

System Specification

Restaurant Electric Detection (RED)

ANSUL® RED Restaurant Electric Detection System
Restaurant Electric Detection (RED) Technology
for R-102 and Piranha Fire Suppression Systems

2021-April

Johnson Controls

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Furnish and set in place as per manufacturer's standard specifications including the following:

GENERAL CONDITIONS:

1. The Fire Protection Contractor shall be a Factory Authorized; Factory Trained and State Certified Distributor of the ANSUL® R-102 or Piranha and RED product line. The Fire Protection Contractor must also hold a current certificate in an ANSUL® R-102 or Piranha and RED Design, Installation, and Maintenance training program.
2. All installations will be completed in accordance with the latest revision of the ANSUL® R-102 or Piranha and RED Technical Manuals (Part No. 419087, Part No. 423385 and Part No. 447416).
3. The Fire Protection Contractor shall include a minimum 1-year installation warranty to cover the entire system.
4. The Fire Protection Contractor shall provide as part of the fire suppression system an ANSUL® R-102 or Piranha and RED electrically-operated gas valve. The Plumbing Contractor shall be responsible for the proper installation of the gas valve.
5. The General Contractor shall schedule the installation of the recessed ELECTRIC remote pull station(s) with the Fire Protection Contractor. Remote Electric pull station(s) shall be installed no more than 48 inches (122 cm) and no less than 42 inches (107 cm) above the finished floor.
6. The controller and display components must be mounted in an area where the air temperature will not fall below 32 °F (0 °C) or exceed 122 °F (50 °C). The system must be designed and installed within the guidelines of the UL and ULC Listed Design, Installation, Recharge, and Maintenance Manual (Part No. 447416, latest revision).
7. The Fire Protection Contractor shall furnish and install all appliance drops in accordance with UL-300 listed guidelines. All penetrations shall be made using UL-approved Quick-Seal device(s). Nozzle types, positioning, and aiming shall be in accordance with the listing.
8. All exposed appliance drops shall be chrome-plated or stainless steel.
9. All related electrical connections and devices shall be provided and installed by the Electrical Contractor. Low voltage will be provided by the installer from the controller(s) to all other components.
10. The RED system shall be connected to the FACP as required.
11. The fire suppression system's extinguishing agent shall be ANSULEX® Low pH or Piranha PRX®, a liquid fire suppressant
12. The Authorized Distributor shall design the RED systems to follow the sequences of events per hazard areas and peripheral equipment as designed.
13. The Fire Protection Contractor shall provide a sequence of operation on submittal drawings as requested.
14. KEC and General Contractor to coordinate with local authorized ANSUL® R-102 or Piranha and RED system Distributor/Fire Protection Specialist for products, installation, and system certification.

PRODUCT DATA:

1. ANSUL® Restaurant Electric Detection (RED) Technology is an electric, fully supervised and monitored technology designed to work with the ANSUL® R-102 and PIRANHA Fire Suppression Systems.
2. The technology is designed to detect fires in the following areas associated with cooking equipment; ventilating equipment including hoods, ducts, plenums, and filters; fryers; griddles and range tops; upright, natural charcoal, or chain-type broilers; electric, lava rock, mesquite or gas-radiant char-broilers and woks.
3. Electrical requirements: System Provides 12 VDC Power*, 100 mA max, for a display module. AC primary power (120/240 VAC, 50/60 Hz, 270 mA) with Rechargeable backup battery.
4. Battery – A 12 V 5.0 Ah sealed lead acid (SLA) battery is used to provide backup power for the system in the event there is an AC power failure. The battery provides 24 hours of backup power.
5. Detection: Linear Detection wire is used for the detection of fire with temperature ratings of 155 F, 280 F, 356 F and 500 F, color coded to its respective temperature rating. Thermal detectors may be used in place of linear detection wire.
6. The RED system has a 2 level password protection built in (Distributor/Owner). The system also has a cleaning mode to isolate selected detection circuits during hood cleaning. The default setting is 2 hour intervals before it resets itself while in cleaning mode.
7. The RED system is UL and ULC Listed (UL 300), meets requirements of NFPA 96 and NFPA 17A.
8. The manufacturer shall be ISO 9001-2000 registered.
9. The Fire Protection Contractor shall provide all and only genuine components as required for an operable system.
10. This pre-engineered ANSUL® R-102 or Piranha and RED systems must meet all applicable federal, state and local laws, rules, regulations and codes.