

PRODUCT INFORMATION

4098-9792 STANDARD SENSOR BASE

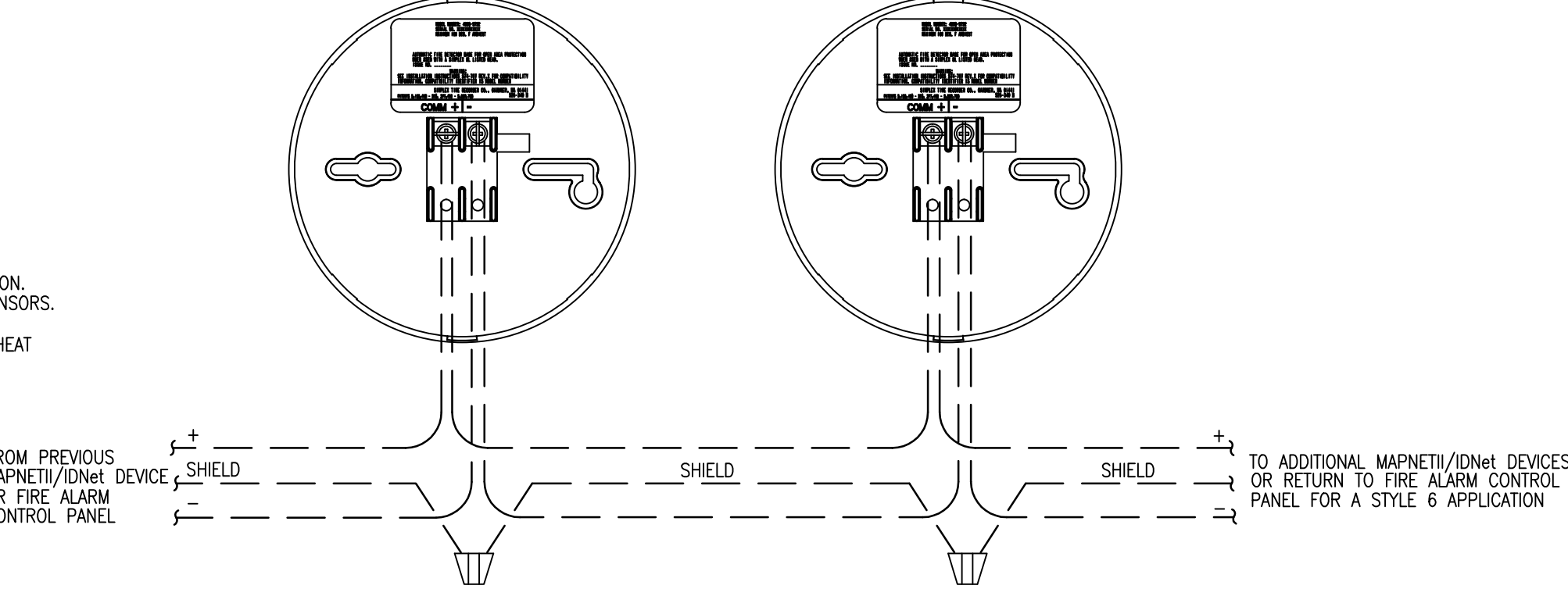
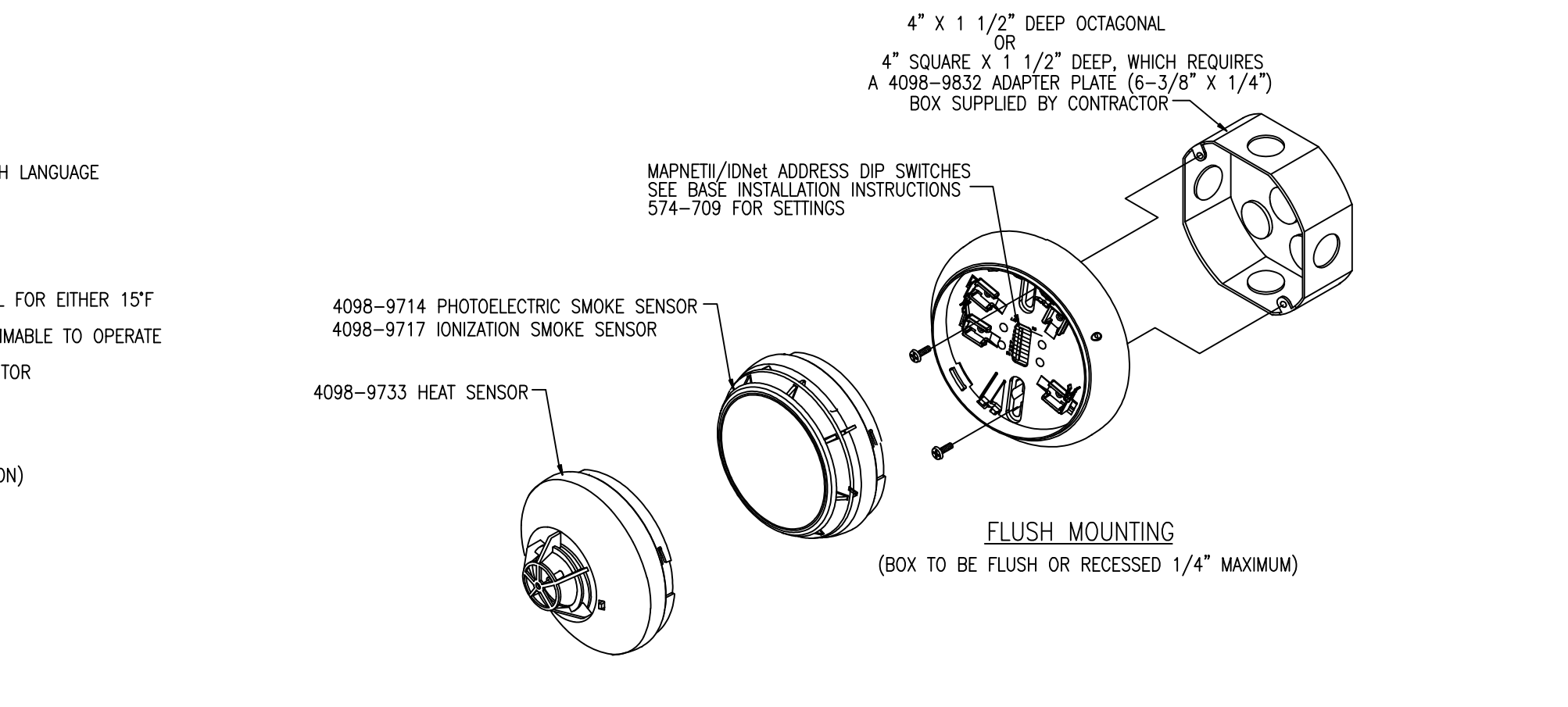
- FEATURES:**
- UL LISTED, FM APPROVED
 - TRIALARM ANALOG SENSING PROVIDES DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET, OR IDN^eT TWO WIRE COMMUNICATIONS
 - FIRE ALARM CONTROL PANEL PROVIDES:
 - INDIVIDUAL SENSITIVITY SELECTION FOR EACH SENSOR
 - PEAK VALUE LOGGING ALLOWING ACCURATE ANALYSIS FOR SENSITIVITY SELECTION
 - AUTOMATIC ENVIRONMENTAL COMPENSATION
 - DISPLAY OF SENSITIVITY IN PERCENT PER FOOT
 - MULTISTAGE ALARM OPERATION
 - ABILITY TO DISPLAY AND PRINT DETAILED SENSOR INFORMATION IN PLAIN ENGLISH LANGUAGE
 - PHOTOELECTRIC SMOKE SENSOR 4098-9714:
 - SEVEN LEVELS OF SENSITIVITY FROM 0.2% TO 3.7%
 - IONIZATION SMOKE SENSOR 4098-9717:
 - FOUR LEVELS OF SENSITIVITY FROM 0.5% TO 1.7%
 - HEAT SENSOR 4098-9733:
 - RATE-OF-RISE TEMPERATURE DETECTION IS SELECTABLE AT THE CONTROL PANEL FOR EITHER 15°F OR 20°F PER MINUTE
 - FIXED TEMPERATURE SENSING IS INDEPENDENT OF RATE-OF-RISE AND PROGRAMMABLE TO OPERATE AT 135°F (57°C) OR 155°F (68°C)
 - TRUEALARM HEAT SENSORS CAN BE PROGRAMMED AS A UTILITY DEVICE TO MONITOR FOR TEMPERATURE EXTREMES IN THE RANGE FROM 32°F TO 120°F.
 - UL STANDARD SPACING:
 - 60 FT SPACING FOR 135° F
 - 40 FT SPACING FOR 155° F
 - INTEGRAL RED LED FOR POWER-ON (PULSING), OR ALARM OR TROUBLE (STEADY ON)
 - BASE MOUNTED ADDRESS SELECTION:
 - ACCESSIBLE FROM FRONT (DIP SWITCH UNDER SENSOR)
 - ADDRESS REMAINS WITH ITS PROGRAMMED LOCATION
 - FOR USE WITH SIMPLEX 4010, 4100, 4020, AND 4120 SERIES CONTROL PANELS.
 - MAXIMUM QUANTITY OF DEVICES:
 - 127 FOR 4020, 4100, 4120
 - 250 FOR 4010, 4100
 - MOUNTING: CEILING OR WALL
 - COLOR: FROST WHITE
 - BASE DIMENSIONS: 1 1/2" X 4-7/8"

- SPECIFICATIONS:**
- UL LISTED TEMPERATURE RANGE: 32°F TO 100°F
 - OPERATING TEMPERATURE RANGE: 32°F TO 120°F
 - HUMIDITY RANGE: 10% TO 95% RH
 - PHOTOELECTRIC SENSOR AIR VELOCITY RANGE: 0-2000 FT/MIN
 - IONIZATION SENSOR AIR VELOCITY RANGE: 0-300 FT/MIN
 - WIRING CONNECTIONS: SCREW TERMINALS FOR IN/OUT WIRING, #18 TO #14 AWG
 - COMMUNICATIONS MAPNET/IDN^eT: 1 ADDRESS PER BASE
 - VOLTAGE (MAPNET/IDN^eT): 24-40VDC CURRENT: 400uA TYPICAL

DESCRIPTION:

TRIALARM SENSOR BASES CONTAIN INTEGRAL ADDRESSABLE ELECTRONICS THAT CONSTANTLY MONITOR THE STATUS OF THE DETACHABLE PHOTOELECTRIC, IONIZATION, OR HEAT SENSORS. EACH SENSOR'S OUTPUT IS DIGITIZED AND TRANSMITTED TO THE SYSTEM FIRE ALARM CONTROL PANEL EVERY FOUR SECONDS. SINCE TRIALARM SENSORS USE THE SAME BASE, DIFFERENT SENSOR TYPES CAN BE EASILY INTERCHANGED TO MEET SPECIFIC LOCATION REQUIREMENTS. THIS FEATURE ALLOWS INTENTIONAL SENSOR SUBSTITUTION DURING BUILDING CONSTRUCTION. WHEN CONDITIONS ARE TEMPORARILY DUSTY, INSTEAD OF COVERING THE SMOKE SENSORS, HEAT SENSORS MAY BE INSTALLED WITHOUT REPROGRAMMING THE CONTROL PANEL. ALTHOUGH THE CONTROL PANEL WILL INDICATE AN INCORRECT SENSOR TYPE, THE HEAT SENSOR WILL OPERATE AS A DEFAULT SENSITIVITY PROVIDING HEAT DETECTION FOR BUILDING PROTECTION AT THAT LOCATION.

- WIRING:**
- ALL WIRING TO COMPLY WITH LOCAL CODE.
 - CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
 - MAINTAIN CORRECT POLARITY.
 - MAPNET/IDN^eT WIRING TO BE #18 AWG TWISTED SHIELDED PAIR
 - IF SHIELD IS USED, TWIST SHIELD WIRES TOGETHER AND CAP WITH WIRE NUT. SHIELD SHOULD BE INSULATED FROM ELECTRICAL BOX.
 - REFER TO INSTALLATION INSTRUCTIONS (574-707)
 - REFER TO APPLICATION MANUAL (574-709)



PRODUCT INFORMATION

4098-9798 CO SENSOR BASE WITH SOUNDER

- FEATURES:**
- UL LISTED TO STANDARD 268, SMOKE DETECTORS FOR FIRE ALARM SIGNALING SYSTEMS AND STANDARD 2075, GAS AND VAPOR DETECTORS AND SENSORS; ALLOWING SYSTEMS TO BE LISTED TO STANDARD 2034, SINGLE AND MULTIPLE STATION CARBON MONOXIDE ALARMS.
 - CO SENSOR BASES SUPPORT (AND REQUIRE) A TRIALARM PHOTOELECTRIC, PHOTO/HEAT, HEAT, OR IONIZATION SENSOR.
 - PHOTOELECTRIC SMOKE SENSOR 4098-9714:
 - SEVEN LEVELS OF SENSITIVITY FROM 0.2% TO 3.7%
 - IONIZATION SMOKE SENSOR 4098-9717:
 - FOUR LEVELS OF SENSITIVITY FROM 0.5% TO 1.7%
 - HEAT SENSOR 4098-9733:
 - RATE-OF-RISE TEMPERATURE DETECTION IS SELECTABLE AT THE CONTROL PANEL FOR EITHER 15°F (-9°C) OR 20°F (-6.7°C) PER MINUTE
 - FIXED TEMPERATURE SENSING IS INDEPENDENT OF RATE-OF-RISE AND PROGRAMMABLE TO OPERATE AT 135°F (57°C) OR 155°F (68°C)
 - TRUEALARM HEAT SENSORS CAN BE PROGRAMMED AS A UTILITY DEVICE TO MONITOR FOR TEMPERATURE EXTREMES IN THE RANGE FROM 32°F TO 155°F (0° C TO 68° C).
 - UL STANDARD SPACING:
 - 40 FT (12.2 M) SPACING FOR 135°F (57°C)
 - 40 FT (12.2 M) SPACING FOR 155° F (68°C)
 - CO SENSOR BASES ARE MULTI-POINT DEVICES, CONSUME ONLY ONE IDN^eT ADDRESS, AND RECEIVE BOTH COMMUNICATIONS AND SENSOR POWER FROM THE IDN^eT CHANNEL.
 - MODULAR TRIALARM SENSOR BASE WITH BUILT-IN ELECTRONIC ALARM SOUNDER:
 - SOUNDER OPERATION IS UL LISTED AS AN AUDIBLE NOTIFICATION APPLIANCE TO UL STANDARD 464.
 - SOUNDER CAN BE POWERED FROM 24 VDC OR FROM A COMPATIBLE NOTIFICATION APPLIANCE CIRCUIT (NAC)
 - SOUNDER CAN BE SYNCHRONIZED CODED/TEMPORAL CODED BY COMMUNICATIONS, NAC OR TEMPORAL CODE. MODULE 4905-9835
 - SOUNDER CAN BE MANUALLY ACTIVATED FROM THE CONTROL PANEL
 - INTEGRAL RED LED FOR POWER-ON (PULSING), ALARM OR TROUBLE (STEADY ON)
 - FOR USE WITH SIMPLEX 4100 SERIES CONTROL PANELS.
 - MAXIMUM QUANTITY OF DEVICES: 250 FOR 4100 IDN^eT CHANNEL
 - MOUNTING: CEILING OR WALL
 - BASE DIMENSIONS: 1-1/8" X 6-7/16" (2.85 CM X 16.5 CM)

- CO SENSOR BASES ARE MULTI-POINT DEVICES, CONSUME ONLY ONE IDN^eT ADDRESS, AND RECEIVE BOTH COMMUNICATIONS AND SENSOR POWER FROM THE IDN^eT CHANNEL.**

- WIRING:**
- ALL WIRING TO COMPLY WITH LOCAL CODE.
 - CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
 - MAINTAIN CORRECT POLARITY
 - IDN^eT WIRING TO BE #18 AWG TWISTED SHIELDED PAIR
 - REFER TO INSTALLATION INSTRUCTIONS (574-707)
 - IF SHIELD IS USED, TWIST SHIELD WIRES TOGETHER AND CAP WITH WIRE NUT. SHIELD SHOULD BE INSULATED FROM ELECTRICAL BOX.
 - MAXIMUM QUANTITY OF SENSORS WITH 4098-9798 SOUNDER BASES LIMITED TO 43 PER SLC IF OUTPUT IS CODED (TEMPORAL CODE, ETC.) IDN^eT CONTROL.

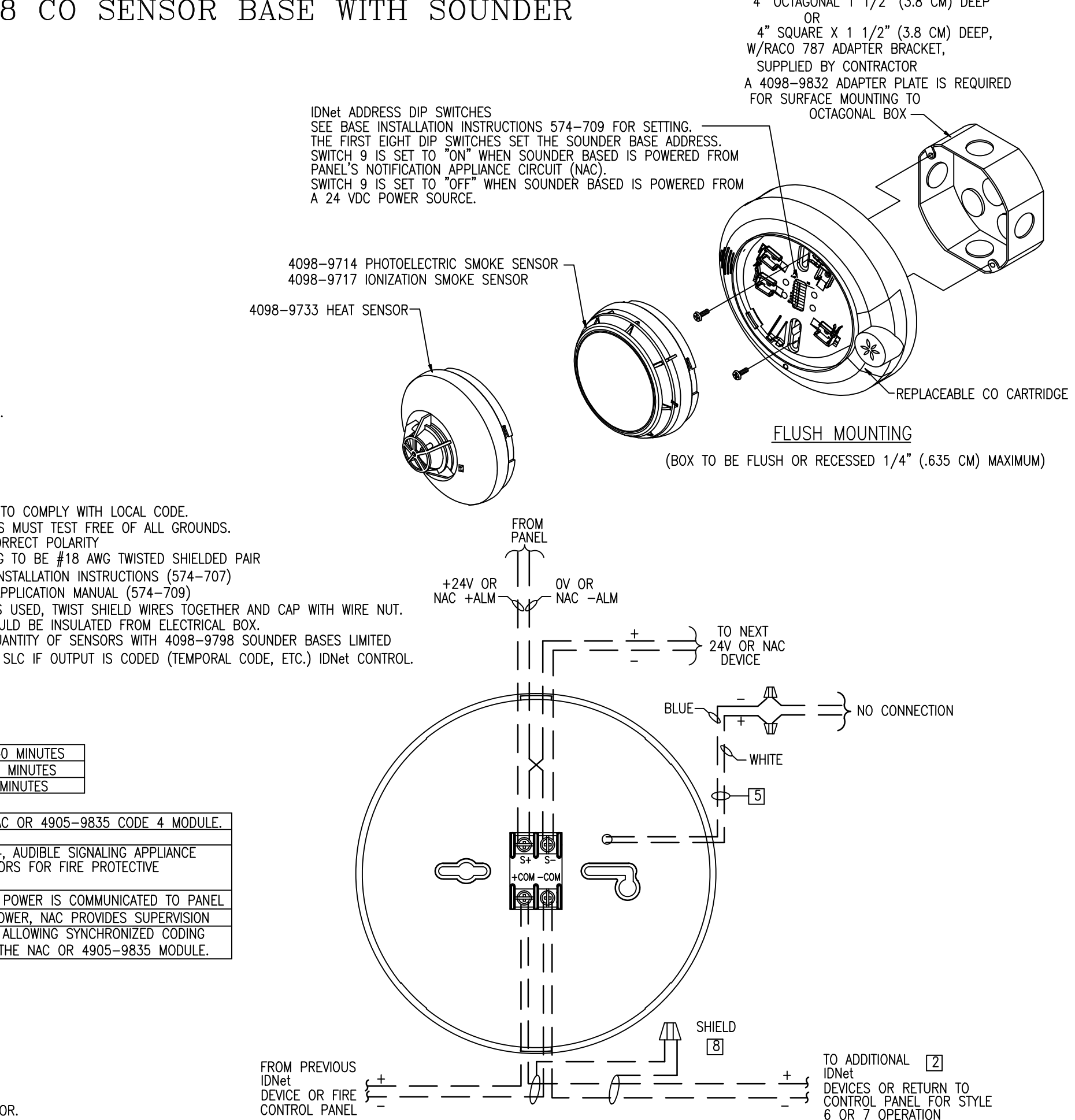
- SPECIFICATIONS:**
- UL LISTED TEMPERATURE RANGE: 32°F TO 100°F (0°C TO 38°C)
 - OPERATING TEMPERATURE RANGE: 4098-9714 = 15°F TO 122°F (-9°C TO 50°C) 4098-9717 OR 4098-9733 = 32°F TO 122°F (0°C TO 50°C)
 - HUMIDITY RANGE: 10% TO 95% RH
 - PHOTOELECTRIC SENSOR AIR VELOCITY RANGE: 0-2000 FT/MIN (610 M/MIN)
 - IONIZATION SENSOR AIR VELOCITY RANGE: 0-200 FT/MIN (61 M/MIN)
 - CO SENSOR SPECIFICATIONS

UL 2034 REQUIREMENTS REFERENCE	70 PPM CONCENTRATION	ALARM WINDOW 60 TO 240 MINUTES
UL 2034 REQUIREMENTS REFERENCE	150 PPM CONCENTRATION	ALARM WINDOW 10 TO 50 MINUTES
UL 2034 REQUIREMENTS REFERENCE	400 PPM CONCENTRATION	ALARM WINDOW 4 TO 15 MINUTES

SOUNDER OPERATING SPECIFICATIONS	DESCRIPTION
SOUNDER VOLTAGE	16 TO 32 VDC FROM STEADY EXTERNAL SOURCE, NAC OR 4905-9835 CODE 4 MODULE.
ALARM CURRENT (SOUNDER ON)	17 mA @ 24 VDC, 24 mA MAXIMUM @ 32VDC
SOUNDER OUTPUT	88 dbA MINIMUM @ 10 FT., PER UL STANDARD 464, AUDIBLE SIGNALING APPLIANCE APPLIANCES AND UL STANDARD 268, SMOKE DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS
SOUNDER POWER SUPERVISION (SELECTABLE)	SELECT FOR CONTINUOUS 24 VDC POWER, LOSS OF POWER IS COMMUNICATED TO PANEL
NAC POWERED OPERATION	UNSUPERVISED SELECT WHEN CONNECTED TO NAC FOR SOUNDER POWER, NAC PROVIDES SUPERVISION WHEN IN ALARM, WILL SOUND WHEN NAC IN ALARM, ALLOWING SYNCHRONIZED CODING (TEMPORAL OR MARCH TIME, ETC.) CONTROLLED BY THE NAC OR 4905-9835 MODULE

DESCRIPTION:

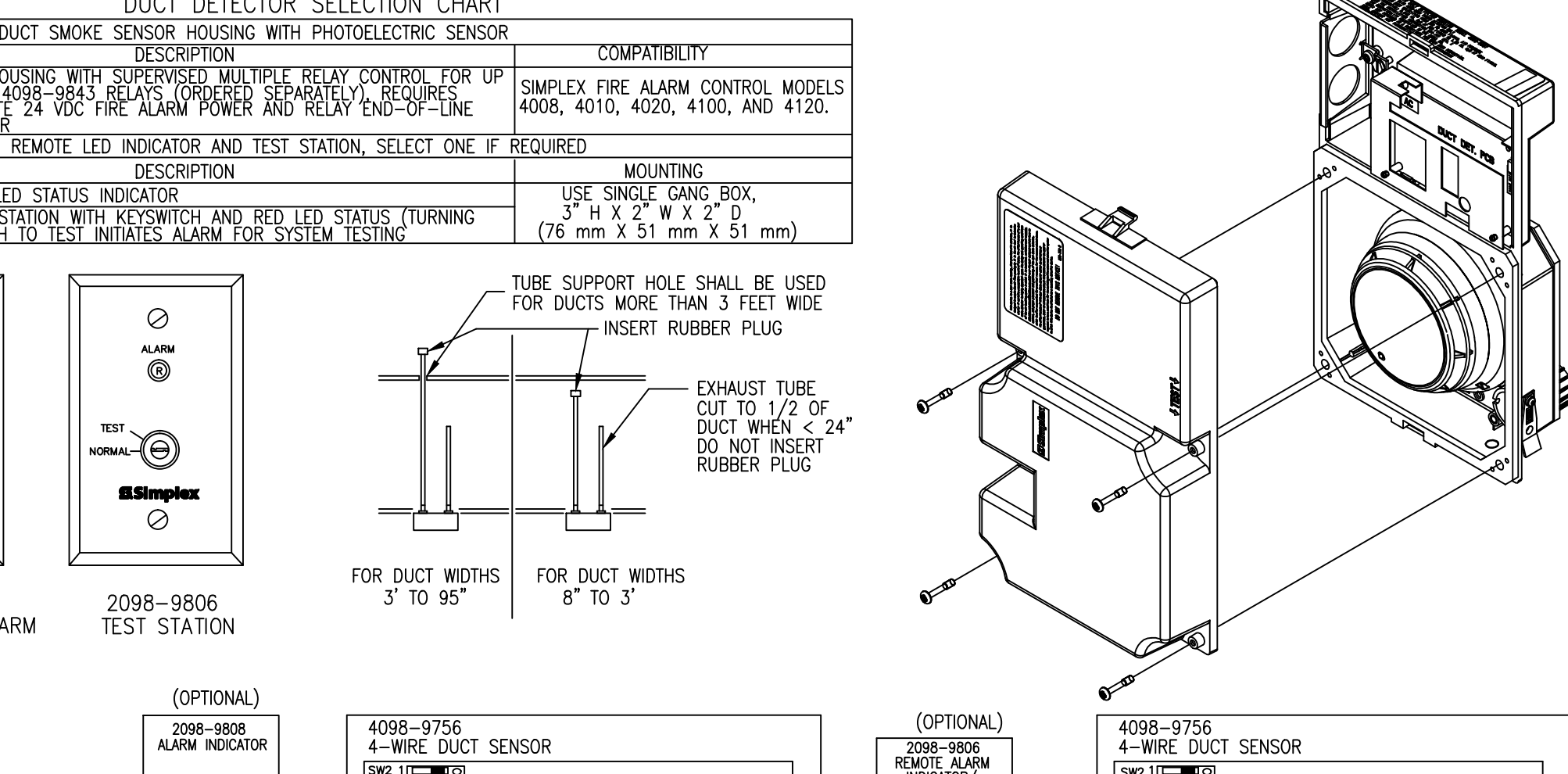
TRIALARM SENSOR BASES CONTAIN INTEGRAL ADDRESSABLE ELECTRONICS THAT CONSTANTLY MONITOR THE STATUS OF THE DETACHABLE PHOTOELECTRIC, IONIZATION, OR HEAT SENSORS. EACH SENSOR'S OUTPUT IS DIGITIZED AND TRANSMITTED TO THE SYSTEM FIRE ALARM CONTROL PANEL EVERY FOUR SECONDS. THREE TYPES OF CO INFLUENCED OPERATION ARE AVAILABLE: UL 2034 CO ALARM DETECTION; UL 2075 CO (OSHA) LEVEL MONITORING FOR VENTILATION CONTROL; AND MULTI-CRITERIA FIRE SENSOR ANALYSIS WITH ALGORITHMS THAT COMBINES OPTICAL AND CO GAS MONITORING INFORMATION OPERATION OF A CO SENSOR BASE WITH A PHOTOELECTRIC SENSOR.



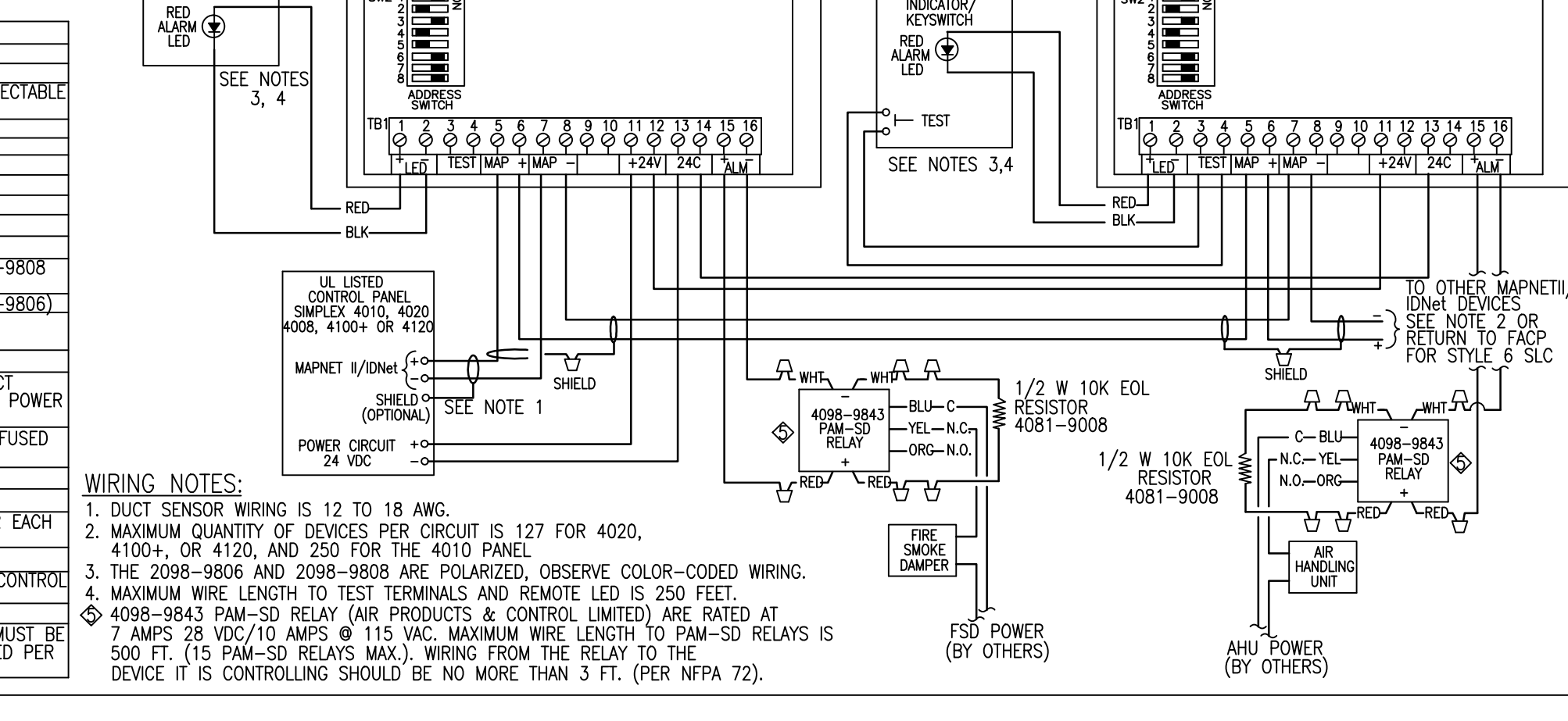
PRODUCT INFORMATION

4098-9756 ADDRESSABLE 4-WIRE DUCT SENSOR MAPNET II/IDN^eT WITH 24VDC RELAY

- FEATURES:**
- COMPACT AIR DUCT SENSOR HOUSING WITH CLEAR COVER TO MONITOR FOR THE PRESENCE OF SMOKE
 - INCLUDES FACTORY INSTALLED TRIALARM PHOTOELECTRIC SMOKE DETECTOR AND FEATURES:
 - INDIVIDUAL SENSOR INFORMATION PROCESSED BY THE HOST CONTROL PANEL TO DETERMINE SENSITIVITY
 - DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II OR IDN^eT 2-WIRE COMMUNICATIONS
 - PROGRAMMABLE SENSITIVITY
 - ENVIRONMENTAL COMPENSATION, STATUS TESTING, AND MONITORING OF SENSOR DIRT ACCUMULATION
 - MODE:
 - DUCT SENSOR HOUSING WITH SUPERVISED OUTPUT FOR MULTIPLE REMOTE RELAYS, REQUIRES SEPARATE 24 VDC (RELAYS ARE UNDER PANEL CONTROL AND CAN BE ACTIVATED MANUALLY OR BY A SEPARATE ALARM/INPUT)
 - GENERAL FEATURES:
 - UL LISTED TO STANDARD 268A
 - CLEAR COVER ALLOWS VISUAL INSPECTION
 - TEST PORTS PROVIDE FUNCTIONAL SMOKE TESTING ACCESS WITH COVER IN PLACE
 - MOUNTS TO RECTANGULAR DUCTS OR ROUND DUCTS (MINIMUM SIZE 8" SQUARE OR 18" DIAMETER)
 - MAGNETIC TEST FEATURE FOR ALARM INITIATION AT HOUSING
 - OPTIONAL WEATHERPROOF ENCLOSURE IS AVAILABLE SEPARATELY (REFER TO DATA SHEET 54098-0032)
 - DIAGNOSTIC LEADS (ON INTERFACE BOARD):
 - RED ALARM/TROUBLE LED FOR SENSOR STATUS AND COMMUNICATIONS POLLING DISPLAY
 - YELLOW LED FOR OPEN OR SHORTED TROUBLE INDICATION OF SUPERVISED RELAY CONTROL
 - SAMPLING TUBES (ORDERED SEPARATELY):
 - AVAILABLE IN MULTIPLE LENGTHS TO MATCH DUCT SIZE
 - INSTALLED AND SERVICED WITH HOUSING IN PLACE
 - REMOTE MODULE OPTIONS (ORDERED SEPARATELY):
 - RED STATUS/ALARM LED (2098-9806)
 - TEST STATION WITH LED (2098-9806)
 - RELAYS USED (4098-9843)



- SPECIFICATIONS:**
- GENERAL SPECIFICATIONS
 - AIR VELOCITY RANGE (LINEAR FT/MIN) 300 TO 4000 FT/min (91 TO 1220 m/min)
 - ALTITUDE UP TO 8000 FT. (2.4 km)
 - SENSOR SENSITIVITY RANGE 0.2% TO 3.7% PER FOOT OF OBSCURATION, SELECTABLE AT HOST CONTROL PANEL
 - UL LISTED TEMPERATURE RANGE 32° F TO 100° F (0° C TO 38° C)
 - OPERATING TEMPERATURE RANGE 32° F TO 122° F (0° C TO 50° C)
 - STORAGE TEMPERATURE RANGE 0° F TO 140° F (-18° C TO 60° C)
 - HUMIDITY RANGE 10% TO 95% RH, NON-CONDENSING
 - HOUSING COLOR BLACK BASE WITH CLEAR COVER
 - WIRING CONNECTIONS TERMINAL BLOCKS, 18 TO 12 AWG
 - REMOTE STATUS/ALARM LED AND TEST STATION WITH REMOTE STATUS/ALARM LED
 - REMOTE ALARM LED CURRENT 1.2 mA, NO IMPACT TO ALARM CURRENT (2098-9808 OR 2098-9806)
 - TEST STATION KEYSWITCH CURRENT 3.3 mA, NO IMPACT TO ALARM CURRENT (2098-9806)
 - RELAY LED AND TEST STATION DISTANCE 250 FT. (76m) MAXIMUM
 - ADDRESSABLE OPERATION
 - DATA COMMUNICATIONS MAPNET II OR IDN^eT COMMUNICATION, AUTO-SELECT 1 ADDRESS PER HOUSING, PROVIDES OPERATING POWER TO MODEL 4098-9756
 - MODEL 4098-9756 WITH SUPERVISED MULTIPLE RELAY CONTROL, REQUIRES SEPARATE FUSED 24 VDC FROM FIRE ALARM POWER SUPPLY
 - INPUT VOLTAGE 17-32 VDC (24 VDC NOMINAL)
 - STANDBY CURRENT 3 mA @ 24 VDC
 - ALARM CURRENT 15 mA @ 24 VDC, ADD 15 mA ADDITIONAL FOR EACH 4098-9843 RELAY
 - 4098-9843 RELAY OUTPUT RATINGS, SINGLE FORM C
 - COIL CURRENT 15 mA @ 24 VDC UP TO 15 MAX. PER RELAY CONTROL UNIT
 - RELAY CONTACTS, RESISTIVE RATINGS 7 A @ 28 VDC & 120 VAC, 250 uA @ 5 VDC
 - LOCATION DISTANCE 500 FT. (152m) MAX. TO RELAY COILS, RELAY MUST BE WITHIN 3 FT. (1m) OF DEVICE BEING CONTROLLED PER NFPA 72, SECTION 3-9.2.1



- WIRING NOTES:**
- DUCT SENSOR WIRING IS 12 TO 18 AWG.
 - MAXIMUM QUANTITY OF DEVICES PER CIRCUIT IS 127 FOR 4020, 4100+, OR 4120, AND 250 FOR THE 4010 PANEL.
 - THE 2098-9806 AND 2098-9808 ARE POLARIZED, OBSERVE COLOR-CODED WIRING.
 - MAXIMUM WIRE LENGTH TO TEST TERMINALS AND REMOTE LED IS 250 FEET.
 - 4098-9843 PAM-SD RELAY (AIR PRODUCTS & CONTROL LIMITED) ARE RATED AT 7 AMPS 28 VDC/10 AMPS @ 115 VAC. MAXIMUM WIRE LENGTH TO PAM-SD RELAYS IS 500 FT. (152 M) PER NFPA 72, SECTION 3-9.2.1. WIRING FROM THE RELAY TO THE DEVICE IT IS CONTROLLING SHOULD BE NO MORE THAN 3 FT. (PER NFPA 72).

PRODUCT INFORMATION

2098-9806 REMOTE ALARM INDICATOR/KEY SWITCH

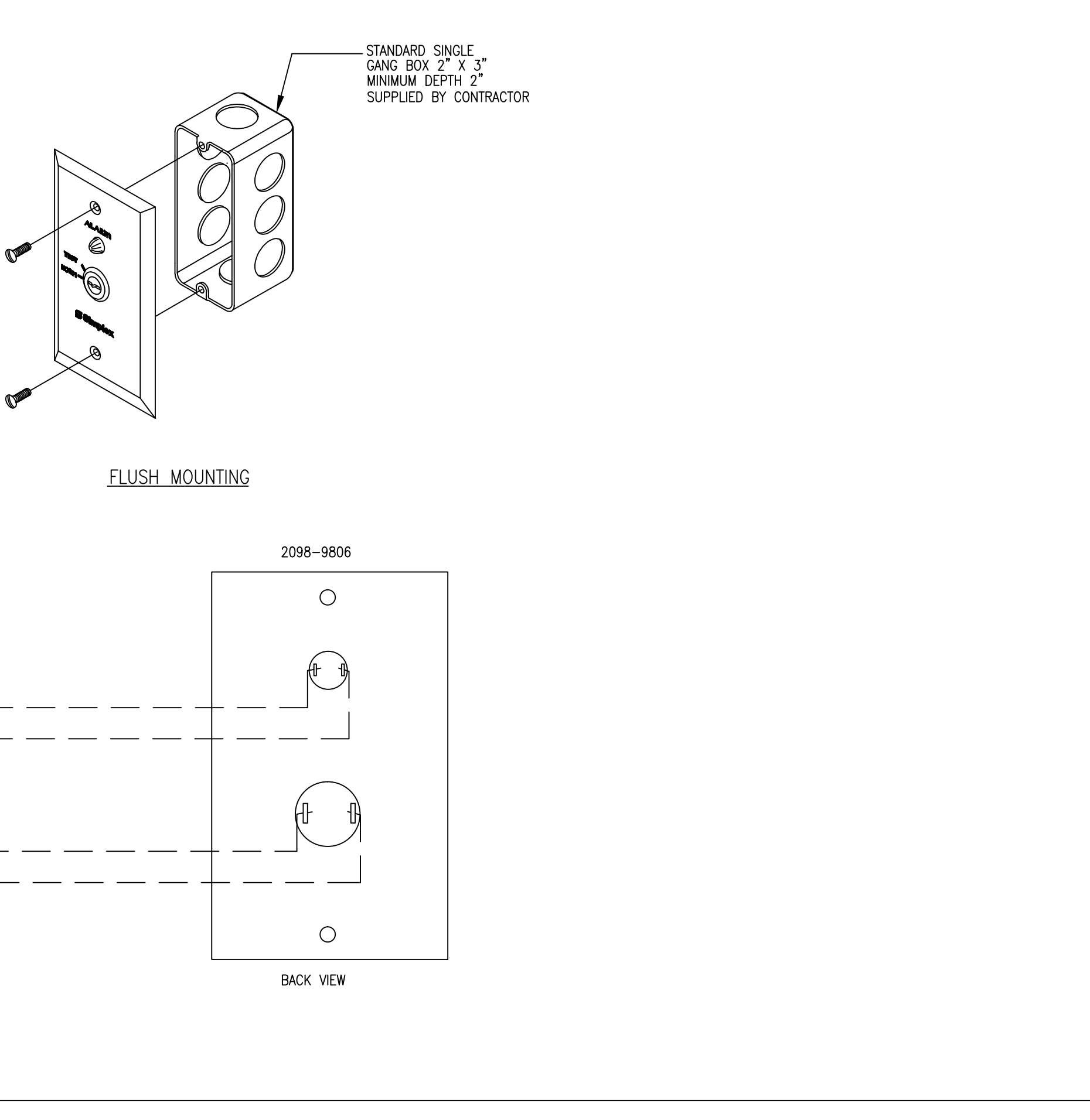
- FEATURES:**
- UL LISTED
 - CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS: 2908-9806 ALARM INDICATOR 7300-0026:150
 - MOUNTING: FLUSH
 - FINISH: CHROME OR STAINLESS STEEL

- SPECIFICATIONS:**
- ALARM CURRENT: 2.8 mA
 - DIMENSIONS OF BOX: 2" W X 3 1/4" X 2 1/2"

DESCRIPTION:

2098-9806 REMOTE TEST STATION, PROVIDES A REMOTE RED ALARM LED STATUS INDICATOR AND A REMOTE TEST KEY. ACTIVATED SWITCH MOUNTED ON A SINGLE GANG STAINLESS STEEL PLATE, THE LED WILL PULSE TO INDICATE NORMAL OPERATION OF THE DUCT DETECTOR AND WILL ENERGIZE CONTINUOUS WHEN IN ALARM OR IN TROUBLE. (THE EXACT STATUS OF THE SENSOR WILL BE DISPLAYED AT THE FIRE ALARM CONTROL PANEL). TURNING THE TEST SWITCH TO "TEST" WILL INITIATE AN ALARM AND ALLOW THE RESULTING SYSTEM RESPONSES TO BE VERIFIED.

- WIRING:**
- MINIMUM 18 AWG OR TO LOCAL CODE.
 - CONDUCTORS MUST TEST FREE OF ALL GROUNDS.
 - REMOTE ALARM LED IS POLARIZED, OBSERVE COLOR CODED WIRING.
 - ONE INDICATOR MAY BE INSTALLED PER DETECTOR.



tyco
SimplexGrinnell

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CHG BY	SK	REVISION DESCRIPTION
DATE	11/06/13	PER SUBMITAL REVIEW DATED 10/31/13
NO.		

FIRE ALARM & AREA OF RESCUE SYSTEMS
DEVICE WIRING DETAILS
MARRIOTT COURTYARD
PORTLAND MAINE

DRAWN BY: STEPHENS DATE: 8/27/13
CHECKED BY: KALAFARSKI DATE: 9/4/13

PROJECT NUMBER: 972833401

SHEET TITLE: FIRE ALARM SYSTEM DEVICE WIRING DETAILS

SHEET NUMBER: FA-702

FA-702.dwg