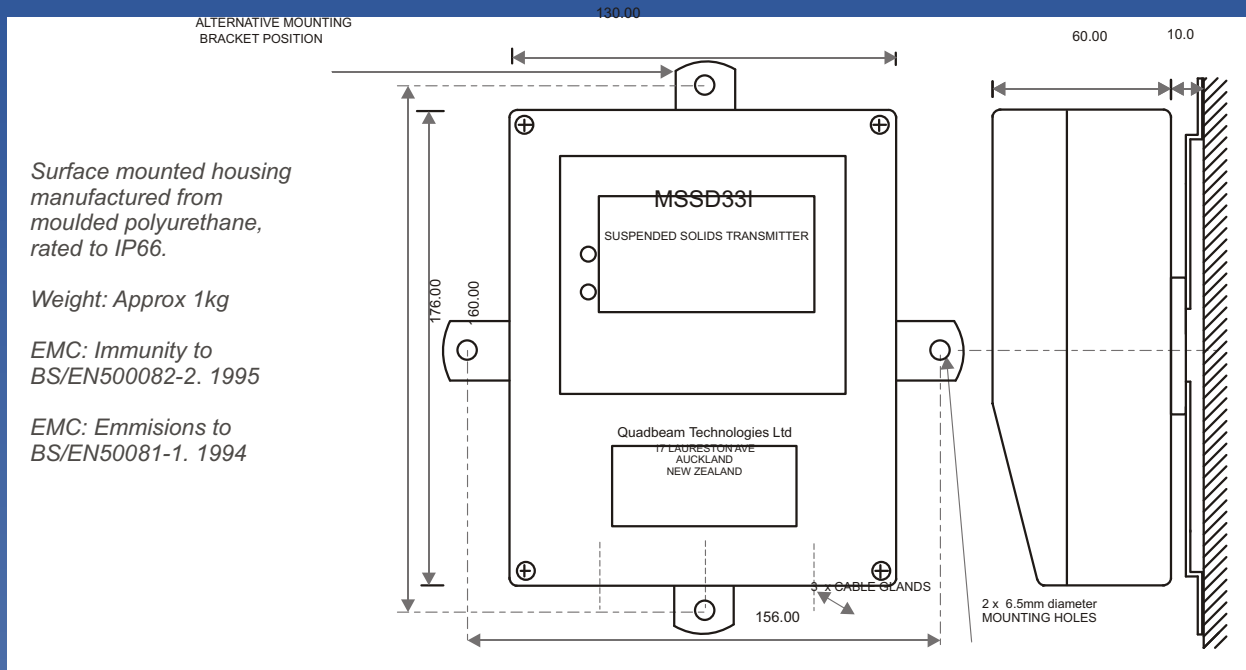
**SS** - Stainless steel wall mounting brackets are  
supplied as standard which allow for vertical or  
horizontal mounting.

Sample model no: MSSD33I-LV

### Optional Extras:

**SS Pipe Mounting Kit** - Used instead of the mounting  
brackets to allow for mounting on a 2" pipe mount.

## MSSD33I Suspended Solids Transmitter



\* Due to our policy of continuous improvements, specifications are subject to change without notice.