

September 2005
FM Approvals
APPROVAL GUIDE

CHAPTER 14
ELECTRICAL SIGNALING

Electrical protective signaling systems are configurations of components used to produce alarm signals indicative of fire, smoke, sprinkler waterflow or other emergency and to produce supervisory signals indicative of conditions needing attention with respect to protection equipment or watch service. System configurations are classified according to where and how the signals are received. The categories are commonly designated as local, municipal, remote station, proprietary and central station. Auxiliary systems are either local or proprietary systems interconnected with a municipal system.

This chapter presents the major system component categories and the integrated system configurations. The selection of components to form a hybrid system should be made only by those skilled in system design. Also, the suitability of any system application should be judged on the basis of the hazard(s) being protected.

Alarm Signal Initiating Devices - Manual Stations

Manually operated fire alarm boxes may be added to an otherwise automatically actuated system and should be located to be readily accessible. They may initiate coded or noncoded signals. Some are combined with watchman tour stations with separate distinguishable signals produced.

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Federal Signal Corporation, 2645 Federal Signal Drive, University Park IL 60466-3195

Non-coded Manual Fire Alarm Station Model Nos. FSF103-M1 dual action and FSF102-M1 single action pull stations. All models are Approved for indoor use with a standard 2 in electrical metal back box. The contacts rated 10 A at 120 V ac. Stations have an operating temperature range of -40° to 150°F (-40° to 66°C); and suitable for indoor/outdoor applications when used with NEMA 4X enclosure.

NOTIFICATION APPLIANCES

These audible and visual signaling devices are used to indicate alarms, supervisory signals and equipment trouble conditions. Audible devices take the form of bells, horns, electronic tone generators, buzzers and chimes. Speakers for emergency voice communication also are often included in signaling systems. Because distinctive signals are necessary, more than one type of device may be needed in a system, or devices capable of producing coded signals may be used. Visual signals may be produced by lamp type or target type annunciations. Printers, code registers and CRT displays also are often included in signaling systems. See also EMERGENCY VOICE/ALARM COMMUNICATION SYSTEMS.

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Federal Signal Corp Signal Div, 2645 Federal Signal Dr, University Park IL 60466

Vibrating Bells. Vibratone Models 500, 504WB, 506WB, and 510WB for 24, 120, or 240 V ac (50/60 Hz) with 4, 6, or 10 in. gongs (102, 152, or 254 mm) for indoor or outdoor use (NEMA 3R) when used with weatherproof mounting back-box Model WB. Accessories available: Models NB, NBL, SF, CC, WB, FB, FBL, FG, and TP.

Vibrating Bells. Vibratone Models 600, 604WB, 606WB, and 610WB for 6, 12, or 24 V dc with 4, 6, or 10 in. gongs (102, 152, or 254 mm) for indoor or outdoor use (NEMA 3R) when used with weatherproof mounting back-box Model WB. Accessories available: Models NB, NBL, SF, CC, WB, FB, FBL, FG, and TP.

Resonating Horns. Model 55 for 24 or 120 V ac (50/60 Hz) and Model 56 for 12 or 24 V dc for indoor or outdoor use (NEMA 3R).

Vibrating Horn. Model 350, or 350WB for 12, 24, 120, or 240 V ac (50/60 Hz) for indoor or outdoor use (NEMA 3R) when used with weatherproof mounting back-box Model WB. Accessories available: Models NB, NBL, SF, CC, WB, FB, FBL, FG, and TP.

Vibrating Horn. Model 450 for 12, 24, 125, or 250 V dc for indoor or outdoor use (NEMA 3R) when used with weatherproof mounting back-box Model WB. Accessories available: Models NB, NBL, SF, CC, WB, FB, FBL, FG, and TP.

Electric Siren. Model A for 120 V ac (25-60 Hz) for indoor or outdoor use (NEMA 3R).