

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       |
| <b>Accessories</b> |                                                                          |                |             |
| 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<br>(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<br>0.28...0.5 mm <sup>2</sup> | A5Q00004439    | 0.015       |
| DBZ1194            | Protective cage                                                          | BPZ:4677110001 | 0.138       |
| DBZ1190-AA         | Micro terminal 0.28...0.5 mm <sup>2</sup>                                | BPZ:4677080001 | 0.001       |
| DBZ1190-AB         | Connection terminal 0.5...2.5 mm <sup>2</sup>                            | BPZ:4942340001 | 0.001       |
| -                  | Metal cable gland M20 x 1.5                                              | A5Q00004478    | 0.039       |

### 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

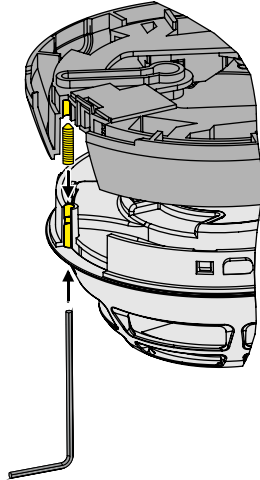


- For achieving a higher IP protection category
- Mounted between detector base and ceiling

### 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



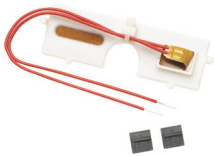
- Base attachment wet with additional integrated rubber seal for mounting in wet or humid environments
- For achieving a higher protection category
- For mounting in wet or humid environments
- Required when using detector heating unit FDBH291
- Required when using protective cage DBZ1194
- Mounted between 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

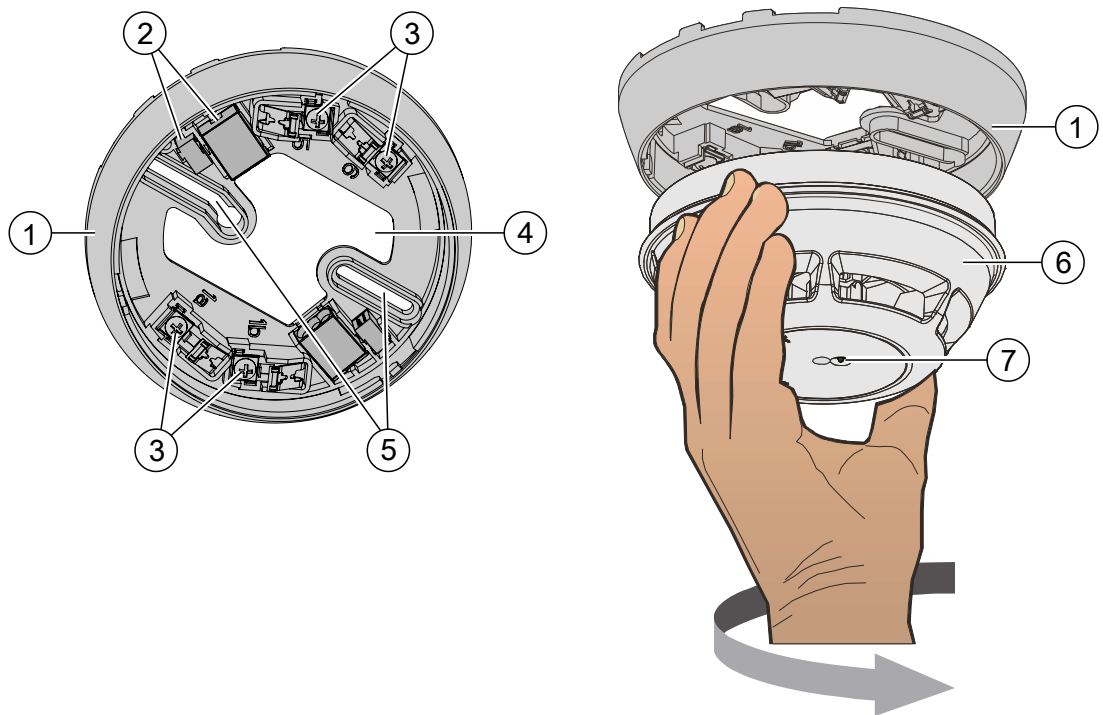
### DBZ1190-AA micro terminal and DBZ1190-AB connection terminal



- Micro terminal DBZ1190-AA
  - Cable cross section up to max. 0.5 mm<sup>2</sup>
- Connection terminal DBZ1190-AB
  - Cable cross section up to max. 2.5 mm<sup>2</sup>
  - 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 mm<sup>2</sup>
- 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)<br>-10...50 °C (HI112, A2S)<br>-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<br>• 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

| OH110           | OP110           | HI110 / HI112           |
|-----------------|-----------------|-------------------------|
|                 |                 |                         |
| OH110 with base | OP110 with base | HI110 / HI112 with base |
|                 |                 |                         |

|          |                                                                                                                                                                                                                                                                                                     |                                                                                                     |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 12  0786 | <b>OH110</b>                                                                                                                                                                                                                                                                                        | Siemens Schweiz AG, Theilerstrasse 1a<br>CH-6300 Zug<br>Technical data: see doc. <b>A6V10316298</b> |
|          | OH110 - Point type smoke detector for use in fire detection and fire alarm systems installed in buildings.                                                                                                                                                                                          |                                                                                                     |
|          | 305/2011/EU (CPR): EN 54-7 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581                                                                                                                                                                                              |                                                                                                     |
|          | 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 <a href="https://siemens.com/bt/download">https://siemens.com/bt/download</a> |                                                                                                     |
|          | DoP No.: 0786-CPR-21165; DoC No.: CED-OH110                                                                                                                                                                                                                                                         |                                                                                                     |
| 12  0786 | <b>OP110</b>                                                                                                                                                                                                                                                                                        | Siemens Schweiz AG; Theilerstrasse 1a<br>CH-6300 Zug<br>Technical data: see doc. <b>A6V10316298</b> |
|          | OP110 - Point type smoke detector for use in fire detection and fire alarm systems installed in buildings.                                                                                                                                                                                          |                                                                                                     |
|          | 305/2011/EU (CPR): EN 54-7 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581                                                                                                                                                                                              |                                                                                                     |
|          | 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 <a href="https://siemens.com/bt/download">https://siemens.com/bt/download</a> |                                                                                                     |
|          | DoP No.: 0786-CPR-21161; DoC No.: CED-OP110                                                                                                                                                                                                                                                         |                                                                                                     |
| 12  0786 | <b>HI110</b>                                                                                                                                                                                                                                                                                        | Siemens Schweiz AG; Theilerstrasse 1a<br>CH-6300 Zug<br>Technical data: see doc. <b>A6V10316298</b> |
|          | HI110 - Point type heat detector for use in fire detection and fire alarm systems installed in buildings.                                                                                                                                                                                           |                                                                                                     |
|          | 305/2011/EU (CPR): EN 54-5 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581                                                                                                                                                                                              |                                                                                                     |
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|          | DoP No.: 0786-CPR-21141; DoC No.: CED-HI110                                                                                                                                                                                                                                                         |                                                                                                     |
| 12  0786 | <b>HI112</b>                                                                                                                                                                                                                                                                                        | Siemens Schweiz AG; Theilerstrasse 1a<br>CH-6300 Zug<br>Technical data: see doc. <b>A6V10316298</b> |
|          | HI112 - Point type heat detector for use in fire detection and fire alarm systems installed in buildings.                                                                                                                                                                                           |                                                                                                     |
|          | 305/2011/EU (CPR): EN 54-5 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581                                                                                                                                                                                              |                                                                                                     |
|          | 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 <a href="https://siemens.com/bt/download">https://siemens.com/bt/download</a> |                                                                                                     |
|          | DoP No.: 0786-CPR-21142; DoC No.: CED-HI112                                                                                                                                                                                                                                                         |                                                                                                     |