

Cerberus™ FIT

OH110, OP110, HI110, HI112

Automatic fire detectors



Automatic fire detector for collective detector lines and conventional detector lines, 110-series

- Signal processing with detection algorithms
- Selectable parameter sets
- 3-color LED indicator
- Drift compensation
- Internal error monitoring
- Error display

Features

- Resistant to environmental and interfering influences such as dust, fibers, insects, moisture, extreme temperatures, electromagnetic interference, corrosive vapors, vibration
- Shock resistant, protection against sabotage
- Protected electronics, high-quality components
- Integrated alarm indicator (AI), located centrally, 360° visibility
- Up to 2 external alarm indicators type FDAI91/FDAI92/FDAI93 can be connected per detector
- Signal processing with detection algorithms
- Same detector base can be used for every detector type, for surface-mounted and recess-mounted supply lines

Eco-friendly

- Environmentally friendly processing
- Reusable materials
- Electronic parts and synthetic materials can be easily separated

Use

OH110 multi-sensor fire detector



Multi-sensor fire detector consisting of:

- Point detector
- Detector dust cap to protect the point detector during the construction phase

Function:

- Functions according to the scattered light principle with one sensor, optical forward scattering
- Opto-electronic measuring chamber which obstructs disruptive extraneous light but provides excellent detection of smoke particles
- An additional heat sensor increases the point detector's immunity to deceptive phenomena
- Selectable detection behavior thanks to two parameter sets
 - Parameter set 1: 'Sensitive'
 - Parameter set 2: 'Robust'
- Immunity to false alarms

Use:

- For detection of flaming fires of solid and liquid substances as well as of smoldering fires
- For reliable fire detection in an environment with deceptive phenomena

OP110 smoke detector



Smoke detector consisting of:

- Point detector
- Detector dust cap to protect the point detector during the construction phase

Function:

- Functions according to the scattered light principle with one sensor, optical forward scattering
- Opto-electronic measuring chamber which obstructs disruptive extraneous light but provides excellent detection of smoke particles
- Selectable detection behavior thanks to two parameter sets
 - Parameter set 1: 'Standard'
 - Parameter set 2: 'Sensitive'

Use:

- For detection of smoke-generating flaming fires and smoldering fires

HI110 heat detector (static and differential)



Heat detector consisting of:

- Point detector with one heat sensor

Function:

- For high requirements
- Reliable response behavior for slow and rapid temperature rises, plus reliable response behavior for low temperatures
- Parameter set 'A1R'

Use:

- Where significant dust or dirt deposits or high moisture levels could impair the operation of standard detectors

HI112 heat detector (static only)



Heat detector consisting of:

- Point detector with heat sensor

Function:

- Measures the operating temperature, sends a danger signal to the control panel if the maximum temperature is exceeded
- Selectable detection behavior thanks to two parameter sets:
 - Parameter set 1: 'A2S'
 - Parameter set 2: 'B'

Use:

- Where significant contamination and fluctuations in temperature could impair the operation of standard detectors

Type Overview

| Type | Designation | Order no. | Weight [kg] |
|--------------------|--|----------------|-------------|
| OH110 | Multi-sensor fire detector (collective) | S54372-F11-A1 | 0.144 |
| OP110 | Smoke detector (collective) | S54372-F4-A1 | 0.138 |
| HI110 | Heat detector (static and differential, collective) | S54372-F9-A1 | 0.130 |
| HI112 | Heat detector (static only, collective) | S54372-F10-A1 | 0.130 |
| DB110 | Detector base (collective) | S54372-F5-A1 | 0.052 |
| DB110D | Detector base for BS 5839-1 | S54372-F6-A1 | 0.100 |
| DB110R | Detector base (collective) | S54372-F7-A1 | 0.052 |
| DB110RD | Detector base for BS 5839-1 | S54372-F8-A1 | 0.100 |
| Accessories | | | |
| FDBZ291 | Designation plate | A5Q00002621 | 0.002 |
| FDAI91 | Alarm indicator, door frame | S54370-F9-A1 | 0.020 |
| FDAI92 | Alarm indicator, wall version | S54370-F3-A1 | 0.050 |
| FDAI93 | Alarm indicator, built-in version | S54370-F5-A1 | 0.010 |
| RS720 | Detector base seal | S54319-F8-A1 | 0.012 |
| LP720 | Detector locking device (2x Allen keys, 100x set screws) | S54319-F9-A1 | 0.001 |
| BA720 | Base attachment | S54319-F20-A1 | 0.100 |
| BA721 | Base attachment wet | S54319-F29-A1 | 0.272 |
| DBZ1193A | Designation plate | BPZ:4864330001 | 0.076 |
| FDBH291 | Detector heating unit incl. micro terminal 0.28...0.5 mm ² | A5Q00004439 | 0.015 |
| DBZ1194 | Protective cage | BPZ:4677110001 | 0.138 |
| DBZ1190-AA | Micro terminal 0.28...0.5 mm ² | BPZ:4677080001 | 0.001 |
| DBZ1190-AB | Connection terminal 0.5...2.5 mm ² | BPZ:4942340001 | 0.001 |
| - | Metal cable gland M20 x 1.5 | A5Q00004478 | 0.039 |

Accessories

Detector base DB110 (parameter set 1)

**Function:**

- Universal base for all point detectors of the 110 and OOH740 series
- Selects parameter set 1 within the point detector

Use:

- For recess-mounted supply lines
- For surface-mounted supply lines with cables up to max. Ø 8 mm

Detector base DB110D (parameter set 1) for BS 5839-1

**Function:**

- Conventional detector base with diode for all point detectors of the 110 series
- Selects parameter set 1 within the point detector

Use:

- For recess-mounted supply lines
- For surface-mounted supply lines with cables up to max. Ø 8 mm

Detector base DB110R (parameter set 2)

**Function:**

- Conventional detector base with resistor for setting the parameters of all point detectors of the 110 series
- Selects parameter set 2 within the point detector

Use:

- For recess-mounted supply lines
- For surface-mounted supply lines with cables up to max. Ø 8 mm

Detector base DB110RD (parameter set 2) for BS 5839-1

**Function:**

- Conventional detector base with parameter set resistor and diode for all point detectors of the 110 series
- Selects parameter set 2 within the point detector

Use:

- For recess-mounted supply lines
- For surface-mounted supply lines with cables up to max. Ø 8 mm

Designation plate FDBZ291



- For labeling with the location address
- Can only be used without detector base seal FDBZ295

Detector base seal RS720

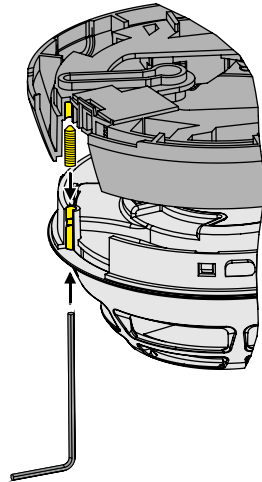


- For achieving a higher IP protection category
- Mounted between detector base and ceiling

Detector locking device LP720



- For protection against theft of the point detector
- Set screw M3 x 12 mm prevents the point detector being unscrewed from the detector base
- Point detector can only be removed with the appropriate Allen key



Base attachment BA720



Function:

- For routing surface-mounted ducts (max. 20 mm) and cable ducts (max. 25 x 15 mm)
- Detector base mounted quickly: The detector base clicks into place in base attachment BA720.

Base attachment wet BA721



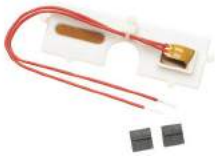
- Base attachment wet with additional integrated rubber seal for mounting in wet or humid environments
- For achieving a higher protection category
- For mounting in wet or humid environments
- Required when using detector heating unit FDBH291
- Required when using protective cage DBZ1194
- Mounted between detector base and ceiling
- Detector base mounted quickly: The detector base simply clicks into place in base attachment wet BA721.

Designation plate DBZ1193A



- For labeling with the location address
- Can only be used with base attachment wet BA721

Detector heating unit FDBH291



- For operating point detectors in critical ambient conditions during icy conditions or when there is a danger of moisture condensation. Examples of application: Cold stores, attics, loading ramps, cheese cellars
- Optimum function is only guaranteed in conjunction with base attachment wet BA721.
- The point detector temperature increases by approximately 2 °C over the operating temperature and thus avoids moisture condensation on the detector.
- Mounted quickly: The detector heating unit clicks into place in the detector base.

Protective cage DBZ1194



- To protect the point detector from damage
- Can only be mounted in combination with the base attachment humid FDB293 or base attachment wet BA721

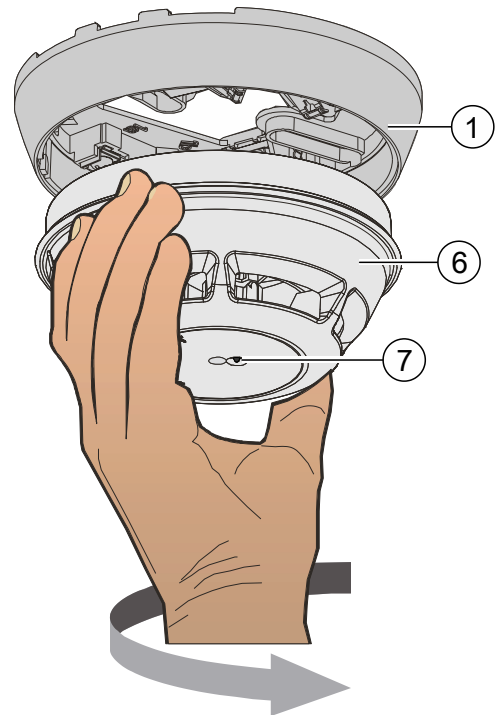
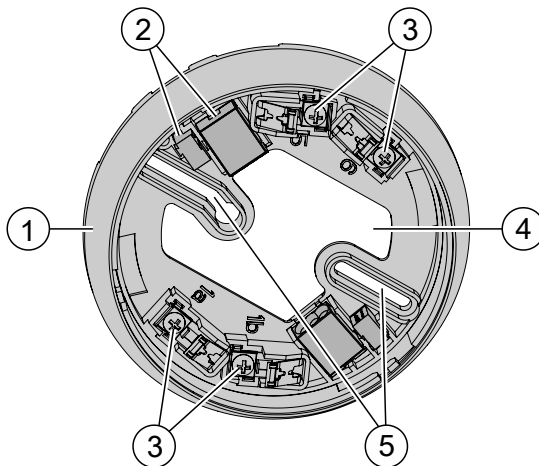
DBZ1190-AA micro terminal and DBZ1190-AB connection terminal



- Micro terminal DBZ1190-AA
 - Cable cross section up to max. 0.5 mm²
- Connection terminal DBZ1190-AB
 - Cable cross section up to max. 2.5 mm²
 - For connecting two external alarm indicators or the cable shielding

Installation

- Universal detector base with two break-out points for surface-mounted cable entry at the side. Max. cable diameter: 8 mm.
- Extra-long mounting slits allow existing drill holes from other systems to be reused. Hole spacing 40...90 mm
- Connection terminals for conductors up to 2.5 mm²
- Space for auxiliary terminals:
 - 2x micro terminals DBZ1190-AA and
 - 2x connection terminals DBZ1190-AB
- The internal alarm indicator is centered in the detector, which makes alignment of the point detector superfluous.



- | | |
|--|----------------------------|
| 1 Detector base | 5 Mounting slits |
| 2 Auxiliary terminals DBZ1190-AA, DBZ1190-AB | 6 Point detector |
| 3 Connection terminals for detector line and external alarm indicator | 7 Internal alarm indicator |
| 4 Opening for cable entry | |

Disposal



The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.
- Dispose of empty batteries in designated collection points.

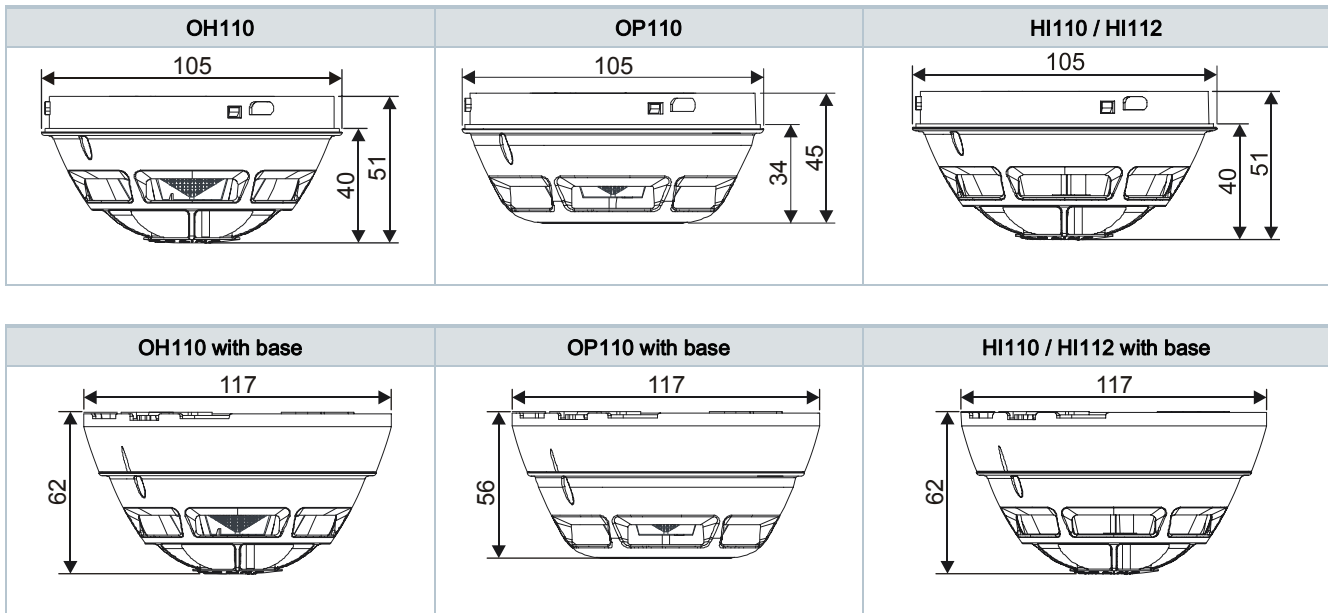
Technical data





| | OH110 | OP110 | HI110 / HI112 |
|--|-------------------------|-------------------------|---|
| Operating voltage | DC 16...28 V | DC 16...28 V | DC 16...28 V |
| Operating current (quiescent) | Max. 100 µA | Max. 100 µA | Max. 100 µA |
| Max. number of external alarm indicators that can be connected | 2 | 2 | 2 |
| Operating temperature | -10...50 °C | -10...55 °C | -10...50 °C (HI110) -10...50 °C (HI112, A2S) -10...65 °C (HI112, B) |
| Storage temperature | -30...70 °C | -30...70 °C | -30...70 °C |
| Air humidity (short-term moisture condensation permitted) | < 96 % rel. | < 96 % rel. | < 96 % rel. |
| Communication protocol | Collective/conventional | Collective/conventional | Collective/conventional |
| Color | ~RAL 9010 pure white | ~RAL 9010 pure white | ~RAL 9010 pure white |
| Weight | 0.144 kg | 0.138 kg | 0.130 kg / 0.130 kg |
| Protection category (IEC 60529) | IP40 | IP40 | IP40 |
| Protection category (IEC 60529) with Detector base seal RS720 | IP42 | IP42 | IP42 |
| Approvals • VdS | G212059 | G212033 | G212004 / G212015 |

Product documentation

| Document ID | Title |
|-------------|--|
| A6V10316298 | Technical Manual Automatic fire detectors OH110, OP110, HI110, HI112 |
| A6V10203222 | Data Sheet Testequipment and accessories FDUL221, DX791, RE6, RE7T, RE8ST, RE8STCO, FDUM29x, LE3, StabexHF |
| A6V10316300 | Installation Detector base (collective) DB110, DB110D, DB110R, DB110RD, detector base seal RS720, detector locking device LP720, base attachment BA720 |
| A6V10393192 | List of compatibility (for 'Cerberus™ FIT' product line) |
| A6V10406006 | Installation Base attachment wet BA721, Detector designation plate DBZ1193A, Protective cage DBZ1194, EMC-protective cage FDBZ294 |
| 008115 | Installation Detector heating FDBH291 |

Dimensional drawings



| | |
|--|---|
| <p>12  0786</p> <p style="text-align: center;">OH110</p> <p>OH110 - Point type smoke detector for use in fire detection and fire alarm systems installed in buildings.</p> <p>305/2011/EU (CPR): EN 54-7 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581</p> <p>The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or https://siemens.com/bt/download</p> <p style="text-align: center;">DoP No.: 0786-CPR-21165; DoC No.: CED-OH110</p> | <p>Siemens Schweiz AG, Theilerstrasse 1a CH-6300 Zug</p> <p>Technical data: see doc. A6V10316298</p> |
| <p>12  0786</p> <p style="text-align: center;">OP110</p> <p>OP110 - Point type smoke detector for use in fire detection and fire alarm systems installed in buildings.</p> <p>305/2011/EU (CPR): EN 54-7 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581</p> <p>The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or https://siemens.com/bt/download</p> <p style="text-align: center;">DoP No.: 0786-CPR-21161; DoC No.: CED-OP110</p> | <p>Siemens Schweiz AG; Theilerstrasse 1a CH-6300 Zug</p> <p>Technical data: see doc. A6V10316298</p> |
| <p>12  0786</p> <p style="text-align: center;">HI110</p> <p>HI110 - Point type heat detector for use in fire detection and fire alarm systems installed in buildings.</p> <p>305/2011/EU (CPR): EN 54-5 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581</p> <p>The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or https://siemens.com/bt/download</p> <p style="text-align: center;">DoP No.: 0786-CPR-21141; DoC No.: CED-HI110</p> | <p>Siemens Schweiz AG; Theilerstrasse 1a CH-6300 Zug</p> <p>Technical data: see doc. A6V10316298</p> |
| <p>12  0786</p> <p style="text-align: center;">HI112</p> <p>HI112 - Point type heat detector for use in fire detection and fire alarm systems installed in buildings.</p> <p>305/2011/EU (CPR): EN 54-5 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581</p> <p>The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or https://siemens.com/bt/download</p> <p style="text-align: center;">DoP No.: 0786-CPR-21142; DoC No.: CED-HI112</p> | <p>Siemens Schweiz AG; Theilerstrasse 1a CH-6300 Zug</p> <p>Technical data: see doc. A6V10316298</p> |