

DIN EN 54-13:2017-05 (E)

Fire detection and fire alarm systems - Part 13: Compatibility and connectability assessment of system components

Contents		Page
European foreword.....		5
Introduction		8
1 Scope.....		9
2 Normative references.....		9
3 Terms, definitions and abbreviations		10
3.1 Terms and definitions		10
3.2 Abbreviations.....		11
4 Requirements.....		11
4.1 Compliance.....		11
4.2 Basic requirements		12
4.3 Transmission path(s)		12
4.3.1 General.....		12
4.3.2 TP using wires		13
4.3.3 TP using radio frequency link		13
4.3.4 TP using optical fibre.....		13
4.3.5 Network TP.....		13
4.4 Documentation.....		14
4.4.1 General.....		14
4.4.2 Documentation for compatibility.....		14
4.4.3 Documentation for connectability		14
4.4.4 Software documentation		15
5 Assessment methods and tests.....		15
5.1 General.....		15
5.2 Provision of equipment and supporting information and tools		15
5.3 Configuration.....		16
5.3.1 General.....		16
5.3.2 Configuration at field level for assessment		16
5.3.3 Configuration at control level for network assessment.....		16
5.4 Standard atmospheric conditions for testing		17
5.5 Functional test for compatibility assessment on field level		17
5.5.1 The objective of the test.....		17
5.5.2 Test schedule		17
5.5.3 Functional tests for compatibility in the different conditions.....		18
5.6 Functional tests for connectability assessment on field level		22
5.6.1 The objective of the test.....		22
5.6.2 Test schedule		22
5.6.3 Functional test for connectability		22
Annex A (informative) Example of levels used in FDAS		23
Annex B (informative) Classification of functions of the FDAS.....		24
B.1 General.....		24
B.2 Fire detection function.....		24

B.3	Fire alarm to occupants in the premises	24
B.4	Fire alarm to summon external assistance (usually the fire brigade)	24
B.5	Activation of fire protection function	24
B.5.1	Equipment directly triggered by the FDAS	24
B.5.2	Systems driven by the information coming from the FDAS	24
B.6	Remote indication 1 (remote panels, fire brigade panels, etc.)	24
B.7	Remote indication 2 (printers, interface to building management system, etc.)	25
B.8	Input function	25
B.9	Output function	25
B.10	Devices used to connect transmission paths (gateway, data switch, etc.)	25
	Annex C (informative) Example methodology for theoretical analysis	26
C.1	Introduction	26
C.2	Method of test	26
C.2.1	General	26
C.2.2	List of characteristics	26
C.2.2.1	Mechanical connections	26
C.2.2.2	Power supply and distribution analysis	26
C.2.2.2.1	Voltage range	26
C.2.2.2.2	Current	27
C.2.2.2.3	Supply characteristics	27
C.2.2.2.4	Power supply voltage range	27
C.2.2.2.5	Fault performance	27
C.2.2.3	Data exchange analysis	27
C.2.2.3.1	General	27
C.2.2.3.2	Transmission characteristics	27
C.2.2.3.2.1	General	27
C.2.2.3.2.2	Voltage range	27
C.2.2.3.2.3	Current	28
C.2.2.3.2.4	Timing	28
C.2.2.3.2.5	Tolerances	28
C.2.2.3.2.6	Fault performance	28
C.2.2.3.3	Transmission protocol(s)	28
C.2.2.4	Functionality	28
C.2.2.4.1	General	28
C.2.2.4.2	Received data	28
C.2.2.4.3	Transmitted data	28
	Annex D (normative) Software design documentation	29
	Annex E (informative) Flowchart for assessment of compatibility / connectability	31