Hawker Electronics

CONTINUOUS
LEVEL MEASUREMENT

FLEXICAP
CAPACITANCE SYSTEM

- Cost Effective
- Simple Installation
- No Dead Band
- Rigid probes up to 3m
- Continuous Monitoring
- Choice of 2 Systems
- Robust and Reliable
- Cable Sensors over 3m

LOW COST *of* MAINTENANCE

SUITABILITY

- Water Based Liquids
- Hydrocarbons
- Process Blends
- Up to 3Km Separation between Probe and Controller
- Mineral and Vegetable Oil Acids
- Unaffected by Pressure or Vacuum
- No Moving Parts - Very Reliable

The Two Continuous Level Systems

A. The Flexicap FCP Probes series are used with the Flexilevel 2 control unit which is designed for either AC or DC inputs.
The control unit provides power for the Flexicap probes and accepts the current signal which they generate and it has:-

1. Four independently adjustable control relays.
2. One input signal failure relay.
3. Zero and Span adjustment.
4. Scaling facilities.
5. Fail to Safe features.
6. Fully isolated re-transmission facilities.
7. Fully isolated output.

The Flexilevel 2 is a fully digitalised instrument, with all its functions being set by a user friendly keypad. See data sheet 288 for details. The controller and probes combine to give a complete system with digital indication, four control or alarm points, a 4-20mA re-transmission, and total isolation with full diagnostics.
The **990** is a DIN mounted controller with digital display and two push button calibration. You can span and zero the tank level in seconds. There is a simulator mode to simulate the level change in a tank and check the function of other equipment connected to the transmission loop. The digital display is in percentage and can be forward or reverse acting. See data sheet 307 for full details.

B. The Flexicap FCP/420 series probes are stand alone, loop powered transmitters which provide a 4-20mA output proportional to depth. Zero and span adjustments are made inside the termination head. They are ideally suited for use with PC's and PLC's but can be used with any Hawker product which accepts a 4-20mA input signal.

Other Hawker Products

Level Control for Aqueous Solutions (Conductivity Type)
Using probe electrodes of length fixed at levels to be controlled.

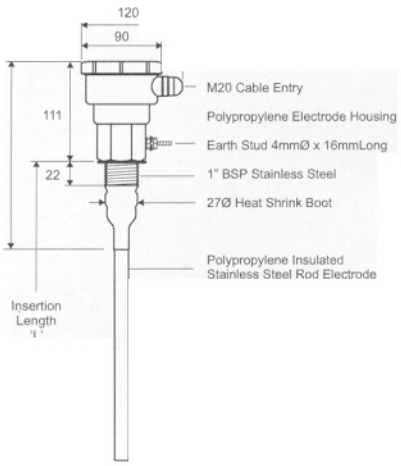
Level Control in Non-Conducting Liquids (such as oils etc) and Free Flowing Powders
With the MAGIFLEX system, its probes and its Control Units.

Continuous Level Monitoring and Control using Hydrostatic Methods
With Pressure Transducers and Transmitters and associated Indication/Conditioning Control units.

Ultrasonic Level Measure Systems
With mains or loop powered, Stand Alone Transmitters for use with or without associated control equipment

Other Products for the Water & Process Industries
Dual Trip amps, Building Services Alarms, Meters, Float Switches etc.

Flexicap Probe Type Sensors

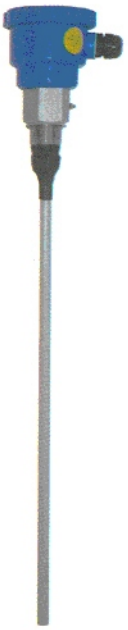


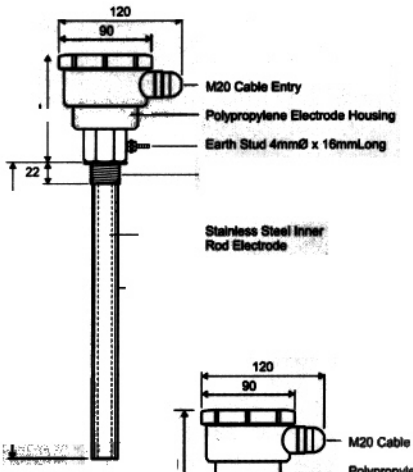
FCP2

Probe with **insulated rod electrode** for conducting liquids such as water, chemicals and aqueous solutions. Standard assembly uses stainless steel rod, sheathed with polypropylene. Other materials are available

Plug-in Modules

Internal plug-in module FCP type is fixed with external calibration using Flexilevel2 or **990.** FCP 4-20 module has zero and span adjustment.

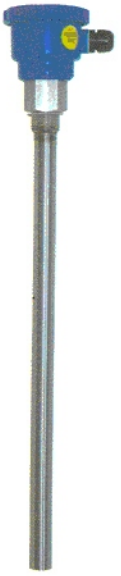


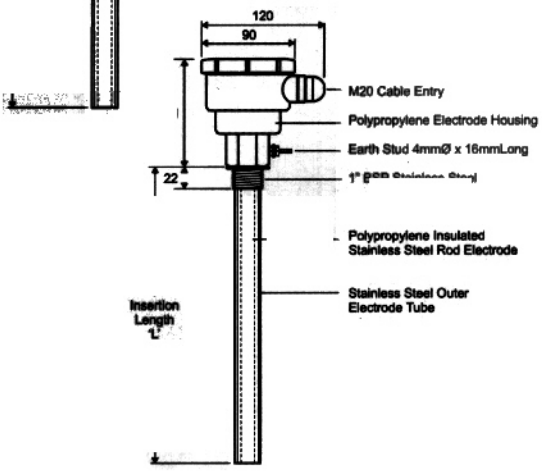


FCP3

Probe with **concentric metallic tube** electrode for non-conducting liquids such as oils etc generally with low dielectric constant.

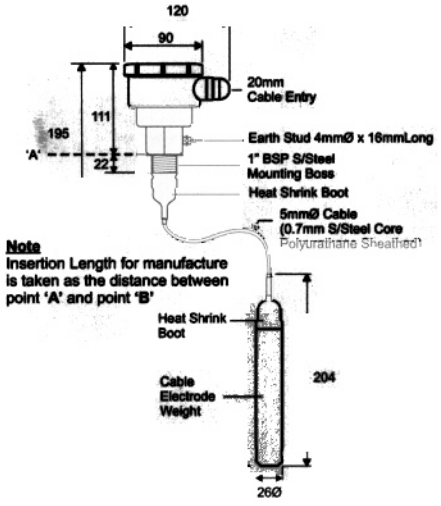
Standard material is stainless steel.





FCP4

Probe with **concentric metallic tube** with (insulated) inner tube, for use with conducting liquids such as aqueous solutions. Standard material stainless steel, sheathed with polypropylene. Other insulation is available



FCP101

Un-insulated Cable Sensor for lengths in excess of 3m, for **non-conducting liquids** and non-hydroscopic powders. Made from flexible stainless steel stranded wire.

FCP201

Insulated Cable Sensor for lengths in excess of 3m, for **conducting liquids** Made from flexible polypropylene cable with inner conductor stainless steel stranded wire.

Heavy duty steel rope electrodes are also available for rugged applications.

Probe Specifications

Insertion Length L:	Rigid up to 3m Cable Sensors > 3m
Process Connection:	1" BSP
Process Temperature:	100° C Max
Ambient Temperature:	-20° C to 60° C
Process Pressure:	100 psi @ 20° C

Flexicap 4-20 Series

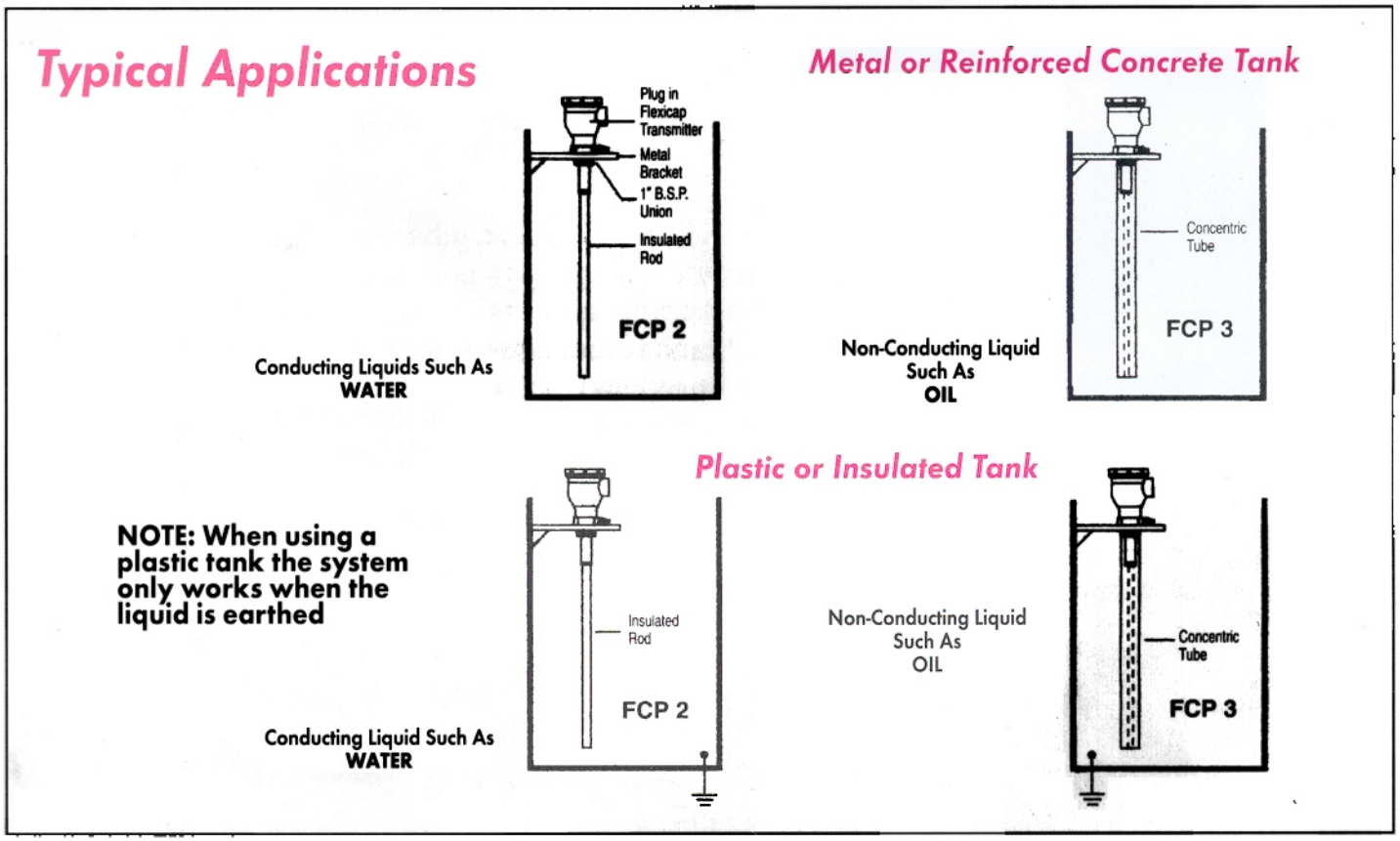
Supply:	24DVC loop (16 to 26VDC)
Output:	4-20A into 500 ohms max

Termination Head	Polypropylene
Electrical Connection:	Screw Terminals
Connecting Cable:	Screened
Electrode Material	Type 316 SS (other materials to special order)
Electrode Insulation:	Polypropylene (other materials to special order)

Cable Sensors

FCP 101 & 101/420 Un-insulated:	SS 316 7x7 OD = 2mm
FCP 201/420 Insulated:	SS Type 304 7x7 0.1 Sheathed in blue Polyurethane to OD = 5mm

Typical Applications



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

For a full list of HAWKER products and application notes visit our web site at www.hawker-electronics.co.uk

Hawker Electronics Ltd

57 The Avenue, Rubery Industrial Estate, Birmingham B45 9AL UK.

Tel. +44(0) 121 453 8911 Fax +44(0) 121 453 3777

Email info@hawker-electronics.co.uk

Leaflet No. 291 Issue B

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