LCM-320 and LEM-320

Loop Control and Expander Modules

NOTIFIER® by Honeywell

Intelligent Fire Alarm Control Panels

General

The LCM-320 Loop Control Module and the LEM-320 Loop Expander Module provide NOTIFIER's ONYX® Series of Fire Alarm Control Panels (FACPs) with Signaling Line Circuits (SLCs). The ONYX® Series NFS-640/NFS2-640 supports one LEM-320; the NFS-3030/NFS2-3030 supports up to five LCM-320s and five LEM-320s. The LEM-320 module is used to expand the NFS-640/NFS2-640 to a second loop, and to expand each LCM-320 used on the NFS-3030/NFS2-3030 — each NFS-3030/NFS2-3030 LCM-320 supports an expansion LEM-320.

Features

- Up to 12,500 feet (3,810 m) on a Class B (Style 4) SLC loop (twisted-unshielded).
- Built-in degraded mode increases survivability.
- Very simple installation — plug-in style.
- Permits multiple loops in small enclosure.

Specifications

Voltage: 24 VDC nominal, 27.6 VDC maximum.

Maximum loop length: The maximum wiring distance of an SLC using 12 AWG (3.1 mm²) twisted-pair wire is 12,500 feet (3810 m) per channel. For a twisted-unshielded pair, 12 AWG (3.1 mm²) to 18 AWG (0.78 mm²):

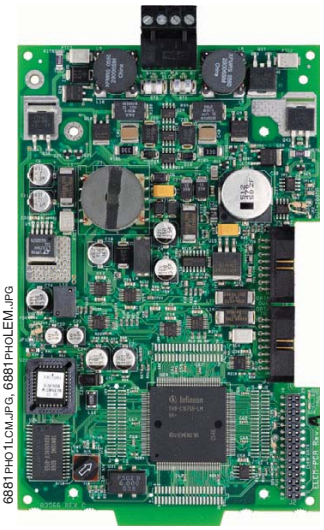
- Distance with 12 AWG: 12,500 ft (3,810 m).
- Distance with 14 AWG: 8,000 ft (2,438 m).
- Distance with 16 AWG: 4,875 ft (1,486 m).
- Distance with 18 AWG: 3,225 ft (983 m).
- 50 ohms maximum per length of Style 6 & 7 loops.
- 50 ohms maximum per branch for Style 4 loop.

Maximum current: for LCM-320: 130 mA; **for LEM-320:** 100 mA; **for single SLC loop:** 400 mA maximum.

NOTE: *Maximum short circuit — loop will shut down until short-circuit condition is corrected.*

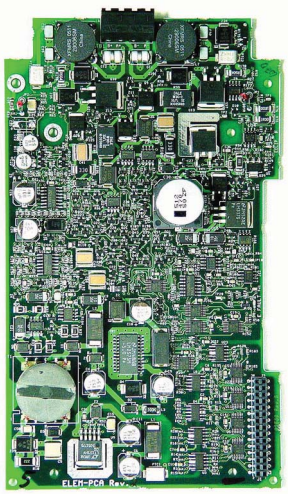
Maximum resistance: 50 ohms (supervised and power-limited).

Temperature and humidity ranges: This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). 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 its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.



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Loop Control Module



Loop Expander Module

Product Line Information

LCM-320: Loop Control Module. Adds SLCs to NFS-3030/NFS2-3030; NFS-3030/NFS2-3030 supports up to five LCM-320s and five LEM-320s.

LEM-320: Loop Expander Module. Expands each LCM used on the NFS-3030/NFS2-3030; expands NFS-640/NFS2-640 to two loops.

Agency Listings and Approvals

The listings and approvals below apply to the basic LCM-320 and LEM-320. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S635
- **ULC:** S635/CS118
- **FM Approved**
- **CSFM:** 7165-0028:224, 7170-0028:223 (LCM/LEM-320 with NFS-3030/NFS2-3030). 7165-0028:214, 7170-0028:216 (LEM-320 with NFS-640). 7165-0028:243, 7170-0028:244 (LEM-320 with NFS2-640).
- **FDNY:** COA#6025 (LEM-320 with NFS2-640)
- FDNY: COA#6026 (LCM-320/LEM-320 with NFS2-3030)
- **City of Denver**
- **Hong Kong**