

NB380-S

Conventional Smoke Detector



EN54-7

NB380 conventional photoelectric smoke detectors are state-of-the-art detectors suitable for connection to conventional fire detection control and indicating equipment, or to addressable fire detection control and indicating equipment that can accept conventional type detectors. Advanced algorithms, in conjunction with a stable photoelectric smoke sensing chamber, provide early detection of smoke and high immunity against unwanted alarms. The **NB380** range of conventional detectors provide fire detection and alarm system designers with a Standards-compliant, economical smoke detector for life safety and property protection applications₁.

Key Features

- Advanced algorithms provide advanced detection discrimination
- Automatic drift compensation for long-term stability
- Easy installation. No programming required
- Low maintenance
- Sleek low-profile housing design
- Stable photoelectric smoke sensing chamber
- High immunity against unwanted alarms
- Wide operation voltage range to accommodate DC12V and DC24V supply
- Dual LEDs for 360° visibility
- 2-wire and 4-wire models for DC 12 V and DC 24 V operation
- 4-wire models include a N/C or N/O alarm relay output
- 4-wire models available with auto-reset function
- Base options include:
 - Low profile 100 mm diameter base new version
 - Low profile 100 mm diameter base with remote LED Connection
 - Low profile 100 mm diameter base 4 wire
- Connects to zone monitor for use with addressable control and indicating equipment



| TECHNICAL SPECIFICATIONS | NB380-S2 NB380-S2L | NB380-S4R |
|---|---|--|
| OPERATING VOLTAGE | DC (9 ~33) V | DC (10 ~28) V |
| START-UP CURRENT | ≤ 350 μA | |
| START-UP TIME | ≤ 8 s | |
| STANDBY CURRENT | ≤ 45 μA | |
| ALARM CURRENT (MAX) | 19 mA ^a @ 9 V 24 mA ^b @ 9 V 77 mA ^a @ 28 V 102 mA ^b @ 28 V | 12 mA @ 10 V 48 mA @ 28 V 40 mA @ 24 V |
| ^a without remote LED ^b with remote LED | 64 mA ^a @ 24 V 85 mA ^b @ 24V | |
| MAXIMUM PERMITTED CURRENT | 100 mA without remote LED | |
| SAMPLING TIME | 3 s ~ 5 s | |
| RESET VOLTAGE | ≤ 2.1 V | |

NB380-S

Smoke Detector

| TECHNICAL SPECIFICATIONS | NB380-S2 | NB380-S4R |
|----------------------------------|--|-----------|
| | NB380-S2L | |
| RESET TIME | ≤ 3 s | |
| ALARM RESPONSE THRESHOLD (SMOKE) | 0.08 dB/m ~ 0.12 dB/m | |
| ALARM RELAY (MAX) | SPST. N/O or N/C. 2.0 A @ DC 30 V / 0.5 A @ AC 125 V | |
| OPERATING TEMPERATURE | -10 °C ~ +50 °C | |
| OPERATING HUMIDITY | 0 % ~ 95 % RH, non-condensing | |
| STORAGE TEMPERATURE | -25 °C ~ +80 °C | |
| STORAGE HUMIDITY | 0 % ~ 98 % RH, non-condensing | |
| ALARM INDICATOR | Two red LEDs | |
| DIMENSIONS (EXCLUDING CONTACTS) | Ø 100 mm × 38 mm | |

| Approvals | EN54-7 ^a | CE | MED ^b |
|-----------|---------------------|----|------------------|
| NB380-S2 | ✓ | ✓ | ✓ |
| NB380-S2L | ✓ | ✓ | ✓ |
| NB380-S4R | ✓ | ✓ | ✓ |

^a EN 54-7 Fire detection and fire alarm systems. Smoke detectors. Point detectors using scattered light, transmitted light or ionization

^b MED Marine Equipment Directive

| ORDER CODE | 2-Wire | 4-Wire | Normal Operating Voltage | Remote LED Output | Alarm Relay Output |
|------------|--------|--------|--------------------------|-------------------|--------------------|
| NB380-S2 | ✓ | | DC 24 V | | |
| NB380-S2L | ✓ | | DC 24 V | ✓ | |
| NB380-S4R | | ✓ | DC 24 V | | ✓ |

| Accessories | Part Number |
|---|-------------|
| Low profile 100 mm diameter base new version | 972913 |
| Low profile 100 mm diameter base w/ remote LED connection | 972914 |
| Low profile 100 mm diameter base 4 wire | 972915 |
| Remote Indicator ₁ | NB106 |
| Zone Monitor | NB773 |

₁ Suitable for NB380-S2L only