



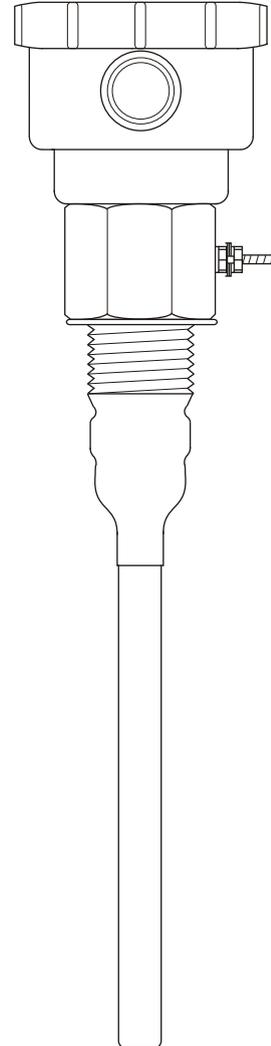
HAWKER

LEVEL CONTROL SYSTEMS

FLEXICAP 4-20

A Loop Powered
Capacitance Transmitter for
Continuous Level Measurement

- A loop powered “stand-alone” sensor
- Two wire 4-20mA operation for PLC’s and PC’s
- Zero & Span adjustment in the termination head
- For applications where zero & span can easily be adjusted in situ
- Suitable for relatively clean non-coating liquids including acids, chemical, oils aqueous solutions, & non-hygroscopic solids
- No moving parts
- 1” BSP mounting thread
- Unaffected by pressure or vacuum



Principle of Operation

The media in a metallic vessel acts as a dielectric, and if an electrode is immersed in it, a capacitor is formed of a certain capacitance value. As the level rises or falls this capacitance varies linearly, and the value can be converted into a usable 4-20mA output, proportional to the depth.

Electrode Types

All Flexicap 4-20 Electrodes Comprise:- A termination head (generally polypropylene) containing the plug-in encapsulated module, potentiometers for adjusting the zero & span, terminals, and an electrode of specified length extending from stainless steel mounting boss. The maximum length manufactured is 3m, longer lengths being supplied in the form of cable electrodes. If the media is electrically conducting insulated electrodes are required. These are generally 8mm stainless steel rod insulated with polypropylene. If the media is non-conducting bare electrodes are required. These are generally 8mm stainless steel rod (or other materials to order).



HAWKER TECHNICAL SPECIFICATIONS

Application Notes

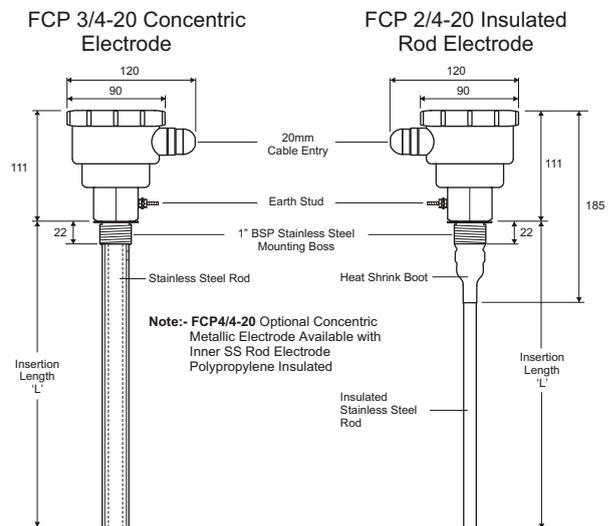
1. Where plastic tanks are concerned, or where the dielectric constant is low, (e.g. oils), an earth reference is required. This can often be in the form of a concentric tubular electrode. (generally in stainless steel).
2. Due to the varied nature, and varying moisture content possible with granular and powdered material, advice should be sought from our technical department, before specifying.
3. Note that if non-conducting media is contaminated (e.g. water in oil), the output will be driven to full scale, regardless of the actual level.

Flexible Cable Electrode

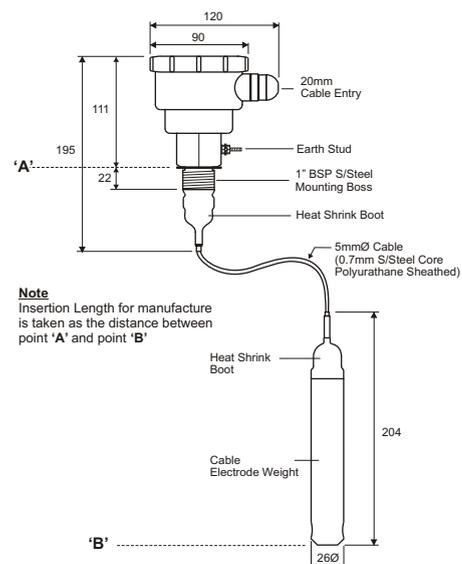
Are used for lengths in excess of 3m. The light duty type generally comprises of a length of insulated borehole cable, but un-insulated wire cables can be used. In large hoppers containing solid media the forces on the cable are often very great, and a heavy duty woven galvanized or stainless steel cable is required with specially designed gravity weight and termination head.

Technical Specification

Supply:	24Vdc loop (16Vdc)
Output:	4-20mA into 500 ohms Max at 24Vdc supply.
Insertion Length:	3m Max rigid electrodes 10m Max flexible electrodes
Process Connection:	1" BSP as standard (other process threads & flanges to order).
Process Temperature:	100°C Max
Ambient Temperature:	-20°C to +60°C
Process Pressure:	300psi @ 20°C
Electrode Type:	For conducting media fully insulated rod or cable, for non-conducting media un-insulated rod or cable
Electrode Material:	316 stainless steel as standard (monel or titanium to order)
Electrode Insulation:	Polypropylene as standard (PTFE & others to order).
Termination Housing:	Polypropylene as standard (others to order)
Electrical Connections:	2 core screened cable



FCP 201/4-20 Flexible Cable Electrode



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

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