BOSCH
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D7050 Series Addressable Photoelectric Smoke and Smoke Heat Detector Heads

- ▶ Connects to the multiplex bus of the D7024 Addressable FACP
- ▶ Superior dust immunity
- ▶ Exclusive Chamber Check® self-diagnostics
- ▶ Automatic sensitivity test features
- ▶ Easy disassembly for cleaning

The D7050 Photoelectric Smoke and Smoke Heat Detector Heads are UL Listed, open-area photoelectric smoke detectors designed for use with commercial fire protective signaling systems and household fire warning systems (see NFPA 72, the National Fire Alarm Code). They are compatible with the D7024 Addressable Fire Alarm Control Panels (FACPs).
They detect large smoke particles by scattering light from a pulsed infrared source operating with a gated, high-speed, photodiode infrared sensor. The symmetry of the optical chamber allows 360° uniform smoke entry, but minimizes external light entry.
Use both of these smoke detectors for detection circuits installed in areas where personnel are present. The D7050TH has an added fixed-temperature sensor. This expands the detector application to confined areas where a fire increases air temperature slowly and where there is a substantial increase in air temperature before the fire breaks confinement, such as furnace rooms, closets, and other confined areas.

Functions

Detector Head and Base System

The D7050 Photoelectric Smoke and Smoke Heat Detector Heads are part of a compound system of detector head and base. The detector base installs over a back box and contains all the wiring. The detector head attaches to the base by aligning the head with the base and turning it clockwise. No tools are required for installation other than the hex key used to tighten the tamper screw. Each detector head requires a D7050-B6 detector base.

Chamber Check® Self-diagnostics

The detector meets NFPA guidelines for sensitivity testing, because you can visually inspect the detector and check the flash rate of the LED. If the calibration is out of factory-listed range, the LED on the detector double flashes once every 3 sec to 8 sec. Follow the instructions provided with the detector to clean it. The detector also sends a dirty chamber report to the control panel.

LED Operation

When the detector is operating normally, the LED flashes once every 3 sec to 8 sec. In alarm, the detector flashes at least once per second.

Magnetic Test Feature

Test the detector's operation by placing the SMK-TM Test Magnet next to the detector's LED for three

consecutive flashes. This causes the detector to send an alarm.

Certifications and Approvals

Listings and Approvals:	UL UROX: Smoke – Automatic Fire Detectors (UL268)
	UL UROX7: Smoke – Automatic Fire Detectors certified for Canada (ULC529)
	cULus
	CSFM 7272-1615: 175
	Factory Mutual Research
	NYC/MEA (12-92-E, Vol. 14)
Complies with:	Hong Kong Fire Services Department (HKFSD)

Installation/Configuration Notes

Compatible Products

The following products are compatible with the D7050 Smoke Detector and the D7050TH Smoke Heat Detector:

Category	Product ID	Product Description
Control Panels	D7024	FACP
	D7024-EXP	FACP for export
Detector Bases	D7050-B6	Two-wire base
Remote Annunciators	DRA-12/24	12/24 VDC remote annunciator

Parts Included

Quant.	Component
1	Detector head
1	Literature pack

Technical Specifications

Environmental Considerations

Radio Frequency Interference (RFI) Immunity:	No alarm or setup on critical frequencies in the range of 26 MHz to 950 MHz for field strengths less than 50 V/m
Temperature (normal operating):	+32°F to +100°F (0°C to +38°C)

Note: The environment where these detectors are installed must be within the specified normal operating temperature limits.

Mechanical Properties

Color:	Off-white
Dimensions (diameter x D):	4 in. x 1.3 in. (10.2 cm x 3.3 cm)
Material:	High-impact, fire-retardant ABS plastic

Power Requirements

Current (alarm):	0.55 mA maximum
Current (standby):	0.55 mA nominal
Power-up Time:	22 sec maximum
Voltage (minimum):	8 VDC peak from the multiplex bus

Ordering Information

D7050 Addressable Photoelectric Smoke Detector Head	D7050
D7050TH Addressable Photoelectric Smoke and Heat Detector Head	D7050TH
Hardware Accessories	
DRA-12/24 Remote Annunciator (12/24 VDC)	DRA-12/24
DT-2 Detector Removal Tool	DT-2
SMK-TM Test Magnet	SMK-TM