



## Auto Pump Primer System

### General Description

The Automatic Pump Priming Systems for diesel pumps will operate in both dirty water and oily water. It consists of two parts, an electronic controller (**APP-C**) and probe (**APP-P**). When used together they form a smart auto pump priming system. The probe is mounted in the liquid containment tank and the controller can be located up to 1.7m away from the probe. The controller output is generally used to operate a solenoid and a timed clutch.

### Operating Principle

- \* With the probe uncovered, both the solenoid and clutch outputs are +12V DC, energising the solenoid and clutch.
- \* When liquid is detected by the probe the solenoid output goes to 0V DC immediately turning OFF the solenoid. The clutch output stays at +12V DC (remains energised) for a pre-set time. After the timed period the clutch output goes to 0V DC.
- \* If the water level falls below the probe both outputs go to +12V DC re-energises both solenoid and clutch immediately and the clutch timer is reset.

### Technical Data

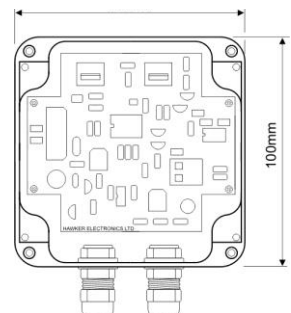
#### APP-Controller v2

Supply:	Nominal 12V DC Battery, (+10.5V DC to +15V DC Max).
Power:	0.25W with probe attached and uncovered, 0.1W covered (circuit only, excluding solenoid and valve power).
Outputs:	Solenoid: +12V DC @ 3.5A Max. Clutch: +12V DC @ 3.5A Max. Each output is internally switched, supply derived from +V DC Battery input. RED L.E.D indicators for each output ON when the output is high.
Clutch Delay:	Factory fixed at 15,30,60,90 seconds, advise on order
Solenoid Delay:	Solenoid response time, user adjustable, approx. 0 to 2 seconds.
Sig Input:	C/W 1.7M of pre-fitted cable with a 2-pin connector for <b>APP-P</b> .
Sensitivity:	Range: 10pF Approx.
Enclosure:	Material: Polycarbonate 100 x 100 x 55mm IP65 screw mount, enclosure holes on a 4 x 86mm spacing on square, 4.5mmØ hole, 2 x pre-fitted cable glands.
Weight:	295g Approx.
Op Temp	-20° to +70°
Signal Input:	Via 1.7m of pre-fitted cable with 2-pin connector for <b>APP-P</b>
Sensitivity:	Range: 10pF Approx
Enclosure:	Material: Polycarbonate, 100 x 100 x 55mm, IP65, screw mount, enclosure 4 x 86mm spacing on square, 4.5mmØ hole, 2 x pre-fitted cable glands.
Weight:	295g Approx.
Op Temp	-20° to +70°

### APP-P



### APP-C



*This product has been designed and complies to the relevant standards as listed in its certificate of conformity the installer/user must ensure compliance. The crossed-out bin symbol, placed on the product, reminds you of the need to dispose of the product correctly at the end of its life. Because of continuing development we reserve the right to change the specifications without notice*

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# TECHNICAL SPECIFICATION

## **APP-Probe**

Operating Principle:	Capacitance.	
Max Probe Voltage:	8V AC	
Current:	<1mA.	
Enclosure:	Material: ABS, 64 x 58 x 35mm, IP65.	
Probe	Material: Stainless Steel and Nylon.	
Length:	Insertion Approx 325mm.	
Connection:	Electrical:	2 Pin socket for connection to <b>APP-C</b> .
	Mechanical:	1" B.S.P.
Weight:	345g Approx.	
Op Temp:	-20 <sup>0</sup> to +70 <sup>0</sup>	

The Probe has a nylon upper part; this is to prevent false switching due to liquid tracking.

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