

E10 LOSS OF PRIME PRESSURE SWITCH

RANGE 0 to 10 Bars (0 to 150 psi)



The E10 loss of prime pressure switch is a solid-state digital pressure switch specifically for the control and protection of domestic and industrial pressure pumps.

INTRODUCTION

Pressure switches normally have two set points, a low pressure cut in point and a high pressure cut out point. A pump under the control of such a switch operates between the two set points. If pressure is lost due to the pump running dry or due to a burst pipe, the pump will continue to run simply because the pressure switch remains on. In such a situation the pump will invariably sustain substantial damage due to being run dry.

The E10 pressure switch addresses this problem by providing a third adjustable switch point that can be set below the normal operating range to turn the pump off and prevent it being damaged if it runs dry.

THE E10 PRESSURE SWITCH

The E10 features a solid-state pressure sensor that is both corrosion resistant and highly accurate. A microprocessor monitors the system pressure and directly controls a powerful hybrid drive that in turn controls the pump motor. The result is an easy to set, accurate and reliable pressure switch that will switch the pump off and prevent damage if pressure is lost.

LOSS OF PRIME FEATURE

The E10 has a digitally settable trip point that is fully adjustable, graduated and accurate. If the trip is actuated by loss of pressure the pump will be automatically shut down and the E10 will flash a red warning light to indicate the loss of pressure. Restarting the pump is as simple as pressing the reset button on the E10.

The adjustable trip point feature of the E10 allows a system to be tuned to its operating environment. For example, in applications where standing water levels can change dramatically such as in bore pump systems, the ability to tune the trip point to a setting that tolerates the changes in pressure but trips out when a genuine loss of prime occurs is a major advantage over normal pressure switches.

CONSTRUCTION

The E10 pressure switch is corrosion resistant. It is constructed from high impact glass reinforced thermoplastic, ceramic and 316 stainless steel. It is ideal for use in potable water, aggressive bore water, seawater and a huge variety of chemical solutions.



AUSTRALIAN MADE

APPLICATIONS

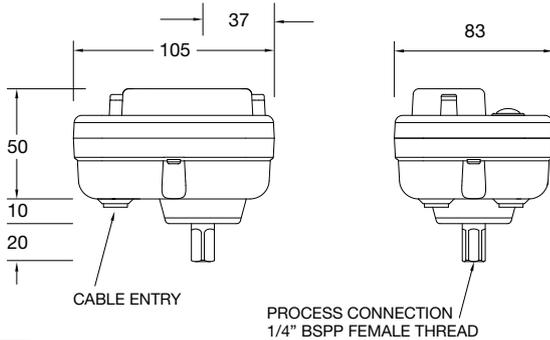
- DOMESTIC PRESSURE SYSTEMS
- INDUSTRIAL PUMP CONTROL
- COMPRESSOR CONTROL
- IRRIGATION PUMP CONTROL
- POOL & SPA SYSTEMS
- WASHDOWN SYSTEMS
- WATER TREATMENT
- BORE PUMP CONTROL
- SEAWATER PRESSURE
- EFFLUENT CONTROL
- PNEUMATIC CONTROL

FEATURES

- 3 DIGITALLY ADJUSTABLE SETPOINTS
- 4 QUADRANT DIGITAL FINE TUNING
- CORROSION RESISTANT CONSTRUCTION
- SUITABLE FOR SEA WATER USE
- CONTROL MOTORS TO 3.75kW 5HP
- SIMPLE PLUG IN INSTALLATION
- AUTOMATIC OVERRIDE ON START-UP
- LOSS OF PRESSURE WARNING LIGHT
- INDICATOR LIGHTS FOR ALL FUNCTIONS
- TOUGH RELIABLE CONSTRUCTION
- WEATHERPROOF HOUSING IP67
- 10 BAR (150PSI) RATED

TECHNICAL DATA

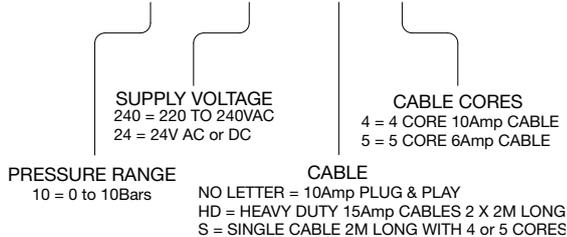
DIMENSIONS



ORDERING

The E10 Digital Pressure Switch is available in a number of configurations to suit specific applications. For directly controlling pumps up to 2.4kW (3HP) it can be supplied as 'Plug & Play' with 10Amp leads and fitted with a plug and socket. For large fixed installations it can also be supplied in a heavy duty form fitted with 2 metre long 15A cables. It can also be supplied fitted with a single 2 meter long 15A cable with 4 or 5 cores. These versions can be used for the direct control of pump motors to 2.4kW (3HP) (4 core version) or for control circuit applications (5 core version). There is also a universal low voltage AC/DC model available.

E10 - 240 - S - 5



Please Note: The universal 24V AC/DC model is only available in E10-24-S-5 configuration. That is, with a single 5-core cable for control circuit applications only.

OPERATING ENVIRONMENT

Ambient Temperature Range	1°C to 50°C
Liquid Temperature Range	1°C to 60°C, See note below
Ingress Protection Rating	IP67
Supply E10-240 (240VAC Model)	220 to 250VAC 50Hz
Supply E10-24 (24V AC/DC Model)	12 to 28Volts AC or DC at 80mA Max
Maximum Operating Pressure	10 Bars (150 psi)

WARRANTY

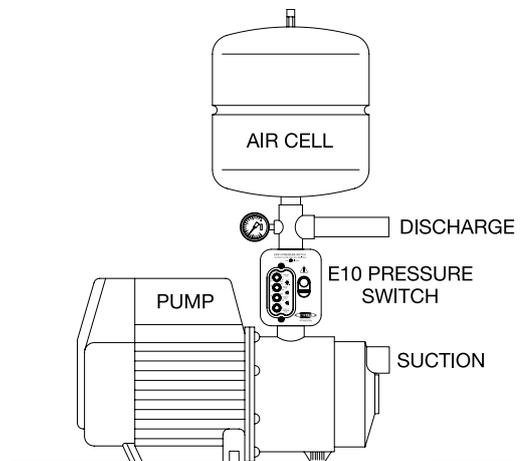
The Kelco E10 Loss of Prime Pressure Switch is protected by a 12 months return to base warranty. Full details of our warranty can be downloaded from: - <http://www.kelco.com.au/menu/information/warranty-statement/>

OPERATING RANGE

Start-up Timer	Adjustable, 5, 30, 60 or 120 seconds
Cut out Pressure	Adjustable from 1 to 10 Bars in 16 steps
Cut in Pressure	Adjustable from 0.5 to 9.5 Bars in 16 steps
Trip Pressure	Adjustable from 0 to 9 Bars in 16 steps
Fine Tune Adjustment	Adjustable in 3 steps of 0.2 Bars each
Minimum Differential Pressure On to Off	0.5 Bars (50kPa)~(7 psi)
Maximum Differential Pressure On to Off	8.9 Bars (890kPa)~(128psi)
Maximum Switched Load E10-240 (Plug & Play Model)	240VAC 50Hz 2.4kW (Motors up to 3HP)
Maximum Switched Load E10-240-HD Model Only	240VAC 50Hz 3.75kW (Motors up to 5HP)
Maximum Switched Load E10-240-S-4	240VAC 50Hz 2.4kW (Motors up to 3HP)
Maximum Switched Load E10-240-S-5	240VAC 50Hz 6 Amps. For control circuit applications only
Maximum Switched Load E10-24-S-5	240VAC 50Hz 6 Amps. For control circuit applications only
Operating Pressure Range	0 to 10 Bars (0 to 150psi) See note below
Burst Pressure	25 Bars (360psi)

NOTE: In the interests of safety the E10 pressure switch must NOT be used in hot water applications (>60°C).

The E10 pressure switch is designed to operate at pressures up to 10 Bars (150 psi), and must not be used in applications where either the static or dynamic pressure exceeds this rating.



STANDARDS

The E10 Loss of Prime Pressure Switch is certified to Australian Standards: -

AS60529-2004
AS61010.1: 2003
AS/NZS CISPR 14.1:2003

MADE IN AUSTRALIA BY

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PLEASE NOTE: The Kelco E10 Pressure Switch is the subject of Australian and International patent and trademark applications.

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