LARSEN & TOUBRO

Save Lives, Protect Property with Intelligent Fire alarm systems from L&T

SCHRACK
S E C O N E T

The highest level of fire safety.
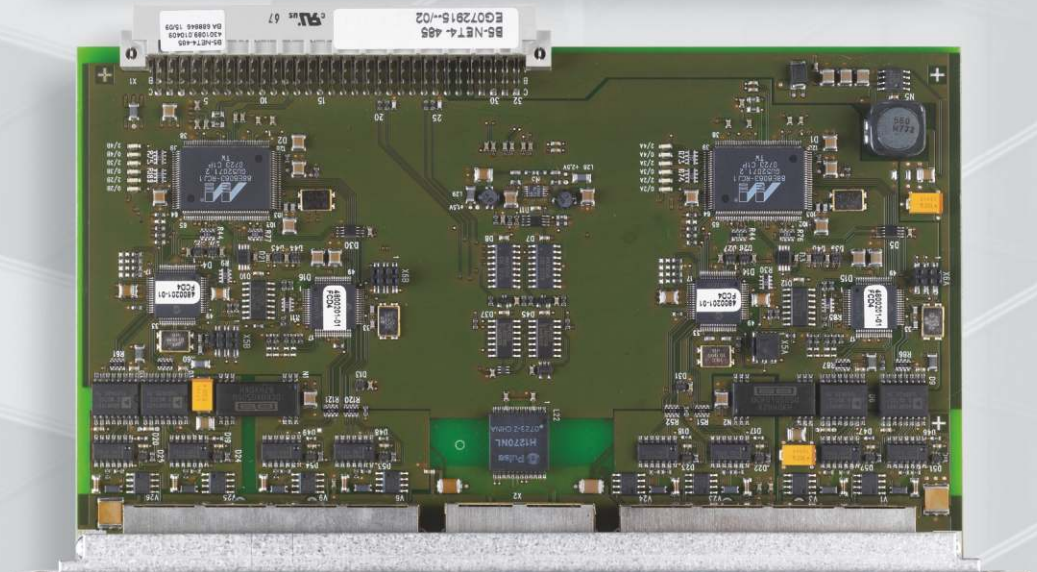
About Us

Larsen & Toubro is a technology-driven company that infuses engineering with imagination. The Company offers a wide range of advanced solutions in the field of Engineering, Construction, Electrical & Automation, Machinery and Information Technology.

L&T Switchgear is India's largest manufacturer of low voltage switchgear, with the scale, sophistication and range to meet global benchmarks. With over five decades of experience in this field, the Company today enjoys leadership position in the Indian market with a growing international presence.

It offers a complete range of products including powergear, controlgear, industrial automation, building electricals& automation, reactive power management, energy meters, and protective relays. These products conform to Indian and international standards.

To prevent fire from damaging and destroying precious life and property, contact us today.

L&T Switchgear Factory - Powai

Integrated building management system from L&T EAIC.

Fire can't always be prevented. But detect it early, and you can prevent it from damaging and destroying your property.

L&T brings you effective fire alarm systems from Austrian high-tech major,SchrackSeconet AG.

Developed and manufactured in Austria and Germany, our fire alarms are used in Austria, Sweden, Poland, Hungary, Czech Republic, Slovakia, Romania, Russia, Turkey, India, etc.

Our fire alarms are the product of considerable investment in research and development. Representation in international bodies and co-operation with technical universities, fire prevention bodies, fire brigade associations and testing institutes give you the assurance of cutting-edge technology.

100% redundancy system ensures 100% reliability

To give you 100% efficiency, our modular fire alarm control panels are equipped with a 100% redundancy system. Two independent systems are housed in a single fire alarm control panel. If a fault occurs in the active half of the system, the system automatically switches over to using the functional part. All the functions of the entire fire alarm system remain fully and completely available – even in the event of a fault. The result: guaranteed efficiency.
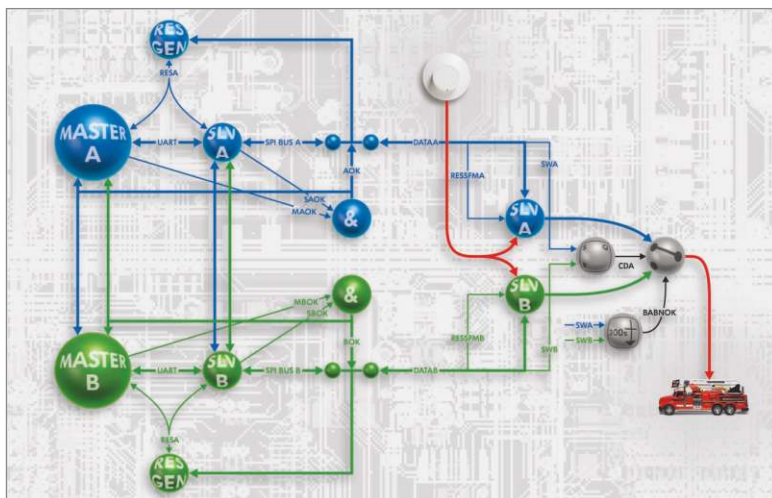
Integral IP MX Fire Alarm Control Panel

Integral IP MXF Fire Alarm Control Panel

The modular, decentralised Integral IP MX system consists of individual components and is configured and programmed in accordance your specific requirements. To ensure system integrity, all components and electronic elements are fully-redundant.

Each control panel forms an autarchic unit with its own power supply and battery backup supply. These can be connected to external operating panels, fire brigade control panels, printers, detector zones, controllers etc.

If you need several fire alarm control panels, we can network up to 16 control units using the Integral LAN Ethernet mesh network, with different interfaces available for the connections (RS485, optic fibre, DSL). Our cabling topology is freely selectable so that you can optimally adapt the mesh network to the physical constraints of your building, In the event of connection faults, multiple connections between the individual control units ensures that every control unit continues to have a connection to the network.

Integral IP MX control panels can be directly connected into the IT infrastructure of your building, with Internet and intranet access to them being possible at no extra cost. Various parallel indicator tableau or superordinated centralized indicating devices can, use the existing communications channels of the PC network (as long as they are not also used for notifying emergency services).

Detectors, alarm notification devices, inputs and outputs, as well as special fire alarm and detections systems are connected to the control unit using the Integral X-LINE (loop length up to 3,500 m, with up to 250 devices per loop).

The Integral IP MX is available in various different types of cabinet – with or without a log printer, as a black box or with an additional built-in LED indicator panel.

Integral IP MXE Multiple Zone Extinguishing System Control Panel

Thanks to the special redundancy concept and the particular high level of security, you can use the Integral IP MX system as an Integral IP MXE extinguishing system control panel or as an Integral IP MXF/MXE combined fire alarm and extinguishing system control panel. For this purpose there are special versions of the cabinet and external operating panels, which contain an additional LED parallel indicator tableau. The Integral IP MXE thus conforms to the terms of the standards and directives EN 12094-1 and VdS 2496. It is approved for controlling more than one extinguishing zone and to monitor the following fire extinguishing systems:

- CO_2 high & low pressure extinguishing systems where life is or is not endangered
- Inert gas and argon extinguishing systems where life is or is not endangered
- Water spray and mist water deluge systems
- Pre-action sprinkler systems
- Sprinkler systems
- Chemical extinguishing systems

Dimensions (all MX types): 600 x 445 x 225 mm (HxWxD)
Case colour: red RAL 3000

Integral IP CX & BX Compact Control Panels

Integral IP CXF Fire Alarm Control Panel
In its basic version, 2 loop circuits with a maximum of 500 elements can be connected to the Integral IP CX compact control unit. In addition, they have another interface, to which either a LAN networking module, two further loop circuits, a universal interface module or an input/output module can be connected.

Each control panel forms an autarchic unit with its own power supply and battery back-up supply, to which external operating panels, fire brigade control panels, printers, detector zones and controllers can be connected.

You can integrate the Integral IP CXF into an Ethernet mesh network. It is fitted with software redundancy to ensure the security of the system.

Integral IP CXE Single Zone Extinguishing System Control Panel
You can use the Integral IP CX system as an Integral IP CXE extinguishing system control panel or as a combined Integral IP CXF/CXE fire detector/extinguishing system control panel. There is a separate version of the case available for this purpose; it contains an additional LED parallel indicator tableau for a single extinguishing zone and also contains additional freely programmable inputs and outputs. In this version, the Integral IP CXE conforms to the terms of the standards and directives EN 12094-1 and VdS 2496. It is also suitable and approved for controlling a single extinguishing zone and for monitoring the following fire extinguishing systems:

• CO_2 high and low pressure extinguisher systems where life is or is not endangered
• Inert gas and argon extinguishing systems where life is or is not endangered
• Water spray and mist water deluge systems
• Pre-action sprinkler systems
• Sprinkler systems
• Chemical extinguishing systems

Dimensions (all CX types): 400 x 445 x 140 mm (HxWxD)
Case colour: red RAL 3000

Integral IP BX Fire Alarm Control Panel
The single loop compact control unit comprises a plastic case and an operating panel built into the door. The built-in main processor unit with integrated power supply unit contains all the interfaces required for connecting the peripherals. In addition, you can use an Mbit LAN interface for remote access to the control panel. The configuration of the operating panel language is carried out on site by affixing the relevant membrane and loading of the programming. The control panel has a VdS approval in accordance with EN 54-2, EN 54-4 and EN 54-13 and can be connected to a 110V supply voltage.

Dimensions: 300 x 360 x 85 mm (HxWxD)
Case colour: red RAL 3000

Integral MAP External Operating Panels

The is used to connect to the Integral IP MX and CX control panels, with or without a log printer. The user interface and display texts are available in more than 20 languages. Dimensions (HxWxD): 230 x 445 x 35 mm or 360 x 445 x 45 mm with printer.

- 6 line display, 40 characters per line
- Fully conforms to options in EN 54-2:2006
- Can be deployed as the main operating panel in a network
- Up to four languages can be switched between during normal operation
- Connection for external data bus for connecting additional indicating and operating devices
- Freely programmable keys and LEDs
- Individual user management with password and user level

High-end Operating Panel

For comfortable operation of and indication for a fire alarm system, or a SecoNET network, with VGA colour display and function keys. Suitable for connection to Integral IP MX and CX control panels, available with or without a log printer. The user interface and display texts are available in more than 20 languages.
Dimensions (HxWxD): 230 x 445 x 35 mm or 360 x 445 x 45 mm with printer.

Integral PIP Parallel Indicator Panel

For parallel indication of operating states of the fire alarm control panel. The indicated information can be filtered so that only information that is relevant for the surrounding area is indicated (floor terminal). Suitable for connection to Integral IP MX and CX control panels, with the user interface and display texts available in more than 20 languages.
Dimensions (HxWxD): 170 x 227 x 40 mm.

Fire Brigade Control Panels & Indicator Panels

We offer several versions and varieties of fire brigade control panels (e.g. pursuant to ÖNORM F 3031, DIN 14662, SN054002, etc.) as well as LED indicator panels. Do contact us for detailed information.

Integral VirtualMAP

You can access the Integral IP fire alarm system over TCP/IP from your PC, tablet or smartphone. The control panel's operating panel is displayed on your screen, with message and command mode operation possible. A multi-layer security concept blocks non-authorised system access.

SecoLOG Fire Alarm Management System

This multi-location graphical control system displays the state and operating fire alarm systems simply and clearly from a central location. All messages and system states of the fire alarm control panels that are connected to the system are collected and displayed clearly at one or more PC workstations. Additionally, all connected systems and their cabling are constantly monitored to ensure accurate functioning. The operating system is compliant with the highest technical requirements and has been tested and approved in accordance with Austrian standard ÖNORM F 3003.

Features:

- Simple standardised operation of fire alarm systems and fire alarm devices in message and command mode
- Maximum reliability
- Single and multiple location operating modes
- Clear 2 monitor user interface with automatic switchover in the event of a fault
- Hierarchical password system
- Continuous logging – with note and reports functions
- IP interface

Multiple Sensor Detector MTD 533X

The state-of-the-art MTD 533X is a combined scattered light smoke and temperature detector. It detects smouldering or open fires with or without smoke formation. You can programme it to detect either smoke or heat, or both – depending on the type of system and the area in which it deployed, For difficult prevailing conditions, we have a version that offers greater protection against increased air humidity.

Features:

- Fire alarm triggered by smoke, heat or both
- Smoke detection using CUBUS levelling® for adapting automatically to environmental conditions without complicated setting of parameters
- Sensitivity towards smoke and heat class can be set in accordance with EN 54
- Temperature-based smoke evaluation
- Pre-alarm evaluation when 30% and 75% of the alarm threshold is reached
- 2 level contamination detection
- Integrated short circuit isolator
- Adjustment of alarm thresholds to compensate for environmental influences
- Alarm filter to reduce the number of deceptive alarms
- Alarm output for external indication of alarms
- Operating time / contamination level values can be read out

Detector Base USB 501.

This connects the MTD 533X to the Integral X-LINE with a 6 pole terminal block. The detector is fitted using a bayonet fitting, while an additional 4 pin terminal block can be fitted in the designated snap-fit holder to form additional isolation points. The USB 501 is available in different versions for standard surface mounting, installation in cavity ceilings, and for use in damp rooms.

Ventilation Duct Detector LKM 531.

This is for use in areas with high air speed and strong smoke dispersal e.g. air conditioning and ventilation ducts. The LKM 531 comprises a plastic case with a built-in smoke detector. It is for use in ventilation ducts between 15 cm and 1m in size and in circular ducts with a diameter of 20 cm to 1 m. It can be deployed in areas where the air speed is between 1 to 20 m/s. The case has a clear cover, so that the smoke detector's alarm LED is clearly visible.

Manual call point MCP 535X.

Type B manual call point pursuant to EN 54-11 for manual triggering of a fire alarm, suitable for connection to the Integral X-Line. The alarm is triggered by smashing the glass panel and pressing the button. The detector's protection class can be increased to IP 54 using a sealing kit, with the labelling for blue and yellow versions being done using stickers. The MCP 535X is also available as a manual triggering device to manually extinguish a fire using gas-based extinguishing agents, and for use as a stop button, conforming to EN 12094-3.

Manual Call Point MCP 545X.

This Type A manual call point, conforming to EN 54-11, for manual triggering of a fire alarm can be connected to the Integral X-LINE. The alarm is triggered by pushing in the glass panel or by pressing the plastic panel. The alarm remains triggered until a new glass panel is fitted or the plastic panel is reset. The MCP 545X is available in different versions(IP protection class, colour).

The **BX-SOL Loop Siren** acoustically signals a fire alarm indoors. You set the type of tone from the fire alarm control panel, and use DIP switches to set the volume.

The **BX-FOL Flashing Light** optically signals a fire alarm indoors. You can set the flash rate using DIP switches. This is ideal for the deaf.

The **BX-SBL Base** and **Platform Sirens** acoustically signal fire alarm indoors (type A pursuant to EN 54-3). You set type of tone from the control panel, and use DIP switches to set the volume. The BX-SBL 501 base sounder is fitted as a unit with a USB 501 detector base.

The **BX-API Base-mounted Siren** is fitted in the base of the USB 501 detector local acoustic warnings of a fire. The BX-API snaps directly into the detector base and connects directly to its connector clips. If a detector is activated, as well as the alarm message being sent , an acoustic alarm signal is emitted.

The **BX-OI3 Input/Output Module** with relay output with a programmable fail-safe position, two inputs for querying potential-free contacts and an optocoupler input for monitoring external voltages. The module is primarily used for connecting special detectors to the Integral X-LINE.

The **BX-O2I4 Input/Output Module** with two potential-free bi-stable relay outputs switches loads up to 2A and up to 230V. It has four primary inputs for querying potential-free contacts.

The **BX-O1 Output Module** has a potential-free, bi-stable relay output for switching of loads of up to 2 A and up to 230 V (max. 60 W). If voltage is lost in the loop, you can programme a fail-safe position for the output.

The **BX-IOM Input/Output Module** with short-circuit resistant monitored output and galvanically isolated input, controls monitored devices (e.g. sirens), which powered by an external power supply.

The **BX-IM4 Input Module** with 4 four inputs for monitored and non-monitored querying of potential-free contacts, handles switching times exceeding 330 ms.

The **BX-I2 Input Module** has a primary input for querying a potential-free contact and an optocoupler input to monitor a potentially-bound signal or an external power supply unit.

The **BX-REL4 Relay Module** contains 4 four bi-stable relays each with a potential-free double-throw contact with a fail-safe position.

The **BX-AIM Input Module** with monitored input and parallel indicator output is used to connect threshold detectors to the Integral X-Line or as a branch unit for monitoring hazardous areas.

The **BX-ESL End-position Switch** for deployment in sprinkler monitoring and for blocking systems. The module contains an optical light barrier which measures the movement of an activation plunger.

The **AirSCREEN ASD 535 Smoke Aspirating System** a highly-sensitive active aspirating smoke detector –detectseven the smallest glowing and smouldering fires. It consists of one or two independent aspirating lines each of which contains a highly sensitive smoke sensor. A high-performance fan sucks in the air from the room or facility to be monitored through the aspirating line into the evaluation unit, where the air is constantly evaluated by the smoke sensors. In addition to pre-signal and contamination evaluation, the sensitivity of the unit can be set according to its specific use. All alarm, fault and status messages, as well as the current smoke concentration of the aspirated air are displayed clearly on the indicator and operating panel. Integrated airflow monitoring checks the aspirating line permanently for pipe breakage and contamination. It is controlled either using a potential-free relay or directly from the loop circuit. Using an ABS aspirating pipe and the corresponding accessories, the ASD 535 can also be used in areas where there are low temperatures (such as the deep freeze).

The highly-sensitive **SSD 535 Smoke Sensor** which has been developed especially for the AirSCREEN ASD 535, is the result of substantial research projects. A high-power LED combines with a large-volume smoke-measuring chamber which results in the highest possible range of sensitivity, the lowest possible aerodynamic resistance and the greatest possible resistance against contamination.

There are three versions of the SSD 535 available for different sensitivity ranges:
- for standard uses and room monitoring (0.5 %/m to 10 %/m)
- for special room monitoring uses (0.1 %/m to 10 %/m)
- for monitoring buildings (clean environments): e.g. IT, switching cabinets (0.02 %/m to 10 %/m)

Relay, interface and memory card modules can be optionally fitted in up to four built-in slots.

The **XLM 35 X-LINE** module is used to connect the ASD 535 to the Integral X-LINE. You can operate, configure and query the data from the ASD 535 directly from the fire alarm control panel.

The **RIM 35** Relay Interface module ensures the availability of all three pre-signal levels and the states "'Smoke sensor contaminated'" and "'blockage" ' as relay contacts. You can programme the relays using the "ASD Config" configuration software.

Both the SIM 35 and SMM 535 serial modules can be used for networking of several ASD 535 units over the RS 485 bus. Using the "ASD Config" software, you can visualize and operate all ASD 535 devices within the network from a single PC.

Features:

- 1 or 2 aspirating lines with separate airflow monitoring
- EN 54-20 classes A, B, and C
- VdS-tested calculation software ASD PipeFlow allows efficient, asymmetric pipe laying
- Sensitivity can be set from 0.002 to 10 %/m
- Not sensitive to contamination thanks to particle suppression
- Auto-learning function
- High aspirating performance (> 400 Pa vacuum)
- Low noise emission, in observance of ISO 11690-1
- Can be fully integrated into the Integral IP fire detection system
- Perfect smoke detection thanks to HD sensors (High Dynamic Technology)

Special fire alarm systems.

The **SPC-E Linear Smoke-Detector** consists of transmitter and receiver units and works in the infrared range of the spectrum. The detector is particularly reliable where there is a constantly changing ambient temperature or air humidity. It is easy to set up and excels in particular due to its low power consumption. The intensity of the infrared rays is corrected automatically, and the sensitivity can be set to one of the three levels.

The **ILIA Beam Detector** is used in areas with more complicated atmospheric conditions (industry, halls, churches, etc.) The system is available in two versions: a transceiver version or a transmitter/reflector version. It is connected to the fire alarm control panel using a control unit, where all settings, as well as testing and maintenance work is carried out. For use in areas with a particularly high concentration of dust, both systems are also available as ILIA DUST versions.

The **ECO Linear Smoke Detector** is perfect for heritage structures, museums, hotels and other places necessitating a low amount of wiring. It consists of a combined transmitter/receiver unit and a reflector. The infrared beam that is emitted by the transmitter is reflected by the reflector mounted opposite the detector and evaluated.

The **MMD 130 Ex-i Multiple Sensor Detector** is for zone 1 and 2 hazardous areas. The detector can, depending on configuration, be used as a smoke or temperature detector for the classes A1, A1S, A2, A2S as well as B and BS, with the operating mode being set via a DIP switch.

The **Flame Detector** for hazardous areascomes in in a case tested in a hazardous area. Available as UV, infrared or combined UV/IR detectors, these are optically self-monitoring, which make them perfect for outdoor use, particularly where flames are concealed by smoke. All the versions are not sensitive to sunlight, with larger flames being detectable from greater distances. All detectors are approved in accordance with ATEX 100a and VdS.

The **Linear Temperature Detector** HeatSCREEN MHD 535 is used to detect fire in areas with aggressive and critical atmospheric conditions (e.g. high air humidity, extreme temperatures, outdoor areas, aggressive gases, high dust pollution etc.) These are areas in which conventional fire detectors cannot be used or where a large number of heat detectors would be required due to the massive monitoring area. Possible locations for deploying the unit are in road and rail tunnels, cabling channels, car parks, underground garages, refrigeration and freezer halls, industrial building protection (e.g. conveyor belt systems, production lines, loading ramps, etc.).

The **ADW 511 Linear Heat Detector** with temperature change and maximum temperature processing, is a testing motor with pressure pump, which produces a precisely defined increased pressure in a sensor tube at regular intervals. The alarm is triggered when a change in volume is detected due to a change in temperature. Its robust construction makes it particularly suitable detect fires in hazardous areas (in tunnel systems, hazardous areas, industrial applications, etc.).

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Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.

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