

Fire Detection Control Panel

BCnet216: 19" Slide-in Technology

- **Control panel modules in slide-in technology, with/without power unit**
- **Centralized installation of up to 7 sectional control panels in a 19" rack**
- **Flexibly expandable control panel network for mid-sized/large systems**
- **Analogue ringbus technology with unshielded detector cabling**
- **Addressable conventional technology**
- **EN 54/VdS-certified**



Fire is a permanent threat to life and property. Therefore, immediate response to a fire is imperative. The main objective of the Fire Detection Control Panel Series BC216 is to alarm and to react in time and, consequently, save lives and protect property. For decades LST have focused their aims to undertaking unrivaled efforts in order to realize new innovations in the security area. Research, development and production are loca-

ted within LST premises, thus guaranteeing flexible and reliable individual solutions.

Using a 32-bit multiprocessor system, the Fire Detection Control Panel Series BC216 ensures topmost efficiency and speed – prerequisites for saving lives and minimizing damage to property.

Description

The BCnet216 in 19" slide-in technology is a modularly designed sectional control panel for mid-sized to very large fire detection control panels and consists of individual fire detection control panel modules. Each 19" rack RACK216-1E provides 7 slide-in positions. A maximum of two fire detection control panel modules with power unit BCM216-3EPS and up to six Fire Detection Control Panel Modules BCM216-3E or BCM216-3ELG, respectively, can be installed in a rack (if two BCM216-3EPS are used, the number of Fire Detection Control Panel Modules BCM216-3E or BCM216-3ELG, respectively, that can be used is reduced to a maximum of four). The control panel can easily be adapted to any required system size and provides literally unlimited possibilities also for future extensions.

All BCnet sectional control panels are connected with each other via a redundant high-security network (the Global Security System network GSSnet). Due to the decentralized structure, the failure safety of the entire

system is significantly improved compared to conventionally designed fire detection control panels.

The Fire Detection Control Panel Modules BCM216-3EPS and BCM216-3E each provide two slots for the connection of function modules (Conventional Detector Interface GIF8-1, Loop Interface LIF64-1 or LIF128-1) to which a total of 16 detector lines in addressable conventional technology or a total of two ADM loops or a combination of the both can be connected.

The Fire Detection Control Panel Module BCM216-3ELG includes two integrated loop interfaces for the connection of two ADM loops.

The maximum expansion of a 19" RACK216-1E with 7 slide-ins therefore amounts to 14 ADM loops or 112 conventional detector lines.

Easy parameterisation by means of PC software enables you to optimally adapt the control panel to your individual requirements.



0786-CPD-20866

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Clear Concept

The Fire Detection Control Panel Modules BCM216-3EPS and BCM216-3E are modularly designed sectional control panels of the Fire Detection Control Panel BCnet216 that are connected via the Global Security System network GSSnet. Depending on their configuration, they provide the following features:

- The Conventional Detector Interface GIF8-1 permits the connection of automatic detectors and manual call points in conventional technology as well as special detectors with contact output. Individual detector identification can be achieved by means of an optional address module.
- Detectors and modules in ADM loop technology can be connected to the Loop Interfaces LIF64-1 and LIF128-1. Depending on the parameterisation, either the Apollo/Discovery protocol or the System Sensor/200 protocol or, in case of the LIF128-1, the Labor Strauss/700 protocol is used to achieve bi-directional data transfer.
- Since the BCnet216 is compatible to LST fire detection control panels of previous generations, the exchange or expansion of existing systems in conventional technology or ADM loop technology is possible. The existing detector installation can be used without changes.
- The optional Fire Brigade Interface FWI2-1 serves for the connection of two independent transmitting devices for a direct interconnection to a designated alarm respondent (e.g., the fire brigade) as well as for the connection of a country-specific fire brigade control unit. By using the Fire Brigade Interface Additional Board FWZ2-1, a line supervision for both of the transmitting devices is accomplished.
- Customizable outputs and logical combinations of detectors and detector zones for the activation of external controls and alarming devices facilitate maximum flexibility. Thus, no additional expenses arise for external relays, logic gates or timers. Thanks to the wide range of parameterisation possibilities, individual requirements even under the most difficult ambient conditions can be combined into a reasonable fire protection strategy.
- By integrating input and output modules on any position in the loop you can realize enablements or disablements as well as control tasks in your system without having to care for additional wires.
- The free combination of detectors and modules into logic sectors allows for the joint operation of defined parts of the system even beyond the limits of loops or sectional control panels.
- The use of unshielded loop cables allows for cost-saving and uncomplicated installation as well as for the possibility of reusing the existing cabling.
- An event memory allows for the display of the latest 500 events on the main operating unit of the

BCnet216 at any time. Thus, all system conditions and user operations that occurred are documented with all the necessary information in a clearly laid out way.

- At a central processing board failure, the diversified redundancy concept ensures secure alarm recognition.
- The processor-monitored power supply ensures permanent surveillance and charging of the batteries. This way, even during a mains power failure the untroubled and uninterrupted operation (for more than 72 hours depending on the design) is guaranteed.
- Three hierarchized authorization levels for operation and parameterisation facilitate a high degree of security against unauthorized access.
- The parameter data can be created by means of the PC software PARSOFT and loaded into the control panel in a comfortable way. Thus, a quick and efficient transfer of the system configuration into the control panel is guaranteed.
- AUTO setup facilitates parameterisation when the control panel is commissioned or expanded and thus helps to save time.

The fire detection control panel modules do not have a display and operating field. The control panel modules are operated by and the events are displayed either on an operable sectional control panel (e.g., the main operating unit) or an optionally connected Display And Operating Field ABP216-1E.

The Fire Detection Control Panel Module BCM216-3ELG serves for the connection of two ADM loops. The above mentioned features are valid for this sectional control panel module in a restricted form.

The control panel rack RACK216-1E (8 rack units) is prepared for the installation in a 19" wall mount cabinet or in a 19" floor type cabinet on a mounting plate. In special cases the mounting can also be accomplished in a pivoting frame. The rack can accommodate up to 7 slide-ins (1-2 fire detection control panel modules with power unit BCM216-3EPS as well as 4-6 fire detection control panel modules without power unit BCM216-3E/-3ELG). Owing to this compact design, large systems can be centralized in one single place. This mounting form is of particular advantage when already existing installations are replaced or expanded. Series BC216 thus stands for modularity and easy expansion.

These products comply with all relevant standards of EN 54 and are VdS-certified. In addition, the products also hold several country-specific approvals and certificates. LST's high quality level is secured by a permanently monitored quality management system certified according to ISO 9001.

Distributed Intelligence in the GSSnet

The Fire Detection Control Panel BCnet216 opens up manifold possibilities for the realization of specific requests of fire detection, especially in spacious buildings, high-rise buildings or wide-stretched areas.

The decentralized security network that has been created by BCnet216 offers increased security and reduces the total expenses due to a much lower cabling volume. The consistent ring-shaped cabling guarantees communication between the sectional control panels even in the event of a line fault.

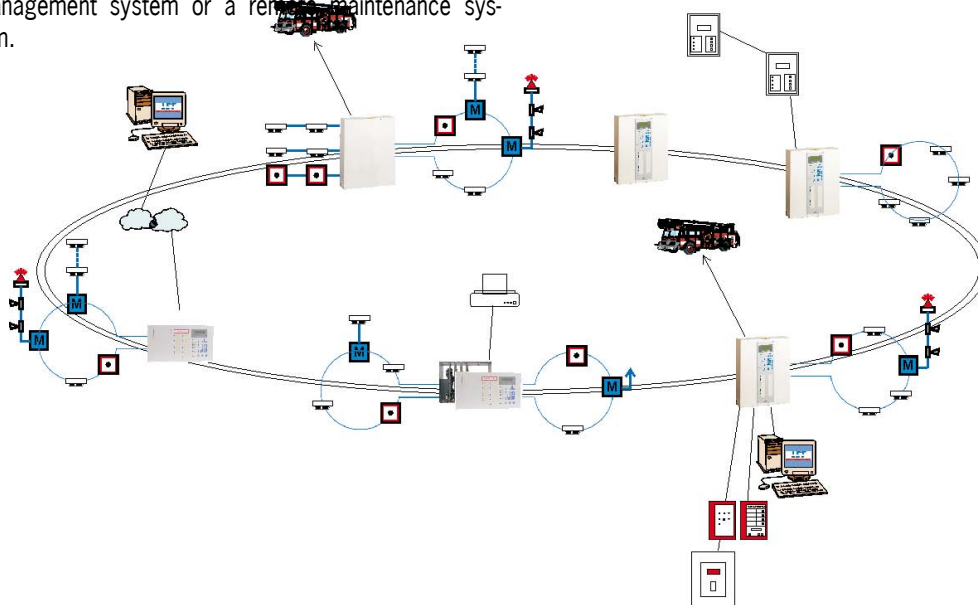
A sectional control panel of the BCnet216 is parameterised as main operating unit for the administration of the GSSnet, all other members can be equipped with or without a display and operating unit.

The system is designed modularly and can be gradually expanded according to future demands. The maximum size of a BCnet216 comprises 127 network members, 9700 detector zones, 9700 actuations, 999 alarming devices, 99 transmitting devices as well as 199 logic sectors. Different interfaces are available for the connection of external information devices, e.g., a facility management system or a remote maintenance system.

As you can see in the figure below, cabling of the detectors is required only between two neighboring sectional control panels. This clear and flexible arrangement of the sectional control panel creates a powerful network. In this way, most economical cabling and thus efficient use of the installation expenses is guaranteed. Larger distances between individual sectional control panels can be bridged through the use of optical fiber modems or long distance modems.

The entire virtual control panel BCnet216 provides for the monitoring in mid-sized and large systems, applying the same technology and the same software tools as with the single control panel BC216-1. This guarantees a minimum of training and expansion costs as well as expenses of the user and thus guarantees the optimal use of resources during the usable life of the building.

BCnet sectional control panels are available in wall mount cabinets, as 19" compact version and in 19" slide-in technology.



Permanent Connection

A variety of peripheral devices can be connected to the Fire Detection Control Panel BCnet216:

- Fire brigade key safe
- Fire brigade control unit
- Acoustic and optical signaling devices
- External protocol printer
- Remote display and operating panels
- Remote indication unit
- Actuations
- Electronic monitoring system
- Transmitting device for the actuation of pagers via ESPA protocol
- Modules for remote parameterisation and remote maintenance via computer network, modem or GSM connection
- Transmitter module for the transmission of messages via SMS or e-mail
- and much more.

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Extinguishing Control System

If required, the BCnet216 can be easily expanded to an Extinguishing Control Panel LCnet216 according to EN 12094-1. The panel can control up to 127 flooding zones in a maximum of 127 extinguishing systems. The function of the extinguishing control panel is fully integrated into the Fire Detection Control Panel BCnet216, a combined operation is therefore possible.

The LCnet216 is certified to EN 54-2, EN 54-4, EN 12094-1 and VdS as a pure extinguishing control panel and as a combined fire detection and extinguishing control panel.

Optionally, the LCnet216 can be implemented with full hardware redundancy.

Specifications

Ambient temperature	-5°C to +50°C
Approvals	VdS G201017 0786-CPD-20866 FT 14/147/x/99 (Austria)

Control Panel Rack

Dimensions W x H x D	478 x 355 (8 rack units) x 244 (mm) height incl. cable channel: approx. 400 (mm)
Part No.	214230
Order name	Control Panel Rack/8HU RACK216-1E

Display And Operating Front Panel

Current consumption at 24V	typ. 35mA
Connection cable	1.5m
Dimensions W x H x D	478 x 266 (6 rack units) x 40 (mm)
Order name	Display and Operating Front Panel ABP216-1E

Fire detection control panel module with power unit

Mains voltage	230VAC +10/-20%, 47 to 63Hz
Connection power	300VA
Output voltage	typ. 27.6VDC
Output current of power supply	max. 8.4A
Own current consumption at 24V	typ. 90mA (without optional componentries)
Dimensions W x H x D	233 x 355 x 104 (mm)
Part No.	214204
Order name	Fire Detection Control Module/PS BCM216-3EPS

Fire detection control panel module without power unit

Supply voltage	21 to 30VDC
Own current consumption at 24V	typ. 80mA (without optional componentries)
Dimensions W x H x D	233 x 355 x 42 (mm)
Part No.	214205
Order name	Fire Detection Control Module BCM216-3E

Module BCM216-3ELG

Supply voltage	21 to 30VDC
Current consumption at 24V	140mA (without detectors/modules)
Number of ADM loops	2
Number of detector zones	max. 144
Dimensions W x H x D	233 x 355 x 30 (mm)
Part No.	214234
Order name	Fire Detection Control Module/LG BCM216-3ELG

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