Sensor Bases
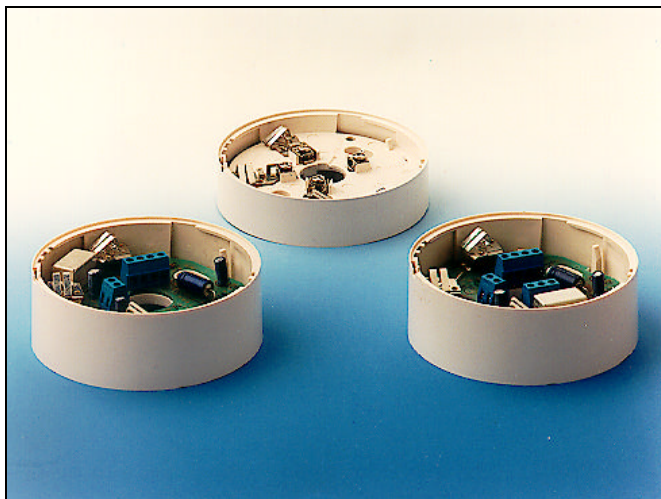
(For TC800 Series Analogue Addressable Sensors)

FEATURES

- **Compatible with all TC800 Series analogue addressable sensors**

- **Easy interfacing with the addressable loop**

- **Terminal block wiring**

- **Rugged industrial construction**

- **Optional tamper-proof feature**

- **Isolator Base**
  - **Complete isolation of short circuits**
  - **Automatic restore when short circuit is removed**

- **Relay Base**
  - **Automatic relay output when the detector is in alarm**
  - **Suitable for controlling dampers, fan systems, door closers**

DESCRIPTION

The 14506414 and 14507371 Series Plug-in Sensor Bases are designed for use with all Honeywell TC800 Series standard profile and low profile analogue addressable sensors.

The standard base provides easy connection of the TC800 series sensors onto an analogue addressable loop in the FS90 Plus Fire & Security System (FS90 Plus) or XLS200/1000 Life Safety System. To avoid any potential damage during the installation the standard bases have no electronics or address switches on them. The standard base includes a label for recording the loop, address and type of detector being installed. This information is important to set the address of the detector head that will later be plugged into the base and to verify the type required for that location. A remote LED or piezo annunciator can be easily connected to this base using the extra wiring terminal.

The Isolator Base prevents an entire communications loop from being disabled when a short circuit occurs. This base is intended to be used instead of a standard base at the boundary of each fire zone. In the event of a short circuit in the zone, the base automatically isolates the affected portion of the loop, while continuity is maintained between the control panel and the unaffected part of the loop. Once the short circuit condition is removed, the base automatically resets itself, restoring the previously isolated sensors. Up to 25 addressable devices may be isolated per isolator base.

The Relay Base is fitted with a single pole latching changeover relay, rated at 2A resistive @ 30Vdc, that changes state when the detector fitted to it goes into alarm. The relay base can be used to initiate ancillary functions external to the fire system, such as automatic damper closure, fan shut down and door closers. The relay switches automatically when the detector LED is activated from the control panel.

The SSDB501BH Sounder Base is similar to the standard base with a built-in horn. The sounder base requires an external 24Vdc power supply with reverse polarity capability. The connection for the external power supply and the communication loop are isolated to prevent electrical interaction between them. When the sensor's LEDs are latched on for approximately 10 seconds, the horn in the base gets activated automatically. Alternatively by reversing the polarity of the external power supply the horns can be activated when the sensor is not in alarm.

There is also an extra deep version of the standard base available, intended for applications where surface mounted cables are used to interconnect the sensors in the loop. The extra deep base is fitted with knockout sections at regular intervals to facilitate easy installation.

All sensor bases include an optional tamper proof feature that when activated prevents removal of the sensor without the use of a tool. To activate this feature a plastic tab on the base must be broken off before the sensor is installed.

SPECIFICATIONS

Models:

Small (Metric) Bases:

For all types of TC800 Series sensors:
14506414-007: Standard Base
SSDB501DG: Extra Deep Base
14506414-005: Relay Base
14506414-006: Isolator Base (relay)
SSDB524IEFT: Low Profile Isolator Base (solid state)

Flanged Bases:

For all types of TC800 Series sensors:
SSDB501BH: Sounder Base

For Low Profile sensors and OMNI sensor only:
14507371-001: Standard Base
14507371-003: Relay Base
14507371-005: Isolator Base

For standard profile sensors only:
14506414-001: Standard Base
14506414-008: Relay Base
14506414-010: Isolator Base

Operating Voltage:
Communication line supply voltage: 15 to 32V dc

Power Consumption (incl. detector):
Standby current (at 24V dc):
Standard Base: 150μA max.
Isolator Base: 450μA max.
Relay Base: <500μA max.

System Constraints:
Maximum Isolator bases and isolator modules per loop:
FS90 Plus: 20
XLS200/100: 50

Maximum devices between isolator bases (and modules):
FS90 Plus: 25
XLS200/1000: 25

Maximum OMNI (TC840) sensors between isolator bases:
FS90 Plus: 3
XLS200/1000: 2

Terminals:
Wire sizes up to 12 AWG (2.5 mm^2) may be used with the base. It is recommended that the wire be no smaller than 18 AWG (1 mm^2).

Environmental Operating Limits:
Temperature: -10° to +60°C (14° to 140°F)
Humidity: 10 to 93% rh, non-condensing

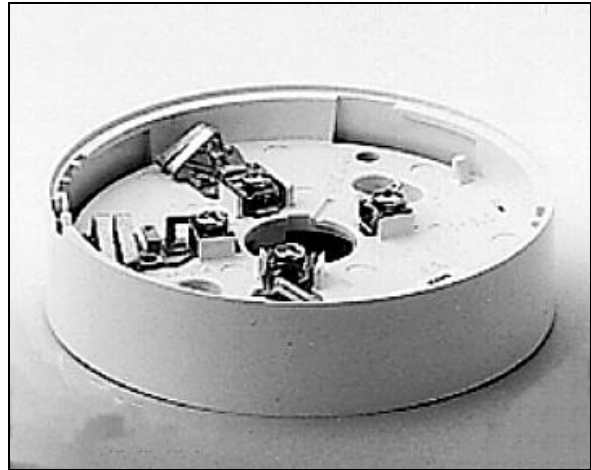Note: Do not install where normal ambient temperature range exceeds 0°C to 50°C (32° to 120°F)

Figure 1: 14506414-007 Standard Base

External Power Supply:
(only required for SSDB501BH Horn Base):
Operating Voltage: 17-32V dc (24V dc nominal)
Supervised external power supply
Stand-by Current: 1.0 mA max
Alarm Current: 15 mA max
Max. Ripple Voltage: 10% of supply voltage

Sound Output:
Greater than 90 dBA measured in anechoic room at 3m, 24Vdc. 85 dBA minimum measured in UL reverberant room.

Reversing polarity of power supply for SSDB501BH (horn base) causes each horn on the power circuit to sound when sensor LED latches on for 10 seconds

Relay Characteristics (Relay Base only):
Contact Type: Single pole changeover

Contact Ratings:
Resistive: 2A @ 30V dc
Inductive: 0.3A @ 110V dc (with 0.35pF or greater)
Inductive: 0.3A @ 120V ac (with 0.35pF or greater)
Inductive: 1.0A @ 30V dc (with 0.6pF or greater)
Set Time: min. 4 seconds, max. 20 seconds
Reset Time: min. 0.25 seconds, max. 8 seconds

Dimensions In Inches (Millimeters):
Small Metric Bases:
14506414-007: 102 mm Diameter, 22mm Height
SSDB501DG: 102 mm Diameter, 28mm Height
14506414-005, -006: 102 mm Diameter, 36mm Height
SSDB524IEFT: 102 mm Diameter, 22mm Height

Flanged Bases:
14506414-001: 155 mm Diameter, 36mm Height
14507371-001: 155 mm Diameter, 36mm Height
14506414-008, -010: 157 mm Diameter, 36mm Height
14507371-003, -005: 157 mm Diameter, 31mm Height
SSDB501BH: 152 mm Diameter, 59mm Height

Mounting:
14506414-005, -006, -007, SSDB524IEFT, SSDB501DG:
Mounts on 50, 60, or 70 mm electrical box

14506414-001, -008, -009,
14507371-001, -003, -005:
Mounts on 4 in. square electrical box (with or without plaster ring) with a min. depth of 1.5 in. (38mm)
Also mounts on 3½ in. or 4 in. octagonal electrical box with a min depth of 1.5 in. (38mm)

SSDB501BH:
Mounts on 4 inch square electrical box with at least 1½ in. depth. 2-1/8 inches is recommended.

Shipping Weight:
Small Metric Bases:
14506414-007:	81 g
14506414-005:	160 g
14506414-006:	140 g
SSDB524IEFT:	130 g
SSD501DG:	102 g

Flanged Bases:
14506414-001:	187 g
14506414-008:	220 g
14506414-010:	200 g
14507371-001:	185 g
14507371-003:	220 g
14507371-005:	200 g
SSDB501BH:	250 g

Additional Equipment:
SSDRMK400:	Recess Mounting Kit.
SSDSMK400:	Surface Mounting Kit
SSDRA400Z:	Remote LED Indicator
SSDAPA451:	Remote LED Indicator with piezo alert
SSDWB1:	Weather-proof Backbox

Approvals:
UL: SSDB501BH
14506414-001
14506414-008
14506414-010
14507371-001
14507371-003
14507371-005

LPCB: 14506414-007
14506414-006
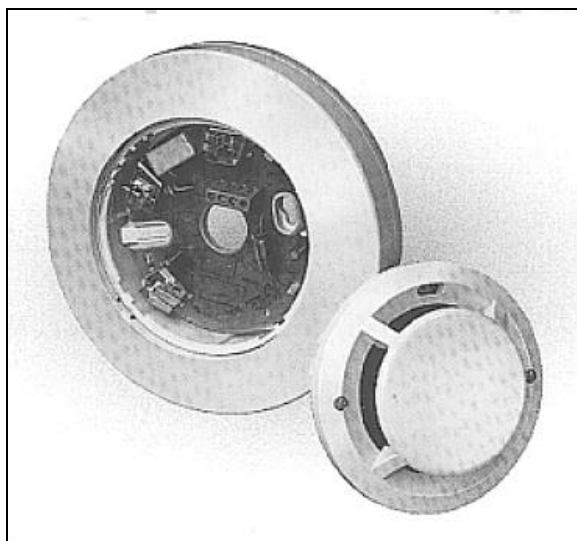14506414-005
SSDB501DG
SSDB524IEFT

Figure 2: 14507371-003 Relay Base for LP sensors

DRAFT: EN0C-0819 0599R0-OB

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Comfort from Experience

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