100% Water Saving ✔
Code Compliant Testing ✔
Simplicity of Testing ✔
Less System Corrosion ✔

A quick and simple, sustainable solution for performing quarterly flow-switch tests



zonecheck®

THE **AUTOMATIC** FLOW SWITCH TEST SYSTEM

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THE AUTOMATIC FLOW SWITCH TEST SYSTEM

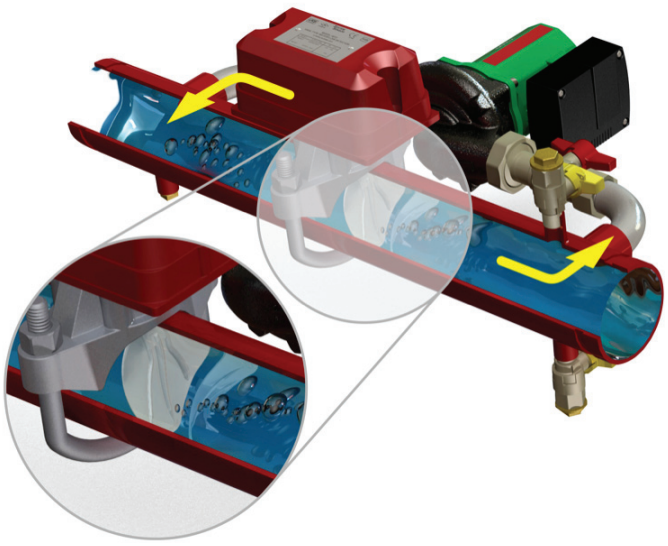
Zonecheck® is a sustainable solution for sprinkler system flow-switch testing, that can cut costs and save time when carrying out mandatory tests.



When a fire certificate is issued for sprinkler protected premises, it stipulates that the system must be maintained and tested to the British Standard. Currently this is BS EN12845. These rules make the quarterly flow switch test mandatory.

Flow-switches installed in a sprinkler system are required to be tested on a quarterly basis, and for that test to be valid, sufficient water must pass the flow-switch to activate it, (equal to one sprinkler head in operation). Prior to a conventional routine test, the pressure on both sides of the flow switch is equal, maintaining an equilibrium with no water flowing. During a routine test, water is discharged from the down stream end of the pipe, causing a drop in the pressure. This pressure difference across the flow switch generates a water flow causing the flow-switch to operate.

The unique Zonecheck system is the modern way to carry out this important test quickly, efficiently and inexpensively with dramatic water savings makes using Zonecheck the obvious choice for performing the quarterly flow-switch test. Zonecheck simplifies testing by re-circulating the water within the pipe around the flow switch, to simulate the flow of one sprinkler head in operation, regardless of where the Zonecheck is installed or located on the system. Zonecheck is simple and easy to use, requiring no specialist skills and this flow-switch test system can be operated at any time. It does not require evacuation of the building and therefore has no effect on normal functioning of the building.



The Functional Principle

The Zonecheck® solution is simply to connect a pump and create a loop around the water-flow detector, then by switching on the pump, an artificial pressure difference can be created across the water-flow detector. This in turn generates a water flow around the loop, causing the water-flow detector to operate, but this time without any loss of water from the system.

In a standard test, water is discharged from the sprinkler system to create a flow past the water-flow detector causing it to operate.

Zonecheck® simply re-circulates the existing water and the water-flow detector (irrespective of the static pressure) using a closed system with no water discharge.

Green Testing

For a building with fifty flow-switches carrying out a quarterly test, Zonecheck will save 64,000 litres of drinking water annually. Thats over 3 million litres of water over the buildings life cycle!

Not only is Zonecheck green but it can also save building owners money. Traditional testing methods are difficult, labour intensive and costly requiring two sprinkler engineers to perform a test. Zonecheck can do all this remotely with a turn of a key requiring no speciallist skills.

Benefits of Zonecheck

- ✔ 100% Water saving
- ✔ Sustainable
- ✔ Fully approved
- ✔ Remote flow-switch testing
- ✔ Easy to install
- ✔ User friendly
- ✔ Carry out a code compliant test with a turn of a key
- ✔ Reduced system corrosion
- ✔ No additional man power required to carryout tests
- ✔ No fire pumps to operate to refill system

2nd Generation Zonecheck

In response to the ever-increasing size and complexities of modern buildings, coupled with demand for more effective building management, Project Fire has developed Zonecheck Addressable. For more information contact one of our representatives for a brochure or visit www.projectfire.co.uk

SUSTAINABILITY
in Fire Protection

100% Water Saving

With Zonecheck™ there is no unnecessary discharge of water. Typically with 4 tests required per annum, Zonecheck™ saves 1280 litres of water per annum for each water-flow detector that is installed. As water is not replaced during testing, pipe corrosion is also reduced.

Increased energy efficiency and lower costs

Testing normally requires the fire pumps to operated and manually switched of after each test. Zonecheck® creates a closed loop test circuit so that fire pumps are not required to operate. With Zonecheck®, as no water is discharged, testing is easy, takes less time and requires no additional manpower.

Reduced life cycle carbon footprint

Testing with Zonecheck® is quicker requiring less resources (water, electricity and man power) substantially reducing the carbon footprint of maintaining a sprinkler system.

To learn more about Zonecheck®, view case studies and obtain technical information please visit
www.projectfire.co.uk/zonecheck

Product Solutions

Zonecheck® is a factory built and tested unit.

Zonecheck®

The 'new build' Zonecheck® is factory assembled and tested complete with rolled ends for simple site installation in new buildings.



Zonecheck® Prewired

A factory wired and tested Zonecheck® for easier site installation and reducing installation costs.



Zonecheck® Retrofit

Permits installation of Zonecheck® to existing flow switches in existing buildings.



Zonecheck® Live

Zonecheck® live has been engineered to simplify the retro-fitting of Zonecheck® to an existing flow switch without draining down. See www.livetap.co.uk/zonecheck

Zonecheck® Addressable

The next generation of Zonecheck® has been developed to incorporate a fully addressable looped system managed remotely from a central controller.



Approvals

Zonecheck™ connects into a wet-pipe sprinkler system using two mechanical couplings (sized to match pipe diameter). LPCB approved Zonecheck™ equipment shall be installed throughout the property in accordance with the code standards for zoning.

Standards

In the majority of multi-occupancy sprinklered premises it is a requirement of BS EN 12845:2003 that each tenant should carry out a functional test on a fitted flow-switch every quarter. All international fire code standards such as NFPA etc all make the flow-switch test mandatory. Zonecheck® can carry out this test by simply initiating a key-switch. Only equipment currently approved by the Loss Prevention Certification Board (LPCB), Underwritters Laboratories (UL), Factory Mutual (FM) and VdS is used as a part of Zonecheck®.

Operating Principle

Zonecheck® simplifies testing by re-circulating the water within the pipe around the flow-switch to simulate the flow of one sprinkler head in operation, regardless of where the Zonecheck® is installed or located in the system. As water operates the flow-switch paddle and electronic signal is sent back to the key-switch to indicate that the flow-switch has operated correctly. Throughout the whole process water is being re-circulated within the system and no water is discharged Zonecheck® is a closed loop system.

Technical Detail

Zonecheck™ is supplied as an assembled unit to BS EN 10255 (formerly BS 1387) medium weight tubing. Supplied with rolled ends, with an end to end distance of 450mm with red paint finish and manufactured in accordance with quality procedure EN ISO 9001: 2008. Zonecheck® is available in the following pipe diameters: Ø50 mm, Ø65 mm, Ø80 mm, Ø100 mm and Ø150 mm.

Zonecheck® Specifications	
Working Pressure Rating	Water, 12 bar (175 psi) maximum
Operating Temperature Range	0°C - 49°C (32°F – 120°F)
Pipe Diameter	50, 65, 80, 100, 150 & 200 mm (2, 2½ 3, 4, 6 & 8")
Valves	Inlet (red): 1" Angled Ball Valve Cimberio model 236
	Oulet (green): 1" Angled Ball Valve Cimberio model 236
	1" Adaptor with Non-return Valve FAR F8344-2540
	½" Ball Valve M-F; Ball Valve; Cimberio 301-12
Approvals	LPCB, UL, FM and VdS
Circulation Pump	
Operating Voltage	1~230v 50Hz
Full Load Current	0.93 A
Power Rating	195 W maximum
IP Rating	IP44
WP Rating	12 bar (175 psi)
Capacitor	5.0 µF/400 VDB
Flow-switch	
Type	WFDE
Contact Rating	10A @ 125/250 VAC; 2.5 A at 24 VDC
IP Rating	IP54
Contacts	2 change-over contacts
Triggering Flow Rate	30–57 l/min
Working Pressure	17.25 bar (250 psi) maximum; 16 bar (VdS)
Time Delay	0 - 30s
Key-switch	
Mounting	Flush-mounting
Type	ZCK-1E
Operating Voltage	Single-phase 220 V, 50 Hz
Internal Comsumption	7.5 W Maximum
Operation Modes	Self-test: Wired locally
	Group test: Interconnected
LED Operation:	
Standby (ready state)	No LED
Test Initiation	'Pump' LED (green)
Flow-switch Activation	'Water Flow' LED (green)

ProjectFire
Innovators in fire protection

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