

# Electrical Busbar Trunking

*Canalis*<sup>®</sup>

In logistic centres

Application datasheet



Merlin Gerin  
Square D  
Telemecanique

**Schneider**  
 **Electric**  
*Building a New Electric World*

# The customers needs



## For new constructions or rehabilitation

- Standard product reception, storage and dispatch activities.
- Packing, packaging and repackaging activities.

Logistic centres are normally rented surfaces.

They are continuously re-fitted out according to changes in operators and activities.

The main electrical functions are:

- lighting of storage areas and offices,
- distribution of power in process areas or preparation of orders as well as in loading premises for lifting machinery.

## Lighting



Storage racks, several metres high, need to be handled with care.

To guarantee optimum comfort and safety, lighting ramps must be positioned very accurately. It is essential to be able to control different lighting areas separately.

Maintenance or addition of lamps must be possible without cutting the supply to the sectors in operation.

Stronger lighting may be necessary in areas reserved for workstations.



## Workstation power supply



Ensure continuity of supply.

Changes in activity regularly result in the re-arrangement of surfaces.

Displacement or addition of workstations must take place with power on, very quickly and without operating downtime.

## Handling machine reloading



An upgradeable network to allow for installed base extension.



# Application example

## A logistic centre

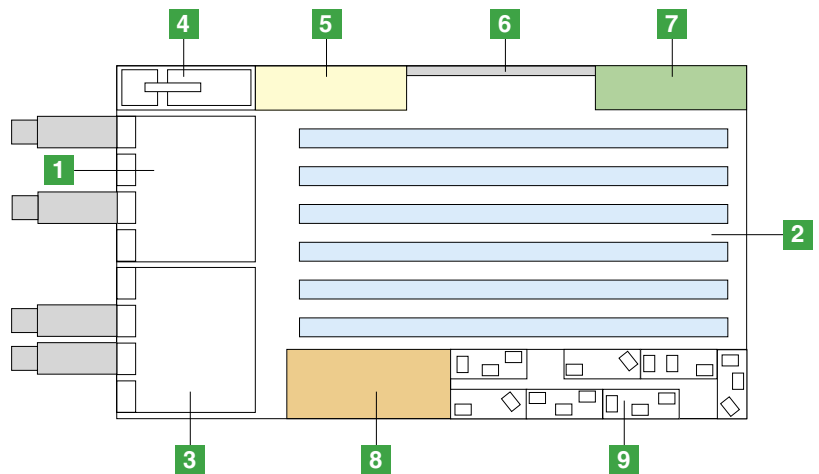
### Characteristics of a warehouse

- Surface: 4800 m<sup>2</sup> (60 x 80 metres).
- Loads:
  - sliding doors,
  - battery chargers for fork-lift trucks.
- Lighting the warehouse by T5 2 x 80 W fluorescent tubes.
- Lighting the offices by 3 x 36 W fluorescent tubes.
- Process areas.
  - Order preparation areas:
    - conveyor belts, computer-integrated material handling, etc.



### Canalis equipment installed

- Warehouse lighting
  - 1 line of Canalis KNA 160 A of 57 metres to supply the lighting lines.
  - 6 lines of Canalis KBA 25 A of 57 metres, 1 line of 42 metres and 2 lines of 29 metres to supply 90 light fittings KBL T5 2 x 80 W.
- Office lighting
  - 4 lines of Canalis KDP of 21 metres to supply 180 light fittings 3 x 36 W.
  - 7 KBC single switch-on connectors for office control.
  - 1 KBC jig-back connector for conference room control.
  - 3 timer connectors for toilet and corridor control.
- Power distribution
  - 1 line Canalis KNA 160 A of 15 metres to supply the battery chargers.
  - 1 line Canalis KNA 63 A of 75 metres to supply the doors.
  - 2 lines Canalis KS 250 A of 2 metres to supply workstations and machines in the process part.



1 Reception area

2 Storage area

3 Packaging process and dispatch area

4 Room for the transformer and the main LV switchboard

5 Maintenance room

6 Pallet truck battery charging

7 Boiler room

8 Process

9 Offices

# A comprehensive offer

## A new path for achieving your electrical installations

Canalis is part of a comprehensive offer of products that are perfectly coordinated to meet all medium and low voltage electrical distribution requirements. All of these products have been designed to work together: electrical, mechanical and communication compatibility.

The electrical installation is thus both optimised and has improved performance:

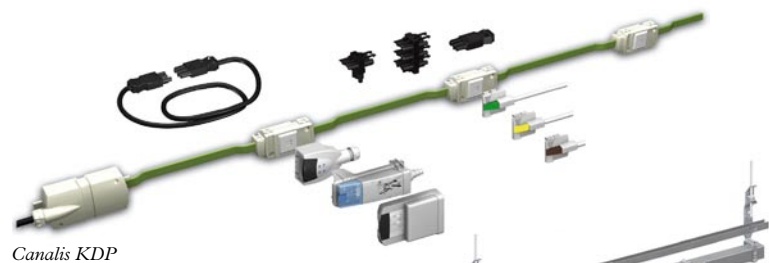
- better service continuity,
- increased personnel and equipment safety,
- guaranteed upgradeability,
- efficient monitoring and control.

You therefore have all the advantages at hand in terms of know-how and creativity for achieving optimised, safe, upgradeable and compliant installations.

## The Schneider Electric products

### Lighting busbar trunkings

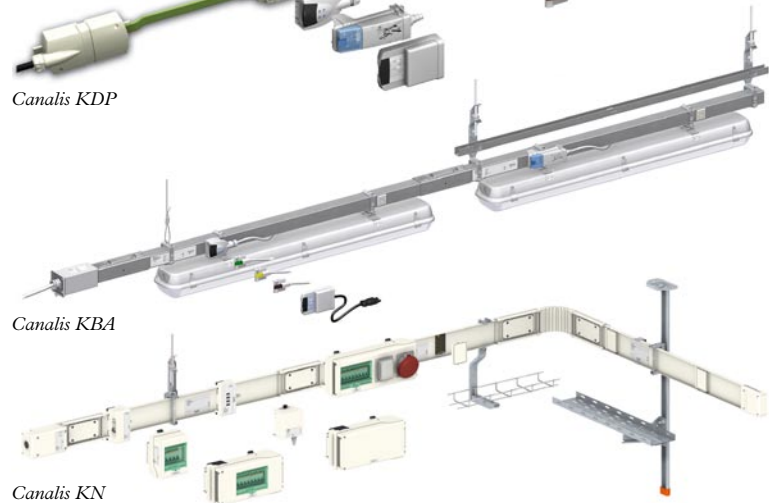
- **Canalis KDP:** flexible trunking
  - Nominal current 20 A.
  - 2 or 4 live conductors.
  - Tap-offs every 1,2 metres or 3 metres.
  - Tap-off connectors: 10 and 16 A.
  - Degree of protection IP55.
  - Packaged in a reel.
- **Canalis KBA and KBB:** rigid trunking
  - Nominal current 25 or 40 A.
  - 2 to 8 live conductors.
  - Tap-offs every 0.5 metre to 1.5 metres.
  - Tap-off connectors: 10 and 16 A.
  - Degree of protection IP55.



Canalis KDP

### Low power busbar trunkings

- **Canalis KN:** rigid trunking
  - Nominal current 40 to 160 A.
  - 4 live conductors.
  - Tap-offs every 0.5 metre to 3 metres.
  - Connectors and tap-off units: 16 or 63 A.
  - Degree of protection IP55.



Canalis KBA

Canalis KN

### Medium power busbar trunkings

- **Canalis KS:** rigid trunking
  - Nominal current 100 to 1000 A.
  - 4 live conductors.
  - Tap-offs every metre on each surface.
  - Connectors and tap-off units: 25 to 400 A.
  - Degree of protection IP55.



Canalis KS

### Electrical switchboards

- **Prisma Plus cubicle:** main switchboard
  - Current rating I(e) at 40°C: 3200 A.
  - Permissible short-term rated current Icw: 187 kA rms./1s.
  - Degree of protection IP30 to IP55.
- **Prisma Plus enclosures:** subdistribution boards
  - Current rating I(e) at 40°C: 630 A.
  - Permissible short-term rated current Icw: 25kA rms./1s.
  - Degree of protection IP30 to IP55.



Prisma Plus cubicle

Prisma Plus enclosure

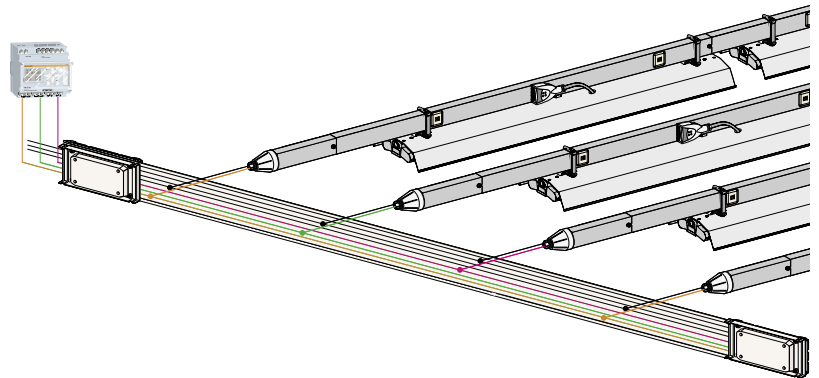
# The Canalis solutions

## The advantages of a range based on 30 years of experience

- **Savings** : installation times cut by more than 50% compared with a traditional cable installation.
- **Upgradeability** : addition of items or modification of network is very easy, even at the last minute. Tap-off points are always available at the right place, regardless of the configuration of the room.
- **Continuity of supply** : addition, displacement or replacement of loads takes place with power on, in complete safety without affecting the activity.
- **Safety** : for protection of people, all live parts are fully protected : IPxxB. Connections are made in complete safety thanks to fool-proofing and locking mechanisms.

Supply of KBA and KBB lighting lines with **Canalis KN** allows simple creation of lighting areas or of several levels of illumination according to use of premises (storage, production, cleaning, etc.).

When the centre distance between light fittings is greater than 6 metres, **Canalis KBA** or **KBB** components without flaps are inserted on the length and make the Canalis solution a very economic one.



Supply of Canalis KBA lighting lines distributed over the various phases of the Canalis KN.



With **Canalis KN** or **Canalis KS**, electrical distribution is clear and upgradeable to follow as closely as possible changes in production or re-organisation of work surfaces.

Enclosures are plugged in and out with power on.

The operator can service or repair his installation in complete safety, without production downtime.



Use of **Canalis KS** ensures a competitive installation that will adapt to changes in needs.

Handling machinery can be loaded at any time, without power breaking.

## The Canalis advantages

Its modular nature means that Canalis adapts to the infrastructure. It allows easy creation of optimum lighting exactly where you need it. Maintenance is simplified as far as possible : faulty lamps are replaced with power on and at any time.

For lighting as a whole, mounting times are cut by 3 for KBA lines and by 4 for KDP lines.

- 232 metres of Canalis KBA fixed in half a day by two people.
- 464 metres of Canalis KDP fixed in one day by just one person.

# Other applications

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- Garages
- Livestock production buildings
- Greenhouses
- Offices
- Hypermarkets
- Cruisers
- Industrial workshops
- Flooring tile plants
- Electronic plants
- Car factories
- Trade fairs and exhibitions

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