

## Introducing iCO

### The next generation sprinkler system

#### 20+ reasons why iCO

**On average iCO uses 80% less water than standard sprinkler systems.**



#### TESTED TO BS:8458

iCO is third party tested by Exova Warrington Fire to BS:8458 and BS:9252.

#### SIGNIFICANT SAVINGS

With the revolutionary technologies throughout iCO, fire safety can be offered at a reasonable price for the first time.

#### FLEXIBLE HIGH PRESSURE HOSE

Using flexible small bore high pressure hose the iCO system is easy to install.

#### SMS CONNECTIVITY

iCO System Monitoring provides real time alerts as either phone-calls or SMS messages direct to your phone or smart device. On V2 pumps. Optional.

#### LOW PRESSURE SWITCH

Water supply mains low pressure monitoring protects the pump against the possibility of running dry.

#### FLUSH NOZZLES

The iCO nozzles sit flush with the ceiling making them as discrete as possible.

#### SELF TESTING

The iCO pump unit automatically tests monthly to ensure the unit is functioning correctly.

#### LOW FLOW

iCO runs purely from the mains water supply, no large water storage tanks required.

#### EASY TO RETROFIT

iCO's simple design and flexible hoses make retrofitting a breeze when compared to convention sprinklers.

#### SERVICEABILITY

The new pump has a removable cover so that the internal components can be serviced and maintained in the field by the installing company. Pumps can now be repaired in the field rather than being sent back to the manufacturer which will save on costly revisits.

#### INTEGRATED INLET/OUTLET MANIFOLDS

All of the inlet manifold (Strainer, low pressure switch, actuated ball valve) and outlet manifold (isolation valve, pressure gauge, drain valve) are now integrated within the enclosure. No more untidy valves and hoses.

#### NO PERMANENT DRAIN REQUIRED

Operation of the pump is no longer requires a permanent drain to be provided.

#### WALL OR FLOOR MOUNTING

If fitted on the floor or in a cupboard the enclosure has a flat back which fits neatly against a wall. Fixing holes are provide in the back of the chassis for optional wall mounting.



#### LOW STANDING PRESSURE

The system now operates off a flow switch rather than a pressure switch. This means that the system will eventually drop down to mains water pressure and sit there indefinitely without calling the pumps to work. Previously any loss in pressure due to a small leak in the distribution pipework could cause the pumps to come on at undesirable times. Now the system sits at mains water pressure and will not bring the pumps on unless there is a significant flow of more than 0.5lpm.

#### FIRE RESISTANCE

The pump enclosure is now completely constructed from steel providing fire resistance and additional resistance against mechanical damage.

#### ACTUATED BALL VALVE

Previously after the pump had finished its run time it would cut power to the pumps however it would still be able to run indefinitely at mains water pressure. We have now integrated an actuated ball valve which will shut off the water supply and the power to the pumps following elapse of the selected run time.

#### DRIP TRAY WITH FLOAT SWITCH

There is always a risk of damage to products during transit or installation. The risk of damage to property as a result of internal components leaking is almost eliminated with the addition of a drip tray and float switch within the base of the pump enclosure. In the event of any escape of water from damaged components the float switch will operate and close that actuated ball valve to shut off the water supply to the pump

#### CORROSION RESISTANCE

The internal pump components are now made of the highest quality corrosion resistant materials.

#### ROBUST OPERATION

There are no solenoid or pressure relief valves that run to permanent drain. This avoids any problems associated with dirt under the seals which could result in a small escape of water and pumps running at undesirable times.

#### ADJUSTABLE PUMP RUN TIME

The pump runtime can be adjusted with a dial switch to suit 30min (Residential) or 10min (Domestic) depending on the category of the system.

#### PRE-ACTION / DOUBLE KNOCK OPERATION

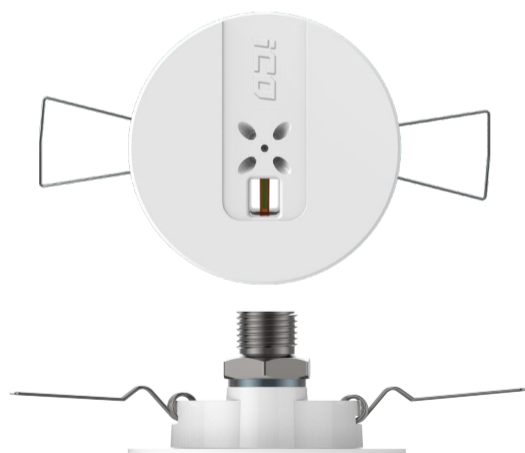
With any water based fire suppression system there is always risk of unwanted operation through accidental or malicious damage to pipework or nozzles/sprinklers. The discharge of water could be potentially damaging to the property the system is protecting.

As an additional measure to protect against unwanted operation we have incorporated facility to receive an input from the smoke detection system on the pump control and monitoring board. When using this facility, the pumps would need to have both the smoke detection and the nozzle operate before the pumps will run. If just the nozzle operates the system will not run. If just the smoke detection operates the system will not run. Both smoke (to operate the detection system) and heat (to operate the nozzle) will need to be present for the system to run.

Whilst this is an optional facility iCO would recommend that you use this on every installation to provide an additional level of protection against unwanted operation.

The smoke detection system must be compliant with BS5839 pt6 Grade D LD1 with detection provided in every room that is protected by the mist system.

**iCO's flush nozzles sit at just 3mm below the ceiling level making them the most aesthetically pleasing nozzles available today.**



#### RELAY CONNECTIONS

Additional relays have been provided for connection to 3rd party equipment

- 2x Fault relay NO / NC
- 2x Alarm relay NO / NC

This will allow for connection to multiple equipment such as fire alarms and AOV's without having to provide external relay boxes.

#### EXTERNAL POWER OUT

12v Power out has been provided for powering 3rd party equipment such as GSM alarm diallers for remote monitoring or external relays.

#### BATTERY BACKED UP

The board is battery backed up to provide an intermittent audible alarm to warn occupants that the mains power to the pump is switched off.

#### LCD DISPLAY

An internal LCD Display has been provided on the control and monitoring board which indicates the status of the system.

#### THERMAL FUSE

A thermal fuse has been provided on the control and monitoring board to cut the power if the temperature reaches over 100degC.

#### REMOTE STOP BUTTON

Connection for a remote pump stop button has been provided on the control and monitoring board. This can be run out in a radial circuit to a push button.

#### REMOTE START BUTTON

Connection for remote pump start button for use on kitchen systems or other applications has been provided on the control and monitoring board. This can be run out on a radial circuit to a yellow break glass call point or similar.

Note: If this pump is used for any application other than residential and domestic water mist such as commercial kitchens system or saunas it must be used with an appropriate fire tested nozzle for use in that specific application.

iCO nozzles should not be used for any application other than residential or domestic water mist.

#### ADJUSTABLE PUMP RUN PRESSURE

The pump run pressure can be adjusted from 10 100 bar to suit different nozzles which may be used for protection of different applications.

#### IP RATING

The new pump has a rating of IP53

For more info on the most innovative domestic fire suppression systems, please visit our website:

[ico-products.com](http://ico-products.com)

#### Quality Assurance



Patents granted: United Kingdom, USA, Australia, Europe

Patents pending: UAE