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CHEETAH® Xi INTELLIGENT SUPPRESSION CONTROL PANEL

The Cheetah Xi is a state-of-the-art true intelligent digital peer-to-peer modular suppression control system. It is ideal for all life safety and property protection applications, and is intended for both commercial and industrial use. It is designed with extensive programmability that allows the almost instantaneous relay of information and the ability to perform process management tasks with ease including HVAC shutdowns, Emergency Voice Evacuation, damper control, door closure, elevator recall, security, and CCTV/Building Management Awareness.

This cost-effective panel comes standard with two Signaling Line Circuits (SLC) that support 254 devices each. This is expandable to four loops and a total panel capacity of 1016 devices, with any mix and match of sensors and modules. The Cheetah Xi utilizes extreme intelligence via its Eclipse® based sensors including photoelectric, photoelectric with heat, ionization, photoelectric duct, and heat detectors. It also utilizes Eclipse based modules such as the monitor, mini-monitor, relay, intelligent pull station, releasing and control modules. With Cheetah Xi, every device communicates as a peer on the signaling line circuit. These peers not only communicate up-to-the-second information to the control panel, but also communicate with each other. Each device is capable of generating accurate and highly detailed information. Conventional suppression alarm systems give a general idea of the fire's location, while the Cheetah Xi's intelligent sensors indicate precisely which device is in an alarm state. This intelligence provides incredible speed with response times as little as one-quarter second between manual pull station and notification appliance. It's flexibility allows you to attach the intelligent devices that are required for your specific application.

The System is programmed with either the Windows based field configuration software C-LINX™ or through a comprehensive password protected front-panel keypad programming option. This option allows you to quickly update and adapt to any future requirements or changes in the system such as changes in occupancy or remodeling. The sophisticated control panel circuitry coupled with the software allows you to read specific information and sensitivity levels of the different eclipse devices. The sensors also compensate for any changes due to age, contamination, or other environmental factors.

APPROVALS:

- UL Listed
- FM Approved
- CSFM
- City of New York
- City of Denver
- OSHPD OSP-0077-10

D.1.10.01-4, August, 2021

OPERATION

The Cheetah Xi Control system operates on a "Zone and State" relationship. In this design, all input and output devices must be assigned to at least one zone (253 are available), each zone defining an area to be protected. Input devices can be assigned up to four zones (one zone is typical) and output devices may be assigned up to 254 zones.

These devices use the SLC signaling line circuits to exchange status information with other devices as well as with the control panel. When an input is activated, it is configured to cause its associated zone to enter into an operational state. Any detection device will cause the associated zone to enter into an alarm state. The output devices are configured to activate to protect and evaluate the endangered zone. This system is completely modular, allowing you the flexibility to design a system that is just right for your application. The illustration below shows a typical configuration of a Cheetah Xi system.

STANDARD FEATURES

- All Cheetah Xi panels come standard with a controller, transformer and enclosure
- 254 user defined zones
- 80 character, backlit LCD display
- Real time clock
- 3200 event history buffer
- Critical process monitoring
- One-person walktest capability
- Disable by zone, device or circuit
- Drill function at panel and remote
- Provides solenoid releasing operation
- Alarm verification
- Easy to add/remove devices
- Diagnostic menus
- Removable terminal blocks for field wiring
- Local piezo with distinct event tones
- 10 Status LEDs to easily identify system status
- Optional point ID DACT Module available
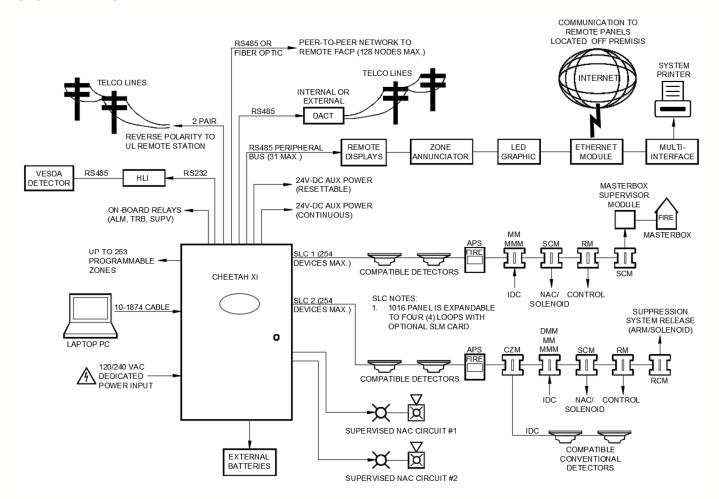- Supports up to 31 peripheral devices

PANEL ORDERING

P/N 10-068-**C**-**P**-**L**

C (enclosure color):   **R** = red   **G** = Grey
P (transformer):   **1** = 120V   **2** = 240V
L (Lexan cover):   **L** suffix indicates Lexan installed over display opening.

SYSTEM DIAGRAM

COMMUNICATION TO REMOTE PANELS LOCATED OFF PREMISIS

INTERNET

SYSTEM PRINTER

RS485 OR FIBER OPTIC — PEER-TO-PEER NETWORK TO REMOTE FACP (128 NODES MAX.)

TELCO LINES

TELCO LINES

RS485

INTERNAL OR EXTERNAL DACT

2 PAIR

REVERSE POLARITY TO UL REMOTE STATION

RS485 PERIPHERAL BUS (31 MAX.) — REMOTE DISPLAYS — ZONE ANNUNCIATOR — LED GRAPHIC — ETHERNET MODULE — MULTI-INTERFACE

VESDA DETECTOR — RS485 — HLI — RS232

24V-DC AUX POWER (RESETTABLE)

24V-DC AUX POWER (CONTINUOUS)

ON-BOARD RELAYS (ALM, TRB, SUPV)

MASTERBOX SUPERVISOR MODULE

FIRE MASTERBOX

UP TO 253 PROGRAMMABLE ZONES

CHEETAH Xi

SLC 1 (254 DEVICES MAX.)

COMPATIBLE DETECTORS

APS FIRE

MM MMM

SCM

RM

SCM

IDC

NAC/ SOLENOID

CONTROL

LAPTOP PC

10-1874 CABLE

SLC 2 (254 DEVICES MAX.)

SLC NOTES:
1. 1016 PANEL IS EXPANDABLE TO FOUR (4) LOOPS WITH OPTIONAL SLM CARD.

SUPPRESSION SYSTEM RELEASE (ARM/SOLENOID)

DMM MM MMM

120/240 VAC DEDICATED POWER INPUT

COMPATIBLE DETECTORS

APS FIRE

CZM

SCM

RM

RCM

IDC

NAC/ SOLENOID

CONTROL

EXTERNAL BATTERIES

SUPERVISED NAC CIRCUIT #1

SUPERVISED NAC CIRCUIT #2

IDC

COMPATIBLE CONVENTIONAL DETECTORS

SPECIFICATIONS

ENCLOSURE	
CONSTRUCTION	18 gauge carbon steel enclosure with removable outer door
FINISH	Baked on paint finish, red or grey
DIMENSIONS	23.6" H x 14.35" W x 4" D (back box dimensions)
MOUNTING	Flush or surface mount
BATTERY CAPACITY	Can house up to 18AH batteries in the enclosure back box
POWER	
ALARM CURRENT	6 amps, expandable to 12 amps with SPS
STANDBY CURRENT	2 amps, expandable to 4 amps with SPS
AC INPUT	120VAC @ 60Hz or 240VAC @ 50/60Hz
AUXILIARY POWER OUTPUTS	Two 24VDC outputs rated 2A, expandable to 5 circuits with SPS
RESETTABLE AUX POWER OUTPUT	One 24VDC output rated 2A,
BATTERY CAPACITY	Supports up to 75AH batteries, expandable to 150AH with SPS
CONTROLLER CURRENT DRAW	275mA @ 24VDC in standby and alarm mode

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RELAYS	
ON BOARD RELAYS	Three, form-C (SPDT) relay contacts
RATING	DC operation: 2A @ 30VDC (pf = .35) AC operation: 0.5A @ 120VAC (pf = .35)
OPERATION	Relays 1 and 2 are configurable. Relay 3 is defaulted to Trouble operation

VESDA	
HIGH LEVEL INTERFACE	RS232 port for connection to VESDA HLI (P/N 68-023 or 68-517)
	Intelligently links Xtralis VESDA detectors to the Cheetah Xi. VESDA detectors do not occupy SLC addresses.

DACT	
DIGITAL ALARM COMMUNICATOR TRANSMITTER	Point ID communication
	DACT card can be mounted inside the panel or external mounted

PERIPHERAL BUS	
BUS	RS485 port for connection to compatible peripheral devices, 31 maximum
RS485 WIRING	Belden 9841 or equal 4,000 ft (1219m) maximum wire length 110Ω maximum wire impedance 0.05μf maximum wire capacitance 100Ω termination resistor on last device

SIGNALING LINE CIRCUITS	
DEVICE ADDRESSING	Use Infrared (IR) tool or panel addressing feature
NUMBER OF LOOPS	Two, NFPA Class A or Class B loops, expandable to four with SLM
DEVICES PER LOOP	254 devices per loop, system maximum 1016 devices with SLM
LOOP RESISTANCE	70 ohms maximum
LOOP CAPACITANCE	60μf maximum
LOOP DISTANCE	12,000 ft. maximum (panel to last device)
LOOP FUNCTIONS	True peer-to-peer digital protocol
	Auto-learn function
	Automatic day/night sensitivity adjustment
	Automatic holiday sensitivity adjustment
	Acclimate operation for sensors
	IR tool can be used to read device sensitivity levels or perform remote test
	Devices contain multi-color LED for indication of device status
	Sensors can provide early warning, pre-alarm detection
	Sensors can participate in device summing feature (up to eight sensors)

NAC CIRCUITS	
STYLE	Class B or Class A
OUTPUT RATING	Continuous, regulated 24 VDC @ 2A maximum
SYNCHRONIZATION	Supports Gentex or System Sensor Protocols

PROGRAMMING AND CONFIGURATION	
SOFTWARE	C-LINX panel configuration and diagnostics software
DEVICE CONFIGURATION	Hand-Held IR Configuration Tool (P/N 55-051). Communicates bi-directionally with any Cheetah Xi device to facilitate: addressing of devices, reading sensitivity levels, service dates, device type, loop and address, manufacture date, initiate walk test of any sensor or module, and access any hard-to-reach sensor or module (such as duct detector) through any other device on loop.

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OPTIONAL MODULES

PART NUMBER	DESCRIPTION	DATA SHEET
The modules interface directly with the Cheetah Xi controller to expand its operational capabilities.		
10-2474-P	Supplemental Power Supply (SPS). Install to add up to 2A external standby power and 6A alarm power (4 A standby/12A alarm total) to the Cheetah Xi system. Supports charging up to 75Ah of additional standby battery.	D.1.12.01
10-2473	Supplemental Loop Module (SLM). Install to add two more SLC loops to the Cheetah Xi system. Loop specifications and wiring for SLM are the same as the main controller.	D.1.13.01
10-2528	Point ID Digital Alarm Communicator Transmitter (DACT). Install to provide an interface with a Central Station monitoring system. The DACT provides 5 contact zones of connection or point ID transmission capability via intelligent serial interface connection with the Cheetah Xi.	D.1.18.01
10-2204	CRM4 Relay Module. Install to provide four additional relays for control and monitoring functions. The Cheetah Xi board supports up to two CRM4 modules. Each relay is independently programmable.	D.1.14.01
10-2254	Reverse Polarity Module (RPM). Install to provide for UL Remote Station supervision (Direct leased line connection).	D.1.15.01
10-2482	RS485 Network Module. Install to network up to 128 panels maximum using RS485 cable. Enables the systems 254 zones to be shared from panel-to-panel.	D.1.17.01
10-2624	Fiber Optic Network Module. Install to network up to 128 panels maximum using Fiber Optic cable. Enables the systems 254 zones to be shared from panel-to-panel.	D.1.21.01

OPTIONAL PERIPHERAL BUS DEVICES

PART NUMBER	DESCRIPTION	DATA SHEET
The following devices connect to the Cheetah Xi panels RS485 peripheral bus (31 devices maximum).		
10-2646	Fourteen Button Remote Display Unit (RDU14). The RDU14 is equipped with a 80 character, backlit display that duplicates information provided by the control panel. The RDU14 is equipped with six buttons (Enter, Escape, +/-, left/right arrow) used for navigation through events, as well as configuration of the device. Additionally it has eight programmable buttons configured for things such as reset, silence, acknowledge, drill, or process.	P.1.108.01
10-2631	Ten Button Remote Display Unit (RDU10). The RDU10 is equipped with a 80 character, backlit display that duplicates information provided by the control panel. The RDU10 is equipped with six buttons (Enter, Escape, +/-, left/right arrow) used for navigation through events, as well as configuration of the device. Additionally it has four dedicated buttons that perform the following functions: drill, silence, acknowledge, and reset.	P.1.107.01
10-2630	Two Button Remote Display Unit (RDU2). The RDU2 provides remote annunciation of Fike's intelligent control panels. The RDU2 is equipped with an 80 character, backlit display that duplicates information provided on the main control panel.	P.1.103.01
10-2667	Twenty-Zone Annunciator. The annunciator can provide remote annunciation for up to twenty zones at a location remote from the control panel. The module provides a tabular display that incorporates 20 red alarm and 20 yellow trouble/supervisory LEDs. Each LED is programmable and can provide visual indication of alarm, trouble/supervisory conditions for zones or individual points.	P.1.118.01
10-2627	Ethernet Module. The module allows remote monitoring of the Cheetah Xi panel via Ethernet/IP.	D.1.22.01
10-2583	Multi-Interface Module (MIM). The primary function of the MIM is to provide a printer interface for the Cheetah Xi. It allows specific event and point information to be communicated from the panel to the printer. It is compatible with either a Epson FX-890 or equivalent IEEE 1284 standard printer or for UL required applications the Keltron 90 series UL listed fire alarm printer.	P.1.85.01

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ADRESSABLE SENSORS AND MODULES

PART NUMBER	DESCRIPTION	DATA SHEET
These devices interface directly with the Cheetah Xi controllers SLC loops.		
63-1052	Photoelectric Smoke Sensor Non-Isolator Version	P.1.88.01
63-1058	Photoelectric Smoke Sensor Isolator Version	P.1.88.01
63-1053	Photo/Heat Combination Sensor Non-Isolator Version	P.1.89.01
63-1059	Photo/Heat Combination Sensor Isolator Version	P.1.89.01
60-1039	Thermal Sensor Non-Isolator Version	P.1.90.01
60-1040	Thermal Sensor Isolator Version	P.1.90.01
67-033	Ion Sensor Non-Isolator Version	P.1.91.01
67-034	Ion Sensor Isolator Version	P.1.91.01
63-1057	Duct Sensor Non-Isolator Version	P.106.01
63-1062	Duct Sensor Isolator Version	P.106.01
63-1056	Duct Housing	P.106.01
63-1054	6" Sensor Base Non-Isolator Version	P.1.98.01
63-1060	6" Sensor Base Isolator Version	P.1.98.01
63-1055	4" Sensor Base Non-Isolator Version	P.1.99.01
63-1061	4" Sensor Base Isolator Version	P.1.99.01
63-1064	Sounder Base	P.101.01
63-1063	Relay Base	P.101.01
55-045	Mini-Monitor Module Non-Isolator Version	P.1.93.01
55-050	Mini-Monitor Module Isolator Version	P.1.93.01
55-041	4" Monitor Module Non-Isolator Version	P.1.92.01
55-046	4" Monitor Module Isolator Version	P.1.92.01
20-1063	Intelligent Pull Station Non-Isolator Version (Fire)	P.1.65.01
20-1064	Intelligent Pull Station Isolator Version (Fire)	P.1.65.01
20-1343	Intelligent Pull Station Non-Isolator Version (Agent)	P.1.104.01
55-042	Supervised Control Module Non-Isolator Version	P.1.94.01
55-047	Supervised Control Module Isolator Version	P.1.94.01
10-2360	Series Solenoid Diode/Resistor (Needed for solenoids)	P.1.232.01
10-2413	Masterbox Interface	
55-043	Relay Module Non-Isolator Version	P.1.95.01
55-048	Relay Module Isolator Version	P.1.95.01
55-052	Release Control Module Non-Isolator Version	P.1.95.01
55-053	Release Control Module Isolator Version	P.1.95.01
10-1832	ARM III Agent Release Module	C.1.04.01
10-2748	Impulse Release Module (IR)	IV.1.15.01