

# 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 applications<sup>1</sup>.

### 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	
START-UP CURRENT	≤ 350 μA		
START-UP TIME	≤ 8 s		
STANDBY CURRENT	≤ 45 μA		
ALARM CURRENT (MAX)	19 mA <sup>a</sup> @ 9 V	24 mA <sup>b</sup> @ 9 V	12 mA @ 10 V
	77 mA <sup>a</sup> @ 28 V	102 mA <sup>b</sup> @ 28 V	48 mA @ 28 V
<sup>a</sup> without remote LED	64 mA <sup>a</sup> @ 24 V	85 mA <sup>b</sup> @ 24V	40 mA @ 24 V
<sup>b</sup> with remote LED			
MAXIMUM PERMITTED CURRENT	100 mA without remote LED		
SAMPLING TIME	3 s ~ 5 s		
RESET VOLTAGE	≤ 2.1 V		



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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 <sup>a</sup>	CE	MED <sup>b</sup>
NB380-S2	✓	✓	✓
NB380-S2L	✓	✓	✓
NB380-S4R	✓	✓	✓

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

<sup>b</sup> 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 <sub>1</sub>	NB106
Zone Monitor	NB 773

<sub>1</sub> Suitable for NB380-S2L only