Intelligent Lighting Module Control Distribution Box

Overview

IP20 Energy conservation and the resulting cost savings are key drivers in the increasing demand for lighting controls.

Key Takeaways

A Lighting Intelligent Control Module Distribution Box is a modular, programmable system that integrates power distribution with smart lighting control, enabling automated, flexible, and energy-efficient management of luminaires.Overview

Intelligent lighting distribution boxes combine traditional electrical distribution with advanced control capabilities. They allow individual or grouped control of connected luminaires through digital communication protocols such as DALI (Digital Addressable Lighting Interface) or proprietary bus systems, enabling plug-and-play installation and software-based configuration without rewiring ( ).

Key Features
• Modular Design: Many boxes, such as the SPO.227/248, are modular and pluggable, allowing easy expansion or upgrades ( ).

• Programmable Control: Boxes can execute predefined logic for lighting behavior, including on/off switching, dimming, and daylight harvesting ( ).

• Sensor Integration: Compatible with motion detectors, brightness sensors, and smart panels to automate lighting based on occupancy or ambient light ( ).

• Communication Bus: Uses bus networks (e.g., M-Bus or DALI BUS) to transmit control signals between modules, sensors, and luminaires ( ).

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

• Energy Efficiency: Intelligent control can reduce energy consumption by over 50% through dimming, scheduling, and adaptive lighting ( ).

Technical Specifications

• Voltage and Current Ratings: Typical low-voltage boxes operate at AC 380V, 50Hz, with main busbar currents ranging from 10A to 100A and short-time withstand currents up to 4.5 kA ( ).

• Protection and Enclosure: IP30 for operating face and IP20 for other surfaces, suitable for indoor installation ( ).

• Load Capacity: Maximum recommended load per channel is often 6A, with total box load up to 16A; supports multiple digital dimming ballasts ( ).

• Expansion Options: Some systems allow linking multiple boxes via BUS loops or adding expansion units to control additional luminaires ( ).

Applications

• Commercial Buildings: Offices, conference rooms, and lobbies where automated lighting improves comfort and energy efficiency.

• Industrial Facilities: Warehouses and production areas requiring flexible lighting zones.

• Smart Homes and Automation: Integration with building automation systems for adaptive lighting control ( ).

• Emergency and Essential Lighting: Dual control/supply boxes can manage essential and non-essential circuits independently ( ).

Advantages

• Flexible Configuration: Adjust lighting schedules, dimming levels, and control logic via software without physical rewiring.

• Scalability: Modular design allows easy expansion as building requirements change.

• Enhanced Safety: Integrated protection and BUS isolation prevent damage from electrical faults.

• Energy Savings: Optimized lighting control reduces electricity consumption and supports compliance with energy efficiency regulations ( ). In summary, a Lighting Intelligent Control Module Distribution Box is a versatile solution for modern lighting systems, combining power distribution, intelligent control, and modular expandability to deliver energy-efficient, automated, and programmable lighting management.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Article Content

What is an Intelligent Lighting Control Distribution Box 2026 Complete ...

An intelligent lighting control distribution box is a core electrical component widely used in industrial, commercial, municipal, and

LIGHTING CONTROL

Delta Controls delivers intelligent lighting control that goes beyond illumination—integrating wellness,

SPO.227/248 DALI Intelligent Modular Distribution Box

These devices combine traditional modular wiring boxes with intelligent DALI lighting control, saving on

Lighting Control

Intelligent panelboards for automated lighting control and improved energy efficiency. Reduce energy costs

Lighting Control Modules | Simmtronic

Our pluggable 9-port lighting control module provides effortless scalability and ease of maintenance. With

Lighting Control Modules

Intelligent modular distribution box provides individual addressing and monitoring of 192 DALI drivers plus

Click CT1016 Lighting Management Box 20A

Click Smart offer intelligent and innovative products that make it easier than ever for customers to provide

Intelligent panelboard for lighting control and energy ...

The manufacturer of the lighting control panelboard shall be regularly engaged in manufacture of electrical distribution equipment,

Lighting Control Modules Explained: Features, Types,

What is a Lighting Control Module? A lighting control module is the “control center” for your

Lighting control modules

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Lighting control modules for detection & daylight harvesting Lighting control modules are a new range of

Lighting Control Module

IP20 Energy conservation and the resulting cost savings are key drivers in the increasing demand for lighting controls. This new

Lighting Control Module

Intelligent Lighting Control Module not only eliminates the manual operation and management of lighting in a building,

Lighting Control

Intelligent panelboards for automated lighting control and improved energy efficiency. Reduce energy costs

Intelligent Fixture Control System

The Intellect Decora® Keypad Room Controller is the primary user interface to an Intellect Intelligent Fixture Control System,

Lighting Distribution Systems: Flex Connectors & More

Whether you''re working with LED Lamps, industrial lighting solutions, Fluorescent Bulbs & Lamps or specialised LED Tubes, our

Intelligent Lighting System for Building Automation | Renesas

This comprehensive lighting control system is designed for building automation (BA). By utilizing DALI to connect the controller and

High-Quality Electrical Lighting Distribution Boxes Explained

High-quality electrical lighting distribution boxes are indispensable components in modern lighting systems, offering a combination of

Power: Smart Power Distribution

These challenges have driven new developments in power distribution technology. Perhaps the newest development

Dual Control/Supply Lighting Distribution Box

Dual Control/Supply Lighting Distribution Box Use to control 2 groups of luminaires independently of each other (same circuit,

SPO.227/248 DALI Intelligent Modular Distribution Box | Simmtronic

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

The SPO.227 and SPO.248 are fully addressable, digitally controlled DALI intelligent modular distribution boxes, connected to the

Smart Street Light Control Cabinet: The Intelligent Hub of Modern

Smart street light control cabinets represent a critical infrastructure component for cities transitioning to intelligent

Common Symptoms of a faulty Intelligent Power Distribution Module

The Intelligent Power Distribution Module (IPDM) is a vital component of your vehicle''s electrical system.

flex7 Lighting Distribution Boxes

Our Lighting Distribution Box was the first and original 7-pole box on the market. This means the same

Ex-Or CDW12U5-DALI Connect Digital Box

The Ex-Or CDW12U5-DALI Connect Digital Box is a highly flexible, configurable and intelligent lighting control module, which

Load Centers | Smart Circuit Breaker Box | Leviton

A single app for lighting, load control, and EV charging The updated My Leviton dashboard provides a quick-glance view of smart

CDH4U5 Lighting Control Module|Honeywell Building Automation

CDH4U5 is an intelligent LCM providing connections for multiple luminaires, up to 5 presence detectors and SELV inputs. The

Click CT1016 Lighting Management Box 20A

Click Smart offer intelligent and innovative products that make it easier than ever for customers to provide

Intelligent panelboard for lighting control and energy ...

The manufacturer of the lighting control panelboard shall be regularly engaged in manufacture of electrical distribution equipment,

Lighting Control Modules Explained: Features, Types,

What is a Lighting Control Module? A lighting control module is the “control center” for your

Lighting control modules

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Lighting control modules for detection & daylight harvesting Lighting control modules are a new range of

Lighting Control Module

IP20 Energy conservation and the resulting cost savings are key drivers in the increasing demand for lighting controls. This new

Lighting Control Module

Intelligent Lighting Control Module not only eliminates the manual operation and management of lighting in a building,

Lighting Control

Lighting Control Modern light management ABB i-bus® KNX ensures optimum lighting of industrial and office buildings as well as

POWER DISTRIBUTION BOX – Smart Home Automation | KinCony

Smart Distribution Box Solution Powered by KinCony B32M + B16M Controllers The KinCony Smart Distribution Box is a

Electrical Distribution Boxes for Power Distribution

Electrical distribution boxes for modular power distribution and installation. Flexible distribution solutions for

Room Automation Distribution Boxes for DALI & Building Automation

Distribution boxes for room automation and DALI lighting control. Modular pluggable solutions for building automation and

Lighting Control

Intelligent panelboards for automated lighting control and improved energy efficiency. Reduce energy costs as much as 30% by

Intelligent Fixture Control System

The Intellect Decora® Keypad Room Controller is the primary user interface to an Intellect Intelligent Fixture Control System,

Lighting Distribution Systems: Flex Connectors & More

Whether you''re working with LED Lamps, industrial lighting solutions, Fluorescent Bulbs & Lamps or specialised LED Tubes, our

Intelligent Lighting System for Building Automation | Renesas

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

This comprehensive lighting control system is designed for building automation (BA). By utilizing DALI to connect the controller and

What is an Intelligent Lighting Control Distribution Box 2026 Complete ...

An intelligent lighting control distribution box is a core electrical component widely used in industrial, commercial, municipal, and

LIGHTING CONTROL

Delta Controls delivers intelligent lighting control that goes beyond illumination—integrating wellness,

SPO.227/248 DALI Intelligent Modular Distribution Box

These devices combine traditional modular wiring boxes with intelligent DALI lighting control, saving on

Lighting Control

Intelligent panelboards for automated lighting control and improved energy efficiency. Reduce energy costs

Lighting Control Modules | Simmtronic

Our pluggable 9-port lighting control module provides effortless scalability and ease of maintenance. With

Lighting Control Modules

Intelligent modular distribution box provides individual addressing and monitoring of 192 DALI drivers plus

Intelligent Lighting Controls

Intelligent Lighting Controls lets you transform your environment with smart, energy-saving lighting solutions. Talk to a representative

Exor CDW12U5-BDALI Connect Digital Box

The Ex-Or CDW12U5-BDALI Connect Digital Box is a highly flexible, configurable and intelligent lighting control module, which

MLS Connect Digital Box|Honeywell Building Automation

Connect Digital Box is a highly flexible, configurable and intelligent lighting control module. Designed to change the way lighting

LIGHTING CONTROLS

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Get full automatic or manual control, or anything in between. The system also integrates wired and wireless elements for a true

What is an Intelligent Lighting Control Distribution Box 2026 Complete ...

An intelligent lighting control distribution box is a core electrical component widely used in industrial, commercial, municipal, and

LIGHTING CONTROL

Delta Controls delivers intelligent lighting control that goes beyond illumination—integrating wellness,

SPO.227/248 DALI Intelligent Modular Distribution Box

These devices combine traditional modular wiring boxes with intelligent DALI lighting control, saving on

Lighting Control

Intelligent panelboards for automated lighting control and improved energy efficiency. Reduce energy costs

Lighting Control Modules | Simmtronic

Our pluggable 9-port lighting control module provides effortless scalability and ease of maintenance. With

Lighting Control Modules

Intelligent modular distribution box provides individual addressing and monitoring of 192 DALI drivers plus

Intelligent Lighting Controls

Intelligent Lighting Controls lets you transform your environment with smart, energy-saving lighting solutions. Talk to a representative

Exor CDW12U5-BDALI Connect Digital Box

The Ex-Or CDW12U5-BDALI Connect Digital Box is a highly flexible, configurable and intelligent lighting control module, which

MLS Connect Digital Box|Honeywell Building Automation

Connect Digital Box is a highly flexible, configurable and intelligent lighting control module. Designed to change the way lighting

LIGHTING CONTROLS

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

Get full automatic or manual control, or anything in between. The system also integrates wired and wireless elements for a true

Contact Us

Continue your research online:

Website: https://alfa-pro.co.za
Technical inquiry: https://alfa-pro.co.za/contact.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved