

Cerberus™ FIT

OH110-R1, OP110-R1, HI110-R1, HI112-R1

Automatic Fire Detectors



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

- Signal processing with detection algorithms
- Selectable parameter sets
- LED indicator, 3 colors
- 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

OH110-R 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-R 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-R 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-R 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-R	Multi-sensor fire detector (collective)	S54372-F11-A2	0,096
OP110-R	Smoke detector (collective)	S54372-F4-A2	0.138
HI110-R	Heat detector (static and differential, collective)	S54372-F9-A2	0.130
HI112-R	Heat detector (static only, collective)	S54372-F10-A2	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 1.0...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 RS720

Detector base seal RS720

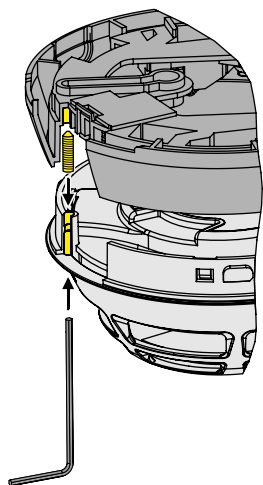


- For achieving a higher IP protection category
- Mounted between detector base and ceiling

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



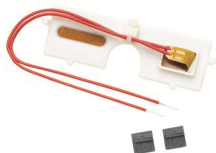
- Base attachment wet with additional integrated rubber seal for mounting in wet or humid environments
- For achieving a higher protection category
- For mounting in wet or humid environments
- Required when using detector heating unit FDBH291
- Required when using protective cage DBZ1194
- Mounted between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

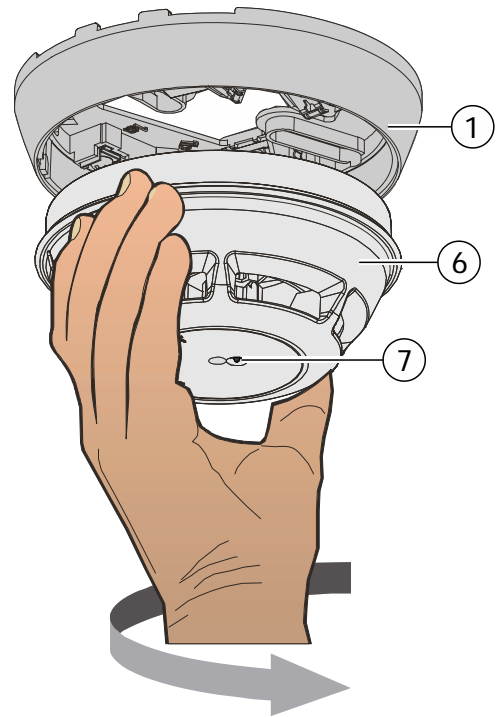
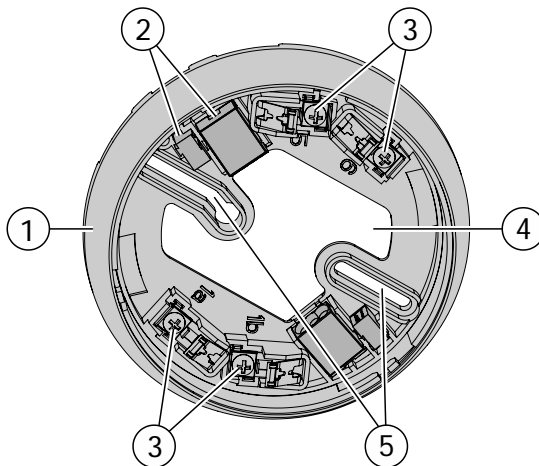
DBZ1190-AA micro terminal and DBZ1190-AB connection terminal



- 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 electronics device for disposal in terms of European Directive 2012/19/EU 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-R	OP110-R	HI110-R / HI112-R
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-R) -10...50 °C (HI112-R, A2S) -10...65 °C (HI112-R, 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

12  0786	OH110	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug Technical data: see doc. A6V10316298
		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 http://siemens.com/bt/download
		DoP No.: 0786-CPR-21165; DoC No.: CED-OH110

12  0786	OP110	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug Technical data: see doc. A6V10316298
		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 http://siemens.com/bt/download
		DoP No.: 0786-CPR-21161; DoC No.: CED-OP110

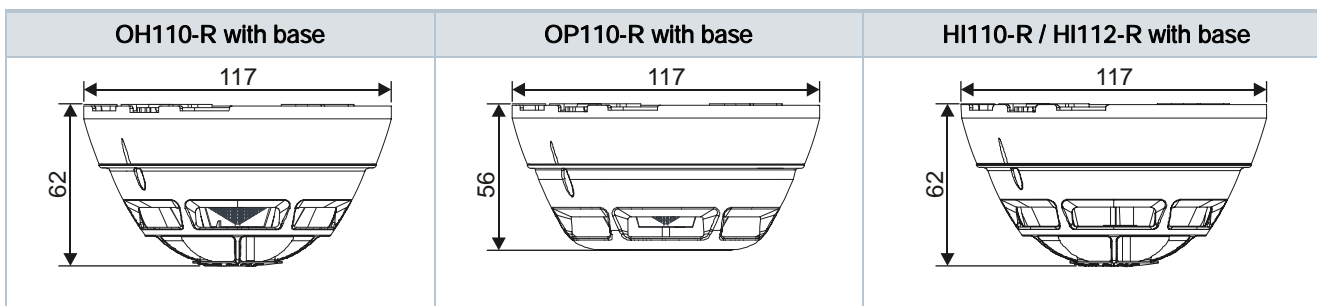
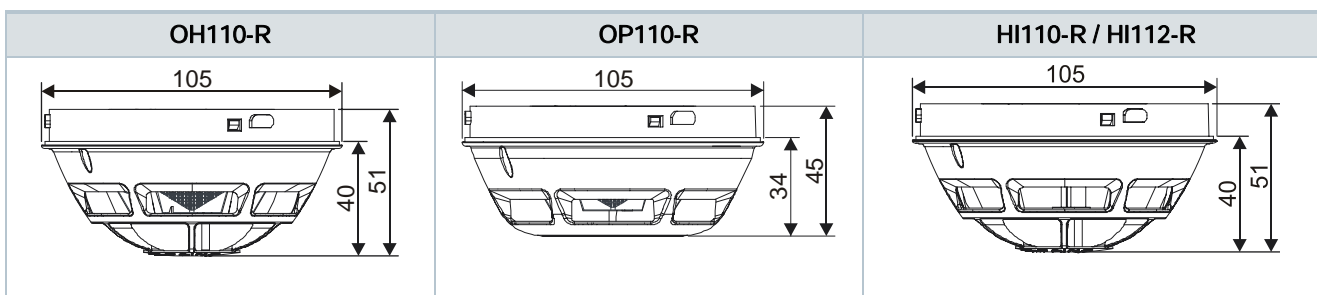
12  0786	HI110	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug Technical data: see doc. A6V10316298
		HI110 - Point type heat detector for use in fire detection and fire alarm systems installed in buildings.
		305/2011/EU (CPR): EN 54-5 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2011/65/EU (RoHS): EN 50581
		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 http://siemens.com/bt/download
		DoP No.: 0786-CPR-21141; DoC No.: CED-HI110

12  0786	HI112	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug Technical data: see doc. A6V10316298
		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 http://siemens.com/bt/download
		DoP No.: 0786-CPR-21142; DoC No.: CED-HI112

Applicable documents

Document ID	Title
A6V10450286	Technical Manual Automatic fire detector OH110-R1, OP110-R1. HI110-R1. HI112-R1
A6V10201731	Installation Detector exchanger DX791, adapter for detector exchanger FDUD491
A6V10254740	Operating instructions Solo461 heat detector tester kit RE7T
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

Dimensional drawings



Issued by
 Siemens Switzerland Ltd
 Building Technologies Division
 International Headquarters
 Gubelstrasse 22
 CH-6301 Zug
 Tel. +41 41-724 24 24
www.siemens.com/buildingtechnologies

© Siemens Switzerland Ltd, 2014
 Technical specifications and availability subject to change without notice.