



Automation Solution for
Commercial and Residential Buildings



Powai Campus,
Mumbai



Switchgear Training Center,
Coonoor



Switchgear Training Center,
Lucknow



Ahmednagar Campus



Switchgear Training Center,
Pune

About Larsen & Toubro

Larsen & Toubro 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, a part of the Electrical & Automation business, 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 a 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.

Manufacturing Facilities

L&T's manufacturing facilities for standard switchgear products are at Mumbai, Ahmednagar and Coimbatore. These facilities follow world-class processes including Lean Manufacturing, Forced Draft Ventilation System, TQM, Value Engineering, JIT and Six Sigma.

Alongwith the manufacturing units, L&T has an inhouse NABL accredited testing facility that includes 85kA Short Circuit Test Station.

The quality management systems at L&T factories conform to ISO 9001 & ISO 14000 Standards.

Building Electricals and Automation

L&T has the most comprehensive range of Building Electricals comprising ACBs, MCCBs, SDFs, Wires, BBT, Modular Devices and Wiring Accessories. L&T Switchgear now touches your lives with an innovative and comprehensive Building Automation approach, that encapsulates future proof architecture based on open standards. Experience the new

Building Automation product range from the house of L&T, powered by the unique L&T Architecture for Building Automation - LTAB™. Solution ranges from Building Management Systems, Security & Surveillance System, Fire Detection and Alarm System, Energy Management System and Home & Office automation solutions.

Distribution

L&T switchgear has a strong distribution network of over 550 authorized stockist, one of the largest distribution networks in the industry. L&T has further extended the distribution network for its retail products through a

new channel called the Disti Select Partner. In addition L&T has authorised system integrators for Industrial as well as Building Automation solutions.

Training

L&T's switchgear training centres at Pune, Lucknow and Coonoor have state-of-the-art training facilities with well equipped workshops and testing systems. Training programs are designed to suit the needs of electrical professionals from various areas like maintenance, projects, panel design and consultancy. Over 55,000 participants have been benefited from these programs.

After Sales Service

The Company has over 40 branch offices across the country and a network of over 100 service centres to deliver after-sales-service to the customers.

There is a range of service solution that is available to support the switchgear right from installation till the complete life cycle. They come in the form of preventive maintenance, breakdown maintenance, retrofits and upgrades.

Environment & Community

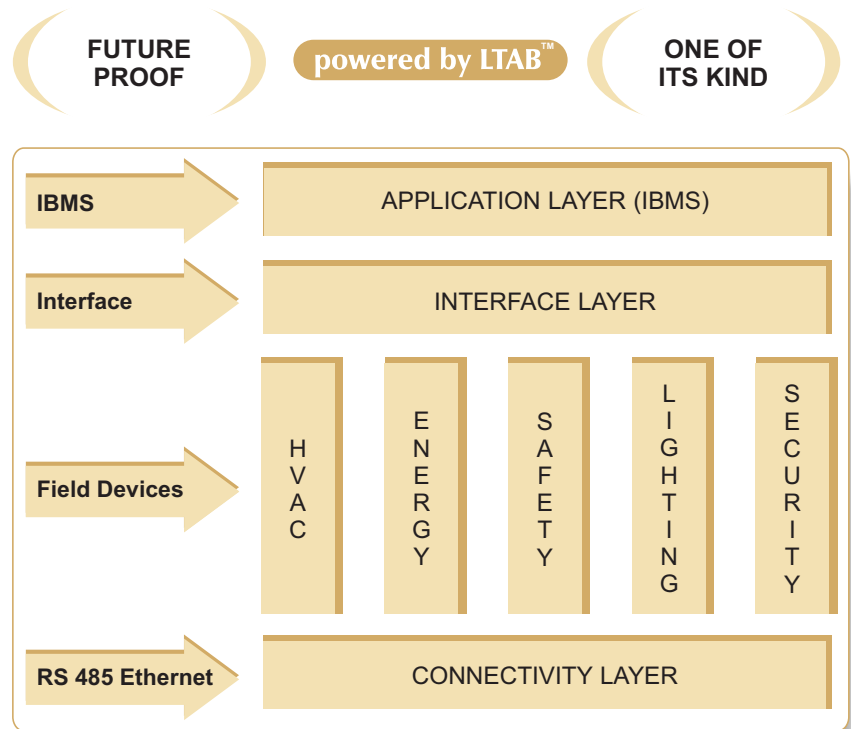
The Company has a comprehensive Quality, Environment and Safety management system. The manufacturing facilities conform to ISO 14001 (Environmental Management System) & OHSAS 18001 by BVQI.

L&T has taken a number of community initiatives in rural & semi-urban areas across the country. These include health checkup camps like cancer detection, eye checkup, and general checkup and so on in partnership

with the stockists. It supports schools through distribution of PCs, books and uniforms and providing teachers. L&T has also come to the rescue of common man at the time of natural calamities like flood and earthquake and has helped the community by distributing clothes, food and other essential commodities.

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Building Automation Product Portfolio

Commercial

- BMS Control System
- Access Control System
- Energy Management System
- Lighting & Comfort Solution
- Security System
- Fire alarm system

Residential

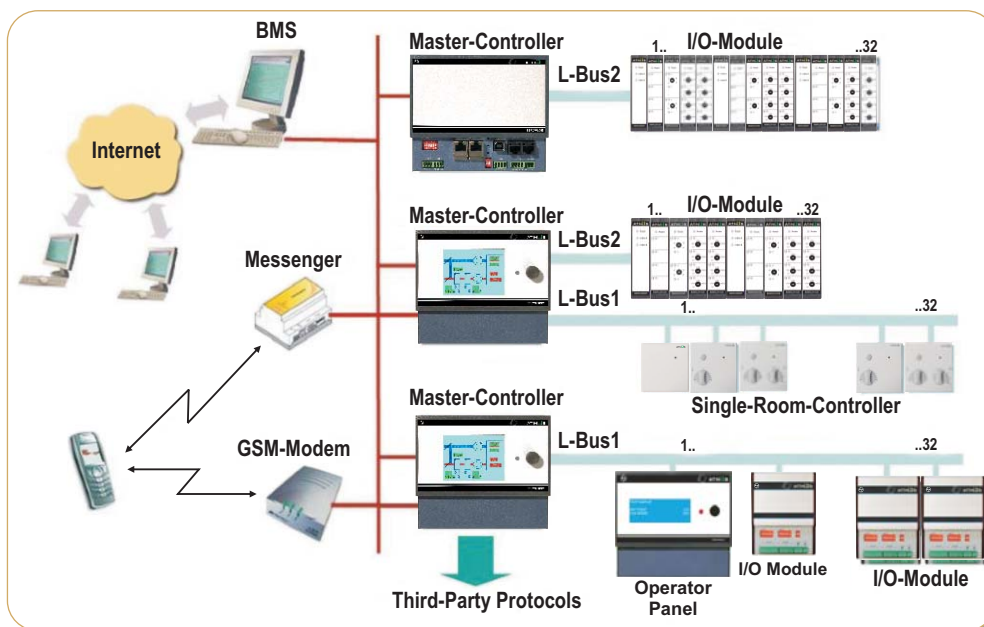
- Lighting & Comfort Control
- Energy Management System
- Security System
- Visitor Management / Access Control System



Introduction

L&T offers the latest technology pertaining to control heating, ventilation and air conditioning system. ATMOS is a state of the art building automation system that reliably controls installations of all categories and complexities. ATMOS range of Building Management System controls is scalable and future proof.

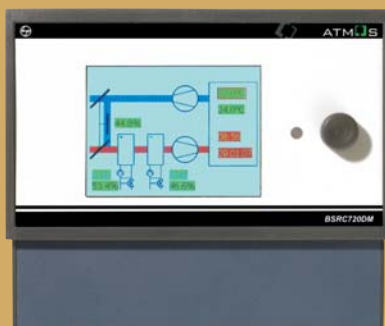
Demand of superior control with help of Direct Digital Control components is constantly increasing. Hence, a building automation system needs to be developed to handle today's stringent requirements. L&T ATMOS Control System has been specially developed to efficiently perform these operations. A 32 bit microprocessor based control system which measures, coordinates, evaluates and monitors thousands of digital and analog input/output signals of a building has been incorporated in L&T's ATMOS Building Management System.



ATMOS Master Controller

The ATMOS Master Controller is setting new dimensions in BMS. It has the following features:

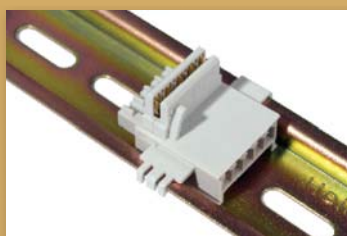
- Variety of integration and communication abilities
- 32 Bit microprocessor
- UL listed
- Large memory capacity
- 3.5" colour graphical display
- Proven control comfort "The trick with the click"



ATMOS I/O - Module range

The fine modular input/output devices with its individual modules offer an optimal coverage of the demanded input and output configurations. The integration of manual override into the output module leads to a reduction of the equipment variety and the wiring efforts.

- Input modules
 - Analog-In (8x analog inputs)
 - Digital-In (8x digital inputs)
 - Universal-In (8 inputs)
- Output modules
 - Analog-Out (4x analog outputs)
 - Digital-Out (4x digital outputs)
 - Tristate
- All modules with or without manual override
- Expandable I/O Modules are also available to cater to additional requirements of the building



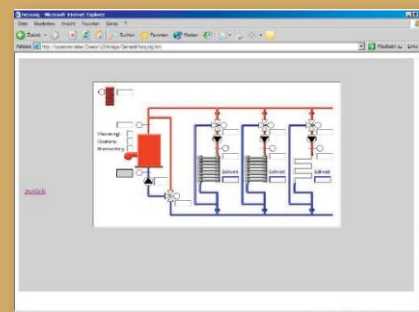
Connector and DIN rail mounting of I/O modules

ATMOS BSRC-VIEW

ATMOS BSRC-VIEW is a web-based BMS software, that interacts with ATMOS building automation system. All information of decentralized plants of the building can be collected, viewed and controlled efficiently using ATMOS BSRC-VIEW. The software provides an interface between the user and the installation. Additional program like "History-viewer" allows the authorized operator to evaluate trend curves and historical data in order to optimize the efficiency of the plant.

Some of the features of ATMOS BSRC-VIEW are:

- Accessing the ATMOS system using password protected remote monitoring system via internet technology
- It is a flexible and expandable system
- Simple programming can help set alarms, histories, get time schedules on PC / Operator panel
- Use of latest intranet/internet network technology
- Uses standard communication technology (GSM, fax, phone, e-mail, etc)



Remote Site Visualization



ATMOS BSRC 640 D-S Operator Panel

This is a text oriented Operator Panel for ATMOS building management system. The Operator Panel can be connected via the Lbus to Master controller BSRC 720D-M or 700D-M, with the menu structure programmed within the Master controller.

Features:

- Single knob operation
- Backlit
- Alarm indication
- Simple handling
- Plug-in terminals
- Compact size



ATMOS Single Room Controllers

The room controllers with integrated remote control can be used in a stand alone mode or as network component of the ATMOS product family. The stand alone single room controller can also be used as programmable slave module that can be controlled over a master controller extending its flexibility of use. While interacting with a master controller, all variable parameters such as the PID loop, heating and cooling function with dead zone are adjustable. Further, additional features such as time schedules for individual rooms are also programmable.

Additional models are available with remote cable.

Sensors have the option of sensing return air temperature for example in fan coil units.

- Three different execution variants
- Applicable in the network or stand alone

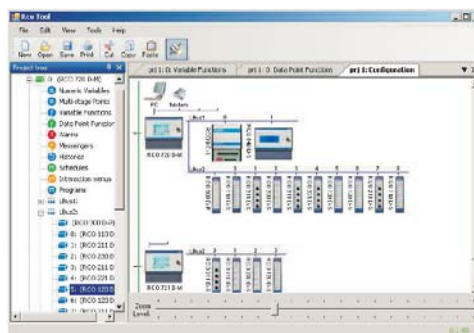


ATMOS Expander I/O Modules

Quick-Connector to BSRC 500D-M/W with universal digital & analog I/O ports integrated in one module.

- BSRC 500D-M/W is a smart controller with integrated I/O in the same controller
- 32 Bit-Micro processor with real time operation system of Master Controller within the Multi-Master-Network and the connection to the BMS-Software
- The already implemented protocols like ASCII, MODBUS RTU Master/Slave, M-Bus, Wilo, Grundfos, BSRC, Energetsa REN and BACnet can be combined with the integrated Interfaces (Ethernet, RS232, RS485)

ATMOS BSRC- Tool



Engineering



Commissioning



Documentation

The programming of the BSRC-tool is based on the high performance Microsoft.NET-Framework technology. This ensures full operability of the tool both on Windows XP and Windows Vista. By using the BSRC-tool, efficient and economic programming of the ATMOS BSRC - system is achieved.

Product advantages

Master Controller

Master Controller with integrated graphical display for door mounting

- Extremely competitive combination - Master with graphical display

Communication and Integration

- 2*Ethernet (In/Out with hub functionality), 2*RS232, 2*RS485 (No converter), USB, L-Bus1, L-Bus2
- Already implemented protocols: ASCII, MODBUS RTU, Master/Slave, M-Bus, Wilo-Bus, Grundfos, BSRC-C Protocol

Program and Data storage on SD-Memory-Card

- New dimensions and flexibility for up-dates of installations, histories, project documentation

Identical hardware for different executions

- DIN-rail, panel door mounting

Extremely small in size

- Reduction of the panel space

HVAC Accessories

- Sensors
- Actuators and valves
- Set-point adjusters
- Switches & Relays

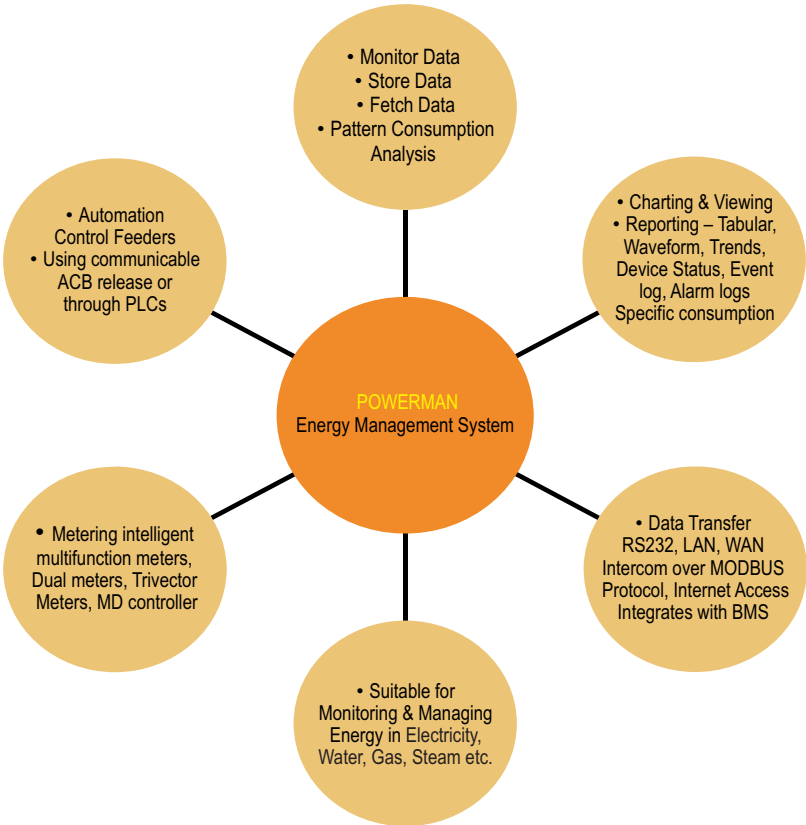
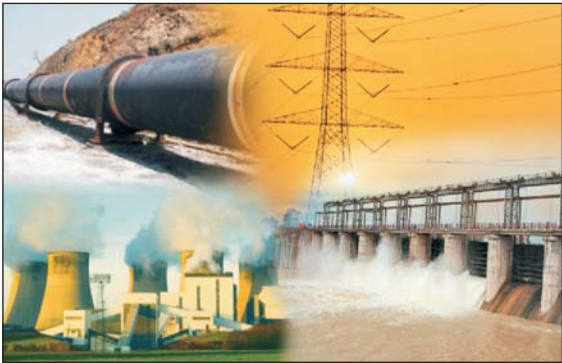




Introduction

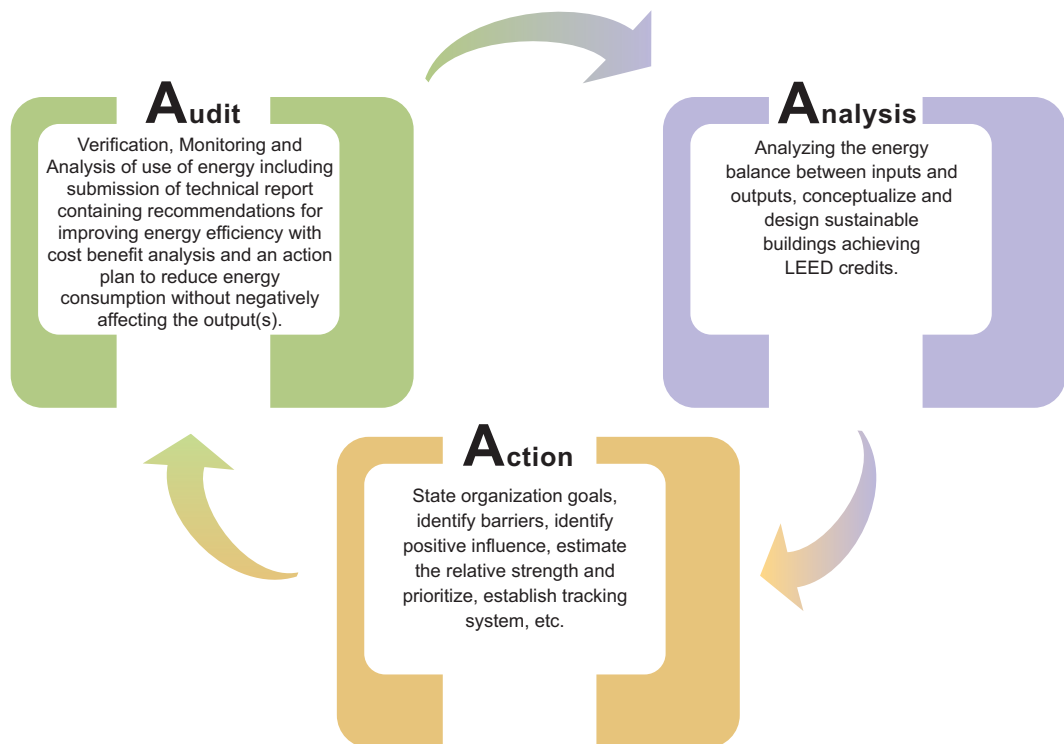
Life is Energy. Energy is Life.
This is true for humans and for every living thing on Earth.
Man, by his continuous quest for development, has sourced Energy from the abundant resources provided to us by nature. Unfortunately, most of the currently used sources of Energy are not renewable. This brings in the need to conserve and optimize.
The modern Industry or Building utility need solutions that would help them achieve this. A solution that is Reliable, Accurate and Intelligent.
L&T has been associated with India's growth in Industrial, Infrastructural and Building sector for the past 70 years. So, we owe a responsibility to provide an ideal Energy Management System to our esteemed customers.
POWERMAN – is L&T's response to this call. We have put in over five decades of experience in the Indian Electrical Industry to develop this Energy Management System for you.
L&T's POWERMAN is a sophisticated system for monitoring and managing the energy consumption of different types of energies such as Electricity, Water, Gas and many more.

The diagram below attempts to capture the versatility and power of POWERMAN.



AAA framework for energy management

POWERMAN - Methodology of achieving Energy Efficient enterprise through AAA framework.



Data Logger

A stand alone intelligent device for storing pulse information from various energy meters.

16 various energy meters (electricity, water, gas, & heat) can be connected to one data logger for pulse input.

Data logger gives complete solution for reading energy meters and storing the data avoiding manual errors and saving precious time.



Pulsar Meter

- LCD display with backlit
- LED indication proportional to kWh for on spot calibration
- Programmable CT PT ratio with password protection
- Compact and light weight
- Panel mounting design in 96 x 96 mm size



Quasar - Intelligent Panel Meter

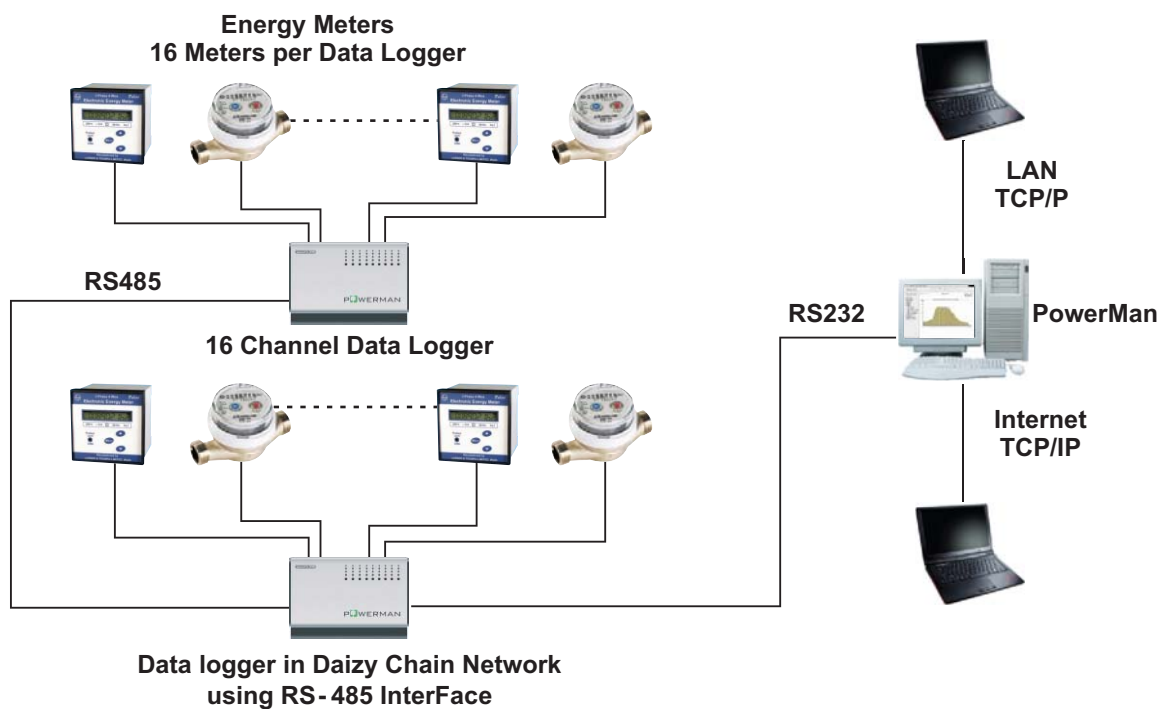
- All instantaneous and cumulative values
- Flush mounting - 96mm x 96mm overall size (cutout size - 92mm x 92mm)
- Class I accuracy
- Separate display of fundamental and total harmonic values for currents and voltages of all phases
- Front panel programming
- Communication interface via RS 485 port & MODBUS protocol



Com Controller

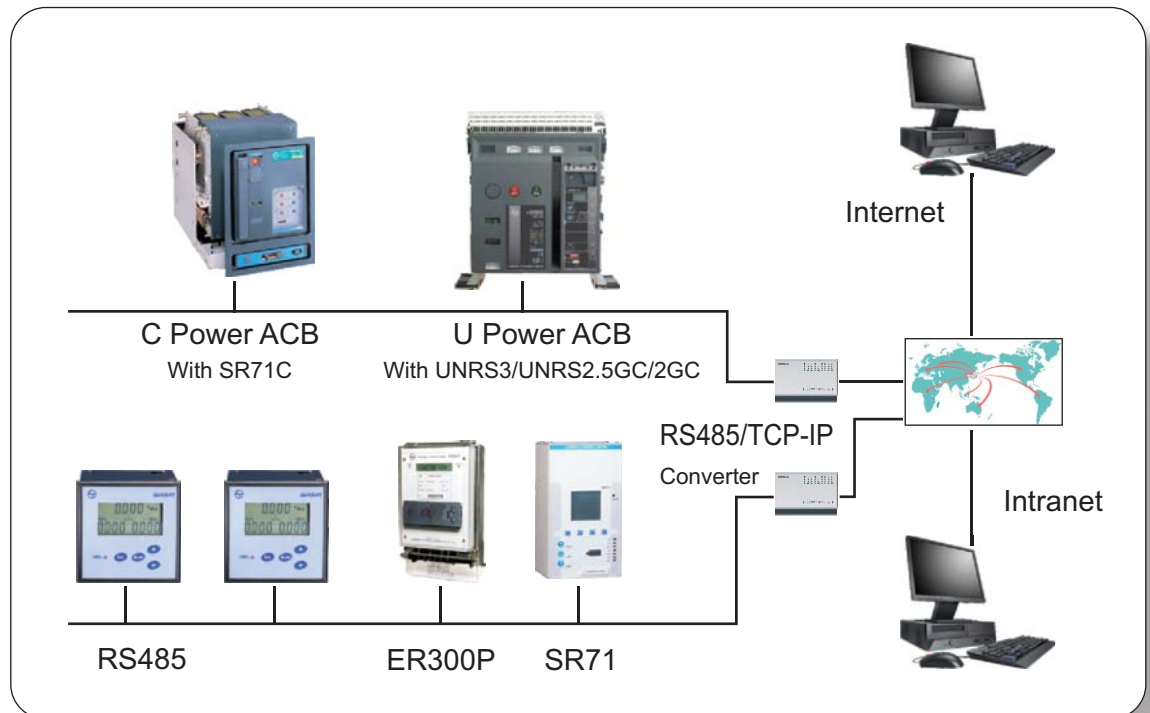
Meters with RS 485 ports through MODBUS protocol shall communicate with POWERMAN through Com Controller. Data is converted from RS 485 to TCP/IP by Com Controller. Maximum 20-25 devices (Meters/Data loggers) can be connected to one Com Controller.

SYSTEM Architecture



Want to control your breaker from a central location?

- Upgrade your breaker with communicable release
- SR71 release for C-Power breakers
- UNRS2GC/2.5GC, UNRS3, NGR release for U Power breakers
- Connect it to central server using com controller
- Use POWERMAN to read breaker parameters and controlling breaker



System Features

- Web based application
- Consumption pattern identification
- Real time & historical trend chart to monitor specific parameters
- Comprehensive reporting and alarm management
- Multilevel password protection
- Cost centre invoice / sub tenant billing
- Tariff configuration
- Easier planning of energy consumption
- Areas of wastage can be identified
- Constant monitoring and recoding enables faster action plans and take corrective measures
- Areas of optimization can be isolated and monitored
- Metering and billing can be extrapolated on cost centers, profit centers and other operational points
- Easier energy audits
- Virtual channels
- Supports unlimited number of devices
- Monitoring energy with no extra manpower

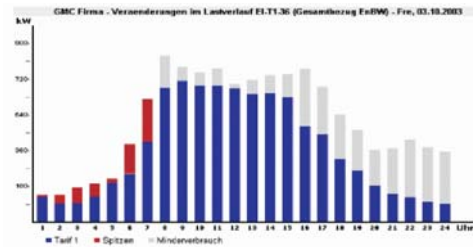
Functionalities & Benefits

Remote Data Readout



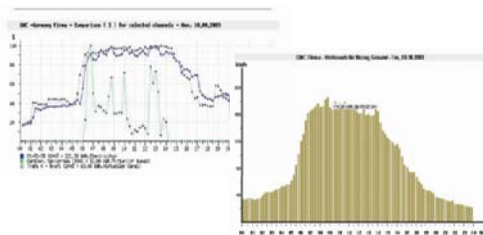
- Time synchronous data reading
- All values in central database
- Versatile and safe data transfer
- Comfortable schedule with LOG files

Planning Data



- Load profile definition @ scheduled energy interchange (1h-values)
- Actual - target comparisons
- Comfortable editor for load profile

Visualizing



- Transparency for energy consumption, structures and weak spots
- Basis for energetic process-optimisation and changes of consumption habits
- Customised graphs

Reporting

Export

- Transparency of energy and media costs, f (time, tariff)
- Basis of billing of energy and media

Microsoft EXCEL

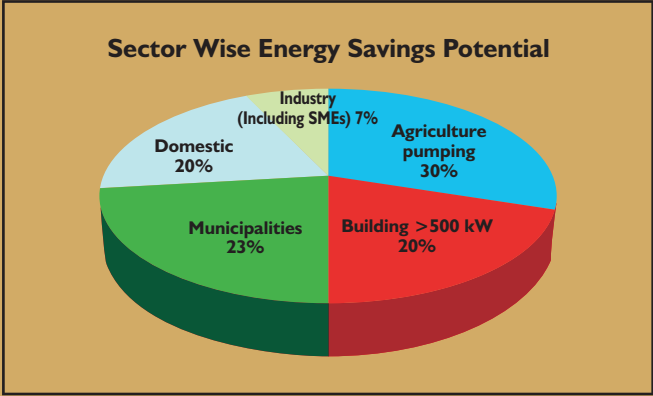
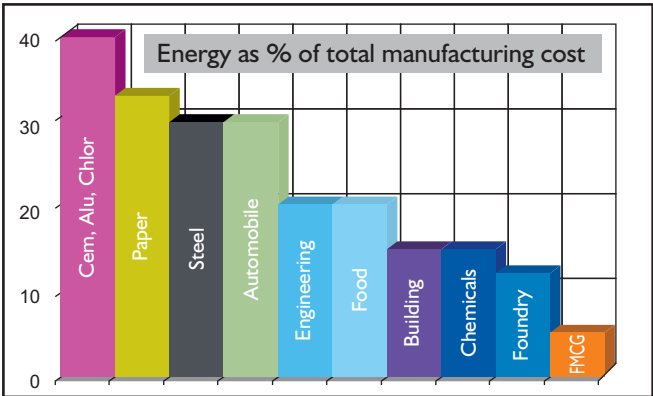
Rental Object, Cost Center



- Consumption billing for object, rental period, cost centre, etc.
- Integrated occupancy planning and database for objects
- Allocation measuring point - > object

Overview

As a responsible corporate citizen, L&T ensures conformity to energy efficiency programmes in all its operations. The Electrical Standard Products (ESP) team has a pool of BEE Certified Energy Auditors and IGBC-LEED accredited professionals who add strength to ESP's robust energy efficiency programmes. L&T's five decades of experience in switchgear, electricals, industrial automation products, power quality products, and recently building and home automation products enable its customers to experience world-class best-in-breed products, practices and solutions. This was reaffirmed recently, when L&T was rated as a Grade – 1 Energy Service Company (ESCO) by the Bureau of Energy Efficiency (BEE), Ministry of Power, Govt of India. L&T's holistic approach to energy efficiency programmes helps in reducing the carbon footprint of its clients, thereby creating sustainable business practices which contribute to the nation's growth.



S. No.	Sector	Consumption (billion kWh)	Saving Potential (billion kWh)	% Savings
1	Agriculture pumping	92.33	27.79	30.09
2	Buildings (>500 kW)	9.92	1.98	19.95
3	Municipalities	12.45	2.88	23.13
4	Domestic	120.92	24.16	19.98
5	Industry (including SMEs)	265.38	18.57	6.99
	Total	501.00	75.38	15.04

Source: State wise electricity consumption and conservation potential in India published by BEE in 2009.



Products offered

- Energy Management System
- Building Management System
- Reactive Power Management Solution
- AC Drives, Soft Starters and PLCs
- AC Motors
- Lighting & Comfort Solution
- Timers and Control devices
- Metering Solutions
- Busbar Trunking System
- Low Voltage Switchgear

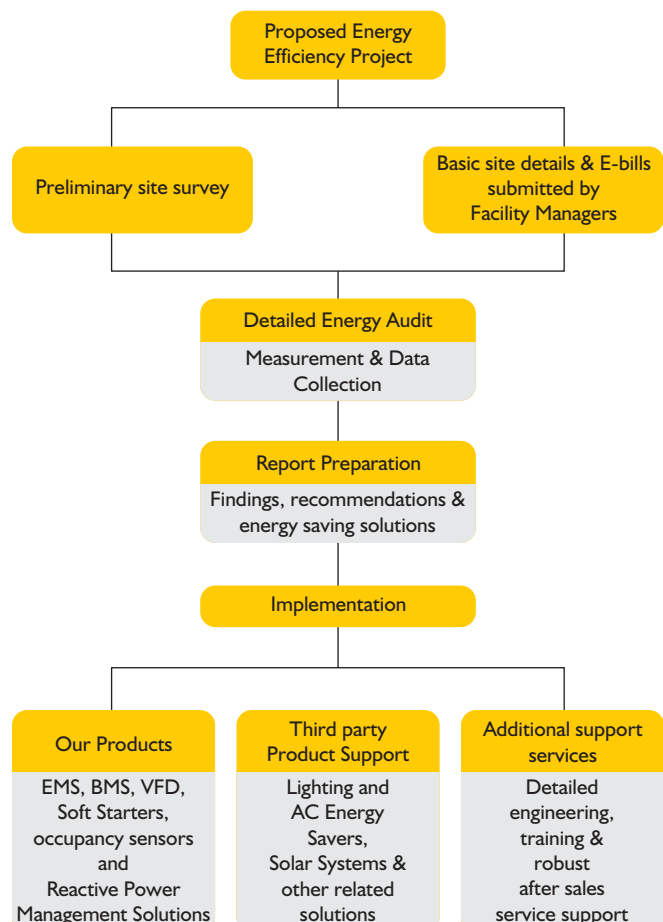
Methodology

Comprehensive Energy Audit

Measure energy use, analyze power quality, in-depth study of the production processes using sophisticated portable measuring instruments, to identify techno-commercially viable solutions for potential energy saving and spot the underperforming equipment / systems.

Energy Efficiency solutions

Improve long term use by deploying end-to-end solutions available with L&T like BMS, EMS, Lighting Controls, Soft Starters, VFD, Timers, PLC, Capacitors, APFC Panels consulting, training and complete engineering for improving performance.





PERIT is an exciting innovation in engineering and technology related to surveillance solution from L&T which offers you peace of mind.

- To provide a deterrent to crime and vandalism
- To enable 24 hour monitoring of all the designated areas
- To enable clear identification of miscreants within the range of the cameras
- To provide continuous recording of all cameras in the system
- To enable rapid movement of any camera to pre-set positions of pan, tilt and zoom
- To enable live, real time recording of selected cameras

L&T offers a complete range of products like Analog, Digital and a combination of both. It is also backed by IP Video technology solutions. The aim of installation of crime prevention facilities are to let criminals know the risks of crime and function as a deterrent of crime or keep constant watch over potential criminal acts. When a criminal act is detected, the facility's sensors or emergency warning switches are operated to sound an alarm and ideally cause criminals to move out. Thereafter, information is sent to related departments or personnel for taking appropriate measures to avoid loss.



SOPHISTICATED CAMERAS:

PERITO cameras with industry leading power economy are ideal for solar powered, battery powered, mobile & other special applications.

Vandal Dome:

Perito's vandal resistant high resolution and low light day/night dome cameras use highly sensitive 1/3" interline transfer CCD Image Sensor (CCD = Charge Coupled Device), and all state circuitry which provides long life and high reliability. This BCIVDDNVH series offers excellent image quality with low lag and high burn resistance. It is not subject to distortions from magnetic fields and is highly resistant to shock and vibration. These cameras are easy to install and are an excellent choice for your day/night & Indoor/Outdoor CCTV system.





Indoor/Outdoor high-speed PTZ camera systems with IOP and multi-protocol capabilities :

The high-speed PTZ camera systems represent a state-of-the-art line of indoor or outdoor applications that feature a powder coated, aluminium construction, integrated camera sled assembly. A built-in heater, window defroster/defogger and sun shield. White balance function make the shade of colour more natural in different light condition. Colour/BW image auto switch to enhance the sensitivity in dim light or at night. Built-in along inputs and outputs, built-in memory to store camera settings, including labels, presets, patterns and zones are available. These leading PTZ camera systems are an ideal product for requirement.

WIDEST CHOICE OF DVRS :

Entry Series:

MPEG-4 DVR Series is a multi-function unit developed to meet basic requirements of the general purpose surveillance system. Embedded with the Linux operating system, the series applies very price-competitive hardware architecture but still offers user worthy features. The Triplex, Motion Detection, Event Recording in the series provide the users more secure environments than the traditional system (multiplexer plus time-lapse VCR) could do.

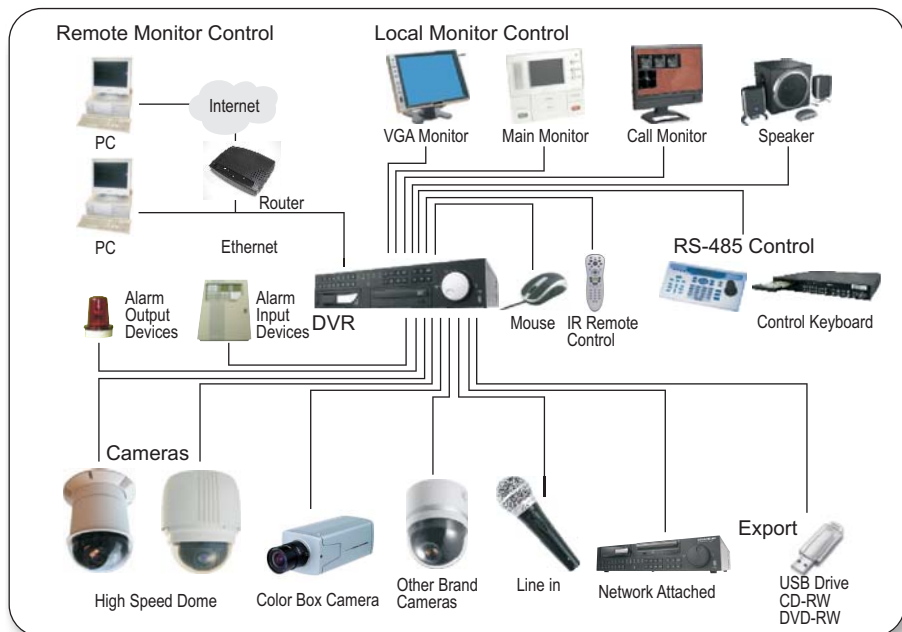


H.264 Net DVR :

This series network digital video recorder is an excellent digital surveillance product. It uses the Real Time OS and embedded MCU. It has both features of digital video recorder (DVR) and digital video server (DVS). It can work in stand-alone or be used to build a powerful network, widely used in surveillance fields.



Perito System Architecture



Accessories:

Housing, PAN-TILT and Mounts:

A wide range of rugged housing, PAN-TILT and multiple mounts are available to choose from. Some of these are Mounting Brackets, Outdoor Housing Heater and/or Blower, Professional Outdoor Housing w/2-Axis Cable-Inside Aluminium Bracket, IR Illuminator (Options: AC110V or AC220V), Pan/Tilt Units, Mounting Kits for Speed Dome etc.

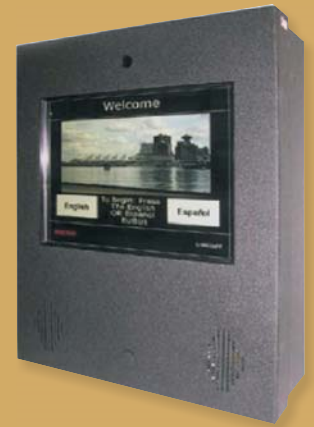
DVR Accessories:

DVR accessories available are IR Remote Control, VGA Module, Compact Control Keyboard, Audio Hub, 16 channel audio in recording, POS Module (For POS solution), Data Converter (POS solution), Alarm hub, 16 channel, Alarm Relay Output, RS-485 Interface for all DVRs, High speed network attached storage (NAS) device to expand video recording capacity.

Widest choice of transmission methods:

Perito offers widest choice of transmission methods in addition to standard analog over coaxial.

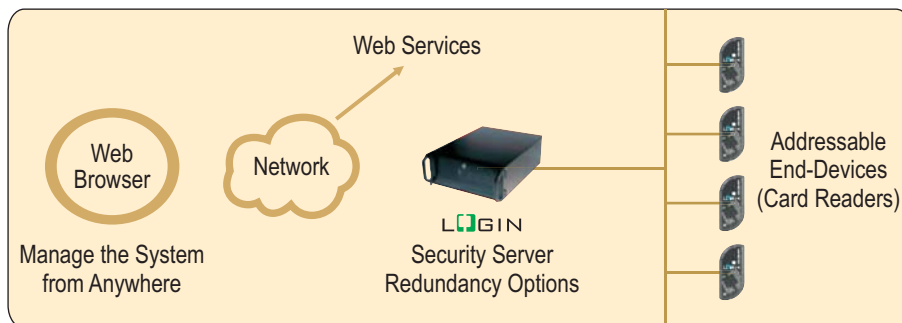




Introduction

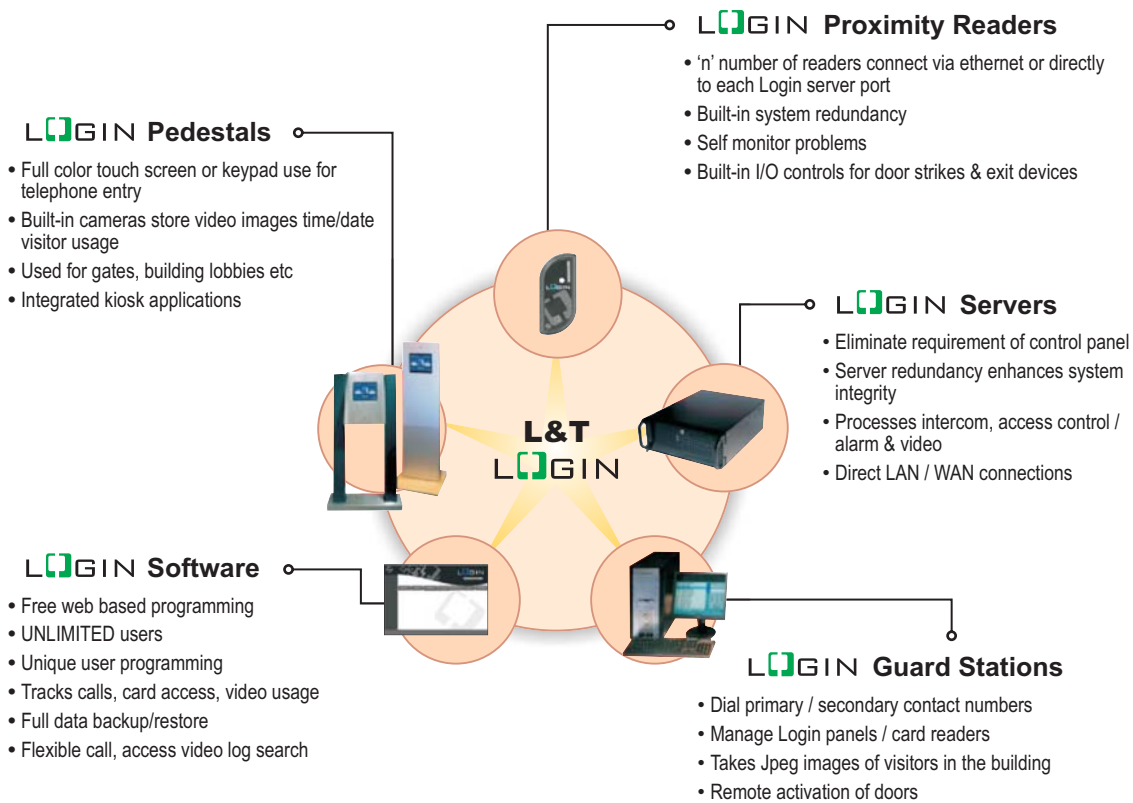
The increased flow of investments in India has triggered the need for world-class solutions which has encouraged Larsen & Toubro to provide an intelligent/ advanced IP based Access Control System which is a new initiative to rationalize building security and control system.

L&T LOGIN, the latest IP based access control system works on a convergent platform which provides functionality with cost benefits and guarantees to be future-proof. The system is a web-based application, provides security for individual building or group of buildings.



Access Control Server

- Expand Login to control unlimited doors and elevators
- Used to program & control Login readers and panels
- Single server can control upto 'n' number of readers available at desired location
- Continuously check health of all readers
- Removes all control panels from system
- Working on LINUX with RAID 5 configuration



Benefits

A New Generation of Access Control

- Software based access control system
- Less hardware intensive - no control panel required
- Infinite number of readers per server (depending on the cable length for RS485 communication) or LAN availability
- Convergence instead of integration – one solution for access control, visitor management, elevator control and building communication
- Reduces cost of ownership
- Attach exit devices, PIR's, glassbreak detectors
- Unlimited transaction storage
- No web client required to install on individual PC password protection

Features

A new dimension in fire protection

100% Redundancy: A fire alarm control panel's job is to detect a fire at the earliest possible point in time. However, this is not possible, when a single fault is sufficient to prevent it from functioning properly. For this reason, our modular fire alarm control panels are equipped with 100% redundancy, all the components of the FAP are doubled, in case of faults in the control panel or in peripheral equipment, each detector & each function will be completely kept up and all controls will stay active.

Modular structure: The panel can be adapted to growing demands in a cost-effective way in the same housing from 2 to 16 loops. Loop capacity is 250 addressable devices with Loop length of up to 3.5 KM.

LAN Networking : On board TCP/IP port to network various panel using existing LAN.

Inbuilt Gas Release Panel : Option of having Vds approved extinguishing panel.

Decentralized structure: There is no master and slave configuration. The Fire alarm system can be customized and adapted to given situations in an optimum way. The possibility of a decentralized system structure not only increases zone security but also reduces wiring.



Remote system diagnosis and programming: An option that gives Installation companies the flexibility to access Fire Alarm system on internet for maintenance, re programming or configuration.

Safety in case of triple error: The decentralized sub-systems can be connected via duplicated loops so that even in case of triple error, full functionality of all system components will be safeguard.

Compact design: A 16 loop panel with back up batteries for 72 hours and inbuilt charger is just 600 mm x 445 mm x 225mm in dimensions.

ComBOX for sending SMS: (up to 100 mobile Nos) The exact test as displayed on Fire Panel is sent to programmed mobile numbers via GSM. Your Mobile acts as a passive repeater panel.

Fire Alarm Management System : Powerful & user friendly tool for monitoring & control of large systems with Option of two Screen display. One for Graphics & other for Events.

BMS Integration : Two way communication on industry open protocols BACnet / OPC for Integration to Building Management System.



Multi sensor Detection: The Multi Sensor Detector can be used as a smoke detector, as a heat detector or as a combined smoke/heat detector as well, & is programmed and setup specifically for the environmental conditions that it is part of. The Detector detects smouldering fires and open fires at an early stage by being able to detect and evaluate the characteristics of fire smoke as well as heat.

Double the intelligence: Detector works twice as much as traditional fire detectors, but it is also twice as intelligent as them. The 90° scattering angle ensures the best measurement values and detection.

Time Based Programming : Detector can be program on time basis, Heat detector in Pantry during day time becomes smoke detector during Night.

Always on work: The Detector carries out self-tests every second. However, that is not all-even in a disabled state; the detector remains ready for use and for raising the alarm.

Plug and play: Its high speed start-up process, the Detector 533 enters service three times as quickly as a normal detector.

Integrated Short circuit isolator: Each Device on the loop is equipped with integrated short circuit isolator.

Fail-Safe technology for control modules: The module can be programmed to perform even in the case of power failure.



Automatic electronic addressing: Ease and flexibility of maintaining the system. No need to set the Addresses of each and every device with binary/ rotary switches. This makes Installation & commissioning less time consuming & much simpler.

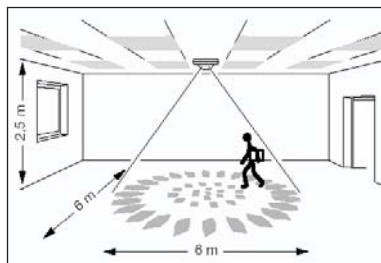
Aspiration Smoke Detection: Latest High Power LED Technology, Auto Learning function, Flexibility of Asymmetrical aspirating lines, Seamless integration with Main Fire Panel, Ambient Temp: -30°C to +60°C

Addressable Loop powered Hooter/ Flasher – Truly Two Wire System : No need of external power supply or separate power cable for Hooter or flasher.

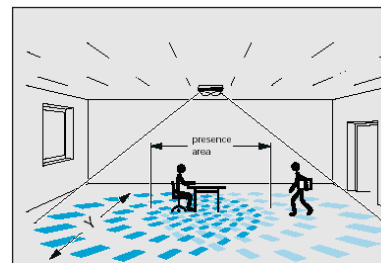
Presence / Movement Detector

EE 804  1 Channel 1 lens surface mounting type movement detector	EE 805  1 Channel 1 lens flush mounting type movement detector
EE 810  1 Channel 2 lens type Presence Detector	EE 811  2 Channel 2 lens type Presence Detector

There is difference between Movement detection & Presence detection



Movement detector is a single lens detector that detects relatively large movements. It is particularly intended for use in indoor applications with high traffic (movements) e.g. Corridors, Entrance halls, Shops or living room in house.



Presence detector is double lens detector detects minute movement (e.g. movement of hand while writing). It is particularly intended for use in indoor applications such as cabins, cubicles and small offices.

TELETASK

Since 1984 TELETASK has been the leading manufacturer of high quality domotics systems. The name “domotics” didn’t exist then, but for the first time the basic idea of integration introduced with the name ‘Home Automation’.

Initially, revolutionary control possibilities were only available in custom made solutions. As time passed, the term “domotics” became popular and the acceptance of electronics in domestic electrical installations became established. Then began the development of the first modular “off-the-shelf” domotics products. During this rich history TELETASK constantly set the standards for contemporary domotics solutions.

Today TELETASK stands for future oriented designs and high quality domotics solutions which are distributed in more than 20 countries all across the globe.

The TELETASK solutions, are fully compatible with DoIP (Domotics over IP) and integrate all electrical functions such as lighting, heating, air-conditioning, (including heat-recovery) ventilation, curtains, doors, gates, audio, video, security camera's, door phone systems, PC, mobile phones, access control, security, standard IP connected devices, etc...

All these products are produced to increase the quality of life of our customers whether they are at home, in the office or enjoying a nice holiday abroad.

The new solid glass touch panel which works with the latest capacitive touch technology has 4 buttons, with controls for up to 16 functions (8 via remote control). This stylish panel can be installed in both vertical and horizontal position



The new solid glass touch panel works on capacitive technology which incorporates a state-of-the-art white OLED (Organic LED) display which can be customised by using small pictograms and text. You can scroll between several pages, with each of them having eight buttons with feed-back. Each button has long press and short press configuration it means this is small touch panel can control upto 64 functions each page of AURUS-OLED can be configured for lighting control, curtain control, AC control and music system control AURUS-OLED can be mounted both in a horizontal or vertical position up to the customer's or architect's choice

Thanks to the co-ordination between your TELETASK installation and your audio/video equipment, it is possible to have your personal theatre at home. And of course, integrated with your lights, curtains and air conditioning. ...Snacks not included.



“LATUS” is one of the most powerful TELETASK touch panels. It has 16 touch sensitive buttons to efficiently control a high number of functions. Each button has its own customised symbol and text. You can design your symbols, text and labels yourself = full flexibility, any time you need it!





This high class touch screen offers you full control and much more. "SERVUS" includes built-in TV, radio, video-door phone system, camera monitor, intercom, and much more... The front panel is available in exclusive solid glass or stainless steel.

Imagine: Cooking a nice dinner while watching your favourite show on the "SERVUS" and someone rings at the door. No problem, you don't have to run to the door to open it. "SERVUS" immediately switches to the visitor camera. You can talk with your visitor and permit him to enter with just one push on the screen. "SERVUS" keeps a picture of all visitors in its video memory.

A Full integration of your TELETASK installation with the audio/video equipment results in convenient user friendly control of everything. No more searching for one of the ten remote controls.

You can control the most important functions of your house or building from any type of telephone.

If you use an Apple iPhone, Apple iPod touch or Smartphone (with MS Windows Mobile), with the iSGUI license, you can access all TELETASK functions without any limitations, including checking your cameras and taking remote pictures.

Thanks to your TELETASK Home Automation system you can open or close your doors/gates easily and from any convenient location, including your access control card/tag, your (mobile) phone or a touch screen. When the door opens, the lights, the air-conditioning and even the music system can be activated to the settings of the used access card.

MULTIMEDIA

UNIVERSAL A/V & Learnable IR Interface

TELETASK offers easy integration with RS232 controlled audio/video systems. Typical application for this interface is the integration of the TELETASK Home Automation system with multi-room/multi-source (MR) systems like Russound, Nuvo and many others.

By using this interface an in-depth Home Automation integration is realized. Audio/video control is possible from every TELETASK user interface (buttons, panels, touch screens, remote control, PC, mobile devices,...).

SENSORS

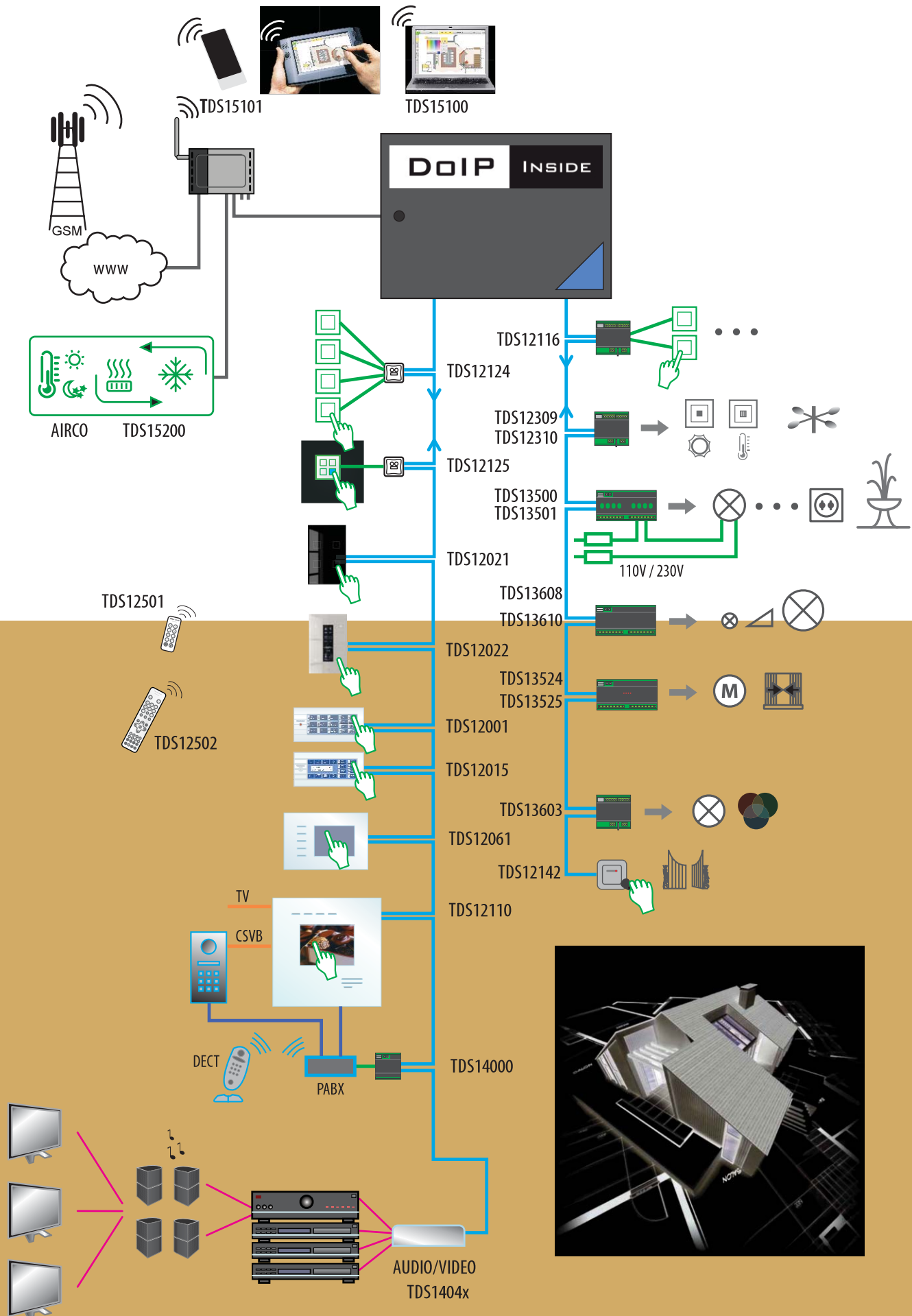
Integrated SENSORS

The different TELETASK sensors allow you to measure and control temperature, light, humidity or a water leak. They are available in white or pearl-nickel.

Besides these in-house designed sensors, you can connect almost any type of sensor, digital or analog to the TELETASK Home Automation system.



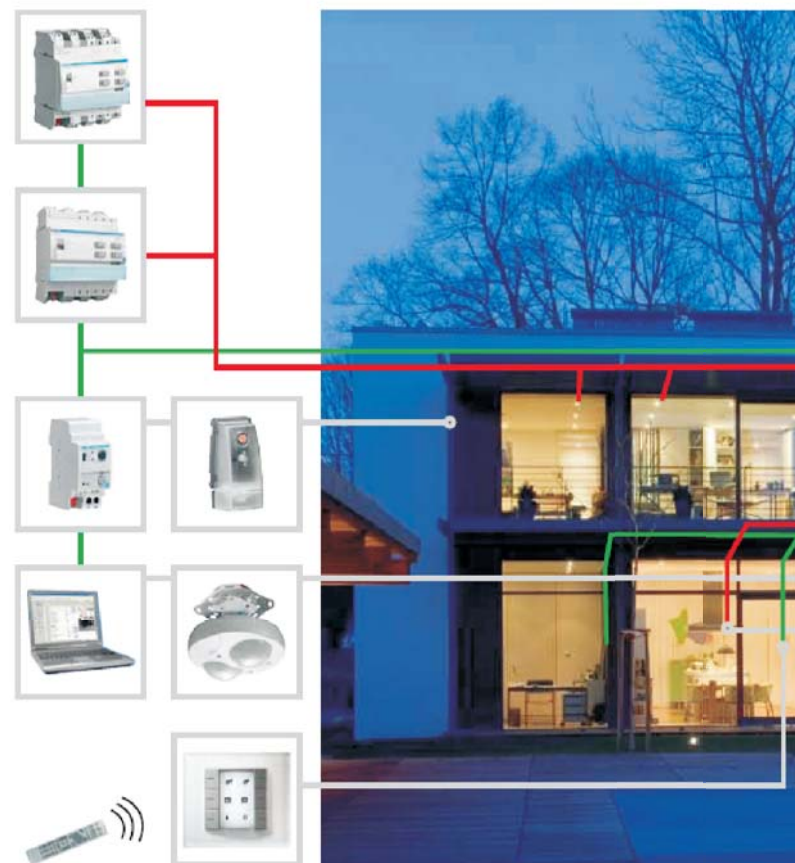
System Architecture of L&T Home Automation



KNX basis system

Live Life Freely

- KNX system is one of the most successful and robust automation systems available within Europe today and it is fully compliant with international standards (EIB-KNX).
- With this all of your electrical appliances can be controlled via intelligent switches, remote controls or even computers.
- At the heart of every KNX system is the built-in software , providing intelligent control and management for your automation requirements.
- This provides you with the comfort and security that you expect within your home or office environment.
- KNX is developed using an open system platform, with high compatibility and powerful expandability.
- By utilizing an intelligent control and management system, your energy consumption can be efficiently managed, whilst still providing you a modern lifestyle with quality and comfort.



Product Portfolio

Output Modules

- 4A/10A/16 A relay output devices for switching of power circuits
- 300W/600W/1000W universal dimmers for dimming of incandescent lamps
- 1/10V dimmers for fluorescent lamps

Input Modules

- Light sensitive switches for control of lighting and blinds
- 360 deg Presence detectors for lighting controls
- PC software for scheduling and monitoring
- Remote controls

System Control Capatability :



- Motorised windows



- Motorised curtains, blinds, awnings and sunshade



- Lighting dimming , scene setting, scheduling



- Air-conditioners / heating equipment
- Pumps for pools and reticulation



- Electrical appliances and equipment

L&T offers you a complete range of building electricals and automation solutions for your offices, commercial & residential requirements with the largest reach in the country. We offer end to end solutions, right from product to installation & commissioning through a network of System Integrators. Down stream of transformer, we address all aspects of the electricals ranging from Powergear, Energy & Power Quality, Final distribution and Building Automation products for buildings with expert assistance in product selection and specification. Each product in our range carries the L&T insignia of reliability & assurance and is backed by prompt after-sales service through a wide network of service centres across the country. Therefore an ideal choice for Electricals and Automation for your Buildings.

[illegible]This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, text, or other markings on the page.

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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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