QUADBEAM TECHNOLOGIES

~ Specialists in process suspended solids & turbidity ~

Turbidity Series 30 Sensors

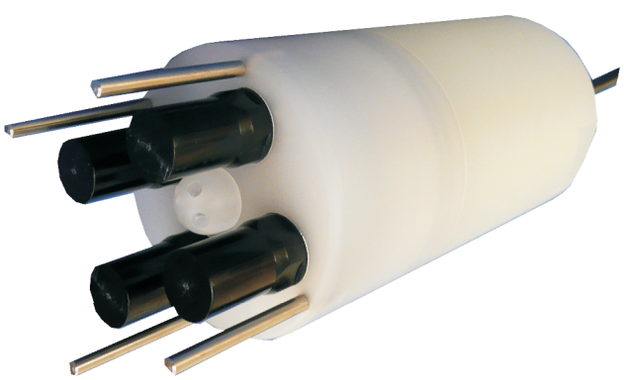
The T30 sensor is a new generation of Quadbeam process sensors, which combine both light attenuation and 90 degree scattered light measurements in a ratiometric sensor with digital communication. This technique vastly increases the sensitivity compared to sensors using just light attenuation. The T30 is designed to meet the international standards for turbidity measurement ISO 27027.

The T30 sensor has two emitters and two detectors, set at exactly 90 degrees to each other. As each emitter is pulsed in sequence it produces two detector currents, one from the detector opposite the emitter (attenuation) and the other from the detector at 90 degrees to the emitter (scattered light).

Signals from each detector are fed into the microprocessor which calculates the value of Turbidity from the ratio of the two emitter/detector pairs.

A built in cleaner is standard with the immersion version of the T30. High pressure air with optional biocide is the recommended method of cleaning. The stainless steel support rods are designed to lift the sensor fingers above the floor of the drain and to protect the sensor fingers from impact.

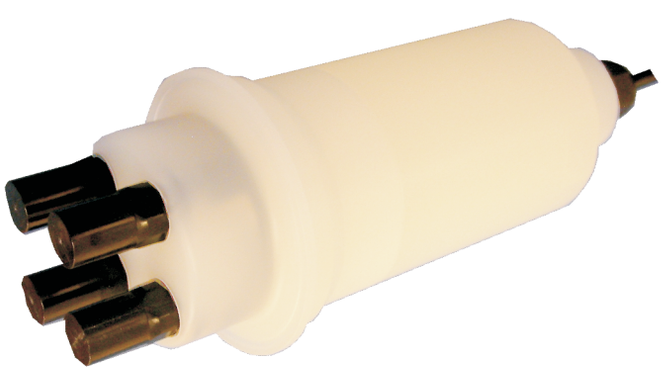
Immersion Sensor



Applications:

- Monitoring of clarifier overflow weirs.
- Final outlet of effluent from DAF plants.
- Raw water inlet measurements in water treatment plants.
- Surface water monitoring.
- Solids loading in rivers and streams.
- Product breakthrough on plate heat exchangers.
- Percentage solids in fruit and vegetables juices.

Hygienic Sensor



Key Features

- Ratiometric signal processing compensates for changes in the optical properties of the emitters and detectors due to ageing and surface coating.
- Effects of colour, temperature and changes in background ambient light are virtually eliminated.
- The T30 sensor is designed for use with the Quadbeam™ MSSD53 microprocessor based transmitter providing both relay and/or analogue outputs.

SPECIFICATIONS*

Measuring Range

0 to 50 through to 0 to 1000 FNU / FTU / NTU

(The measuring range will vary according to media and particle characteristics)

Accuracy:
+/-2% of reading

Repeatability:
+/-1% of reading

Temperature:
0 to 80°C operating range

Pressure:
10 BarG

Cable:
Polyurethane covered cable rated to 95°C. Extension cables can be supplied to extend the cable length up to a maximum of 100M.

MODEL NO. SELECTION GUIDE

Body Style:
T30-IMM - Immersion style body
T30-3HY - Hygienic style body with 3" Triclover fitting

Wavelength:
880nm - Standard. Other wavelengths available.

Body Material:
PP - Polypropylene

Cable:
10 - Both immersion and hygienic sensors are supplied with a 10m cable as standard. Other lengths available.

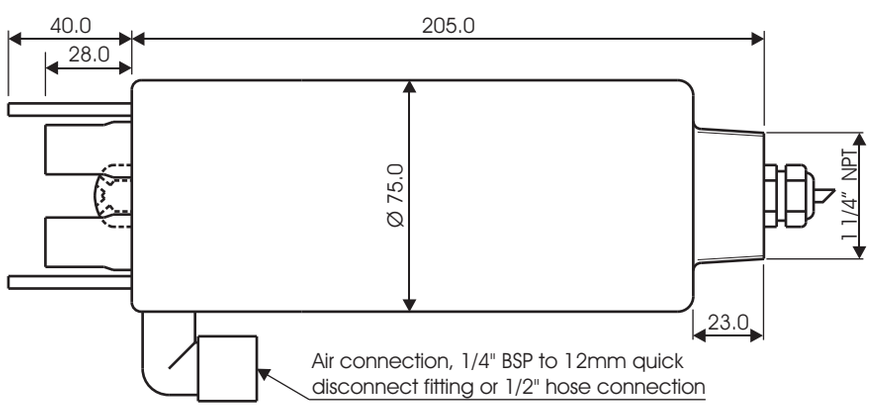
Connector:
NC - No Connector. Cores stripped and crimped for direct connection to MSSD33/53 transmitters.

CA - Amphenol Connector. For use with Hygienic sensors using extension cables.

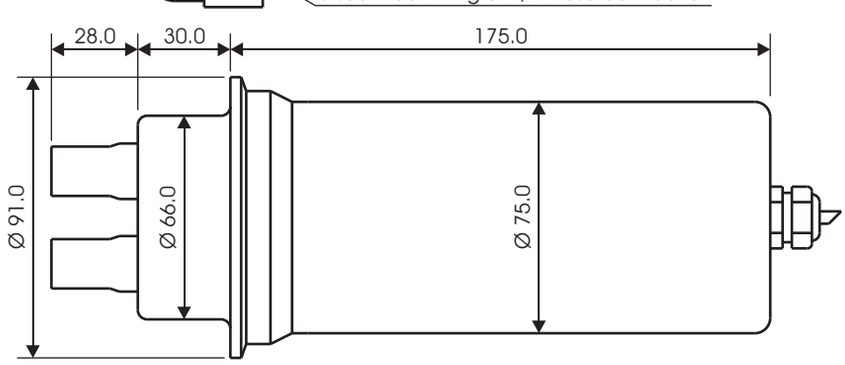
Sample model no: T30-IMM-880-PP-10-NC

Optional Extras:
Flanges/Adapters - To mount Immersion sensors into pipes or vessels, 50mm flanges or adapters for Triclamp, RJT and DIN11851 fittings are available.

Immersion Sensor



Hygienic Sensor



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