



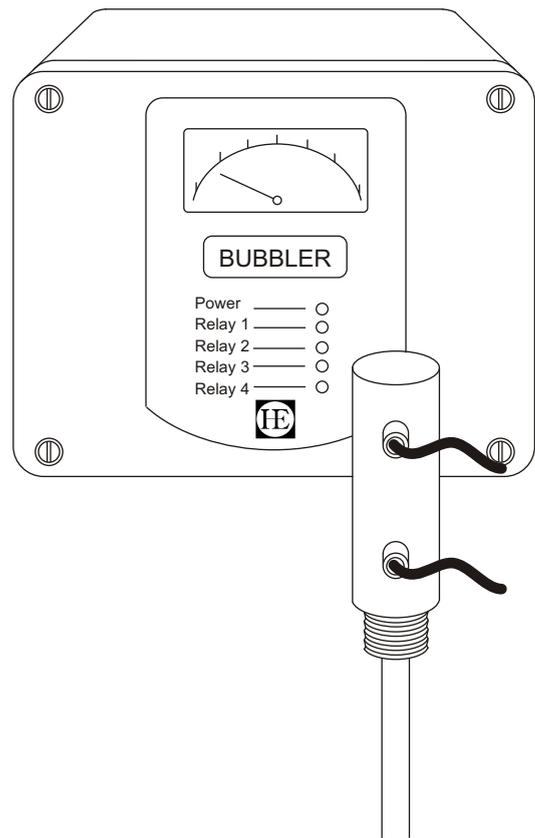
HAWKER

LEVEL CONTROL SYSTEMS

BUBBLER (Hydrostatic)

Continuous Level Indicating/Control Systems

- Suitable for all corrosive & non-corrosive liquids
- Integral continuously rated air pump for depths up to 3m
- Can be used with optional regulated air or inert gas supply
- 4-20mA output and built in analogue depth meter
- 4 fully adjustable set points
- Dip tubes available



Principle of Operation

The system is designed for use in aggressive liquids which would attack an immersed pressure transducer/transmitter, air is bubbled into the liquid via a dip tube with a balance chamber to smooth out pressure pulses. The output pressure from the balance chamber is fed by a nylon tube to the transducer, situated in the controller. The transducers output signal is conditioned to provide a 4-20mA signal proportional to the

depth and also to provide an integral meter reading. Control is provided by 4 trip amplifiers each providing a volt free contact output. The unit illustrated is available in either 0-1m or 0-3m ranges. Alternatively larger units can be supplied for ranges up to 30m complete with ancillary pneumatic gear (details on receipt of application specification). The control unit is normally supplied complete with wall mounting plastic enclosure to IP54.



HAWKER TECHNICAL SPECIFICATIONS

Bubbler Control Unit

Power Supply

Voltage: 230V, 50Hz (24VDC, 12VDC & 110VAC to special order)

Consumption: Control Circuit 8.0W
Air pump 4.5W
Total 12.5W

Environmental

Ambient Temp: 0 to 40° C

Protection: IP54

Outputs

Relay Type: 4 X volt free single pole C/O rated 5A @ 250V resistive each adjustable 0 -100% of output by 270° P.C.B. mounted potentiometer.

Fail Safe: Low

Hysteresis: Fixed 1%

Analogue Output: 0-21mA or 4-20mA or 0-10mA into 1000Ω factory set.

Isolation: Fully isolated or referenced to 0V by link

Air Pump

Type: Vibrating armature, diaphragm pump.

Life: 20,000 to 40,000 continuous hours for diaphragm.

Dip Tube

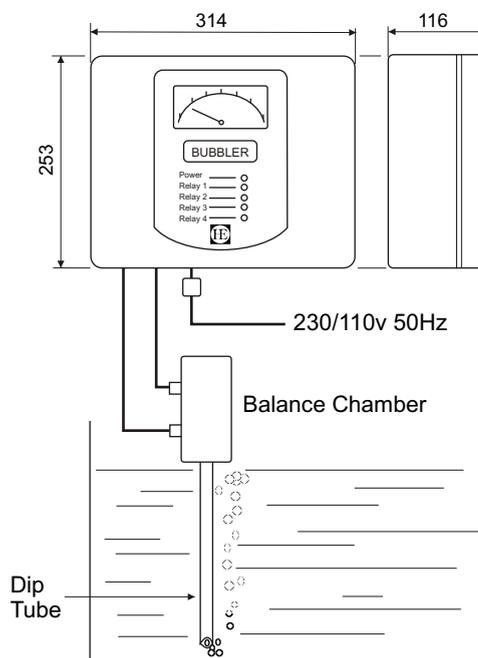
Mounting: 3/4 B.S.P. with plastic nut or universal flange (Drawing No US0146)

Material: UPVC or Polypropylene or Stainless Steel.

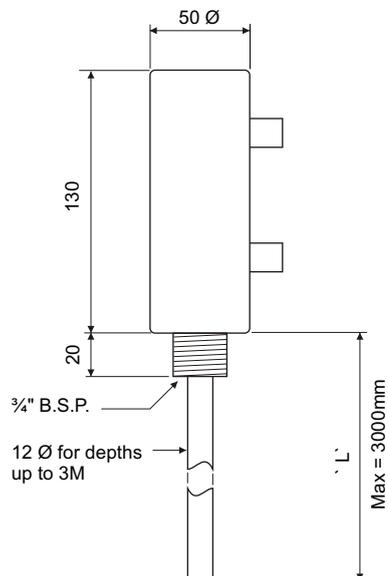
Environmental

Operating Temp: To 140° C for Polypropylene, to 70° C for UPVC

Connection: 2 X 6mm OD Nylon tube.



Balance Chamber



Dip tube steady brackets are advisable for turbulent conditions and longer lengths

Because of continuing development we reserve the right to change the specifications without notice

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