

Division 28 Electronic Monitoring and Control

28 30 00 Electronic Detection and Alarm

28 31 00 – Fire Detection and Alarm

- A. The manufacturer shall be FCI, 7100 Series FACP.
- B. Approval by an authority having jurisdiction is required before shop drawings are reviewed.
- C. Record Drawings: Include changes made during system testing and acceptance.
 - 1. Record drawings shall be provided a minimum of 48 hours prior to the time of scheduling of partial or final inspection. Indicate the following:
 - a. Alarm initiation devices with addresses.
 - b. Alarm signal devices with module location/address and circuit number.
 - c. Door holder and smoke dampers with module location/address.
 - d. Air handling units with module location/address.
 - e. Junction and pull boxes.
 - f. Layout of conduit.
 - g. 120 VAC power source for control panel, door holders, and fire/smoke dampers.
 - h. Location of all “end-of-line resistors”.
 - i. Calculations for voltage drop on circuits, battery, and audio amplifier sizing.
 - 2. Record drawings shall be updated and resubmitted after all testing and checkout has been completed and accepted, and shall include any corrections and/or changes made during final inspection.
- D. Fire alarm systems shall be addressable-type. The system shall be capable of on-site programming without use of computer connections. The control panel shall be capable of disabling and enabling all addressable devices during periods of maintenance or construction.
- E. Initiating Devices:
 - 1. Smoke detectors shall be photoelectric.
 - 2. Heat detectors shall be a combination of rate-of-rise and fixed temperature.
 - 3. Duct-mounted smoke detectors shall be photoelectric.
 - 4. Manual stations shall be single-action addressable.
- F. Signaling Devices:
 - 1. Audible devices shall be multi-tone horns or voice speakers.
 - 2. Visual devices shall be synchronized zenon strobes.
 - 3. Audible/visual devices shall be a combination of those above.
- G. Manual station guards, where required, shall be STI Stopper II with a 9-volt battery powered warning horn.
- H. Resident’s Room Smoke Alarm:
 - 1. 120-volt powered
 - 2. Local annunciation
 - 3. Connected to fire alarm system
- I. All changes, modifications, or addendums to alarm systems require the approval of the Environmental Health and Safety Fire Safety Specialist.
- J. Fire alarm panel must report a fire or trouble and system reset (normal) to public safety via digital communicator. Provide Radionics communicator for existing fire alarm systems.
- K. Provide full output/input table of fire alarm monitor and control points to Owner upon completion of installation.
- L. Install fire alarm cable in factory-colored red EMT conduit. Exposed raceways shall be Wiremold.
- M. Fire alarm testing shall be witnessed by a representative of Creighton University Environmental Health and Safety.

- N. FACP shall be keyed to match pull stations. Key shall match other systems on campus. Coordinate with Owner.
- O. FACP shall signal energy management system on alarm.
- P. Provide two (2) phone lines to digital communicator.
- Q. Contractor will not change any factory preset access codes in the fire panel. All codes will be left as they arrived from the factory. During the warranty phase all work on the panel will be conducted by the original installer. At the end of the warranty period the system will be maintained by the University's fire panel contractor.
- R. At completion of fire alarm testing, the Contractor shall ensure that the factory preset access codes in the fire panel are still in place.