BC80A compact product catalog.

Building Technologies

SIEMENS

A wide range of applications.

BC80A comprises an extensive product portfolio and can be installed in various building types. For instance, it is a perfect solution for:

Hotels

Commercial buildings

Residential complexes

Government buildings

Retail stores

UL-approved Siemens quality – reliable and economical.

Your customers are responsible for the protection of their employees, buildings, and assets. They also experience cost competition. As a result, they need fire protection components that deliver reliable fire detection and alarm signaling, but which are also cost-efficient. BC80A from Siemens addresses this need with a range of reasonably priced, UL-tested fire protection products, from fire detectors to control panels.

Tested quality – high reliability

BC80A products are certified by Underwriters Laboratories (UL). They carry the UL seal and satisfy the latest product safety requirements.

With the BC80A system you can offer your customers Siemens quality, based on in-depth research and development, state-of-the-art production technology and over 150 years of experience in fire protection. The products meet all technical safety requirements, from short-circuit protection to immunity against electromagnetic interference.

BC80A offers the flexibility your customers need, whether they want to expand or modernize their system. Thanks to its open topology, the system is forward-looking – for easy adaptation to growth and changing requirements.

Siemens technology – high cost-effectiveness

BC80A combines high-quality technology with cost-effectiveness in both procurement and operation. Moderate hardware costs keep the investment manageable, while a flexible and expandable installation provides long-term perspective.

Cost-efficiency is also assured through compatibility with existing peripheral equipment and cables. BC80A serves you with the best arguments to help your customer decide: genuine brand quality at an affordable price – for years to come.

BC80A – advantages at a glance:

- Tested and certified – according to the latest UL standard
- High quality – based on decades of experience, in-depth research, and state-of-the-art production technology from Siemens
- A flexible solution – expandable and compatible with future developments
- Cost-effective – moderate investment and easy adaptation to changing requirements

Easy concepts make your work easier.

BC80A fire protection products are easy to implement and service. They can be quickly installed and rapidly commissioned. This reduces your costs and speeds up order processing. Simplicity of design reduces the period needed to gain familiarity with the system, so you can offer your customers user-friendly fire protection in the shortest possible time.

Easy installation – fast protection

Because the BC80A system units have been designed for easy installation, buildings can be protected quickly. BC80A provides polarity-free wiring; poles can no longer be accidentally reversed. Therefore, the networking of BC80A fire detectors, peripheral equipment, and BC80A control panels is rapid and accurate; the signal of protection always reaches its mark.

Easy configuration – fast commissioning

Commissioning of the BC80A system is supported by an integrated auto-configuration function; with it, the system automatically detects all integrated devices (auto-mapping). This reduces manual configuration to a minimum – eliminating a potential source of error. You benefit from a shorter time to a fully-operational system.

More complex manual programming can be conducted via the control panels or by using Windows-based software.

Easy maintenance – no interruption of operation

All devices displayed on the controllers are shown with both their address number and position details. These help your customers assess error messages as aids to decision-making, and you to keep a clear overview during installation and maintenance.

Tracing faulty fire detectors or peripheral devices during system operation is swift, targeted, and cost-efficient.

Easy expandability – high flexibility

BC80A grows with your customers' requirements. When buildings or rooms are extended, the BC80A installation can also be expanded, for example with new T-Branches in the cabling and expansion cards in the control panels.

With an expansion card it is possible to hook up an additional 127 peripheral devices via the F-Bus. This increases options for larger projects.

Easy conversion – fast modernization

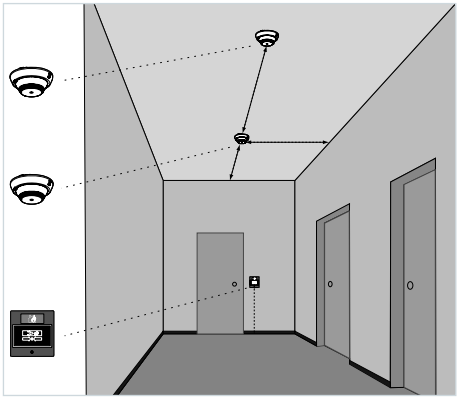
Existing systems can be replaced and modernized with BC80A without large cabling expenditures. Currently installed cables can be used to network BC80A devices, since neither the fire detector lines nor the notification appliance circuits require a shielded wire. The system can also be linked with existing peripheral devices, which saves time and money. Software updates can be uploaded via the USB port of the control panels.

BC80A – advantages at a glance:

- Easy installation and fast building protection – thanks to installation aids and polarity-free non-shielded cabling
- Fast commissioning – thanks to auto-mapping and Windows-based software
- Minimal maintenance – address and position of detectors and peripheral devices needing service directly indicated
- Smooth expansion – via card inserts for control panels and T-Branches for cabling
- Easy modernization – through use of present cabling, compatibility with existing peripheral equipment, and simple software uploads

BC80A design and installation guidelines.

In this section, we illustrate best practice for installation of fire detection equipment. While not all possible cases may be covered, these are intended to provide guidelines. Local regulations may be more detailed and must always be observed. Please contact your local Siemens sales organization for more detailed information and documentation.

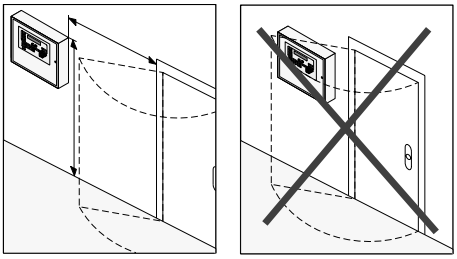


BC80A detectors – detectors should be positioned*

- at least 0.5 m from the wall
- max. 12 m from the previous detector

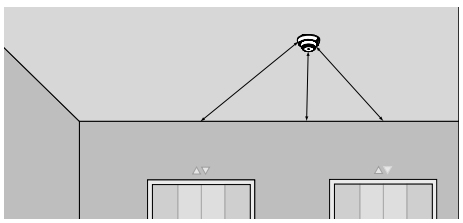
BC80A manual call points – manual call points should be positioned*

- in a clearly visible location
- 1.5 m from floor level

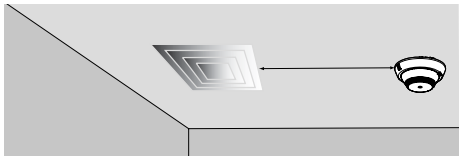


BC80A fire control panels – mounting the fire control panel*

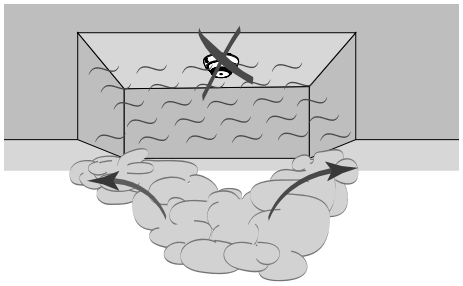
Keep a minimum distance to objects which could obscure the panel or the view to it



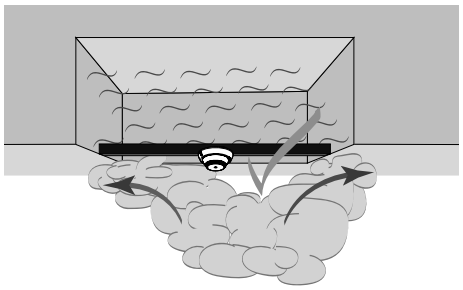
Detector positioning near elevators*

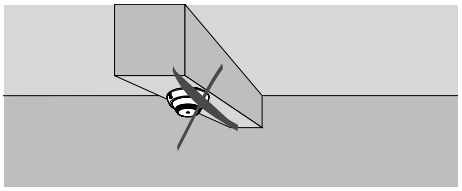


Detector positioning near fresh air supply*

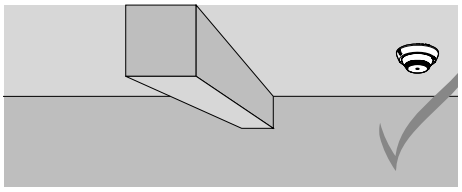


Use a support to install a detector at ceiling height*

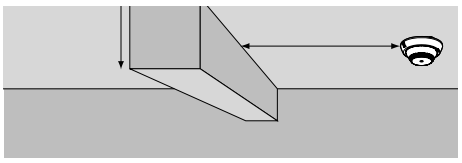




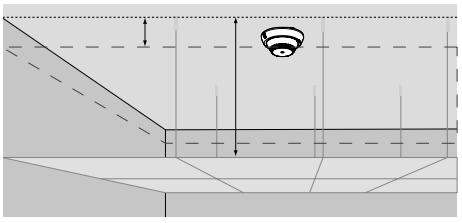
Place the detector at the highest point in the room*



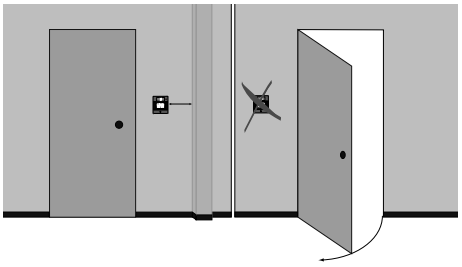
Ensure the correct distance to ceiling obstacles*



Position the detector within the top 10% of a space*



Ensure a minimum distance to objects which could obstruct the view to a manual call point*



Manual call points should not be obscured by an open door*

* or observe local regulations

Planning aid for fieldbus.

Detectors and peripherals

Load	Name	Address points	Quiescent current (mA)	Max. current (mA)
BDS031A	Heat detector	1	0.93	1.02
BDS051A	Photoelectric smoke detector	1	0.93	0,99
BDS121A	Manual call point	1	0.97	1.21
BDS132A	Input module	1	1.05	3.18
BDS221A	Output module	2	1.07	3

Panels and systems

Source	Name	Address points	Quiescent current (mA)	Max. current (mA)
BC8001A	Compact controller with 1 line	127	182.5	324.5
BC8001AE	Compact controller with 2 lines	254	197.3	372.0
BC8001AP	Compact controller with 1 line, printer	127	185.2	346.4
BC8001APE	Compact controller with 2 lines, printer	254	200.0	393.9

BC80A at a glance.

Compact controller
BC8001

F-Bus

Input
module
BDS132

Manual
call point
BDS121/e

Collective
input module
BDS161

Output
module
BDS221

Manual
call point
BDS121/e

Heat
detector
BDS031

Photoelectric
smoke detector
BDS051

F-Bus

Compact controller
BC8001

Output
module
BDS221

Manual
call point
BDS121/e

Heat
detector
BDS031

Photoelectric
smoke detector
BDS051

F-Bus

Compact controller
BC8001

Legend

F-Bus — Bus for connecting line devices
(max. 127 devices per line, bus length 1 km)

Genuine quality for your protection.

BC80A – Innovative UL-certified fire safety products from Siemens.

Backed by 150 years of experience in fire protection, BC80A offers effective protection of people, buildings, and assets. From fire detectors to control panels, the system consists of reliable and economical fire safety products – certified by the Underwriters Laboratories (UL). Thanks to its open topology, BC80A offers the flexibility you need and adapts easily to changing requirements. It can be quickly installed and put into service. And BC80A is the perfect solution for a wide range of applications.
For more information, please visit www.siemens.com/buildingtechnologies.

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Table of Contents

Type		Order No.
BC8001A..	**BC8001A Compact Control Unit** BC8001A is a control unit suitable for small to medium sized projects and constructions. It has the following features: - Compatible to BDS .. A series of field devices. - Features a polarity free F-BUS with a twisted pair of wires (Φ ≥1.5mm2). Transmission distance is up to 1000m. All devices should be evenly distributed. - Specialized BDS Algorithm enhance immunity against environment disturbances. - Menu driven man-machine interface to allow very easy operation. - An optional printer can be mounted into the control unit. - The system can be easily configured directly on the panel or via PC. - Configuration data can be uploaded to a PC at any time. - BC8001A features a fully supervised, programmable Notification Appliance Circuit (NAC) for audible and visual appliances. - Compliant with UL864 Number of detector lines: 1 Number of field devices: 127 System Network: - Built-in printer: - LCD Display: 240 x 128, backlit Auto Mapping: Yes Event memory: 1000 Digital inputs/outputs: 1 OC output (24 VDC / 40 mA) 2 Monitored inputs Operating voltage: (Main Power) 187... 242 VAC 50... 60 Hz Battery capacity: 24 VDC, 12 Ah *2 Download/Upload: USB Dimensions (W x H x D): 370 x 265 x 200 mm Weight (without battery): 6.5 kg Data sheet: A5Q00D16841A01	**BC8001A..**
BC8001A	**BC8001A Compact Control Unit with 1 F-Bus line for up to 127 Devices** Technical details as BC8001A..	**A5Q00016659**
BC8001AP	**BC8001AP Compact Control Unit with 1F-Bus line and printer** As BC8001A.. for technical details, but with the following differences: One printer TP8000 (thermal sensitive printer) is built-in.	**A5Q00021719**
BC8001AE	**BC8001AE Compact Control Unit with 2 F-Bus lines for up to 254 Devices** As BC8001A.. for technical details, but with the following differences: An extension card is built-in additionally in the BC8001. This allows the connection of up to 254 BDS...A field devices	**A5Q00021716**

Type		Order No.
BC8001APE	**BC8001APE Compact Control Unit with 2 F-Bus lines for up to 254 Devices including a printer** As BC8001A.. for technical details, but with the following differences: Printer and extension card are built-in additionally.	**A5Q00021720**

Type		Order No.
BDS031A	**BDS031A Addressable Heat Detector (Rate of Rise and Fix Temperature)** BDS031A is a heat detectors which can be connected to the F-Bus ¹ Newly developed circuit and sensor ensure high performance of fixed and rate of rise temperature detection. ¹ High stability against dust, electromagnetic interference, temperature fluctuation, humidity and corrosion. ¹ Produced with SMT advanced technology. Operating voltage 16... 32 VDC Operating temperature -10... +50 °C Storage temperature -30... +75 °C Relative humidity ≤ 95 % (40 ± 2 °C) Quiescent current ≤0.8 mA Alarm current 1.0 mA EMC 20 V/m Data sheet A5Q00016742A	**A5Q00016746**
BDS051A	**BDS051A Addressable Optical Smoke Detector** BDS051A is smoke detector which can be connected to the F-Bus. ¹ Patented labyrinth optical structure. ¹ New built-in ASIC ensures high reliability of data processing. ¹ Homogeneous response to different kind of smoke. ¹ High stability against dust, electromagnetic interference, temperature fluctuation, humidity and corrosion. ¹ Produced with SMT advanced technology. Operating voltage 16... 32 VDC Operating temperature -10... +50 °C Storage temperature -30... +75 °C Relative humidity ≤ 95 % (40 ± 2 °C) Quiescent current ≤ 0.8 mA Alarm current 1.0 mA EMC 20 V/m Data sheet A5Q00016743A	**A5Q00016747**
BDS000A	**BDS000A Addressable Detector Base** Detector base is for field devices BDS051A and BDS031A. The detector covers the whole base, the wiring capacity is 1.0 to 1.5 mm². Data sheet A5Q00016963A	**A5Q00016958**

Type		Order No.
BDS121A	**BDS121A Manual Call Point** Manual call point can immediate trigger a fire alarm by breaking the glass. - Connected to F-Bus - Installed in the public area such as staircase, elevator lobby, etc - Device address can be set via a DIP-switch. - A built-in dry contact can be used to activate another equipment. - Mounted on the wall 1.5 meters above the ground. - Electronic part and housing are delivered separately. Operating voltage: 24 VDC Operating temperature: -20... +55 °C Relative humidity: ≤95 % (40 ± 2 °C) Quiescent current: ≤0.5 mA Alarm current: ≤3.0 mA Capacity of dry contact: 24 VDC / 0.1 A EMC: 10 V/m Data sheet: A5Q00016799A	**A5Q00016798**

Type		Order No.
BDS132A	**BDS132A Input Module** The input module serves as an interface to transmit alarms or technical signals from other equipments to the fire alarm control unit. 1 Connected to the F-Bus, device address can be set with a DIP-switch. 1 Serves as interface for potential free signals from flow switches, pressure switches, etc to the fire alarm system. 1 The signal will be transmitted to the controller and trigger corresponding actions. 1 Connection faults will be automatically detected and displayed on the controller. Operating voltage 24 VDC Operating temperature 0... +49 °C Relative humidity ≤ 95 % (40 ± 2 °C) Activation current ≤ 4.0 m A Quiescent current ≤ 1 mA Wiring Capacity 1.0 ~ 1.5 mm² Data sheet A5Q00021191A	**A5Q00021150**
BDS221A	**BDS221A Output Module** The output module is used to activate external equipment according to the function of the fire alarm unit. 1 Connected to F-Bus, addresses are set with a DIP-switch. 1 Output can be configured as pulse or steady on with DIP-switch. 1 Connection is polarity free. 1 The input signal for feedback is a potential free contact. 1 It is not recommended to use this module for extinguishing control directly. 1 Faults will be automatically detected and displayed on the controller. Operating voltage 24 VDC Operating temperature 0... +49 °C Relative humidity ≤ 95 % (40 ± 2 °C) Activation current ≤ 3.0 mA Quiescent current ≤ 1 mA Relay output 125 VAC / 0.6 A 24 VDC / 2 A Status LEDs Steady output - Steady ON Pulse Output - Flashing Wiring Capacity 1.0... 1.5 mm² Data sheet A5Q00021192A	**A5Q00021149**

Type		Order No.
TP8000	**TP8000 Printer** A thermal sensitive printer is used to print events. Data sheet A5Q00016403A	**A6C50000028**
BCE8001A	**BCE8001 Extension Card** Extension card for BC8001 compact controller. This card contains the following interfaces: 1 A-Bus interface to add the network feature to the compact controller (networkable up to 32 controllers). 1 B-Bus interface to allow BC8001 to connect up to 3 B-Bus devices. 1 F-Bus interface for additional up to 127 devices. Data sheet A5Q00016402A	**A5Q00020399**
BCC8001A	**BCC 8001 Main Board of BC80 Compact** Data sheet A5Q00016405A	**A5Q00015745**

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