FC1® FIRE CONTROL INSTRUMENTS

by Honeywell

FC-73

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CONVENTIONAL FIRE ALARM CONTROL PANEL

DESCRIPTION

The FC-73 Series Fire Alarm Control panel is a proven, versatile conventional zoned unit which meets the requirements of NFPA Standard 72 for Central Station, Protected Premises, Auxiliary, Remote and Proprietary Supervising Station Fire Alarm Systems. It is listed to UL Standard 864; inherently power limited, and has all necessary circuitry to meet the UL transient immunity requirements.

The system is housed in a heavy-duty steel enclosure finished in red, with panels displaying the status of vital functions. The surface mounted enclosure, with its slim appearance (4-inch depth), is designed to blend with any environment. The cabinet can house up to 7AH batteries while the system's power supply can maintain batteries of up to 33 AH batteries (enclosed in the separately available BC-1R, 1100-0654).

The many features of the FC-73 provide a cost effective approach to system design, and allow a great degree of flexibility in one enclosure. The panel provides ten (10) Class "B" (Style B) or five (5) Class "A" (Style D) zones, expandable to twenty (20) Class "B" or ten (10) Class "A" zones with the addition of the ZDM-FC73 Module. The FC-73 also provides four (4) Class "B" (Style Y) or two (2) Class "A" (Style Z) notification appliance circuits.

Standard on all FC-73 control panels are a City Master Box output, Polarity Reversal signaling connections, and Integrated DACT. The combination of a conventional fire alarm control panel with a microprocessor design allows for programming of many unique features such as time limit cutoff, programmed verification, pre-alarm delay, and cross-zoning. Individual zones can be assigned specific outputs and zone types such as alarm, supervisory or waterflow. In addition, up to eight (8) selectable/programmable notification appliance circuit output patterns are available for alternate styles of warnings. Programming is achieved through the LCD-FC73 annunciator module or through the Field Configuration Program (FCP-73).

Supervision of vital components, modules, functional switches, and standby batteries is provided.

The integral Digital Alarm Communicator Transmitter supports all standard reporting formats including:
- 3/1, 1400 Hz
- 3/1, 2300 Hz
- SK 4/2, 1400 Hz
- SIA 8
- SIA 20
- Contact ID

Optional modules include an LCD remote annunciator, a zone expander module used to expand the system and a status display module which provides outputs and control functions for each zone as well as program access.

FEATURES
- **Individual Zone Disconnect Switches**
- **Supports up to six (6) Remote LCD Displays**
- **Supports up to six (6) Remote LED Annunciators**
- **Integral Digital Communicator Transmitter**
- **Expandable to Twenty (20) Class B or Ten (10) Class A Zones**
- **Field Programmable Configuration**
- **Eight (8) Selectable/Programmable Output Patterns Including Temporal Pattern Output per ANSI S3.41**
- **"Walk Test" Capability provided by the LCD-FC73 optional Remote Annunciator**
- **Programmable Alarm Verification and Cross-Zoning**
- **Four (4) Class B or Two (2) Class A Notification Appliance Circuits**
- **Six (6) Amp power Supply**
- **Three integral progammable relays**
- **Provides Municipal Circuit or Reverse Polarity output**
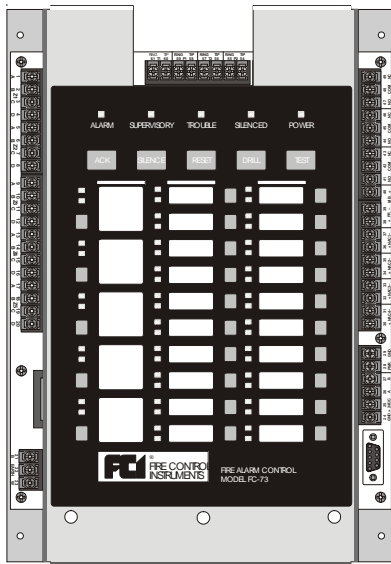- **Reverse Polarity or Municipal Circuit output**

UL
S1869

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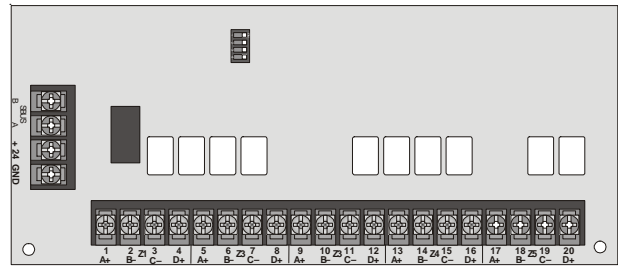
BASIC FC-73 ASSEMBLY

OPTIONAL ACCESSORIES

LCD-FC73

The LCD-FC73 supervised remote annunciator performs all system operations. It can be used for programming and provides access to the Walk Test feature and trouble and alarm information. The control panel can support up to six (6) annunciators. Total distance is up to 3000 feet away over two pair of two-conductor wire.

ZONE EXPANDER (ZDM-FC73)

The ZDM-FC73 Zone Expander provides the FC-73 with ten (10) additional Class "B" (Style B) or five (5) Class "A" (Style D) initiating circuits. Mounts in main cabinet or in FC-2190 Accessory Cabinet.
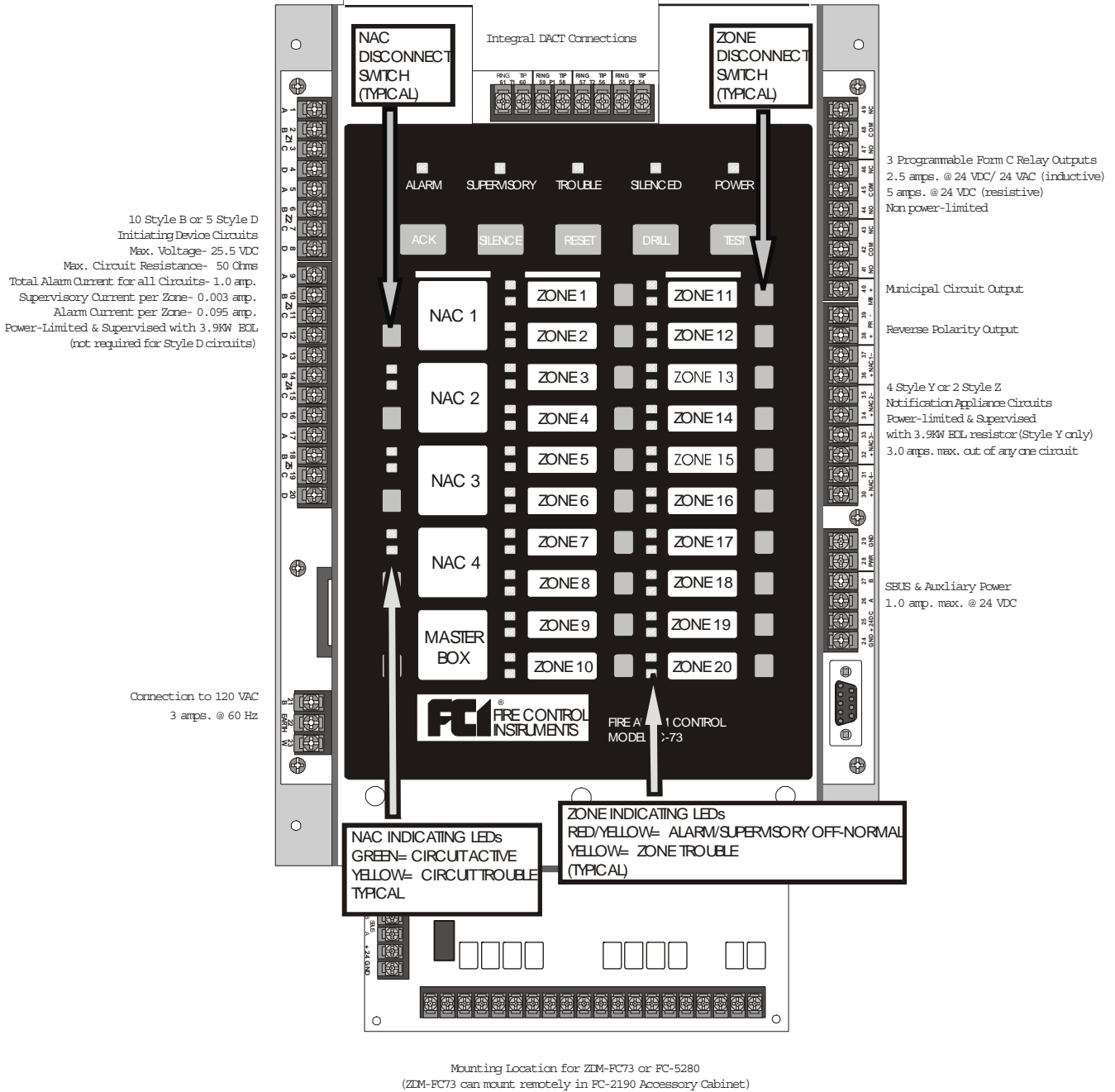

STATUS DISPLAY MODULE (FC-5280)

The FC-5280 Status Display Module provides outputs and control functions for remote annunciation of alarm, trouble, and supervisory indications for each zone. The system can supervise up to eight (8) modules. The FC-5280 has ten (10) outputs for alarm and ten (10) for trouble annunciation. These outputs are "active low" (become negative when activated). Each output can provide up to 0.100 amp current, with a total of 0.700 amp available. The module has four (4), Form "C" relays that can be wired to operate with any of the outputs. The FC-5280 can be used to interface with an LED annunciator. It can be programmed to indicate alarm and trouble status for Zones 1 - 10, 11 - 20, or system status outputs. The FC-5280 mounts inside the FC73 cabinet.

FIRE CONTROL INSTRUMENTS
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NAC DISCONNECT SWITCH (TYPICAL)

Integral DACT Connections

RING TIP RING TIP RING TIP RING TIP
61 TR 60 59 P1 58 57 T2 56 55 P2 54

ZONE DISCONNECT SWITCH (TYPICAL)

ALARM   SUPERVISORY   TROUBLE   SILENCED   POWER

ACK   SILENCE   RESET   DRILL   TEST

NAC 1

NAC 2

NAC 3

NAC 4

MASTER BOX

ZONE 1   ZONE 11
ZONE 2   ZONE 12
ZONE 3   ZONE 13
ZONE 4   ZONE 14
ZONE 5   ZONE 15
ZONE 6   ZONE 16
ZONE 7   ZONE 17
ZONE 8   ZONE 18
ZONE 9   ZONE 19
ZONE 10   ZONE 20

FC1 FIRE CONTROL INSTRUMENTS

FIRE ALARM CONTROL
MODEL FC-73

10 Style B or 5 Style D
Initiating Device Circuits
Max. Voltage- 25.5 VDC
Max. Circuit Resistance- 50 Ohms
Total Alarm Current for all Circuits- 1.0 amp.
Supervisory Current per Zone- 0.003 amp.
Alarm Current per Zone- 0.095 amp.
Power-Limited & Supervised with 3.9KW EOL
(not required for Style D circuits)

Connection to 120 VAC
3 amps. @ 60 Hz

3 Programmable Form C Relay Outputs
2.5 amps. @ 24 VDC/ 24 VAC (inductive)
5 amps. @ 24 VDC (resistive)
Non power-limited

Municipal Circuit Output

Reverse Polarity Output

4 Style Y or 2 Style Z
Notification Appliance Circuits
Power-limited & Supervised
with 3.9KW EOL resistor (Style Y only)
3.0 amps. max. out of any one circuit

SBUS & Auxiliary Power
1.0 amp. max. @ 24 VDC

NAC INDICATING LEDs
GREEN= CIRCUIT ACTIVE
YELLOW= CIRCUIT TROUBLE
TYPICAL

ZONE INDICATING LEDs
RED/YELLOW= ALARM/SUPERVISORY OFF-NORMAL
YELLOW= ZONE TROUBLE
(TYPICAL)

Mounting Location for ZDM-FC73 or FC-5280
(ZDM-FC73 can mount remotely in FC-2190 Accessory Cabinet)

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GENERAL SPECIFICATIONS

Primary AC Voltage	120 Vrms @ 60 Hz, 3A
Total DC Voltage output	6 A
Auxiliary Power output	27.4 VDC @ 1A
Smoke Detector output	27.4 VDC @ 1A
Battery Charging Voltage	27.4 VDC
Battery Charging Current	0.75A max. (33 A/H batteries max.)
Minimum Telephone input sensitivity	35 dB
Minimum Telephone line voltage	3 V
Low Battery Threshold	20.4 VDC
Low AC Brown-out Threshold	98 VAC
Dimensions	16" W x 26.4" H x 4" D
	(40.64 x 67.06 x 10.16 cm)
Shipping Weight	28 lbs.

ENVIRONMENTAL SPECIFICATIONS

Recommended Operating Temperature Range	60° to 80° F (15° to 27° C), 32° to 120° F max. (0° to 49° C)
Recommended Operating Humidity Range	not to exceed 85% @ 90°F (32° C), non-condensing

INITIATING DEVICE CIRCUIT SPECIFICATIONS

10 Style B (Class B) or 5 Style D (Class A) IDCs expandable to 20 Style B, 10 Style D withh addition of ZDM-FC73

Maximum Voltage	25.6 VDC
Maximum Circuit Resistance	50 ohms
Maximum Alarm Current for all Zones	1.0 amp.
Supervisory Current (per Zone)	0.003 amp.
Alarm Current (per Zone)	0.095 amp.
Supervised & Power-Limited	

NOTIFICATION APPLIANCE CIRCUIT SPECIFICATIONS

4 Style Y (Class B) or 2 Style Z (Class A) NACs rated 3.0 amp. each
(Note: total current draw from NACS, smoke detector power, auxiliary power and main Control Panel not to exceed 6.0 amp.)
Supervised & Power-Limited

APPROVALS

U.L. (Std 864)	S1869
C.S.F.M.	Pending

ORDERING INFORMATION

Part No.	Model	Description
150-00013	FC73-PCB	FC-73 Main Board
150-00014	FC-73	Fire Alarm Control Panel
150-00015	ZDM-FC73	Zone Expander Module
150-00016	LCD-FC73	Remote Annunciator
150-00018	FC-5280	Status Display Module
150-00023	FC-2190	Accessory Cabinet