

PRODUCT INFORMATION

- 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 TRIULARM 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° (-9°C) OR 20° (-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).
 - TRIALALARM 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: 60 FT (18.3 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 IDNet ADDRESS, AND RECEIVE BOTH COMMUNICATIONS AND SENSOR POWER FROM THE IDNet CHANNEL.
 - MAGNETIC TEST FEATURE
 - LOCKING ANTI-TAMPER DESIGN
 - 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 4100 SERIES CONTROL PANELS.
 - MAXIMUM QUANTITY OF DEVICES: 250 FOR 4100 IDNET CHANNEL
 - MOUNTING: CEILING OR WALL
 - COLOR: FROST WHITE
 - BASE DIMENSIONS: 1-1/8" X 6-7/16" (2.85 CM X 16.5 CM)

4098-9797 CO SENSOR BASE

- 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

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

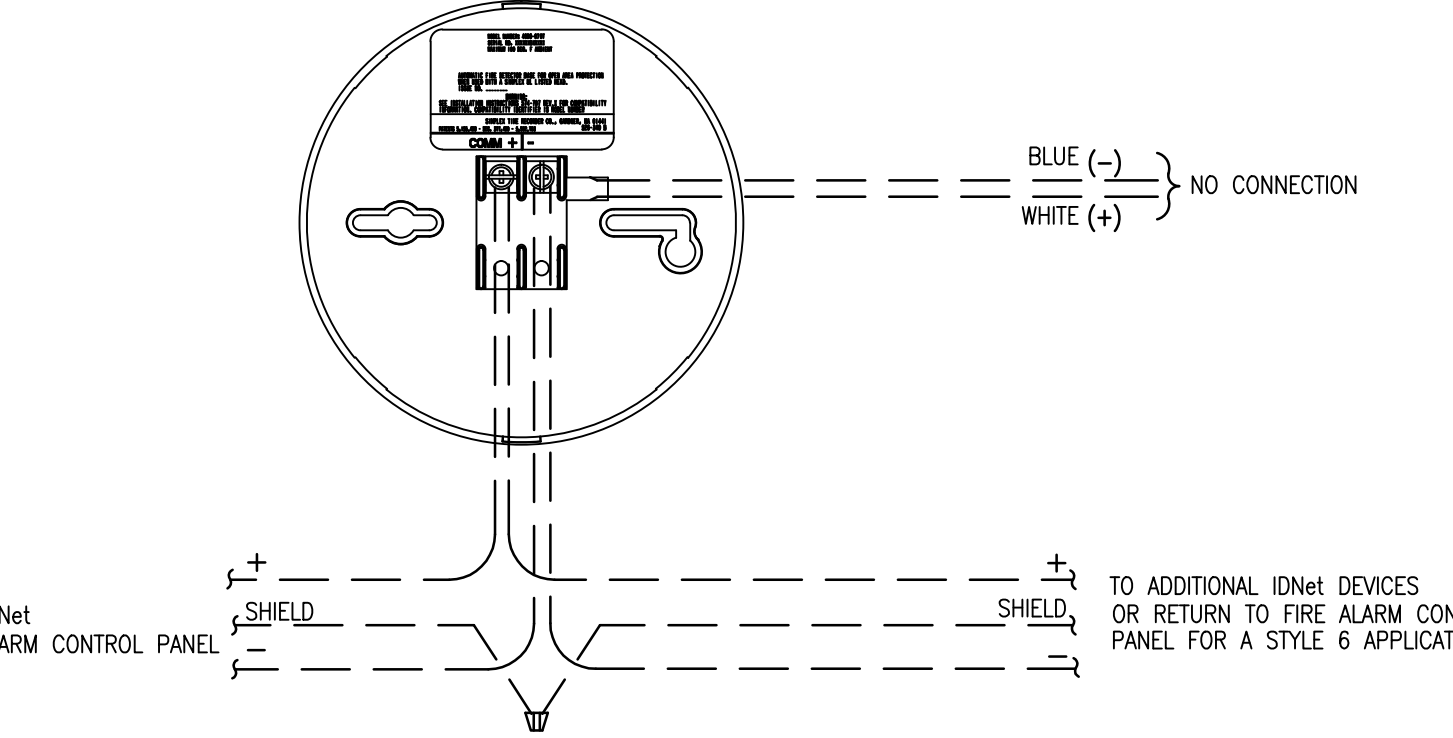
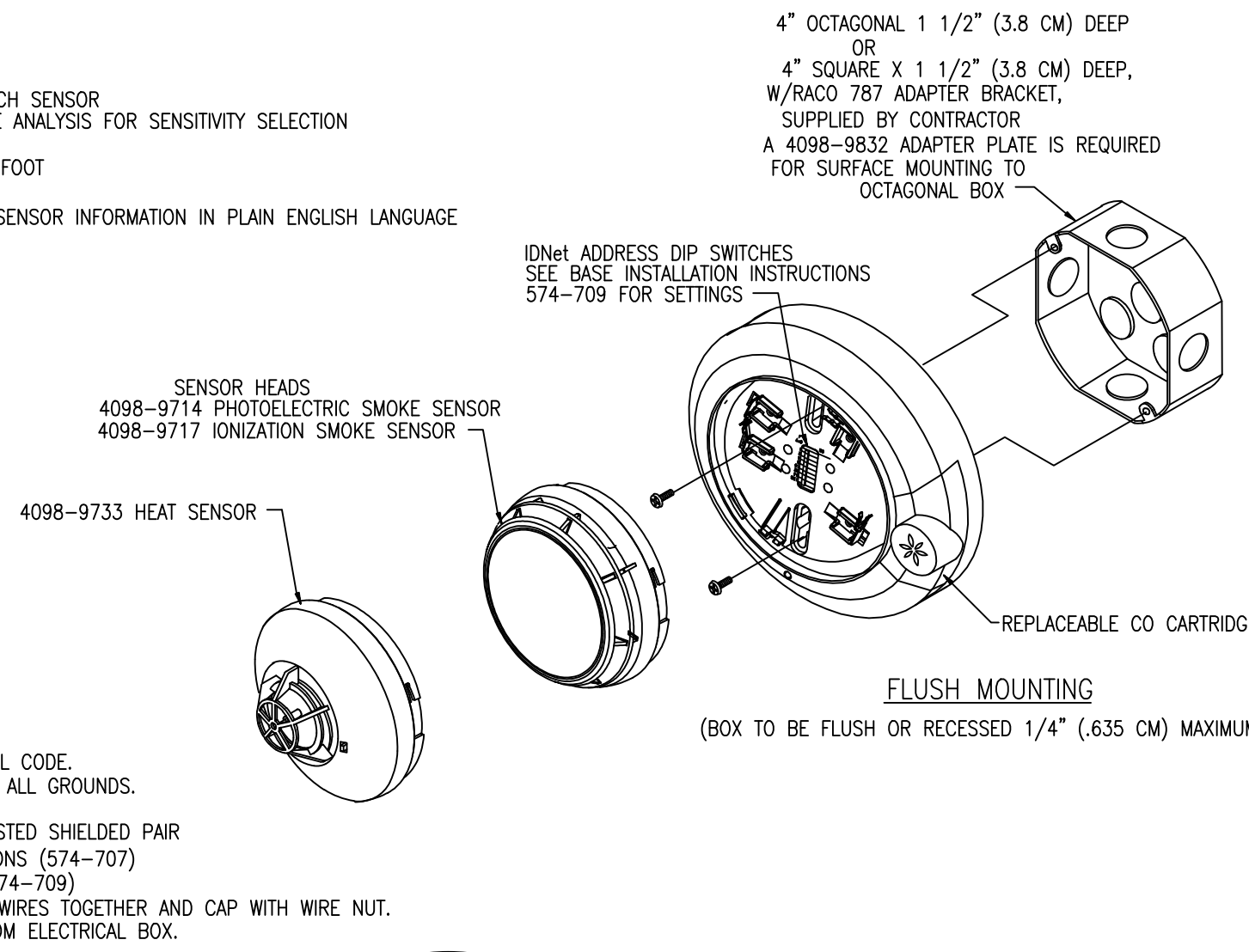
UL 2034 REQUIREMENTS REFERENCE	70 PPM CONCENTRATION	ALARM WINDOW 60 TO 240 MINUTES
	150 PPM CONCENTRATION	ALARM WINDOW 10 TO 50 MINUTES
	400 PPM CONCENTRATION	ALARM WINDOW 4 TO 15 MINUTES

DESCRIPTION:

TRIALALARM 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:

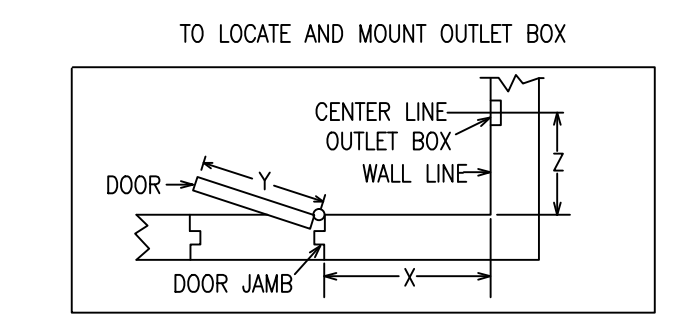
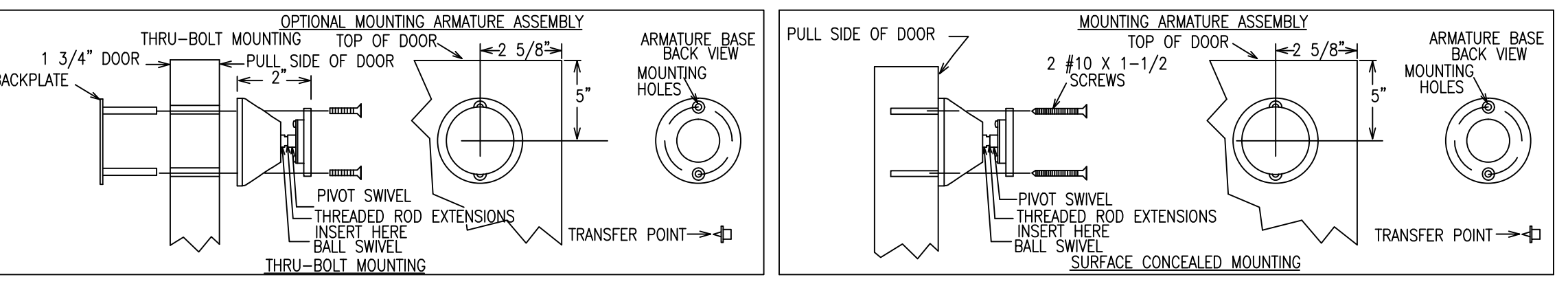
- UL 2034 CO ALARM DETECTION: UL 2075 CO (OSHA) LEVEL MONITORING FOR VENTILATION CONTROL; AND MULTI-CRITERIA FIRE SENSOR ANALYSIS WITH ALGORITHMS THAT COMBINES OPTICAL AND CO GAS MONITORING INFORMATION OPERATION OF A CO SENSOR BASE WITH A PHOTOELECTRIC OR A PHOTO/HEAT SENSOR ALLOWS:
- INDEPENDENT SENSOR OPERATION OR SELECTABLE MULTI-SENSOR
- MODES OF FALSE ALARM REDUCTION OR FASTER DETECTION
- FALSE ALARM REDUCTION ANALYZES CO AND PHOTOELECTRIC SENSOR INFORMATION TOGETHER TO PROVIDE A SOPHISTICATED REJECTION OF NON-FIRE CONDITIONS NORMALLY TROUBLESOME AS FALSE ALARMS (STEAM, DUST, AEROSOLS, ETC.)
- FASTER DETECTION (INCREASED SENSITIVITY) ALGORITHM ANALYZES CO AND PHOTOELECTRIC SENSOR INFORMATION TO ALLOW THE PRESENCE OF CO TO IMPLEMENT AN INCREASED PHOTOELECTRIC SENSITIVITY FOR HIGH VALUE LOCATIONS (MUSEUMS, ELECTRICAL EQUIPMENT ROOMS, ETC.)



PRODUCT INFORMATION

- FEATURES:**
- UL LISTED
 - CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS: DH24120FPC DOOR HOLDERS 3550-1039-0100
 - MOUNTING: WALL, SEMI-FLUSH
 - FINISH: POWDERCOAT CHROME
- SPECIFICATIONS:**
- VOLTAGE: OPERATES WITH 24 VDC.
 - CURRENT: 20 mA
- DESCRIPTION:**
- DH24120FPC MAGNETIC DOOR HOLDERS HAVE A MINIMUM HOLDING FORCE OF 40 LBS. UNDER NORMAL CONDITIONS, THE ELECTROMAGNET IS ENERGIZED TO HOLD OPEN THE DOOR. IN THE EVENT OF A FIRE, THE SIMPLEX FIRE ALARM CONTROL PANEL, OR AN APPROVED PERIPHERAL APPLIANCE, WILL AUTOMATICALLY INTERRUPT THE VOLTAGE TO THE DOOR HOLDER RELEASING THE DOOR TO PREVENT THE SPREAD OF SMOKE. DOORS MAY BE MANUALLY OPENED WHEN THE DOOR HOLDER IS ENERGIZED.
- WIRING:**
- ALL WIRING TO COMPLY WITH LOCAL CODE.
 - MAINTAIN CORRECT POLARITY
 - CONDUCTORS MUST TEST FREE OF ALL GROUNDS.

DH24120FPC MAGNETIC DOOR HOLDER



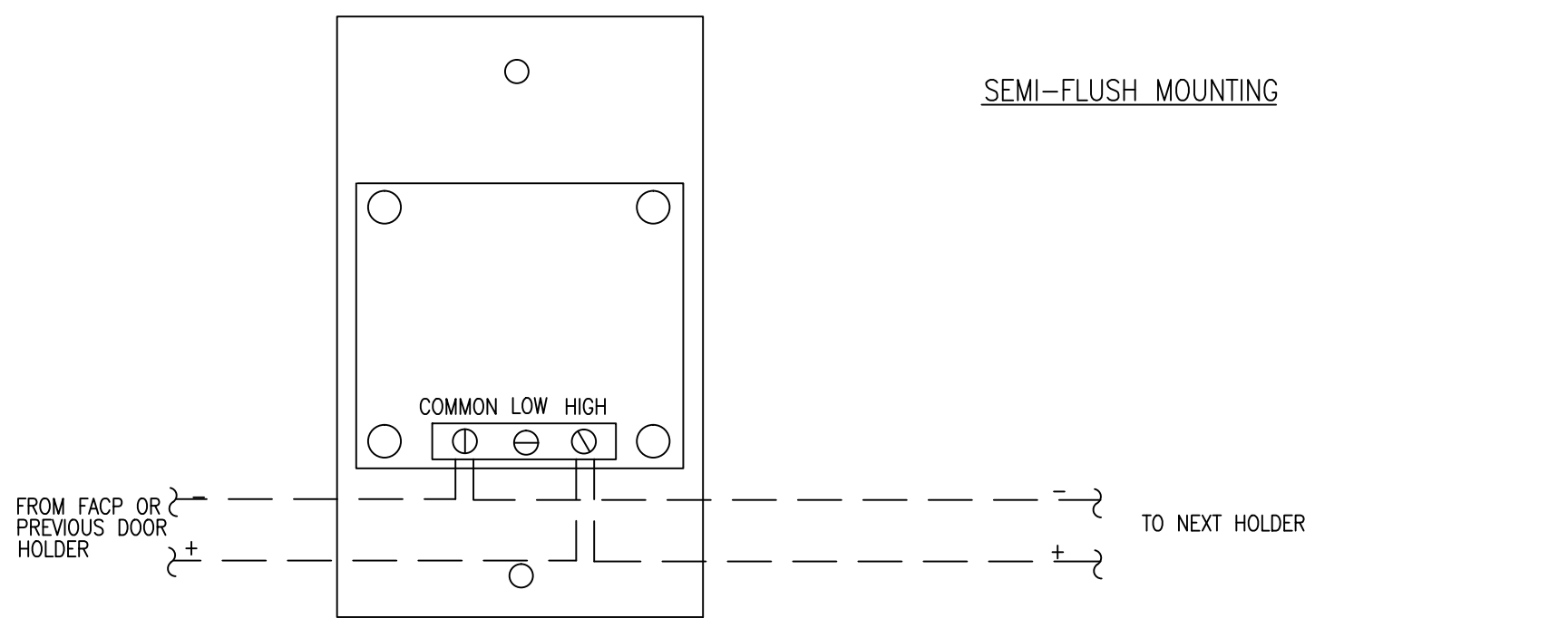
TO LOCATE AND MOUNT OUTLET BOX

Y = DIMENSION OF DOOR

X = DIMENSION OF DOOR JAMB TO WALL

1. REFER TO DRAWING & CHART TO LOCATE OUTLET BOX.

2. INSTALL THE OUTLET BOX ON THE HORIZONTAL CENTER LINE 5" FROM TOP OF DOOR.



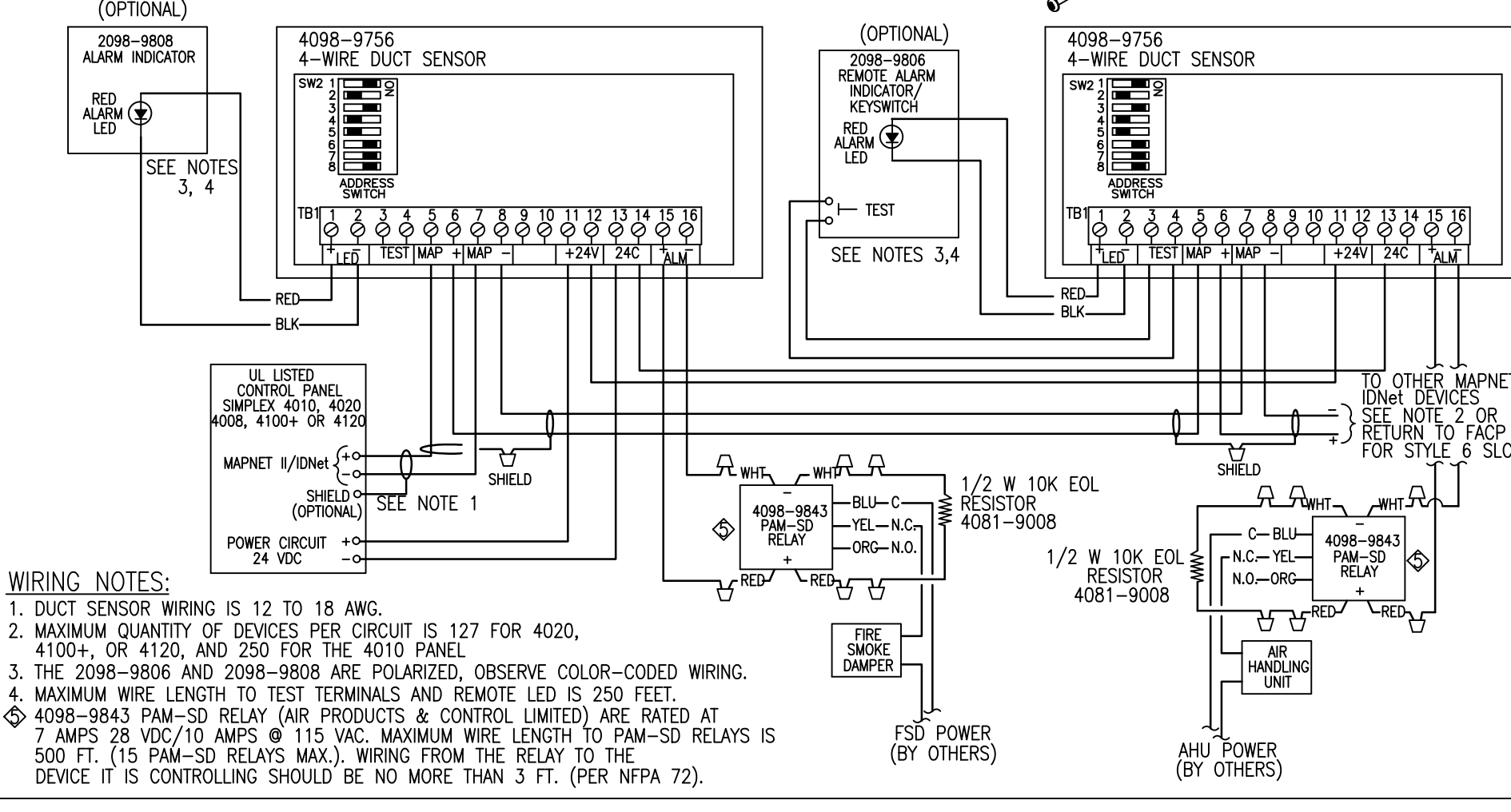
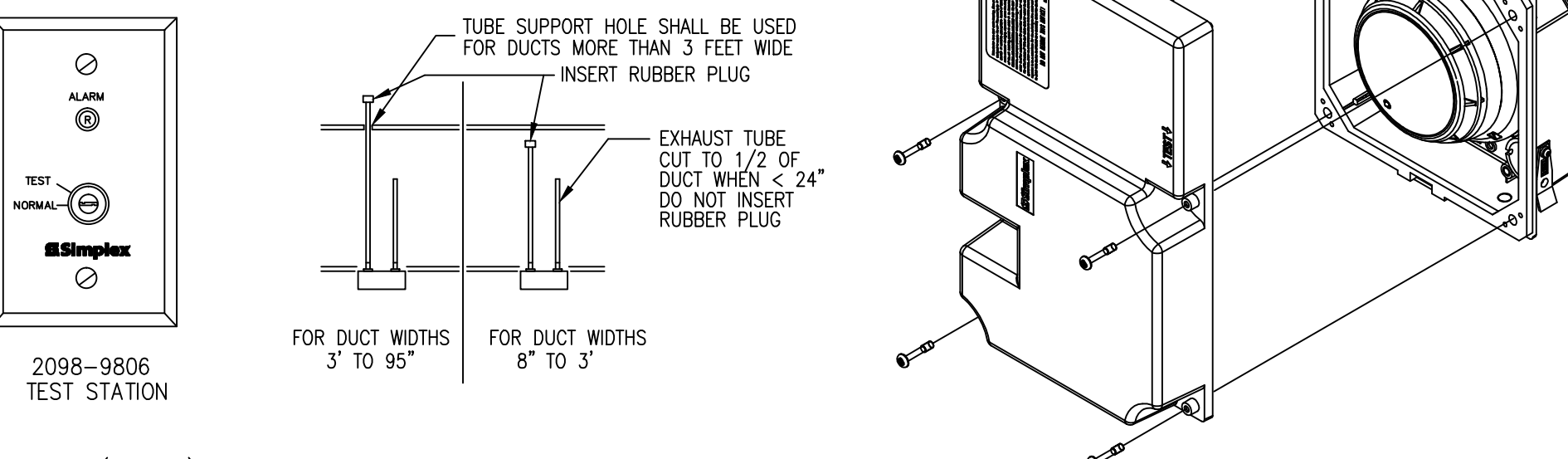
PRODUCT INFORMATION

- FEATURES:**
- COMPACT AIR DUCT SENSOR HOUSING WITH CLEAR COVER TO MONITOR FOR THE PRESENCE OF SMOKE
 - INCLUDES FACTORY INSTALLED TRIULARM PHOTOELECTRIC SMOKE DETECTOR AND FEATURES:
 - INDIVIDUAL SENSOR INFORMATION PROCESSED BY THE HOST CONTROL PANEL TO DETERMINE SENSOR STATUS
 - DIGITAL TRANSMISSION OF ANALOG SENSOR VALUES VIA MAPNET II OR IDNet 2-WIRE COMMUNICATIONS
 - PROGRAMMABLE SENSITIVITY ACCURACY
 - ENVIRONMENTAL COMPENSATION, STATUS TESTING, AND MONITORING OF SENSOR DIRT ACCUMULATION
- MODE:**
- DUCT SENSOR HOUSING WITH SUPERVISED OUTPUT FOR MULTIPLE 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 PROVIDES VISUAL INSPECTION
 - 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 S4098-0032)
- DIAGNOSTIC LEDS (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 (2098-9808)
 - TEST STATION WITH LED (2098-9806)
 - RELAYS USED (4098-9843)

4098-9756 ADDRESSABLE 4-WIRE DUCT SENSOR MAPNET II/IDNet WITH 24VDC RELAY

DUCT DETECTOR SELECTION CHART

MODEL	DESCRIPTION	COMPATIBILITY
4098-9756	DUCT HOUSING WITH SUPERVISED MULTIPLE RELAY CONTROL FOR UP TO 18 4098-9843 RELAYS (ORDERED SEPARATELY). REQUIRES 24 VDC FIRE ALARM POWER AND RELAY END-OF-LINE RESISTOR	SIMPLEX FIRE ALARM CONTROL MODELS 4008, 4010, 4020, 4100, AND 4120.
	REMOTE LED INDICATOR AND TEST STATION, SELECT ONE IF REQUIRED	
2098-9808	RED LED STATUS INDICATOR	USE SINGLE GANG BOX, 3" H X 2" W X 2" D
2098-9806	TEST STATION WITH KEYSWITCH AND RED LED STATUS (TURNING SWITCH TO TEST INITIATES ALARM FOR SYSTEM TESTING)	(76 mm X 51 mm X 51 mm)

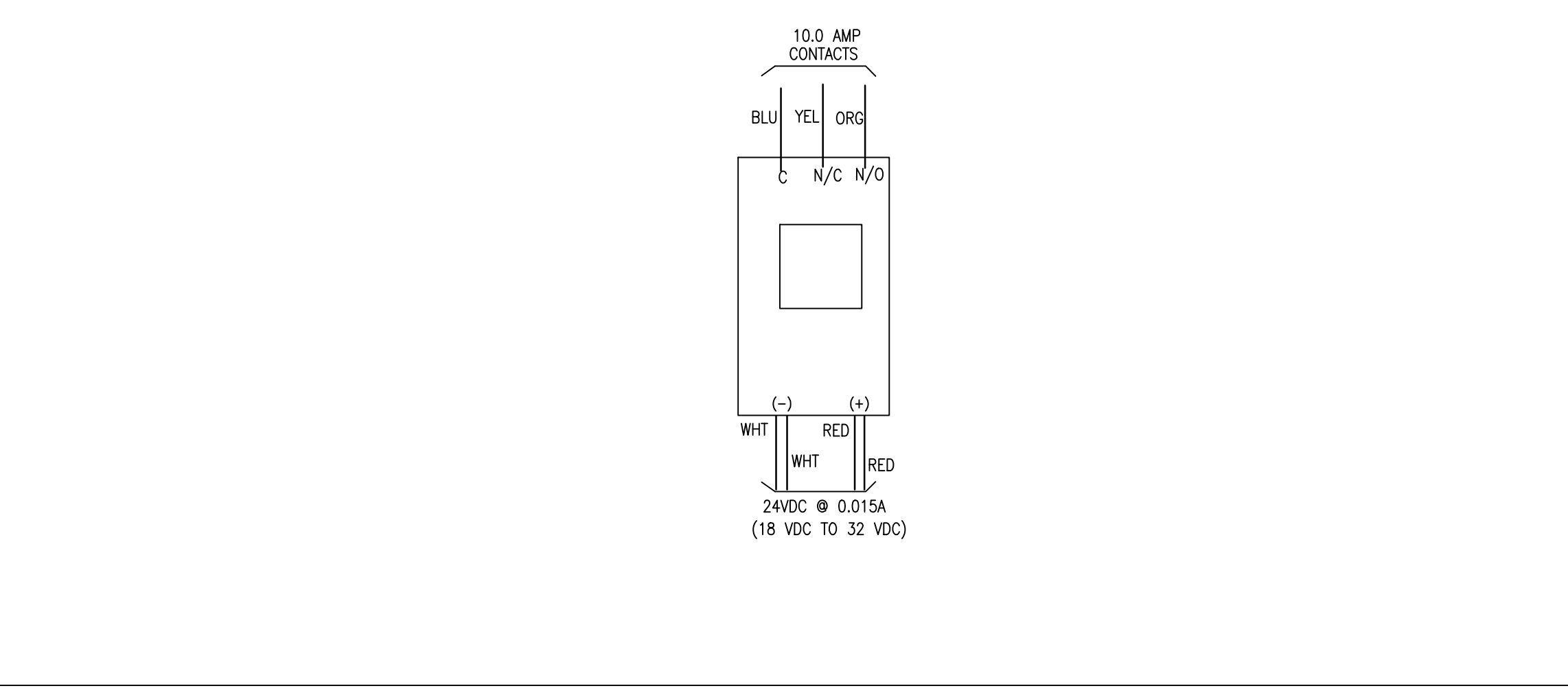
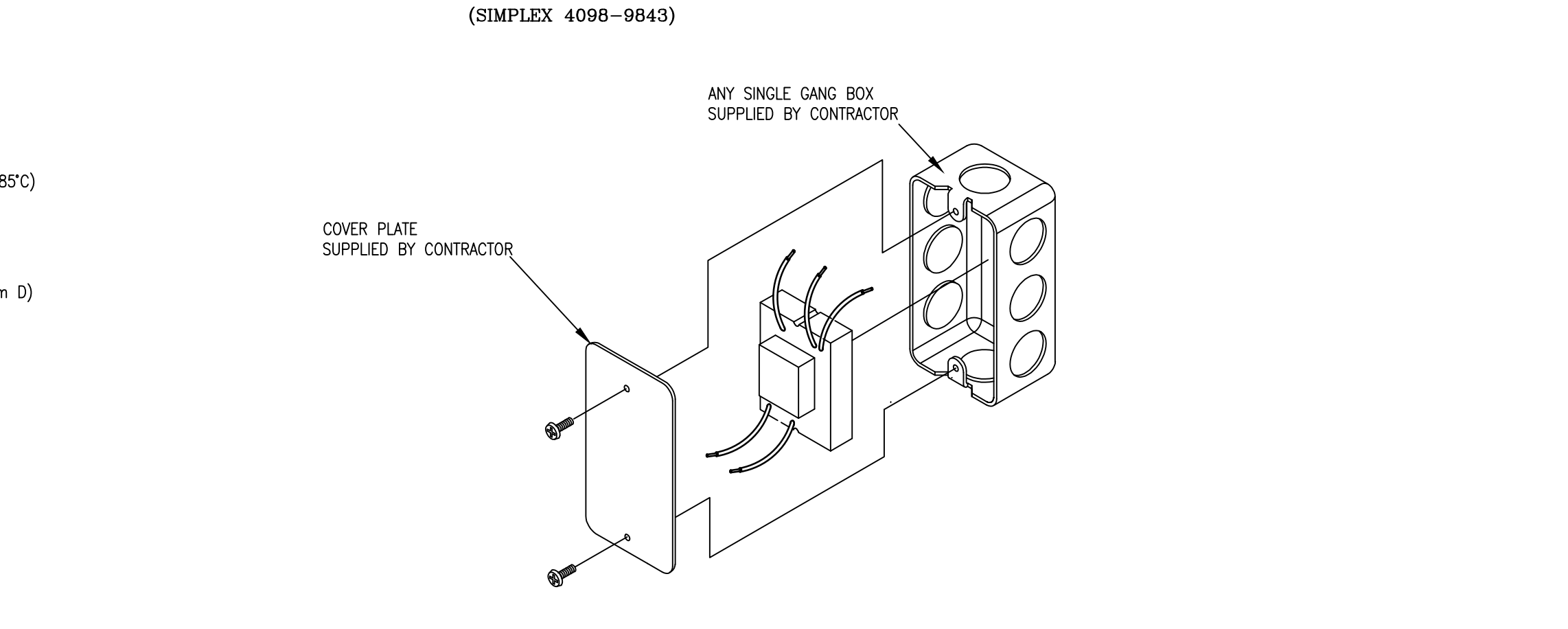


- WIRING NOTES:**
- DUCT SENSOR WIRING IS 12 TO 18 AWG.
 - MAXIMUM QUANTITY OF DEVICES PER CIRCUIT IS 127 FOR 4020, 4100+, OR 4120, AND 250 FOR THE 4010 PANEL.
 - THE 2098-9806 AND 2098-9808 ARE POLARIZED, OBSERVE COLOR-CODED WIRING.
 - MAXIMUM WIRE LENGTH TO TEST TERMINALS AND REMOTE LED IS 250 FEET.
 - 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. (15 PAM-SD RELAYS MAX). WIRING FROM THE RELAY TO THE DEVICE IT IS CONTROLLING SHOULD BE NO MORE THAN 3 FT. (PER NFPA 72).

PRODUCT INFORMATION

- SPECIFICATIONS:**
- POWER REQUIREMENTS: 0.015 AMP @ 24VDC (17 VDC TO 32 VDC)
 - RELAY: U.L. RECOGNIZED SPDT
 - CONTACT RATING: 7 AMPS @ 120VAC & 28 VDC 250 MICRO AMPS @ 5 VDC
 - AMBIENT TEMPERATURE: -50° F TO 85° F (-50°C TO 85°C)
 - APPROVALS: UNDERWRITERS LABORATORIES LISTED
 - 12" 18 AWG WIRE LEADS
 - DIMENSIONS: 1-1/2" H X 1 7/8" W X 1 13/16" D (38.1mm H X 47.625mm W X 20.638mm D)
- FEATURES:**
- SINGLE SPDT RELAY
 - DOUBLE-SIDED ADHESIVE TAPE
 - MOUNTING SCREW
 - 5 WIRE NUTS

AIR PRODUCTS PAM-SD 24VDC POLARIZED RELAY MODULE



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NO. 703

REVISION DESCRIPTION

REVISED PER FIRE DEPARTMENT REVIEW COMMENTS DATED 3/20/13

DATE 3/28/12

NO. 703

FIRE ALARM & SMOKE DETECTION SYSTEM

DEVICE WIRING DETAILS

DANFORTH ON HIGH

81 DANFORTH STREET
PORTLAND, ME 04101

DRAWN BY: S.KALAFARSKI DATE: 10/10/12

CHECKED BY: S.KALAFARSKI DATE: 10/19/12

PROJECT NUMBER: 966796101

SHEET TITLE: FIRE ALARM/SMOKE SYSTEM DEVICE WIRING DETAILS

SHEET NUMBER: FA-703