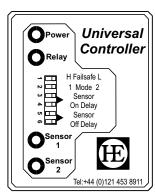


Universal Controller Installation & Setting up Instructions

This product has been designed and complies to the relevant standards as listed in the certificate of conformity. The installer/user must ensure system compliance



Two Models Available UC1 Wall mounting, UC1/P Panel mounting

General Description

A Microprocessor based Controller which may be used for point control using a single input or for pumping in/out using two inputs, one input acting as a latch. A fail to safe feature is user selectable which may be used when configured as a High or Low alarm or in control mode. An input delay is optional which can be used to prevent unwanted triggers due to turbulence/splashes or can be used as a 'Run' on feature. Also provided is an output delay which gives continued relay operation for a predefined period. An example being the ability to allow a pump to pump out lower than previously possible due to the physical location of the input device(s). The state of the input devices and output relay can immediately be recognised by observing LED's on the controller as well as a power LED. In-built diagnostic facilities utilising flashing LED's allow for easy fault finding due to incorrect connection or the failure of input 2 in twin mode. The unit may be powered from a wide range of DC inputs or mains supply.

In most cases connection can be made using three core cable although isolation between input device and controller is maintained using 4 core cable. The unit may be used with any device which provides a volt free contact or has the capability of grounding its input upon switching. An example of this is the Hawker Capacitance Probe (Sensor) of the Series MP1 & LS1.

The unit may be used with any of the following combinations:-

- * Volt Free N/O Contacts
- * Volt Free Changeover Contact
- * Open Collector Solid State
- * Float Switches, Capacitance Probes type MP1 as in the Magiflex system

Step Guide to Setting Up (See case label)

- 1. H Fail Safe L Select 'L' if the relay is to be energised when the probe is covered, contact is closed etc. Select 'H' if the relay is to be de-energised when the probe is covered, contact is closed etc.
- 2. 1 Mode 2 Mode 1
 2. 1 Mode 2 Mode 1
 3. 2 Select how many input sensors are being used, Mode 1 single Input, Mode 2 dual sensor input. Select when only using one input sensor. The input sensor should be connected to input 2. Both sensor On and Off delays, if selected, apply to input 2 in this mode.
 - Mode 2Select when using two input sensors. Sensor 1 should be connected as the trigger, this is normally the
higher sensing device in the vessel. Any On delay will act on this sensor.
Sensor 2 should be connected as the latch, this is normally the lower sensing device in the
vessel. Any Off delay will act on this sensor.

Any Off delay if selected will only be acknowledged after Sensor 1 becoming active and then de-active. On power up if Sensor 2 is not active and an off delay is selected the output relay state will be inverse for the delay period.

- 3,4. Input On Delay Select the time delay before the recognition of a covered probe, closed volt free contact etc.
- 5,6. Input Off Delay Select the time delay before the recognition of an uncovered probe, open volt free contact etc.

Dip Switch Time Delay Settings

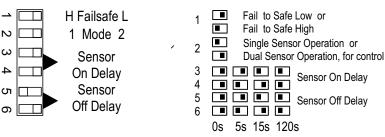
Sensor On Delay (Dip Switch 3 & 4)

Selectable 0, 5, 15, 120 Seconds (see DIP Switch Instructions for configuration). Provides input sampling at approximately 500mS intervals, the input must be active throughout the period selected by the user. If at any time the input signal is invalid the timed period will be reset and no input acknowledged. Repeatability is 100%.

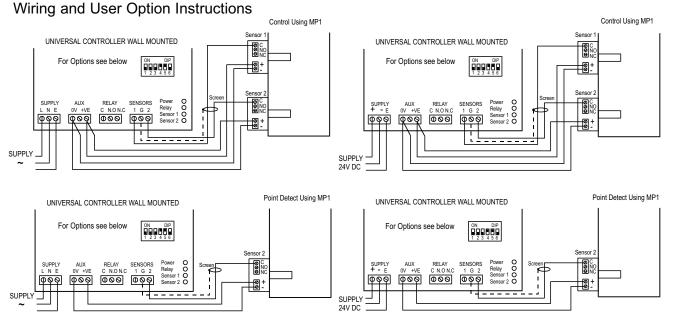
Sensor Off Delay (Dip Switch 5 & 6)

Selectable 0, 5, 15, 120 Seconds (See DIP Switch instructions for configuration). Provides a delay on the output relay changing state after the input calling for it to do so. This is non resettable. Repeatability is 100%.

Dip Switch/Timer Configurations for Plug-in Unit



Universal Controller Wall Mounting Unit UC1



When using MP7 which has a potted 3 core cable, cable colours are as follows Blue = Aux +V, Brown = Aux 0V, Green/Yellow = Sensor

Technical Data

rconnour	Data			
Supply:	230V/115V AC 50Hz 24V DC reverse polarity protected (selected at works)	Dip Switch/Timer Configurations for Wall Mount Unit		
Consumption:	0.35W @ 12V DC 1W @ 24V DC 5W @ 230V DC	1. Failsafe L H 3,4. Input on Delay ON DIP L = Emptying / Low Alarm 0S 5S 15S 120S H = Filling / High Alarm 3 4 3 4 3 4 3 4 3 4		
Inputs:	Single sensor Input 2 Trigger Twin sensor Sensor 2 latch, sensor 1 is trigger Normally 5V DC Active 0V DC	UN DIP H= Filling / High Alarm Image: Constraint of the second sec		
Max Input Resistance:	2,000 ohms	Supersensitive		
Outputs:	Relay Volt Free SPCO contacts 5A @ 230v resistive LED'S Yellow = Power On Red = Relay Energised Green = Sensor 1 Active Green = Sensor 2 Active	View of Probe Head		
Operating Temp:	-10°C to +60°C			
Enclosure UC1/P: UC1:	50W x 61H x 75D 11 Pin Plug in Base connector 11 Pin relay 130W x 170 H x 85D	5 9 8 11 Pin Base Controller		
Weight UC1/P: UC1:	215 gms 850 gms	11 Pin Base Connections for UC1/P		
Diagnostic:	Flashing Input L.E.D.'s Mode 2 - Input 2 u/s, incorrect wiring/connection or probes reversed Mode 1 - Flashes if input is connected to input 1 & active Fast flash 3 sec no timer options selected Slow flash 1 sec in timing loop.	Sensor 2 G If 2 Sensors Used		
Fail to Saf	e (DIP Switch 1)			

Fail to Safe (DIP Switch 1)

Full fail to safe operation selectable via dip switch setting. The following table gives input/output states ignoring any delays.

			~	Supply
Input (volt)	Fail to Safe Low	Fail to Safe High	+Vdc	1,
High +5V	Output Relay de-energised	Output Relay energised		
Low 0V	Output Relay energised	Output Relay de-energised		
	· · · · ·			

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

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Aux +v

~ N 0Vdc