

## NFSTI

### NOTIFIER Self-Test Detector



NOTIFIER's range of addressable detectors has just been improved with Europe's first Self-Test series of detectors, which fully automate detector testing by introducing real smoke and heat into the detector.

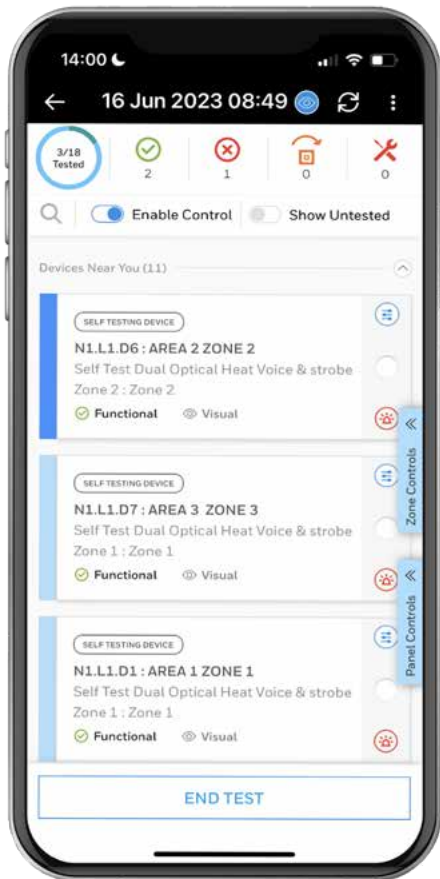
The patented Self-Test design performs real sensor tests by safely heating the thermistor and also by generating real smoke to test the optical sensor. The small fan within the device blows the aerosol from the detection chamber, through the detector's smoke entry points to prove they are free from any blockages.

Each device also incorporates a Bluetooth Low Energy Transmitter (BLE). The BLE transmitter acts as a beacon within each detector and can be automatically picked by the Connected Life Safety Services (CLSS) app. This beacon allows the test engineer to view all the devices within visual inspection range along with the associated device information. They can then confirm that they have completed the visual inspection to full compliance through a simple swipe on the CLSS app.

All the new benefits of Self-Test are delivered while maintaining full electrical and mechanical backwards compatibility with the previous detector base and, after you have installed the new NOTIFIER INSPIRE panel, you can upgrade to this exciting new technology.

#### Detector features:

- › Available in 3 different variants:
  - NFSTI-OPT: optical isolated
  - NFSTI-SMT2: multi-criteria, optical-thermal isolated
  - NFSTI-THE: thermal programmable (fixed heat or rate-of-rise), isolated
- › Two LEDs on each sensor light to provide a local 360° visible indication
- › Remote LED indicator capability is available as an optional accessory wired to the standard base terminals, dependent on panel
- › The NFSTI sensor includes an isolator that can be selected or deselected according to the wiring
- › Rotary switches for address selection: from 01 to 159 (exact number depends on panel capability)
- › Tamper resistance to prevent device removal from the base without a tool
- › Controllable both in AP and CLIP protocol (Self-Test mode requires AP)
- › Color: Pure white



## Self-Test features:

- › Capable of testing both optical and heat sensors
- › Embedded smoke Self-Test module allows up to four tests a year over the lifetime of the detector (10 years)
- › The Self-Test module is equipped with a fan to evenly spread smoke in the optical chamber and to test clearance of smoke entry points, proving the detector is unmasked
- › Test time: up to 1 minute per device. This can be done across multiple loops and panels simultaneously
- › Flexible testing options allow the engineer to test in different ways – single device, loop(s), panel(s)
- › Improves access issues during testing and ensures 100% functional testing is achieved

## Performing the visual inspection with CLSS

- › Bluetooth Low Energy (BLE) beaconing via a mobile and CLSS app allows the engineer to easily locate the detector, to check the device label, device type, device number, zone and zone description
- › The app and BLE beacon verify that the engineer has been within visual inspection range
- › Test Fire LED option in the app allows the fire LED to be tested. This feature can additionally confirm that they are visually inspecting the correct device
- › The CLSS app allows the engineer to simulate a fire and test the Cause & Effect logic as well as seeing a full list of the outputs that have been triggered by the simulated or Self-Test generated fire.

# Specification

## Common specifications

- › Operating current @ 24 VDC 200  $\mu$ A @ 24 VDC (one communication every 5 seconds with green LED blinking on communication)
- › Maximum alarm current 2 mA @ 24 VDC (one communication every 5 seconds with red LED solid on)
- › Maximum current 4.5 mA @ 24 VDC (one communication every 5 seconds with amber LED solid on)
- › Operating humidity range 10% to 93% Relative Humidity, Non-condensing
- › Operational temperature: -5°C : +47°C
- › Weight 110 g
- › Diameter x height 102 mm x 55 mm
- › Isolator characteristics: See specification S00-7500

## NFSTI-OPT specifications

- › Maximum Self-Test alarm current 300 mA @ 15 VDC, 180 mA @ 24 VDC
- › Air velocity range 0 to 20 m/s
- › Air velocity range using Self-Test 0 to 1.5 m/s

## NFSTI-SMT2 specifications

- › Maximum Self-Test alarm current 300 mA @ 15 VDC, 180 mA @ 24 VDC
- › Operating air velocity range 0 to 20 m/s
- › Operating air velocity range using Self-Test 0 to 1.5 m/s
- › Set for fixed temperature Rate-of-rise 10° C/minute temperature sensing (Cat. A1R)

## NFSTI-THE specifications

- › Maximum Self-Test alarm current 7 mA @ 15 VDC, 5 mA @ 24 VDC
- › Set for fixed temperature & (ROR) Fixed 58° C and rate-of-rise (10° C/minute temperature sensing (Cat. A1R)
- › Set for high heat Fixed 78° C temperature sensing (Cat. BS)
- › Set for fixed temperature Fixed 58° C temperature sensing (Cat. A1S)

It is normal to hear a noise from the fan during the self-test operation. This noise will differ from device to device and this is perfectly normal.

## List of patents

- › H218226-GB
- › H218226-DE
- › H218226-FR
- › H218226-EP
- › H218226-US-CON
- › H218226-CN
- › H213983-US-CON
- › H213983-CN
- › H222549-US
- › H221422-US
- › H220104-US
- › H219291-US

## Approvals

- › Approvals - EN54, VdS, UKCA and CE.
- › The first detector to ever be EN54 tested and approved after the completion of heat and smoke maintenance testing.
- › Compliant to BS3589-1 testing standards.

## System requirements

- › Self-Test features compatible with NOTIFIER INSPIRE panels with SW Version 1.2.0-R.108 or later version.
- › Self-Test is a licensed feature, please refer to your CLSS account on how to activate self-test functionalities.
- › MCB / MCC and loop cards will require firmware upgrades to operate Self-Test and BLE features.
- › Only supported on current EN54 loop cards (not legacy loop cards).
- › Requires a CLSS gateway (1 per network domain).
- › Requires the CLSS mobile app.

## Reporting and monitoring

- › A full compliance report can be generated on completion of the testing.
- › The number of Self-Test's consumed per device is captured through CLSS, enabling a quick check of usage.
- › Reports identify how devices have been tested – manually or through Self-Test.
- › Reports identify how the device was visually inspected, with or without BLE.
- › Any corrective actions are also captured in the reports.

## Product range

NOTIFIER Self-Test comes in 3 SKUs:

SKUS	DESCRIPTION	CERTIFICATIONS
NFSTI-OPT	Self-Test optical detector with isolator	EN 54-7: 2018, EN 54-17: 2005/AC: 2017
NFSTI-SMT2	Self-Test optical-thermal detector with isolator	EN 54-5: 2017 + A1: 2018 Cat A1R, EN 54-7: 2018, EN 54-17: 2005/AC: 2017
NFSTI-THE	Self-Test thermal programmable with isolator	EN 54-5: 2017 + A1: 2018 Cat P, EN 54-17: 2005/AC: 2017

## Accessories

SKUS	DESCRIPTION
B501AP	Self-Test mounting base. Pure white



\*UKCA pending by approval bodies

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