



CP-25 WB+. (NOTE: L RATINGS APPLY ONLY WHEN TYPE CP-25 WB+ CAULK IS USED)

SYMBOL	RECOMMENDED WIRE TYPE	USED ON					
A →	2—CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED CABLE	FIRE ALARM ADDRESSABLE INITIATING DEVICES: - FP-SERIES SMOKE DETECTORS - FPT-SERIES HEAT DETECTORS - TRI-SERIES INTERFACE MODULES - AD-SERIES & ILP DUCT DETECTORS - MSI-SERIES PULL STATION					
} → → →	2-CONDUCTOR, #12 AWG SOLID CABLE	NOTIFICATION APPLIANCE CIRCUIT: - STROBE - HORN/STROBE (COMBINATION)					
<u> </u>	2-CONDUCTOR, #12 AWG SOLID CABLE	24 VDC POWER TO: - REMOTE ANNUNCIATOR - DOOR HOLDERS					
-	2-CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED CABLE	TRI to MONITORED DEVICES: - NAC EXTENDER PANEL - WATERFLOW SWITCH - TAMPER SWITCH - POST INDICATOR VALVE					
M }}	2—CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED CABLE	"M-NET" - MXL NETWORK WIRING: - MODULES that "SPEAK" M-NET: - REMOTE ANNUNCIATOR PANEL					
₽ }——→	2-CONDUCTOR, #12 AWG SOLID CABLE	PANEL ACTIVATION: - NAC EXTENDER PANEL ACTIVATION - HORN SILENCE					
<u>X</u>	2-CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED CABLE	"X-NET" - MXL NETWORK WIRING: - MODULES that "SPEAK" X-NET: - MXL TO MXL NETWORK					
<i>.</i>	2-CONDUCTOR, #12 AWG SOLID, THHN	120 VAC POWER WIRING TO: - FIRE SMOKE DAMPER (BY OTHERS) - AIR HANDLING UNIT - ELEVATOR SMOKE GUARD OR ROLL DOWN DOOR					
120VAC - ///	2-CONDUCTOR, #12 AWG SOLID, THHN (GROUNDED WIRE)	120 VAC POWER TO: - FIRE ALARM CONTROL PANEL - NAC EXTENDER PANEL					
 WIRING FO WIRING FO SEE WIRIN 	EDR NOTIFICATION APPLIANCE CIRCUITS OR INITIATING DEVICE CIRCUITS (IDC) OR SIGNALING LINE CIRCUITS (SLC) IG GUIDELINES FOR CABLE TYPE USI FILL < 40%, 3/4" CONDUIT.	IS CLASS B, STYLE C. S CLASS B, STYLE 4.					

DEVICE DESIGNATION LEGEND
INITIATING DEVICES
EXAMPLES: 1.028 DEVICE REFERENCE NUMBER INITIATING ALD LOOP DESIGNATION DEVICE SYMBOL (SMOKE DETECTOR)
AUDIBLE / VISUAL CIRCUITS:
EXAMPLES: V1-1 DEVICE REFERENCE NUMBER HORN/STROBE CIRCUIT DESIGNATION STROBE CANDELA RATING DEVICE SYMBOL (HORN/STROBE)

NOTE: BLANK = NOT APPLICABLE R = REQUIRED ACTION	FACP ALARM	FACP TROUBLE	FACP SUPERVISORY	ANNUNCIATE ALARM @ RCC	ANNUNCIATE TROUBLE @ RCC	ANNUNCIATE SUPERVISORY ® RCC	TRANSMIT ALARM SIGNAL TO CENTRAL MONITORING STATION THROUGH EXISTING CAMPUS NETWORK SYSTEM	TRANSMIT TROUBLE SIGNAL TO CENTRAL MONITORING STATION THROUGH EXISTING CAMPUS NETWORK SYSTEM	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL MONITORING STATION THROUGH EXISTING CAMPUS NETWORK SYSTEM	ACTIVATE AUDIO/VISUAL THROUGHOUT THE BLDG.	ELEVATOR RECALL RECALL ELEVATORS TO DESIGNATED FLOOR AND STOP	ALTERNATE ELEVATOR RECALL RECALL ELEVATORS TO DESIGNATED FLOOR AND STOP	ELEVATOR SHUTDOWN	ELEVATOR SMOKE GUARD OR ELEVATOR ROLL—DOWN DOOR	CLOSE DOOR HOLDER	ALARM RECEIPT CAPABILIY DURING ABNORMAL CONDITIONS	HVAC SHUTDOWN	
MANUAL PULL STAION	·X			X			Х			Х								
AREA SMOKE DETECTOR	Χ			Χ			Χ			Χ								
AREA HEAT DETECTOR	Х			Х			Х			Χ								
SMOKE DETECTORS ON EITHER SIDE OF FIRE RATED DOOR ACROSS CORRIDOR	Χ			Χ			Χ			Χ		·		-	X			
DUCT SMOKE DETECTOR (HVAC UNITS)	Χ			Χ			Χ			Χ							Χ	
DUCT SMOKE DETECTOR (FIRE SMOKE DAMPER)	X			Χ			Χ			Χ		·					Χ	
AREA SMOKE DETECTOR (DEDICATED FOR FSD	Х			Χ			Χ	·		Х						·	Χ	
ELEVATOR LOBBY — SMOKE DETECTOR " EXCEPT 1ST FLOOR" ELEVATOR LOBBY — SMOKE DETECTOR "1ST FLOOR ONLY" SMOKE DETECTOR — ELEVATOR MACHINE ROOM HEAT DETECTOR — ELEVATOR MACHINE ROOM											X	X	X	X				
WATERFLOW SWITCH	Χ			Х			Х			Χ								
VALVE TAMPER			X			Χ			Х									T
POST INDICATOR VALVE			X			X			X									
INITIATING CKT STYLE C (CLASS B)																-		H
OPEN WIRE		Χ			X			Χ										T
GROUNDED WIRE		Χ			Χ			Х								Ŕ		T
SHORTED WIRES		Χ			Χ			χ					:					T
LOSS OF CARRIER		Х			Χ			Χ										
NOTIFICATION CKT STYLE Y (CLASS B)	·																_	
OPEN WIRE		Х			Х			X										
CROUNDED WIFE		Х			У			У								₽.		
SHORTED WIRES		X			Χ			Χ.										
SIGNALING LINE CKT STYLE 3 (CLASS B)																		
OPEN WIRE		Χ			Χ			Χ										
GROUNDED WIRE		Χ			Χ			Χ								R		
WIRE TO WIRE SHORT & OPEN		Χ			Χ			χ										
WIRE TO WIRE SHORT & GROUND		Χ			Χ			Χ										
OPEN & GROUND		Χ			Χ			Χ					-					
LOSS OF CARRIER		Χ			Χ			Χ										Γ

WIRING GUIDELINES

PLENUM CABLE VS. NON-PLENUM

THE NEC RECOGNIZES 3 TYPES OF POWER LIMITED FIRE ALARM CABLING:

FPL - THIS IS A GENERAL USE POWER LIMITED FIRE ALARM CABLE. IT CANNOT BE USED IN A PLENUM SPACE OR FOR RISERS (CABLING BETWEEN FLOORS), CABLE MUST BE IN CONDUIT.

FPLR - THIS IS A POWER LIMITED RISER RATED CABLE THAT CAN BE USED FOR GENERAL PURPOSES OR BETWEEN FLOORS. IT CANNOT BE USED IN A PLENUM SPACE, CABLE MUST BE IN CONDUIT.

FPLP - THIS IS A POWER LIMITED CABLE THAT CAN BE USED IN A PLENUM, RISER, OR FOR GENERAL PURPOSE.

A PLENUM IS ANY AREA USED TO CONDUCT ENVIRONMENTAL AIR. PLENUM SPACES CAN BE DUCTWORK, THE SPACE ABOVE A DROP CEILING, OR BELOW A RAISED FLOOR. BECAUSE THESE SPACES ARE BEING USED FOR THE AIR HANDLING SYSTEM. THERE ARE STRICT RULES THAT MUST BE FOLLOWED TO REDUCE THE RISK OF INTRODUCING TOXIC FUMES IN THE EVENT OF A FIRE. SINCE FIRE ALARM CABLING IS OFTEN INSTALLED EXPOSED, WITHOUT CONDUIT, ABOVE DROP CEILINGS THE CABLING MUST BE RATED FOR USE IN A PLENUM SPACE.

WIRING REQUIREMENTS

- THE DRAIN SHIELD IS A VERY IMPORTANT PART OF THE SYSTEM INSTALLATION. WE WOULD NOT SPECIFY SHIELDED CABLE IF IT WAS NOT NECESSARY. SHIELDS SHOULD BE KEPT CONTINUOUS THROUGHOUT THE CIRCUIT AND KEPT FREE FROM ANY REFERENCE TO EARTH GROUND.
- SHIELDED CABLE CAN BE FPL, FPLR, OR FPLP. SIEMENS INTELLIGENT ADDRESSABLE DEVICES REQUIRE SHIELDED CABLE.
- NOTIFICATION APPLIANCES (I.E. SPEAKER/STROBES, HORNS, ETC.) REQUIRE NON-SHIELDED
- UNDERGROUND CABLE, WHETHER OR NOT INSTALLED IN CONDUIT, SHALL BE LISTED AS UNDERGROUND BURIAL TYPE.
- WIRING IS TO BE INSTALLED POINT TO POINT WITH NO SPLICING.



SAN FRANCISCO BRANCH

Hayward, California 94545-2991

IDENTIFICATION STAMP

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