



COMETRIC

Specialized rotary and control switches

RAILWAY APPLICATIONS





3- ROLLING STOCK
4- BACK DRIVER PANEL SWITCHES
11 - CREW SWITCHES/DOOR CONTROL SWITCHES
13- HVAC SWITCHES

15- INFRASTRUCTURES
16- SAFETY IN RAILWAY TUNNELS
23- DC TRACTION SUBSTATIONS
30- SIGNALLING
31- CROSSING RAILROAD
32- METRO
34- TRAIN DEPOTS

ROLLING STOCK

- IEC EN 61373
- UNI EN 45545



1



Cab Active Switch

2

Driving Mode
Selector Switch

3

General Use
Cockpit Switches

4

Lighting
Control Switch

5

Wipers
Control Switch

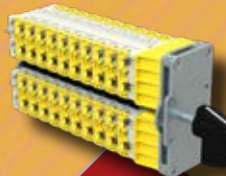
6

SDO Selective
Doors Operation

7

CBTC
Bypass Switch

8

Catenary
Selector Switch

5

4

6

8

3

1

2

COCKPIT CONTROL DESK SWITCHES



1 *CAB ACTIVE SWITCH*

- Cockpit OFF-ON Key switch and Direction selection switch.
- Wide adaption to cylinder and Security key different brands KABA, IKON, DOM, RONIS.
- Key can be removed only in 0 position.
- Horizontal or Vertical Mounting.
- Customized electrical diagrams.

DRIVING MODE 2 *SELECTOR SWITCH*

- Sending of Running Signals
- Possibility of metallic Handle and Push button interlock.
- Multiple contacts
- Tandem switch (double or triple coloumn)
- Customized Electrical Diagrams.



GENERAL USE COCKPIT SELECTOR SWITCHES 3

- Single hole mounting diam.30mm
- From 2>8 position stayput or spring return.
- Illuminated or not illuminated.
- Up 24 contacts
- Low profile design with Aluminium satin surface
- Wide range of colours of handles.



4 LIGHTING CONTROL SWITCH



- Customized Electrical Diagrams.
- Customized Engravings of Frontplates.
- Wide range of colored Handles and frontplates.

5

WIPER CONTROL SWITCH



- Customized Electrical diagrams
- Customized Frontplates
- Pushing the handle have the action of the pump of the washing screen.
- Wide range of handles.

SELECTIVE DOOR OPERATION

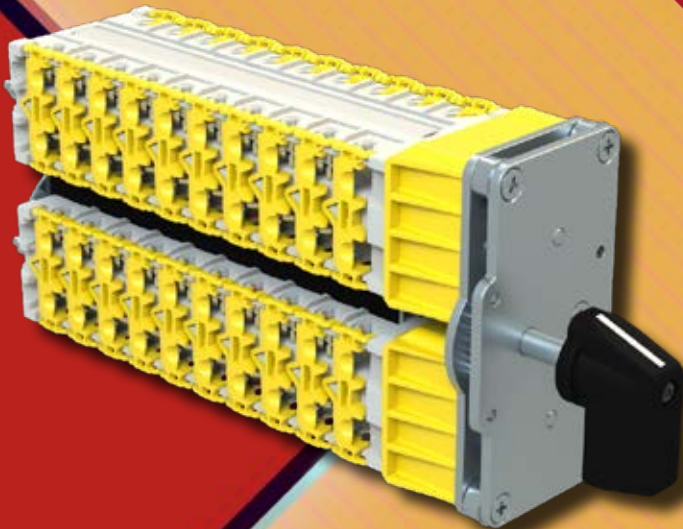
6

- Also called Selective Door Opening (or SDO) is a mechanism employed primarily on trains (although buses with multiple doors also generally have this feature) that allows the driver or conductor/guard to open the doors of a train separately. SDO enables trains to call at a station where the platform is shorter than the train. Some doors can be prevented from opening to ensure that passengers do not disembark from any carriages not standing at the platform.
- Customized electrical diagrams and frontplates.



CBTC BYPASS 7

- Safety devices are installed to prevent collision and travelling over speed and to ensure safety, there are various kind of protectors such ATS,ATC,ATO etc... and each railway company has different specifications. Trains that operate on tracks owned by different company have safety devices for the respective and a circuit is switched according to a track , for which a safety device selector switch is used. There are also cases where switches are installed to disable the functions if a safety device incurs in



8

CATENARY SELECTOR SWITCH SWITCH

- Catenary is used to transmit electrical Energy to the trains.
- As any country may have different Voltages of operation.
- This is used to select the Voltage operation of the train in that specific country.

WITHSTANDING VOLTAGE TEST SWITCH



- Inverter control is mainly used with recent railway cars. for inveter control a lot of electronic equipment is installed and accordingly ,during periodic withstand voltage inspections, it is necessary to isolate the circuit so as to avoid damage due the voltage. The withstand voltage test switch opens the circuits that is normally closed.

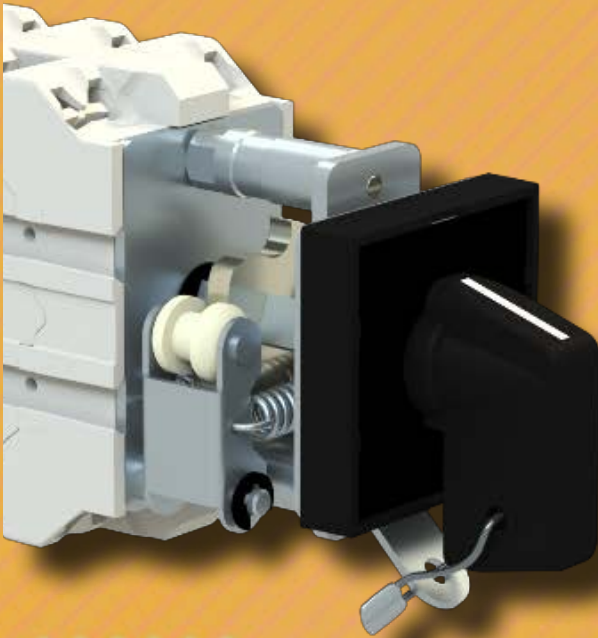
CONTROL CIRCUIT CUT-OUT SWITCH

- Under the floor of a railcar is installed a switchbox that control and protect electricity supplied from the Pantograph and distributes it to the devices as AC, etc....The Control Circuit CUT-OUT switch is installed in the switchbox to Simultaneously open Primary circuits of various Normally-closed equipment during Periodic Testing.



PLOMB SEABLE SWITCH

- Its used to seal and avoid the non authorized operation of the critical switches.
- Wide range of different colored handles



BACK DRIVER PANEL SWITCHES

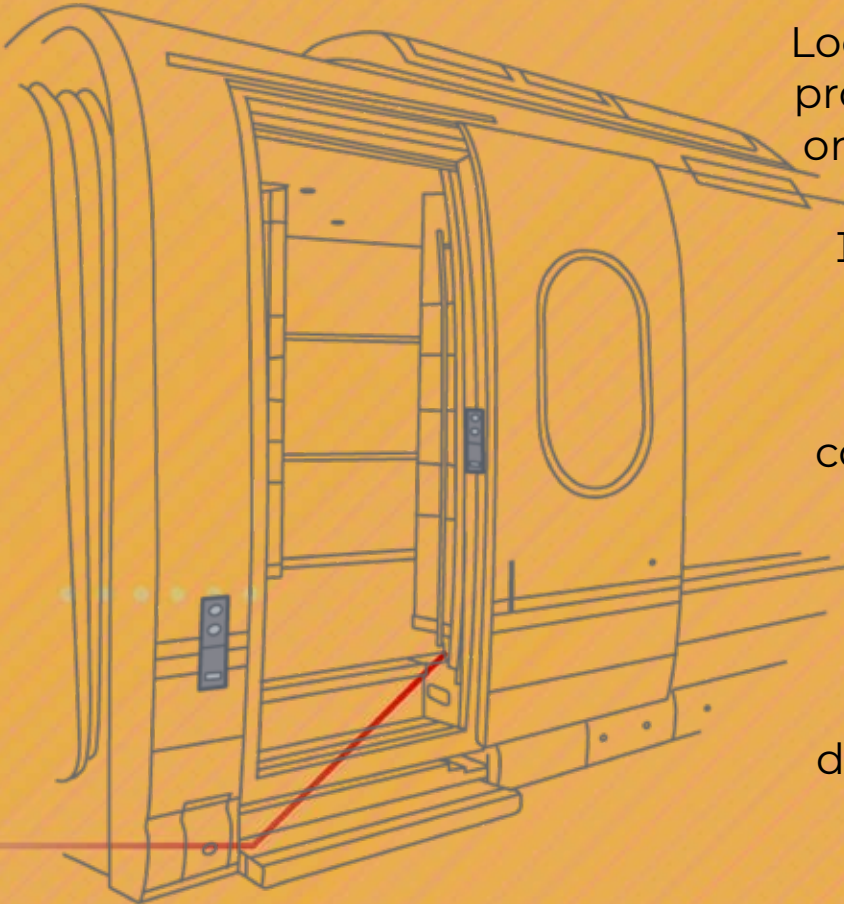
CREW SWITCHES / DOOR CONTROL SWITCHES



Local door operation refers to a procedure and system in place on railway rolling stock on the railway network.

It is where a single door on a train is operated by its train crew from a crew operated switch, often on a train door control panel operated by the train's guard.

All multiple unit trains have local door switches, located in various locations. These are always located on cab doors which can be locked for security.

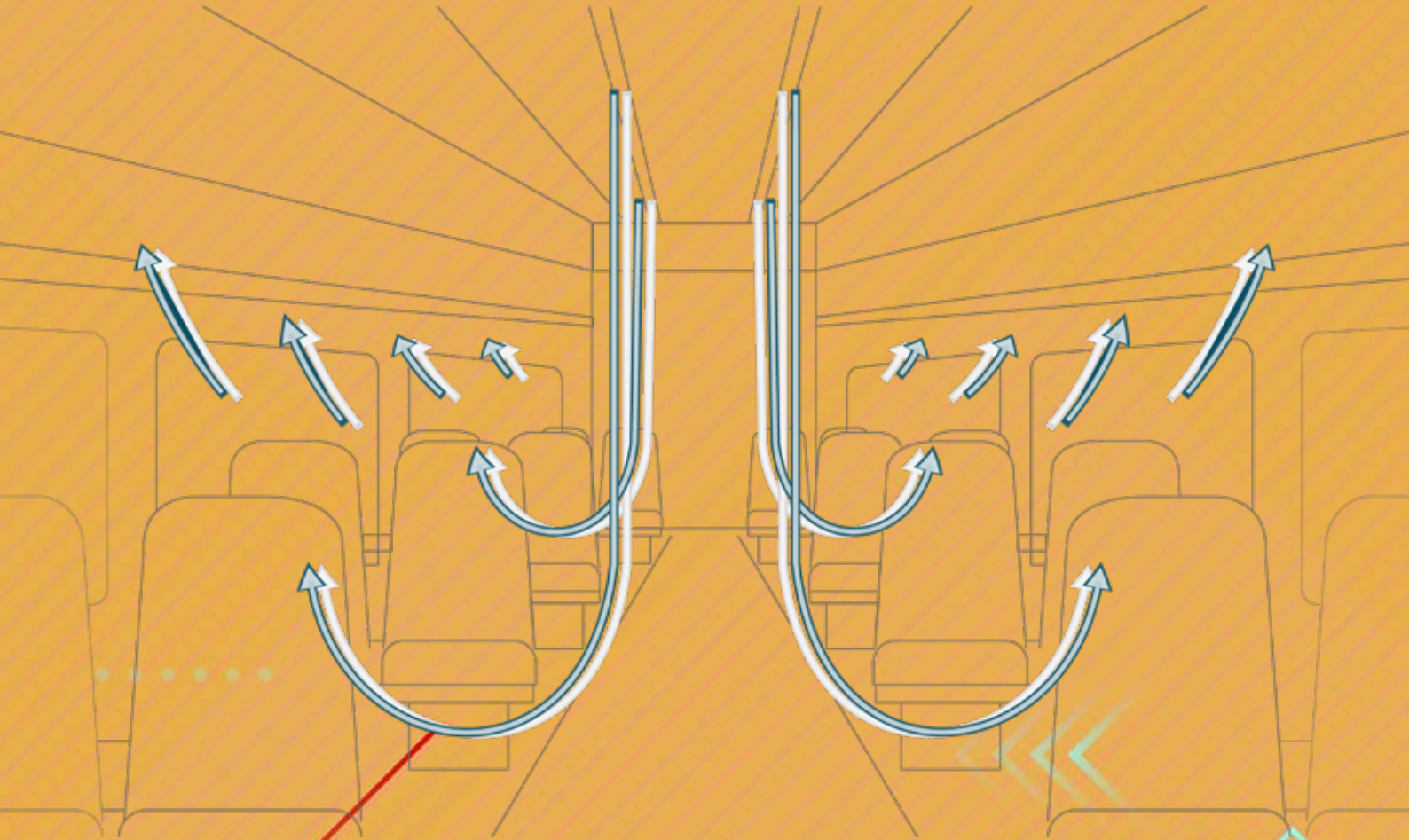




CREW SWITCH /DOOR CONTROL

- Activation by Railway/Conductor key :
 - SQUARE
 - TRIANGLE
 - SPECIALS
- Commercial Key (KABA, SOUTHCO, IKON, YALE).
- Fitting single hole 22mm or 30mm.
- Stainless steel frontal part.
- Configurable in Closing Shield.

Used for control the Air
Conditioning and the
Ventilation Systems.

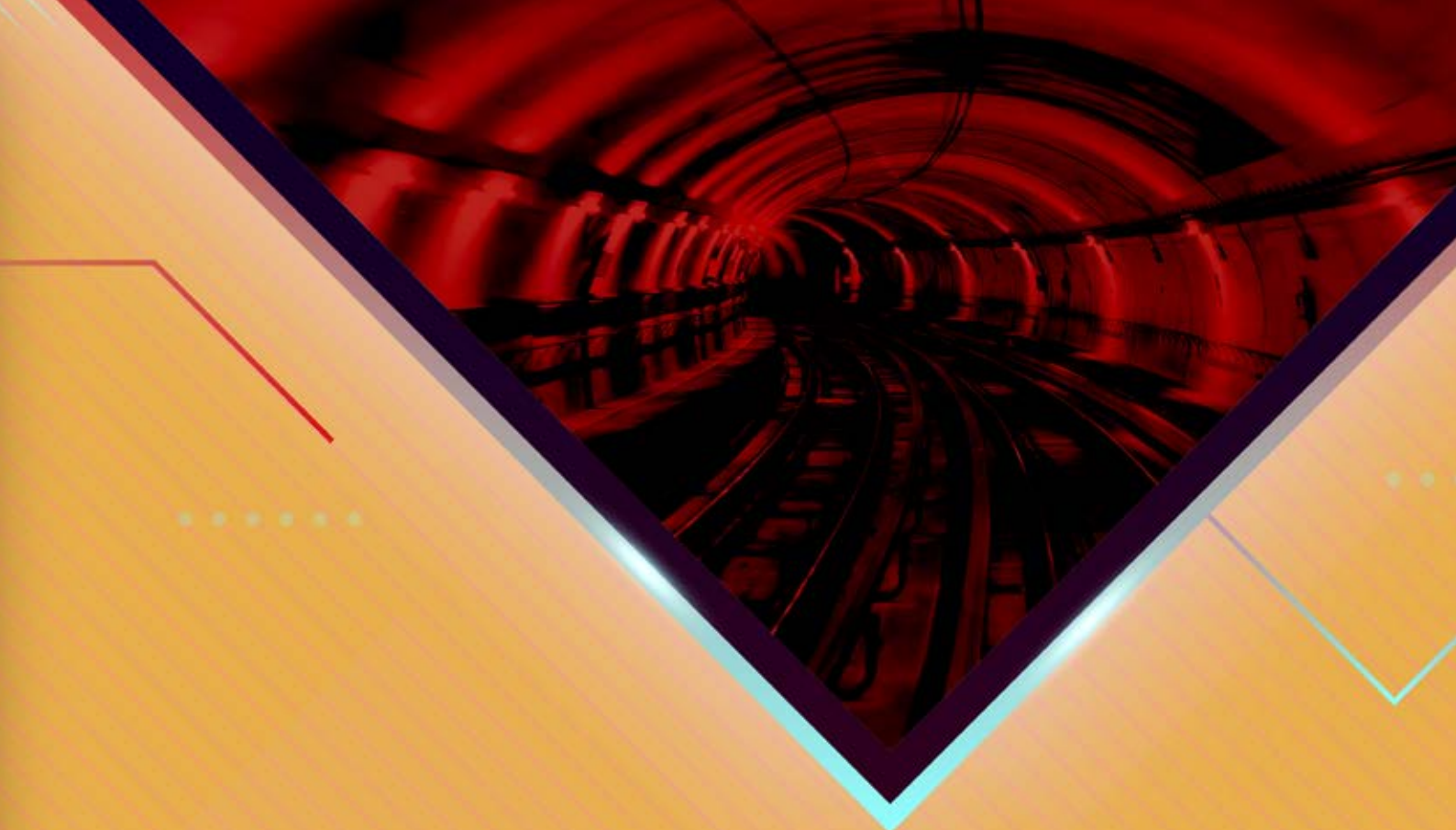


HVAC SWITCHES



HEATING AND AIR CONDITIONING SWITCH

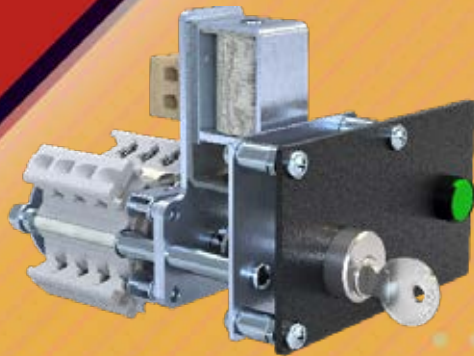
- Colored customized engravings of the frontplates
- Customized Electrical Diagrams.
- Wide range of handles



INFRASTRUCTURES



SAFETY IN RAILWAY TUNNELS



TRAPPED KEY SOLENOID UNIT

- Its used to avoid the wrong sequencies of operations from the personel before to enter in the tunnels.
- The key can be released only after energization of the coil.
- Standard flat keys or Heavy duty.

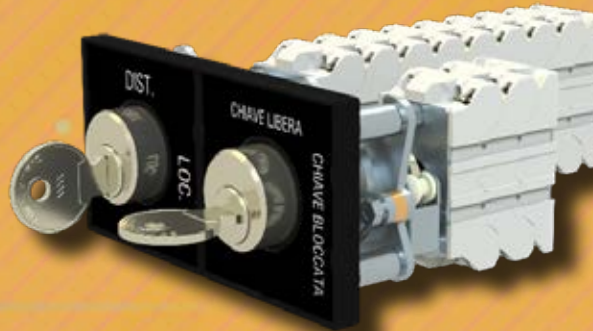
LED INDICATORS

- Single hole mounting diam. 22mm.
- Standard Voltages 24,48,110,125,130,144,220Vdc/Ac
- Customized Voltages on Request.
- CLUSTER Technology



• Available Colors:





KEY OPERATED SWITCH

- From 2>8 Positions Stayput or Spring Return.
- Up to 500 different keys combinations.
- Customized Engravings of the Frontplates.

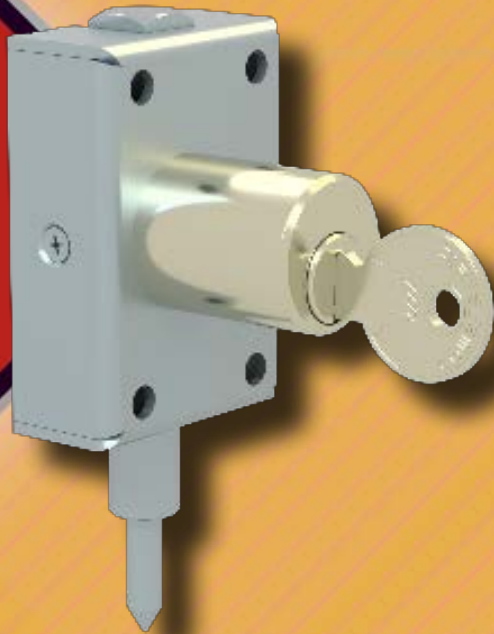
BEACON LED INDICATOR

- Single hole mounting diam. 22mm.
- Standard Voltages 24,48,110,125,130,144,220Vdc/Ac
- Customized Voltages on Request.
- CLUSTER Technology
- Visible from the side
- High Bright



- Available Colors:



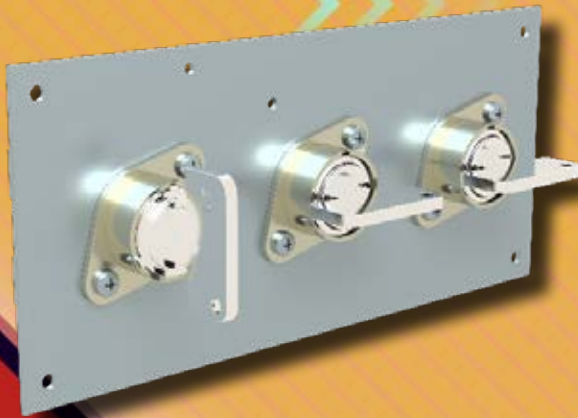


BOLT LOCK

- Are used to lock operations of Disconnectors and Circuit breakers.
- In a combination with other interlocks is used to create sequences of operations.
- Standard Flat Key or Heavy duty.
- Signalling micro contact available.

KEY EXCHANGE BOX

- Are used to create a sequences of operation in order to avoid wrong operations from the personell before to enter in the Tunnell.
- Mechanical or Electrical.
- Standard Flat key or Heavy duty
- Painted stainless steel box





Discrepancy
Switches



Key Operated
switch for DS control



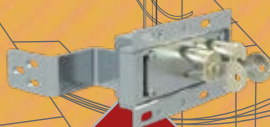
Change over
Switch Telecontrol



Control &
Selector Switches



Semaphore
Indicators

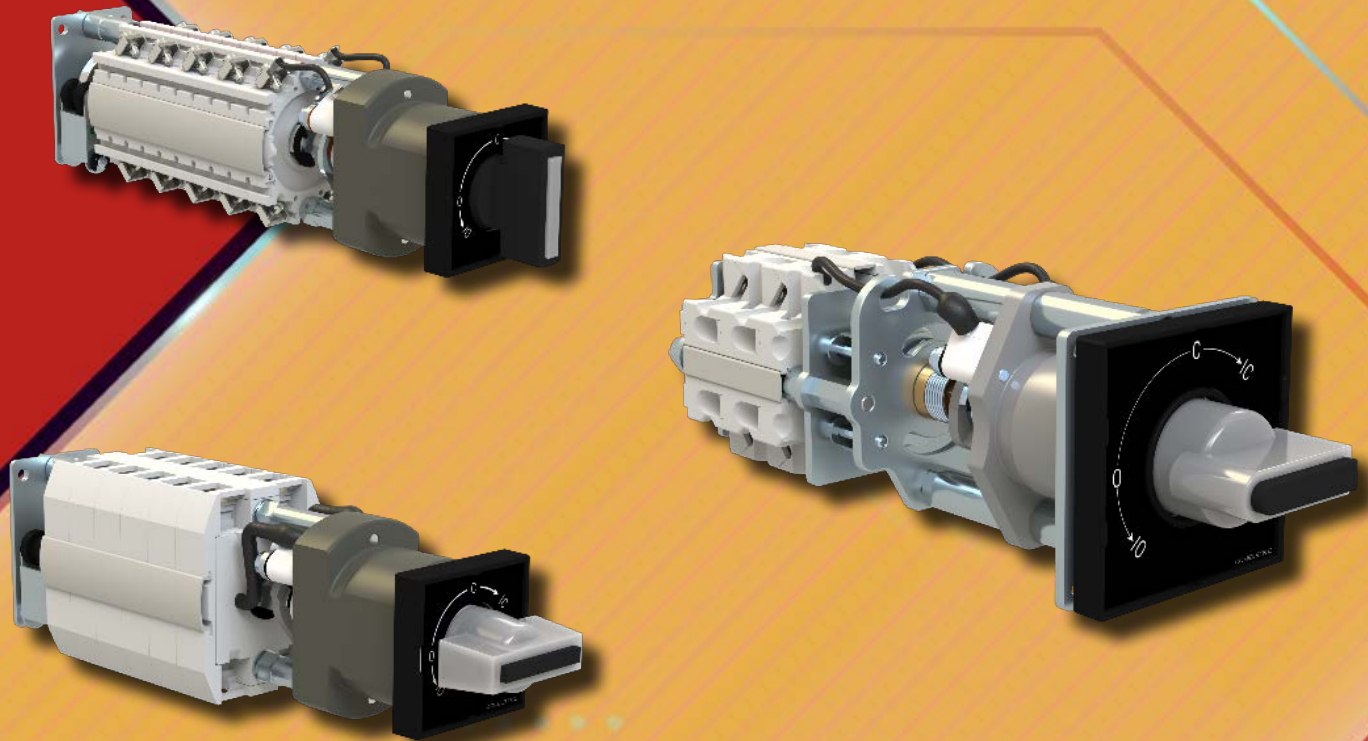


Safety
Interlocks



CS and DS for
Mosaic Panels

DC TRACTION SUBSTATIONS



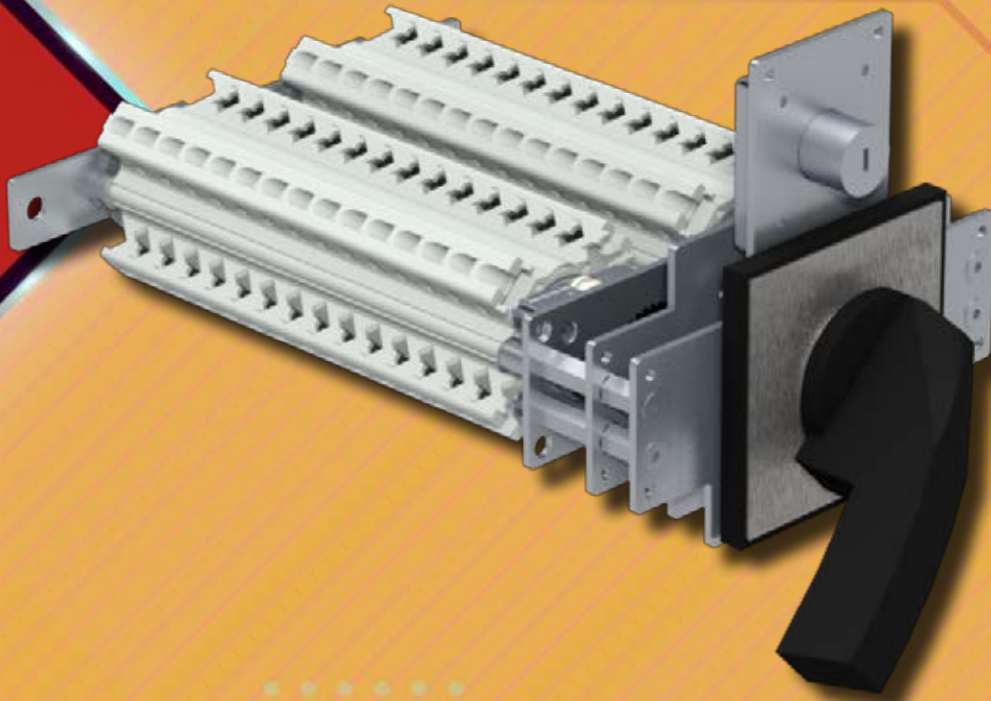
DISCREPANCY SWITCH

- Used to control and checking the position of the Circuit Breakers and Disconnecter switches in mimic panels.
- LED illuminated Handle
- Round or Square Symbol as indication of CB or DS.

KEY SWITCH FOR DISCONNECTOR CONTROL ELECTRIC TRACTION

- Round Frontplate
- Customizable Electrical Diagram
- Up 200 different keys
- Spring return with key removable in «0» position.





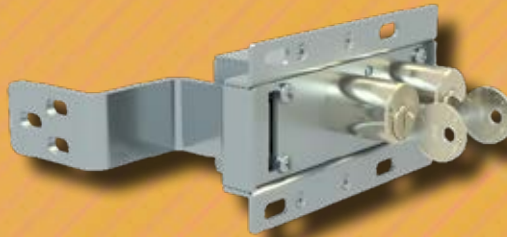
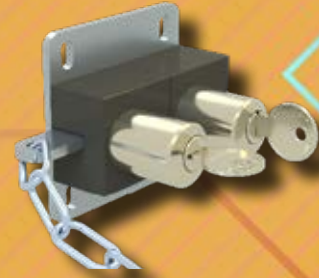
TELECONTROL INCL-EXCL SWITCH

- Customized electrical diagrams and frontplate engravings

CONTROL & SELECTOR SWITCHES

- From 2>8 positions Stayput or Spring Return
- No Limits in numbers of poles
- Customized Engravings of the frontplates



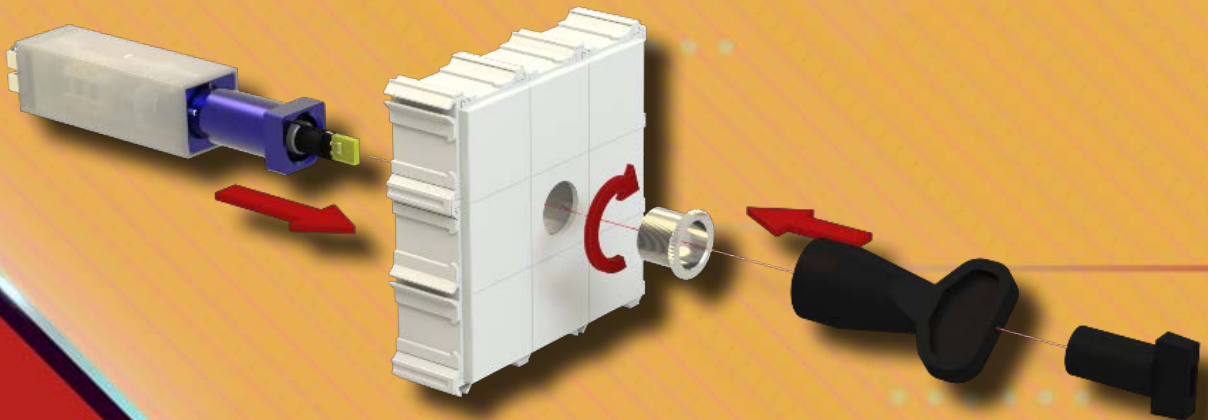


SAFETY INTERLOCKS

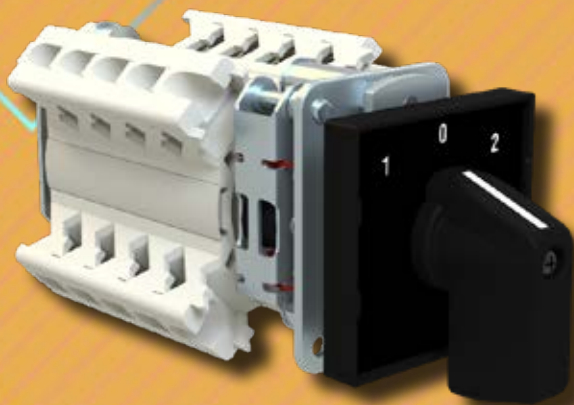
- Are used to create a sequence of operations in order to avoid wrong operations from the personell before entering in the tunnel.
- Mechanical or Electrical.
- Standard Flat key or Heavy duty
- Painted stainless steel box

CONTROL SWITCHES AND DISCREPANCY SWITCHES FOR MOSAIC PANELS

- They can be mounted easily in different brands of mosaic tile systems
- SUBKLEW
- MAUELL
- PROPLAN
- SACO
- DOMO



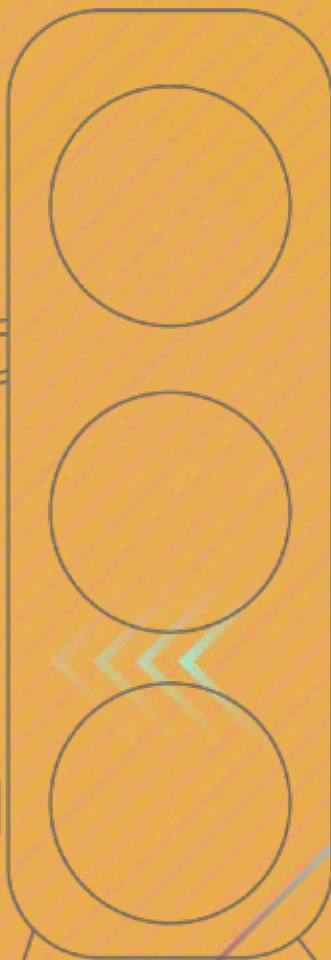
REGULATORS



- Devices supplied to Italian railway (F.S.) personnel on their remote control systems, used for blocking and freeing station tracks not used for line service.
- 3 Pos. Spring Return Switches
- Cluster Led Indicators
- IP65 Front protection
- Gold Contacts Available

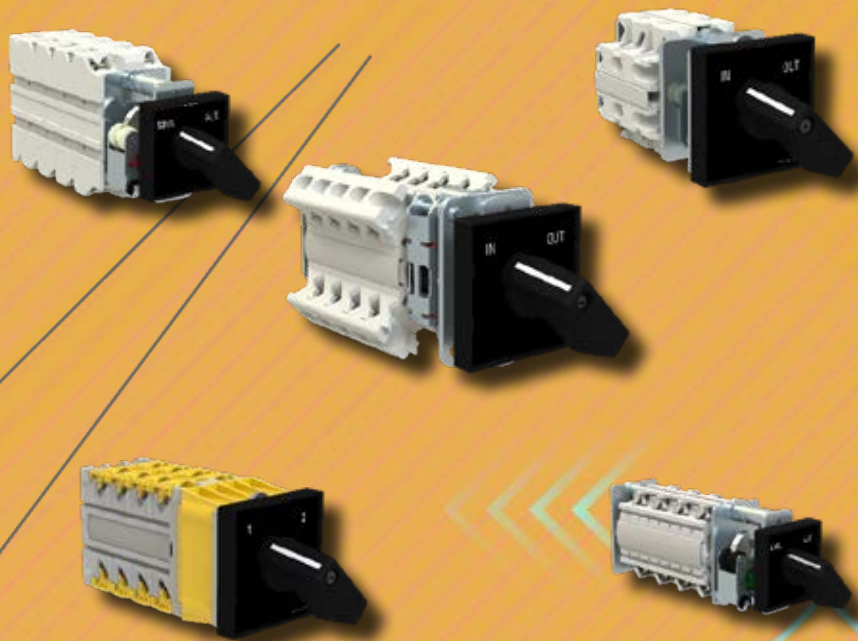
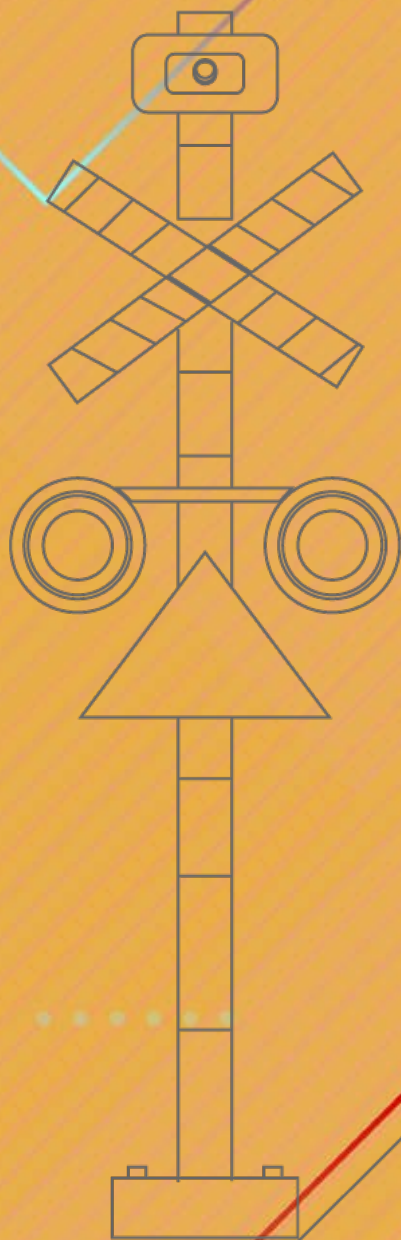


SIGNALLING



CONTROL & SELECTOR SWITCHES

- Devices supplied to Italian railway (F.S.) personnel on their remote control systems, used for blocking and freeing station tracks not used for line service.
- 3 Pos. Spring Return Switches
- Cluster Led Indicators
- IP65 Front protection
- Gold Contacts Available



CROSSING RAILROAD

METRO





ENCLOSED EMERGENCY PUSH-BUTTON

- Die Cast Aluminium Enclosure
- Customized Solutions
- Safety Guard for Impact
- IP65

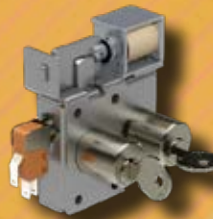
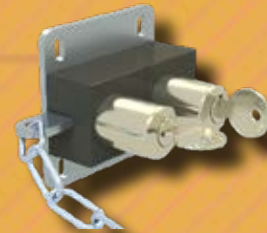
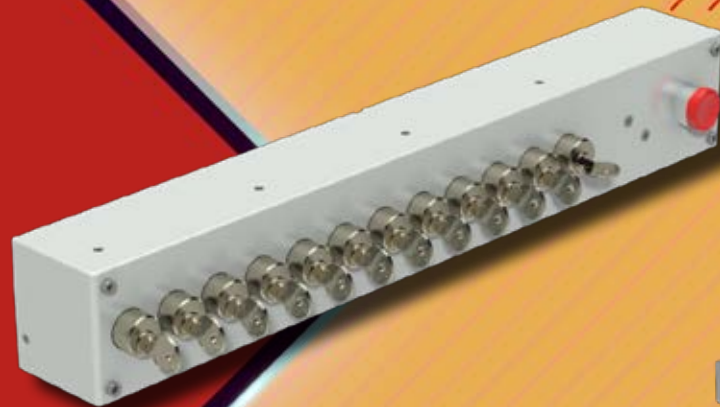
ENCLOSED DISCONNECTOR SWITCH

- ABS Enclosure
- STAINLESS STEEL Enclosure
- Special Configuration
- Customized Diagrams
- Customized Frontplates



TRAIN DEPOTS





ELECTRICAL & MECHANICAL INTERLOCKS

- Control the Safety Access
- Control the Dangerous Area
- Control the Operations of Equipments



COMELETRIC

Specialized rotary and control switches



After 60 years of activity, COMELETRIC has become expert in the design, production and sale of control switches, interlocking devices and Led indicators.

Our customers can take full advantage of our in-house engineering capabilities, receiving a tailor-made service on:

- Customization of products
- Fast response about feasibility of new solutions
- Technical support before, during and after the order processing

We serve customers all over the world through a global net of distributors in all continents and thanks to our flexible organization we support them in every need the customers may have.

What started in Milan in 1960 was a family-owned business company which never stopped looking into future preserving the handcraft tradition, but projected in a new age with a structured organization ensuring in the time durable high quality products.

ABOUT US

COMELETRIC is committed to the belief that our long-term success depends on our ability to fully satisfy the requirements of the customers. In order to pursue such an objective Comeletric manage all the company functions in accordance with UNI EN ISO 9001:2018.

Product testing in laboratories is made according to the most restricted international standards in order to guarantee the best performances and the necessary safety.



CE IEC 60947



QUALITY

