



HAWKER LEVEL CONTROL SYSTEMS

Auto Pump Primer System

General Description

The **APP System** 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

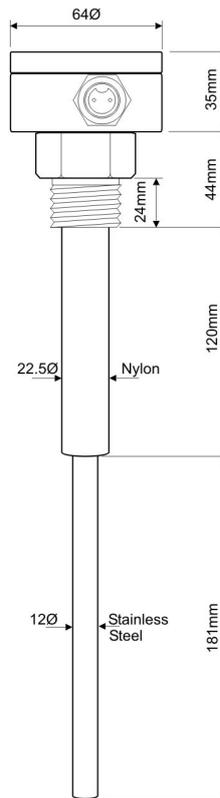
- * With the probe uncovered, both the solenoid and clutch outputs are +12V DC, energising the solenoid and clutch.
- * When liquid is detected by the probe the solenoid output goes to 0V DC immediately turning OFF the solenoid. The clutch output stays at +12V DC (remains energised) for a period set by the timer control. 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-Probe

Operating Principle:	Capacitance
Max Probe Voltage:	8V, Square Wave 590KHz.
Current:	<1mA
Enclosure:	Material: ABS, 64 x 58 x 35mm, IP65.
Probe:	Material: Stainless Steel and Nylon
Weight:	345g Approx
Connection:	Electrical: 2 Pin socket for connection to APP-C Mechanical: 1" B.S.P
Op Temp:	-20° to +70°

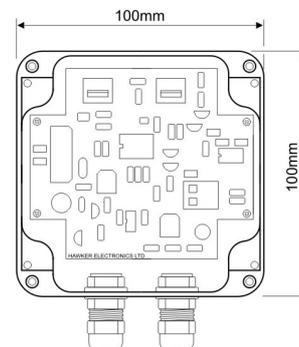
APP-P



APP-Controller

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 externally switched, supply derived from the +V DC battery input RED L.E.D. indicators for each output ON when the output is high.
Timer:	Clutch output, approx 0.5 to 90 Seconds.
Signal Input:	C/W 1.7m of pre-fitted cable with 2-pin connector for APP-P
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-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

HAWKER ELECTRONICS LTD.

57 The Avenue,
Rubery Industrial Estate,
Birmingham B45 9AL, ENGLAND
Telephone: +44 (0)121-453-8911 Fax: +44(0)121-453-3777
email: info@hawker-electronics.co.uk www.hawker-electronics.co.uk



FM 10000



BRITISH MADE