

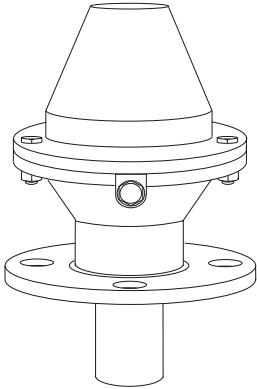


HAWKER

LEVEL CONTROL SYSTEMS

Electrode Holders & Brackets for Conductivity Type Systems

Heavy Duty HPE8



Electrode holder suitable for sewage, water and effluent applications. Moulded in phenolic (SR4007) for high strength and chemical resistance. Supplied with SS clamping collar, rubber gasket and SS nuts and bolts to secure cap to base. The holders will accept 3/4" pipe electrodes of nominal OD 26.7mm and wall thickness 2.87mm.

Electrodes are available in galvanised mild steel, stainless steel type 316, plain or plastic coated, (for latter specify HPE8/1).

Rubber bungs are available to insert in electrode tip. We provide a service to thread 3/4" pipe. Plastic touch-up paint for electrodes is also available.

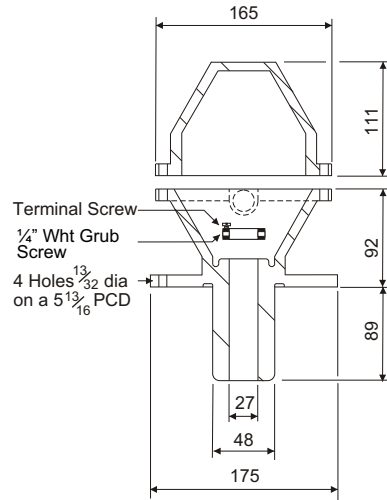
Maximum shipping length 3.2m. Couplers are available for lengths in excess.

Electrode steady brackets are advisable every 3 metres.

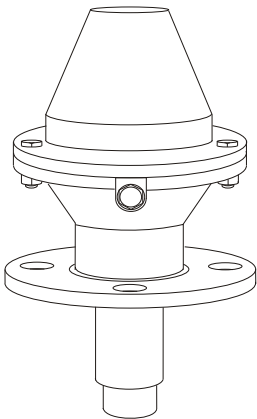
Electrode adjustment 114mm.

Electrode length is calculated from the underside of the flange plus 92mm..

For INTRINSICALLY SAFE Models (using ACA/IS or P5/BAR level controllers) add suffix /IS



Heavy Duty HPE8/P



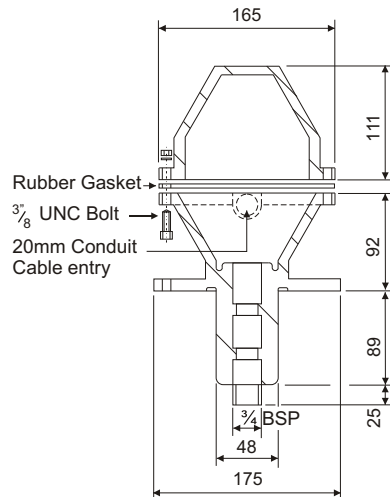
Similar to HPE8 but with insert moulded in to provide pressure under flange of 30 psi. Supplied with two rubber gaskets, SS nuts and bolts to secure cap to base and galvanised mild steel or stainless steel coupler to accept 3/4" pipe electrode (as above).

Also available for immersion to IP67 and pressure under flange of 100 psi.

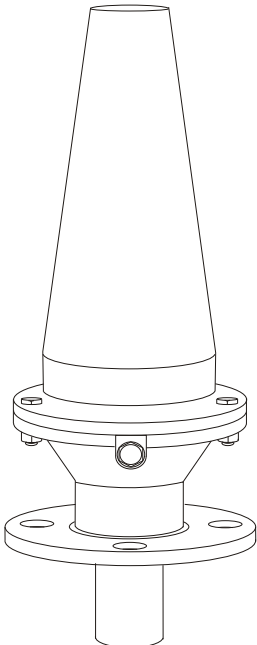
Electrode length is calculated from the underside of the flange less 89mm

Rubber bungs are available to insert in electrode tip. We provide a service to thread 3/4" pipe. Plastic touch-up paint for electrodes is also available.

For INTRINSICALLY SAFE Models (using ACA/IS or P5/BAR level controllers) add suffix /IS.



Heavy Duty E12



Similar to HPE8 but with tall epoxy coated aluminium alloy cap providing an electrode depth adjustment of up to 335mm.

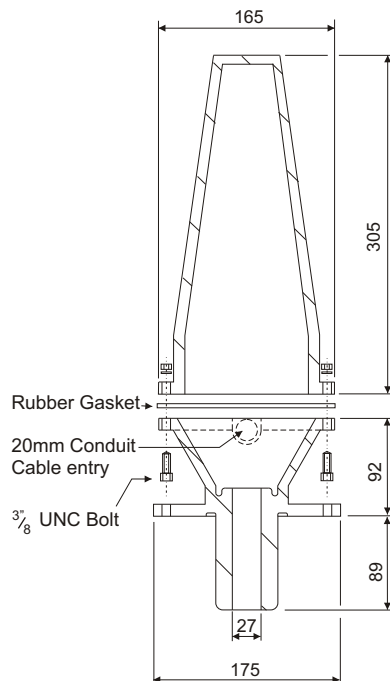
Supplied with SS clamping collar, rubber gasket and SS nuts and bolts to secure cap to base.

An E9 is also available comprising an HPE8 body with a 1m UPVC cap to give longer electrode length adjustment.

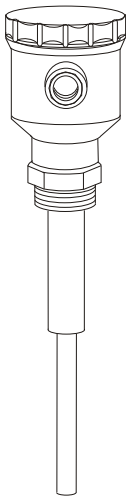
If plastic coated electrode is used, specify E12/1.

Rubber bungs are available to insert in electrode tip. We provide a service to thread 3/4" pipe. Plastic touch-up paint for electrodes is also available.

For INTRINSICALLY SAFE Models (using ACA/IS or P5/BAR level controllers) add suffix /IS.



Light Duty HPE7



Manufactured in Polypropylene complete with back nut. Softening temperature 120°C.

Suitable for 8mm diameter rod electrodes, typically S.S. Type 316, Hastelloy C, Monel, Titanium. Supplied plain or plastic coated.

Maximum Shipping length 3m. S.S. Couplers available for length in excess.

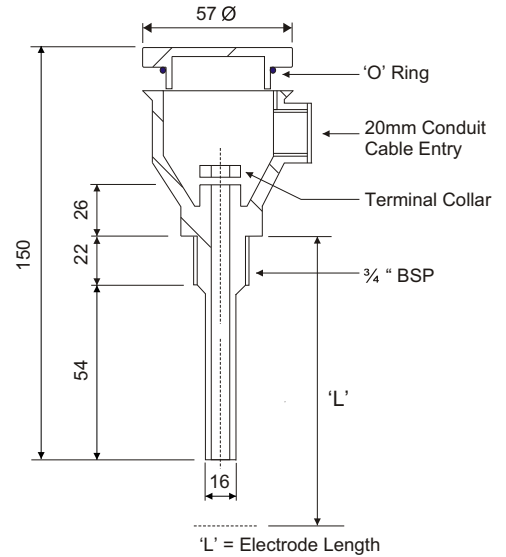
Steady brackets advisable every 2m if turbulence present.

HPE7 - Add 32mm to electrode length.

HPE7/P - Pressure tight to 300 P.S.I. At 20°C complete with coupler.

HPE7/Pa - Pressure tight to 300 P.S.I. With 8mm rod moulded in. Maximum length 1m.

For INTRINSICALLY SAFE models (using ACA/IS or P5/BAR level controllers) add suffix /IS



Borehole Electrode E4 and E5



Borehole electrodes used to control pumps etc, between or at specific levels.

An earth return electrode is sometimes strapped to the rising pump main.

Manufactured from UPVC and S.S. Type 316.

E4 is unshrouded.

E5 is shrouded to prevent spurious operation by water in-falls.

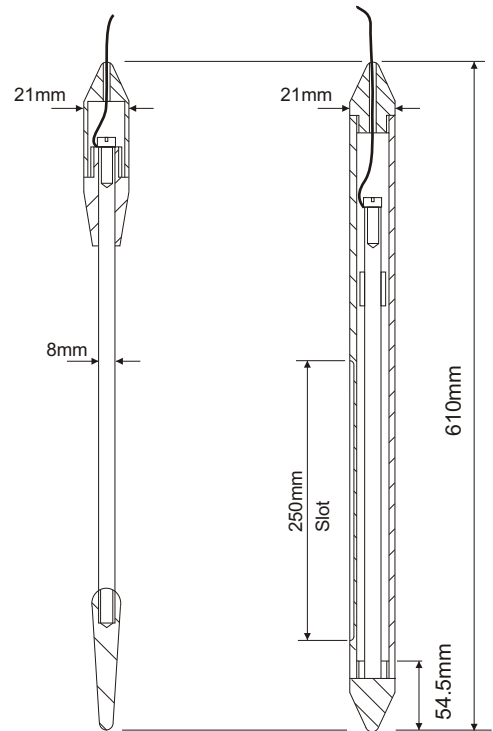
Special electrode suspension cable available

Conductor :- 7 x 7/0. 1mm S.S. Polyurethane Insulated.

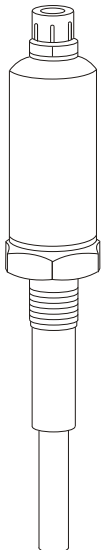
Diameter :- Approximately 5mm. Breaking Load approx 75kgs.

The S.S. Cable is used in preference to copper to reduce the risk of losing the borehole electrode due to galvanic corrosion. It is certified to BS 6920 Pti. 1990.

For INTRINSICALLY SAFE Model E5 only (using ACA/IS and P5/BAR Level Controllers) add suffix/IS to give E5/IS.



E15 Miniature



Pressure Tight Mini Electrode.

For applications where space is restricted.

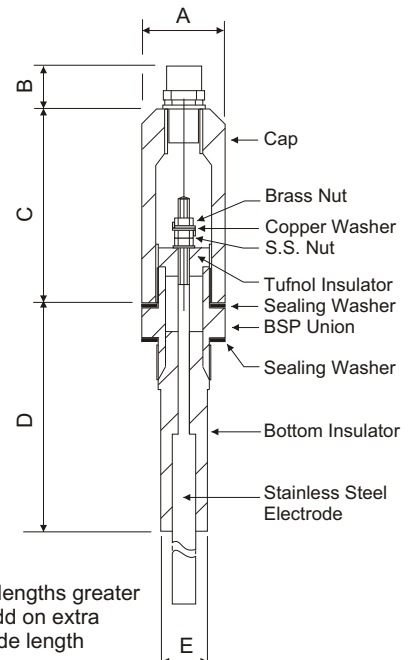
Available with P.T.F.E. Insulators.

S.S. Union sizes 1/4, 1/2, or 3/4 B.S.P.

Pressure rating 300 p.s.i. At 20°C.

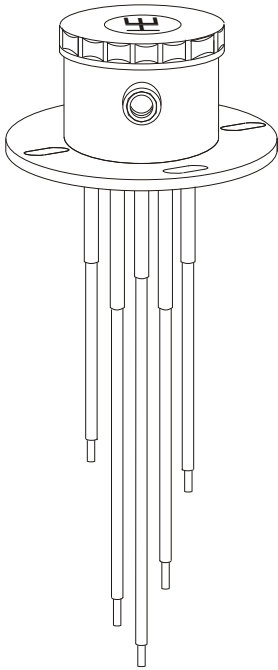
The E15 assembly can be incorporated into 3/4" N.B. Pipe to form a rigid long electrode, e.g. For surge vessels.

SIZE	A	B	C	D	E
1/4"	21	20	50	77.5	16
1/2"	28.5	20	66	77.5	16
3/4"	35	20	66	77.5	16



Nb For electrode lengths greater than 51mm add on extra to S/S electrode length

E13A Multi for up to 3m



The Hawker Multi Electrode Holder is moulded in tough glass filled polypropylene and accommodates up to 5 plastic coated 8mm electrodes up to 3m long (longer lengths available via threading & couplers). It is ideal for water tanks, chemical storage tanks & bunds. 5 electrodes enable the E13A to be used for pump control with high and low alarms. Mounting and steady brackets, separators etc are available to aid easy site installation. Always use the well proven, AC or P3/P4 series controllers incorporating CSD circuitry.

The Universal Flange is suitable for:-
ANSI 3" 150lb
DN80 PN16
BS10 table D 3"
Fixing kits available (ref 215)
Hawker Type 81 Bracket
Temp range:- -20° C to +85° C
Weight:- 0.55Kg
An E13A/IP67 is available to special order.

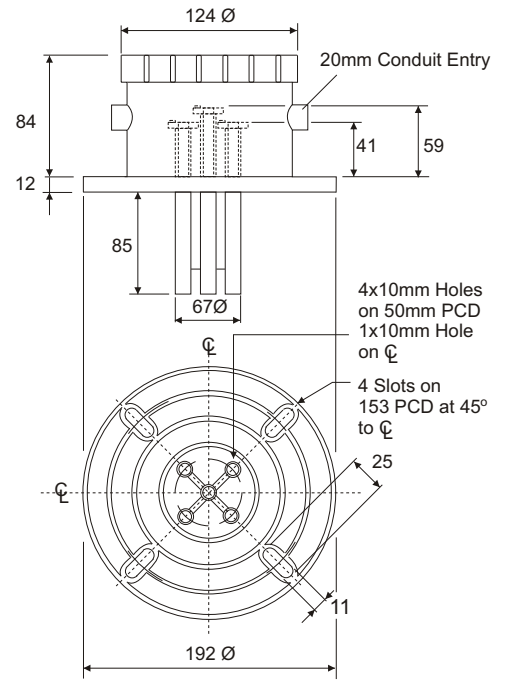
Mounting Bracket Type 81

Steady Bracket c/w U.P.V.C. Insulator.
For electrode lengths greater than 1.5m. Type 218

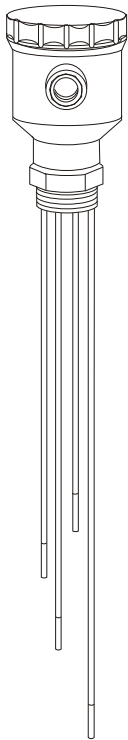
Types 81 and 218 are galvanised mild steel.
S.S. Brackets are available to special order.

Separator for spacing electrodes where 218 is not suitable. Material is U.P.V.C. Type 214

When ordering specify:-
N = No of electrodes.
L + 70mm = electrode lengths



E14 Multi for up to 1m



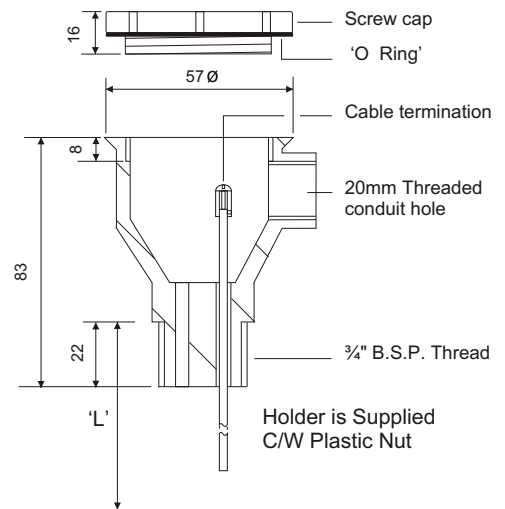
Accommodates up to four 1/8" diameter electrodes. Moulded in polypropylene with screw on cap. Mounted thread is 3/4" B.S.P. Lock nut is provided. Screwed conduit entry 20mm. All electrodes are plastic coated to prevent tracking. For applications where excessive moisture is present, cables may be connected at works and the terminals potted. Two spacers are included to separate the electrodes (Pt. No. 216). For use at normal atmospheric pressure and temperatures between -20° C and +60° C. Not suitable for aggressive liquids which attack polypropylene.

Material	Dia before coating	Max length
SS Type 316	1/8" (3.2mm)	1.0m
Titanium	1/8" (3.2mm)	0.97m

Plastic Coating Type	Electrode Material	Colour
Epoxy Coated Thermomelt	S.S	Black
Epoxy Coated Fusion Bonded	S.S.	Green
Epoxy Coated Thermomelt	Titanium	Blue

Other Coatings to Special Order

Mounting Bracket Type 71
The electrodes are a light push fit into the body which should be warmed to approximately 80° C to facilitate fitting.
When ordering specify:-
N = No of electrodes
L = Length below shoulder in mm.
If you require us to fit the electrodes.



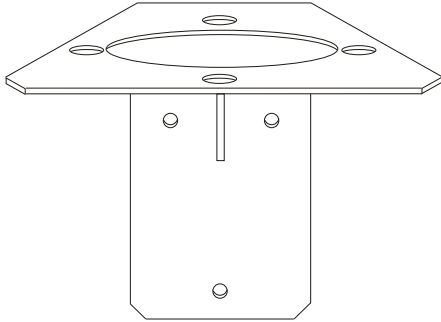
E14

Diameter	Drill Size
Epoxy Coated Thermomelt Type	1/8"
Epoxy Coated Fusion Bonded	3.3mm

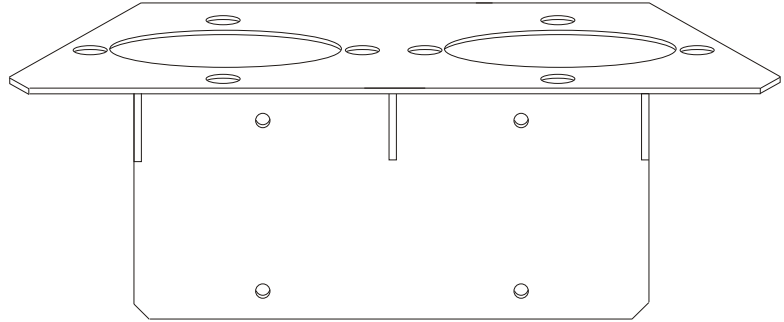
To aid site installation, a range of Electrode Holder, Mounting Bracket and Electrode Steady Bracket are available for wall mounting in either galvanised mild steel or stainless steel type 304.
To secure the electrode holder to these brackets, order a set of stainless steel bolts, nuts and washers (Ref 215 for set of four).
To secure the brackets to the wall order stainless steel rawbolts (Ref 86 - Each)
To avoid corrosion, the holes in galvanised MS brackets should not be opened up.

Electrode Holder Mounting Brackets

Type 81



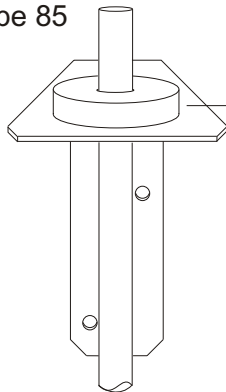
Type 82



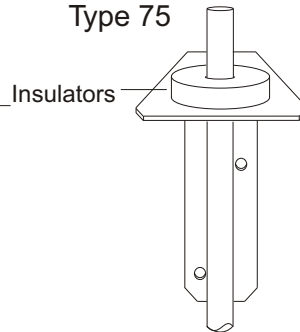
Electrode Holder Type	No of Holders Per Bracket	Distance from \varnothing of Holder to Wall mm	Centre Distance between Electrode Holder mm	Type No	
				Galvanised MS	SS to 304
HPE8 E12 E13	1	156	-	81	81 SS
HPE8 E12	2	156	229	82	82 SS
HPE8 E12	3	156	229	83	83 SS
HPE7 E14	1	156	-	71	71 SS
HPE7 E14	2	156	114	72	72 SS
HPE7 E14	3	156	114	73	73 SS

Electrode Steady Brackets

Type 85



Type 75



Electrode Type	No of Insulators Per Bracket	Distance from \varnothing of Electrode to Wall mm	Centre Distance between Insulators mm	Type No	
				Galvanised MS	SS to 304
3/4" N.B. Pipe Galvanised or SS to 316 including EVA coated pipe	1	156	-	85	85 SS
8mm \varnothing Rod SS to 316, Monel, Titanium including E.V.A. Coated.	1	156	-	75	75 SS
	2	156	114	76	76 SS
	3	156	114	77	77 SS
Special Steady Bracket for E13 Multiholders using 81 Brackets for up to 5 No 8mm \varnothing Electrodes	1	-	-	218	218 SS

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

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