NUMENS
Professional Safety Products

400 non-addressable CO gas alarm

UL 2075, EN 50291, CE   CO gas detector and alarm for system applications

Description

400-series non-addressable carbon monoxide (CO) gas alarms are suitable for connection to 2-wire and 4-wire non-addressable fire detection control and indicating equipment. 400 detectors can also connect to 2-wire and 4-wire addressable fire detection control and indicating equipment that can accept non-addressable detectors[1].

Advanced electronics in conjunction with a semiconductor gas sensor provide early detection of carbon monoxide gas and high immunity against unwanted alarms.

The 400 CO alarm range provides fire detection and alarm system designers with a Standards-compliant, economical gas detector for life safety and property protection applications.

Features

- Advanced algorithms provide advanced detection discrimination
- Stable gas sensing chamber. No adjustment or replacement required
- High immunity against unwanted alarms
- Surface-mount device (SMD) circuit board design
- 2-wire or 4-wire system operation
- Detector auto-reset once gas levels fall below alarm threshold levels
- Magnet-initiated alarm test function
- DC 12 V or DC 24 V operation
- N/C or N/O alarm relay output
- Loud 85 dB internal sounder available on some models
- Audible warning signal of an internal fault on some models
- Easy installation. No programming required
- Connectable to zone monitor for use with addressable control and indicating equipment
- Sleek, low-profile housing design
- Low maintenance

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Compliance

400 CO alarms have the following compliance.

	EN 50291 [a, c]	UL 2075 [b, c]	CE
400-001	✔	✔	✔
400-002	✔	✔	✔
400-003	✔	✔	✔

[a] EN 50291 *Electrical apparatus for the detection of carbon monoxide in domestic premises. Test methods and performance requirements*

[b] UL 2075 *Gas and Vapor Detectors and Sensors*

[c] Third-party conformance assessment has not been undertaken.

Accessories

The following accessories are compatible with 400 CO alarms.

Description	Part number	Datasheet
4-term. 99 mm low profile base [a]	CN1021	31-0036
8-terminal 99 mm low profile base	CN1041	31-0038
Remote indicator [b]	681-001	31-0034
Detector monitor module	620-001	31-0027

[a] Suitable for 400-001 only.

[b] Requires 8-terminal base.

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[1] May be used with the 620-001 detector monitor module.

Specifications

	400-001 400-002	400-003
Operating voltage	DC (10.8 ~ 33) V	DC (10.8 ~ 26.4) V
Start-up current	≤ 100 µA	
Start-up time	≤ 10 min	
Quiescent current	50 µA	
Quiescent condition indicator	Flashing red LED every 5 s	
Alarm current (max)	50 mA	
Sampling time	(2 ~ 4) s	
Alarm response threshold	70 µL/L for 60 min ~ 240 min [a] 150 µL/L for 10 min ~ 50 min [a] 400 µL/L for 4 min ~ 15 min [a] 50 µL/L for 60 min ~ 90 min [b] 100 µL/L for 10 min ~ 40 min [b] 300 µL/L for < 3 min [b]	
Alarm condition indicator	Continuous red LED	
Alarm relay	—	SPST. N/O or N/C. 1.0 A @ DC 30 V / 0.5 A @ AC 125 V
Sounder output	—	≥ 85 dB @ 3 m
Reset voltage	≤ 1 V	
Reset time	≤ 10 s	
Auto reset time	< 30 s	
Internal fault indication	Single short audible signal every 30 s	
Operating temperature	(-10 ~ +40)°C	
Operating humidity	(0 ~ 95)% RH, non-condensing	
Storage temperature	(-25 ~ +70)°C	
Storage humidity	(0 ~ 98)% RH, non-condensing	
Dimensions (excluding contacts)	Φ 99 mm × 45 mm	
Ingress protection rating	IP-42	

[a] Complies with UL 2075, *Gas and Vapor Detectors and Sensors.*

[b] Complies with EN 50291, *Electrical apparatus for the detection of carbon monoxide in domestic premises. Test methods and performance requirements.*

Ordering Information

	2-Wire	4-Wire	Remote Indicator [a]	Internal sounder	Relay Output
400-001	✔	—	—	—	—
400-002	✔	—	✔	—	—
400-003	—	✔	—	✔	✔

[a] Requires 8-terminal base if remote indicator is installed.

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