SCS Series

Smoke Control Station
SCS-8, SCE-8, SCS-8L, SCE-8E

NOTIFIER® by Honeywell

Annunciators

General

SCS series Smoke Control Stations include the SCS-8 and SCE-8 Smoke control modules and the SCS-8L and SCE-8L lamp driver versions.

These products are used with the Notifier NFS2-3030 panel or the NCA-2 network annunciator for Firefighter's Smoke Control Station (FSCS) applications. For HVAC applications SCS series devices may be used with the NFS-320, NFS2-640, NFS2-3030, and NCA-2.

Each SCS can control and monitor eight switch groups that control fans or dampers, or groups of fans or dampers.

The SCE is used with the SCS, expanding the capability to control and monitor a total of 16 switch groups. One SCE Smoke Control Expander can be used to increase the number of switch groups used on one annunciator address to 32. Up to 32 annunciator addresses are supported on NOTIFIER systems, providing a maximum capability to control and monitor 512 separate switch groups.

The SCS-8L and SCE-8L lamp drivers are configured with a UL-Listed Custom Graphic Annunciator, and must be installed in a UL-Listed Graphic Annunciator backbox.

Features

The SCS-8/SCE-8 or SCS-8L/SCE-8L is capable of two modes of operation: Firefighter's Smoke Control Station (FSCS) or Heating, Ventilation, and Air Conditioning (HVAC).

IN THE FSCS MODE

The SCS/SCE has the capability to: help maintain a tenable environment in evacuation routes; help restrict the movement of smoke from the fire area; help provide conditions in non-smoke areas that will assist fire officials conduct search and rescue operations and to find and combat the fire; and assist in protecting life and property.

Optional features for FSCS mode include support for redundant smoke control stations, pairing (allowing multiple units to act as a single system) and adjustable trouble timers (adjustments outside of parameters set by UL and ULC will require AHJ approval).

IN THE HVAC MODE

The SCS/SCE has the capability to monitor and control the building heating, ventilating and air conditioning.The HVAC mode is not consistent with UL and NFPA standards for smoke control. This mode should be used for fan shutdown and building heating, ventilating, and air conditioning purposes only.

Communication to the SCS is accomplished over a two-wire serial interface employing an EIA-485 communication standard. Power for the SCS is provided via a separate 24 VDC regulated power loop. If power is lost, a trouble signal will result at the control panel.

Each SCS has two rotary decimal switches for addressing and eight dipswitches for mode configuration.

Each SCS-8/SCE-8 module has eight independent switch groups that consist of the following:

- Miniature locking toggle switch, three-position ON/AUTO/OFF.
- Four annunciator protocol points (two control and two monitor).

SCS-8

- ON/OPEN indicator (Green).
- OFF/CLOSED indicator (Yellow).
- Trouble LED (Amber).

Each SCS-8/SCE-8 also has two LEDs and one momentary switch with the following functions:

- ALL AUTO LED (Green).
- MANUAL LED (Amber).
- LOCAL ACKNOWLEDGE/LAMP TEST momentary switch.
- LOCAL ACKNOWLEDGE/LAMP TEST momentary switch.

Each SCS-8L/SCE-8L module has eight independent switch groups as well, however, since the SCS-8L/SCE-8L is a lamp driver version of the SCS-8/SCE-8 each switch group consists of contacts for connection of a three-position switch and contacts for connection of three lamps or LEDs. Each SCS-8L module also has contacts for connection of two LEDs and one momentary switch. The SCS-8L/SCE-8L modules must be installed in a UL approved Custom Graphic Annunciator panel. Temperature and humidity ranges: This system meets NFPA requirements for operation at 0°C to 49°C (32°F to 120°F); and at a relative humidity (noncondensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per ULC. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F).

Fan and Damper Operation with the SCS/SCE

For a fan or damper, or a group of fans or dampers to be used in a smoke control system, the system must not only be able to control the point(s), but it must the state it is in (ON/OFF or OPEN/CLOSED).

The capability to control a fan or a damper is accomplished through the use of intelligent control modules**.**

The control module is used to control the ON/OFF state of a fan or the OPEN/CLOSED state of a damper. The capability to monitor the state of a fan or a damper is accomplished through the use of intelligent monitor modules.

The monitor module is used to monitor the ON/OFF state of a fan or the OPEN/CLOSED state of a damper. The figure below shows a general layout of the components necessary to control and monitor a fan.The intelligent control and monitor modules are controlled by the FACP.

The SCS communicates with the FACP over the EIA-485 data line, *(Annunciator Control System circuit)*.

Each switch group on an SCS-8/SCE-8 consists of two LEDs for annunciation of fan or damper status, one LED for annunciation of trouble conditions, and an ON/AUTO/OFF (OPEN/ AUTO/ CLOSED) three-position switch for control of a fan or damper (through the intelligent control and monitor modules). The status of the control and monitor modules depends on the setting of the three-position switch. If the switch is in the AUTO position and there is an alarm condition in the FACP, then the control and monitor modules will function according to the automatic programming in the control panel.

If the switch is in the ON (OPEN) position, or the OFF (CLOSED) position, then the SCS series module sends a signal over the EIA-485 overriding the automatic programming to ensure the OFF/CLOSED position of the fan or damper.

Agency Listings and Approvals

The listings and approvals below apply to SCS Series components. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: file S5511, S635. S4977.
- **ULC** Listed: file S635. S4977.
- **CSFM** approved: file 7300-0028:183 *(SCS-8, SCE-8 only)*.7165-0554:0149, 7165-0554:0153.
- **MEA** approved: 289-91-E8.
- **FDNY:** COA #6211, #6212. 6135, #6220.

Product Line Information

NOTE: *See panel data sheets and manuals' lists of compatible devices for appropriate intelligent control and monitor modules.*

SCS-8: Smoke Control Master Module. Eight switches expandable to 16 with SCE-8.

SCE-8: Smoke Control Expander Module expands the SCS-8 switches to 16.

SCS-8L: Smoke Control Lamp Driver Master Module. Eight switches expandable to 16 with SCE-8. Requires UL/ULC listed custom graphic annunciator available from other sources.

SCE-8L: Smoke Control Lamp Driver Expander Module expands the SCS-8 switches to 16.

SCS8L-CBL24: 24" (60.96 cm) long cable used to connect SCS-8L/SCE-8L outputs to lamps or LEDs.

SCS8L-CBL48: 48" (121.92 cm) long cable used to connect SCS-8L/SCE-8L outputs to lamps or LEDs.

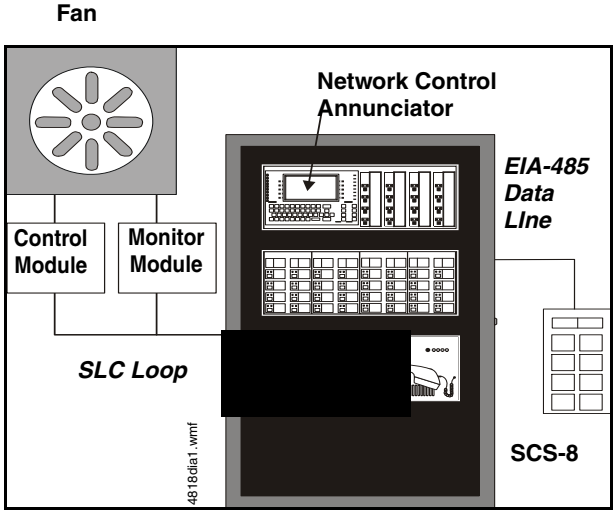
LDM-R32: Relay driver module for the SCS-8L.

ABS-4D: Annunciator Surface Box. Mounts four modules. Attractive window with key-lock door, 12.0" (30.48 cm) x 19.938" (50.641 cm) x 3.5" (8.89 cm). Door adds 1.25" (3.175 cm) to depth.

ADP-4B: The Annunciator Dress Panel-4B (black) provides for the cabinet mounting of one to four modules. The ADP-4B hinge-mounts to a CAB-4 Series cabinet. Modules mount directly to threaded studs on the ADP-4B.

NOTE: *The SCS-8 does not mount in a DP-DISP.*

Controlling and Monitoring a Fan



Fire Alarm Control Panel and/or Network Control Annunciator

NOTE: *For full FSCS support with NFS2-640 panel, the SCS must connect to the NCA(-2) EIA-485 port.*

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com