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AS 2362.21—1990

Australian Standard®

Automatic fire detection and alarm systems—Methods of test for actuating devices

Method 21: Endurance test

1 SCOPE This Standard sets out the methods of testing the response of an actuating device to repeated use, and the robustness of any manual switches fitted to it. (See performance requirements in the appropriate device Standard.)

2 REFERENCED DOCUMENTS The following document is referred to in this Standard:

AS

2362 Automatic fire detection and alarm systems—Methods of test for actuating devices

2362.17 Method 17: Sensitivity test

3 PRINCIPLE The actuating device is subjected to repeated alarm cycles to determine its ability to function with an externally connected electrical load.

4 PROCEDURE The procedure shall be as follows:

- (a) Conduct sensitivity test in accordance with AS 2362.17 and record results.
- (b) Connect the device to the power supply. If battery-only operated, connect the device to a filtered d.c. supply with an output voltage equivalent to the fresh battery voltage.
- (c) Subject the device to 1000 cycles of 5 s alarm signal operation at a rate of not more than 10 cycles per minute with the output(s) loaded at the manufacturer's specified rated load. Check that the device is capable of operating as intended and that there has been no electrical or mechanical failure.
- (d) Conduct sensitivity test in accordance with AS 2362.17 and record results.
- (e) Operate the device continuously for 8 h of alternate 5 min periods of being energized and de-energized in the standby and alarm conditions, followed by 72 h of continuous energization in an alarm condition. Check that the device operates as intended.
- (f) Operate the device for 1500 cycles at the rate of not more than 10 cycles per minute. The time of actuation of any test means shall be sufficient to obtain at least 1 s of alarm. Check that the sensitivity adjustment switches, test means and alarm silencing or reset switches are capable of performing as intended.

NOTE: This test may be conducted in conjunction with the test procedure (c) above.

5 REPORTING OF RESULTS The following shall be reported:

- (a) Information identifying the actuating device.
- (b) Whether the actuating device was capable of operating in the normal manner throughout the tests.
- (c) Reference to this test method.

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