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System pro *E* control
Gemini. Low voltage insulating switchboards

Power and productivity
for a better world™

Power and productivity
for a better world™

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Gemini, something completely different in switchboards

Gemini range is revolutionizing the market of low voltage electric insulating switchboards. The reason for this is that it is the first switchboard made in thermoplastic material, to which the co-injection molding technique gives the same mechanical characteristics as polyester. This means that it is extremely sturdy, with its rigid covering and expanded internal core. Moreover, it contains no fiberglass, a material that with time rises to the surface, jeopardizing the functioning and safety of switchboards made in polyester with which it is usually mixed. Gemini switchboards have an IP66 protection degree (IP30 with the door open and with the appropriate components installed) and a very high resistance to chemical and atmospheric agents. This is the reason why Gemini guarantees excellent performances even in particularly severe operating conditions.

Strong outside and versatile inside, Gemini fits to any application

There are as many configurations as ABB devices for low voltage automation and distribution: moulded-case circuit breakers, modular circuit breakers, monitoring, control and signaling devices, wiring ducts and electrical connection systems. All of these components give to “Gemini system” an enormous range of specific solutions that are easy to assemble with the snap-on system. Nothing can be compared to Gemini, even when they reach the end of their life cycle because they are totally ecologically compatible. The material used to manufacture Gemini is 100% recyclable. Polyester, on the other hand, cannot be recovered. Moreover, to make sure that correct disposal procedures are followed, instructions are provided about how to identify materials and what to do with the product once it has served its useful purpose.

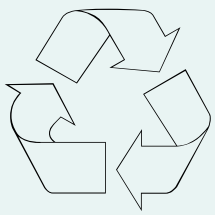
Gemini switchboards are made through co-injection, technology and ABB is the first manufacturer to use it as a molding technique. This process obtains a “sandwich” of two materials with a compact external covering and an expanded core, guaranteeing the highest level of mechanical protection against impacts (IK10) without the need to add hardening substances. Competitors products are usually made in polyester that is usually mixed with fiberglass; passing the time, it rises to the surface and become a risk factor for skin burns that may occur during installation and maintenance through accidental contact. Moreover, it causes deterioration of the technical strength and lasting characteristics of the material to which it is added. Gemini, on the other hand, keeps its mechanical characteristics in the long term. The co-injection technique makes the manufacturing operations themselves safe because the products are completely finished when they come out of the mold without any flash or other surface irregularities.

Quality and safety

Gemini is designed and built in compliance with reference Standards that define its constructional and functional characteristics. In particular, the IP66 degree certifies that Gemini is totally protected against the infiltration of solid bodies and is resistant to the penetration of jets of water similar to sea waves. Absolute protection is provided by double insulation even in the event of indirect contact. Even in very difficult application circumstances, Gemini gives high-level performances, with resistance to fire and abnormal heat up to a temperature of 750 °C and a functioning temperature from -25 °C to 100 °C. Moreover, the material with which it is manufactured retains its characteristics for a long time since it is not subject to corrosion by chemical or atmospheric agents. Also it does not turn yellow when exposed to UV rays.

Photovoltaic

In a typical photovoltaic plant the direct current section comprises a generator consisting of strings composed of photovoltaic modules connected in series. The Gemini series of IP65 sealed switchboards are ideal for use as field combiners or as parallel switchboards, i.e. for outdoor installation near the modules. ABB has a range which is currently unique on the market, and has developed a family of plug & operate solutions, i.e. a series of finished, wired and certified switchboards to meet the needs of a huge range of plant types: from single string for residential applications to large-scale solar fields.



Gemini is made in thermoplastic material that is 100% recyclable. The environmental compatibility of Gemini is an important objective right from the design phase where the Life Cycle Assessment (LCA) procedure, defined in 1990 during the Society of Environmental Toxicology and Chemistry Conference (Vermont, USA), is followed.
Life Cycle Assessment is an objective method for analyzing the energy and environmental loads relating to a product, process or activity, carried out by identifying and quantifying energy, the materials used and emissions released into the environment. Divided into four phases, the assessment covers the entire life cycle of the product, process or activity, from the extraction and transformation of raw materials, to manufacturing and distribution, and from usage to recycling and decommissioning.

Introduction
Characteristics of Gemini switchboards

1

A switchboard that is not just one system, but three

Gemini is the result of design work conducted by ABB with the direct collaboration of switchboard manufacturers, installers and designers who considered versatility to be the discriminating element when purchasing a switchboard, equally important as sturdiness and reliability. Gemini fulfils this requirement by providing a product that can be used for three different purposes: in addition to the basic configuration, it also provides the components necessary to be equipped as an automation switchboard or as a distribution and mixed switchboard. In any application, compatibility with ABB protection, control and monitoring portfolio of products means that a real system of integrated and complementary functions can be configured.

Typical examples of some Gemini applications can be seen in industrial production departments and on board machines, in galvanization plants and varnishing cabins, in petrol stations and carwashing plants, boiler-rooms, car parks, shopping malls and in any other environments where distribution and automation demand specific safety requirements and service continuity.

Gemini is also flexible with six different box sizes and internal space to accommodate from 24 to 216 DIN modules.

To respect safety standards, all the switchboard components can be fixed to the base plate or to the box frame without using any tool; wiring is carried out from the front followed by snapping the base plate or the frame onto the box.

The patented frame is fitted with the cable duct incorporated in the uprights.

In its design, Gemini repeats the shapes and RAL 7035 grey color of ABB switchboards with which it can be configured as a main protection switchboard.

Experience and innovation

Gemini has two central aspects. It is both the result of years of work in the production of installation material and the expression of the most advanced technology, from design to distribution. In ABB laboratories, computer aided design programs simulate all types of application conditions, translating virtual checks into a process to improve the Gemini performances so that it will be able to respond more accurately to market requirements.

Through Internet at URL www.abb.com/edesign-software you could download free of charge ABB “e-design” software; it includes softwares for the configuration and budgeting of Gemini in distribution and automation mixed applications.

Distribution switchboards
System pro *E* power

System pro *M* compact®
A complete, integrated range for electrical system safety

1

Thanks to its long-term experience and know-how ABB is able to offer the best solutions and the most suitable products for electrical systems, whether in residential, commercial or industrial applications. System pro *M* compact® is a complete, structured and fully integrated range of modular products that guarantees quality, reliability and easy installation. System pro *M* compact® is the most complete line of modular devices currently available on the market.

System pro *M* compact® is a complete range of modular products for installation on DIN rails. Its multi-purpose nature offers every possible solution for creating safe, reliable installations to protect not only people but also the system and everything connected to it.
The products of System pro *M* compact® range are developed by ABB in its production centres, each one specialised in specific product lines; this ensures a specialist approach for every application and function required. Constant research and the development of ground-breaking products and production solutions, means continuous improvement of the characteristics and performance of all the equipment, guided also by specific market requests. ABB's modular range not only develops elements for protection, control and command; it also includes a wide selection of modular KNX devices to create systems that are extremely user-friendly in terms of both installation and use, and specifically referring to energy efficiency in buildings.

ABB System pro *M* compact® - a choice of value

Choosing System pro *M* compact® means choosing numerous advantages, including over 120 years of experience, products developed for the global market (without forgetting the specific needs and habits of each single country), the widest range of international certifications, marks and approvals, optimum product availability thanks to unique worldwide codes, and the widespread international presence of ABB sales branches.
System pro *M* compact® offers a wide, specialised range of devices for domestic, commercial and industrial applications, guaranteeing optimum safety, service continuity, maximum flexibility and limited maintenance costs.

Circuit breakers and differential protection devices

From the most simple applications to the most complex and unusual ones, System pro *M* compact® switches protect systems from short-circuiting and overloads, guaranteeing the utmost reliability and safety during various operations.
To protect installations in residential, commercial and industrial applications, in alternating or direct current, for

photovoltaic systems or for use on machines or production systems, ABB circuit breakers always provide the ideal solution with the widest range and best reliability.
With its residual current circuit breakers and residual current circuit breakers with overcurrent protection, residual current devices, residual current relays with separate toroid (both modular and front panel versions), ABB offers various differential protection solutions for any low voltage installation levels, from low voltage infeed to power distribution and terminal distribution.

Protection against overvoltages

The ABB range of devices for protection against lightning and atmospheric overvoltage includes OVR surge protective devices and equipment for protecting low voltage distribution lines, photovoltaic systems and any telecommunication systems. Designed and built to guarantee optimum operating reliability, service continuity and reduced maintenance costs, OVR range is the best of its kind.

Command, control and measurement devices

When it comes to low voltage systems, System pro *M* compact® range offers a wide variety of functions to ensure service continuity, efficiency and consumption optimisation at all times and in every situation. These parameters are fundamental for the design and creation of an electric system, whether it is of the residential, commercial or industrial type.
Considering command functions, the extensive System pro *M* compact® range is made up of disconnecting switches, modular indicator lights (or for panel installations), contactors, monostable relays, latching relays, electronic relays, timer relays, electro-mechanical or digital timer switches, light-sensitive switches, GSM telephone actuators and modular thermostats.

Control functions are offered by devices for load disconnection on the basis of predefined priorities, preventing the intervention of a meter when the contract limits agreed with the energy supplying Company are exceeded. They also guarantee the signalling and management of faults such as an absent or incorrect phase sequence and increased or reduced voltage/current values, thereby ensuring optimum protection for the conected loads. Measurement devices of the System pro *M* compact® range verify the electrical system parameters, providing essential functions for diagnostics, fault prevention, consumption optimisation and preventive maintenance. They cover a whole series of activities stretching from single-function solutions for direct insertion to multi-function devices for the complete remote monitoring and management of the systems connected.
The range includes analogue and digital measurement tools, multimeters, high level mains analysers, modular electronic energy meters (MID certified) and a wide selection of accessories for complete installation monitoring, guaranteeing a detailed control of absorption and of any electric parameters.

SACE Tmax low voltage moulded-case circuit breakers
The best technology for a choice of total safety

1

The moulded-case circuit breakers range SACE Tmax T and Tmax XT offer an extremely high performance level alongside ever smaller dimensions, easy installation and a constantly increasing guarantee of safety. Particularly suitable for secondary distribution in alternating and direct current, they provide specific solutions for every type of application requirement. They are used mainly in low voltage civil and industrial systems with an operating current up to 3200A (for the Tmax T range) or 250A (for the Tmax XT range). Their primary field of use is in distribution boards in alternating and direct current to protect motors, generators, capacitors and final utilities.

The ABB range of moulded-case circuit breakers for low voltage applications is wide and comprehensive and can be broken down into two lines: Tmax T and Tmax XT.
The main construction features of the range are: dual insulation between the active power parts (excluding the terminals) and the front parts of the device, where the operator stands during normal system operation; an accurate indication of the position of the mobile contacts to guarantee reliable signalling; circuit disconnection in compliance with IEC 60947-2 Standards; an operating temperature between -25°C and +70°C; a storage temperature between -40°C and +70°C; nominal characteristics that undergo no form of derating up to a height of 2000 metres; an operating guarantee even in presence of disturbances caused by electronic devices; tropicalisation tests in environmental conditions of moist heat; resistance to impact and vibrations; installation versatility (horizontal, vertical or flat assembly on back-mounting plates or DIN profiles). A wide range of accessories and compliance with the IEC 60947-2 international standards, EC directives and shipping registers.

SACE Tmax T

The SACE Tmax T range consists of 9 circuit breaker sizes, all available in 3-pole and 4-pole versions, in fixed execution from T1 to T9, plug-in from T2 to T5 and extractable from T4 to T7. The following ranges are designed to meet all the various application requirements: circuit breakers for power distribution in alternating and direct current, circuit breakers for advanced zone selectivity, circuit breakers for motor protection, circuit breakers for applications up to 1150V in alternating current and 1000V in direct current, PV switch-disconnectors for photovoltaic systems.

SACE Tmax XT

The SACE Tmax XT range fully meets all system needs, from the most basic to the most advanced, thanks also to its completeness (offering four sizes from 160A to 250A). These items are distinguished by their excellent capacity to limit peak currents and specific let-through energy, thereby ensuring optimum sizing of the circuits and the devices downstream. The SACE Tmax XT circuit breakers are fitted with thermomagnetic and electronic releases to guarantee protection against both overloads and short-circuiting, and against earth faults and indirect contact in the low voltage distribution network.
The SACE Tmax XT moulded-case circuit breakers can be equipped with thermomagnetic releases to offer protection for networks in direct and alternating current (by exploiting the physical properties of a bimetal and an electromagnet, they can detect overloads and short- circuits), or electronic releases to protect alternating current networks. These releases use microprocessor technology to obtain highly reliable protection functions with accurate intervention.
The power supply for correct operation is provided directly by the ammeter sensors of the release, guaranteeing its intervention even with a single-phase load or at the minimum setting.

Devices for industrial automation

1

In industrial automation, ABB offers a wide range of devices that are easy to install. Thanks to specific accessories they can be used in both distribution applications and in automation command and control applications.

Command and signalling devices

ABB has a range of modular and compact devices for optic command and signalling. They are easily combined, thanks to the single model front. The modular range offers a wide selection of components with excellent combination flexibility. The special clip-on structure means quick, easy assembly, producing a whole variety of functions with just a few standard elements.
The compact range is based on an “all-in-one” formula and a robust design, to make installation even easier. The entire compact range and part of the modular range, guarantee a protection degree of IP67 and IP69K, allowing them to be used in even critical conditions. During operation, the contact blocks of both types trigger a contact self-cleaning operation to ensure the device works perfectly even with limited or sporadic use.

Modular terminals

The complete range of ABB connections encompasses different types, from the most traditional screw or spring terminals to the most recent solutions - ADO insulation displacement terminals for quick connection execution, safety and reliability. The SNK range of modular screw terminals (the result of more than 50 years of Entrelec experience), offering numerous advantages such as improved mark visibility, optimised cable entry, easier manual use, optimisation of the space in the control panels, and a notable reduction in the number of codes for simpler warehouse stock management. The ABB modular terminals meet IEC, UL, CSA and DIN VDE Standards at international level.

Circuit breakers for motor protection

Our circuit breakers for motor protection are magnetic or miniature type with a high breaking capacity. They fully meet motor protection Standards and can also be used as main or emergency switches. Thanks to the technology used and the accessories available, these devices offer short-circuit protection, thermal protection, minimum voltage protection, phase loss protection, on-off commands, signalling, remote release and testing. Used as single starters and in combination with ABB contactors, the characteristics of the motor protection circuit breakers allow them to be used to protect three-phase motors up to 50 kW at 400V and also to protect other utilities up to 100A.

Switch-disconnectors

To create control panels in the industrial and commercial sectors, ABB has a complete range of switch-disconnectors with or without fuse-holders. All the device ranges guarantee excellent technical performance to ensure optimum operating safety.
A wide choice of accessories are available, such as mechanical interlocks, motorised commands, switchover kits, adjustable shafts and metal or plastic handles. Protection degree is IP65. The indication on the handle shows the status of the contacts even if they are welded together.

Contactors

To overcome the limits regarding the field of control voltages that can be applied to the coil and the operating temperature range, ABB has created the A and AF contactors range which, thanks to the latest design criteria, offers numerous application advantages such as top electrical and mechanical performances and certified test procedures carried out in the strictest conditions envisaged by current regulations. These devices can be used in any industrial applications, for maximum power levels from 4 to 560kW in AC3-400V.

Soft starters

For applications requiring the movement control of pumps, fans, compressors, conveyor belts, etc. ABB has a complete range of soft starters that can work with currents from 3A to 1810A.
These devices provide a gradual, controlled motor start-up to avoid operating problems and high maintenance costs, and ensure a longer system lifespan.

Miniaturised contactors

Used mainly in building automation and for small command/drive applications in industry, the ABB miniaturised contactors can be assembled on DIN profiles and offer different cable connection options: screwed, welded, or by means of Faston clamps.
They are available in a number of ranges, with command in alternating or direct current, a compact contactor/reversing switch version, and a low absorption version.

Power supply unit command and control electronics

For three-phase networks, ABB has produced a complete set of control relays (the CM range) for controlling phase voltage, phase sequence, phase imbalance and phase absence. The set includes multi-function relays and various other types to control individual parameters. The CT range of timers respects various operating needs: accuracy, operating safety, disturbance immunity, resistance to impact and vibration. Circuits are based on CMOS technology to guarantee optimum precision.
CR plug-in relays are used in a variety of industrial applications, acting as an interface between the electronic control devices in the system and the utilities connected to it.
The versions that make up the range are supplied with 11 different coil voltages in lead-free cadmium. ABB has a selection of compact power supply units with a nominal current from 0.3A and 5A to 20A. The innovation of these new units is the availability of various additional modules to create one-off solutions.

Programmable controllers

Trigonometric functions, a detailed text, TUV-certified safety function libraries and two separate CPUs for safety and standard applications. A single programming concept based on CoDesys, and standard/safety I/O remote control via Profinet.
These are just a few of the main features that distinguish the ABB series of programmable controllers. Thanks to over 30 years' experience, ABB is able to provide practical solutions for applications ranging from small function control systems to more complex systems like those of distribution and web press.
ABB's PLCs are amongst the fastest and most reliable on the market.

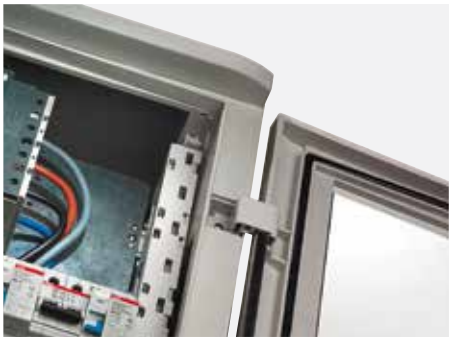
Order codes

Order codes
Basic configuration

In the basic configuration, Gemini switchboards are composed of boxes in six different sizes ranging from 335x400x210 mm to 840x1005x360 mm (WxHxD, external measurements) and with opaque or transparent doors. In both versions, the doors are reversible and clip onto the hinges without the need to use tools; the fact that they open at an angle of more than 180° means that it is easy to work on the components installed inside the switchboard.
The seal applied by extrusion along the sides of the doors guarantees IP66 degree of protection. Access to the inside of the switchboard is protected by a standard double bit lock that can be replaced by locks of another type available in the accessories. Boxes and doors can be requested either separately or as combined “box + door” codes, to make filling out the order form more flexible. Inside the packages, the door is always wrapped separately and inserted inside a pocket that protects it from accidental damage until wiring is completed and the switchboard is installed. Hole-cover plugs to guarantee IP protection and double insulation for wall mounting are also supplied with the pack together with the instruction sheet.

Specifications	
Protection	IP66 (IEC EN 60529)
	Class II insulation
Strenght	Thermoplastic material moulded in co-injection
	Resistance to abnormal heat and fire up to a temperature of 750 °C (IEC EN 60695-2-11)
	IK10 (IEC EN 50102) degree of resistance to impacts
	Protection against chemical and atmospheric agents (water, saline solutions, acids, basic agents, mineral oils, UV rays)
	Operating temperature -25 °C ÷ +100 °C
Performances	Rated operational voltage up to 690 V [1]
Flexibility of use	6 sizes from 335x400x210 mm to 840x1005x360 mm (WxHxD, external dimensions)
	DIN 24 to 216 modules
Installation	Snap-on mounting of all components in compliance with safety Standards
Quality and envirnoment	Compliance with CEI EN 62208 international reference Standard,
	qualification for the requirements of CEI EN 60439 Standard, IMQ mark according to EN 62208 Standard.
	100% recyclable

[1] Rated operational voltage according to IEC 61439-1 1000 V AC and 1500 V DC



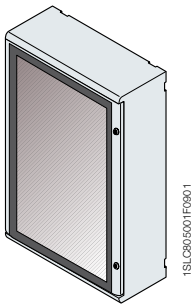
Gemini doors open at an angle of more than 180° giving easy access to the devices installed inside the switchboard.

No tools are needed for installation. The doors hook onto the hinges with special hinge pins and are reversible.

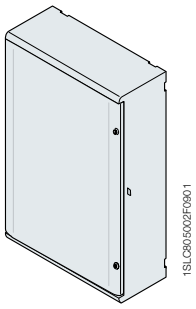
The special structure of the inner perimeter of the box ensures further protection against the penetration of water. The box is supplied with a spirit level.

Boxes and doors

- Available in 6 sizes
- Single order code combined with box and transparent and opaque door
- Pack with door dismounted and wrapped separately
- Door designed so that it can be hooked onto hinges at both vertical sides and mounted without the use of tools
- To be mounted to the wall using internal holes or fixing brackets supplied as accessories
- Door opening at an angle of more than 180°
- RAL 7035 grey color
- Doors supplied with 2 standard double bit locks (3 for sizes 5 and 6) that can be replaced with locks for ciphered key or with square/triangular impression (the standard triplex key is suitable for use with three types of impressions).



Transparent door switchboard



Opaque door switchboard

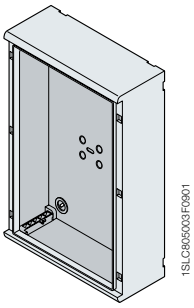
Transparent door

Size	External		Modules		Code	Unit/Pack
	Dimensions WxHxD (mm)	Internal WxHxD (mm)	Max No. DIN mod.	No. vertical mod. (H=150 mm)		
1	335x400x210	250x300x180	24 (12x2)	2	1SL0211A00	1/1
2	460x550x260	375x450x230	54 (18x3)	3	1SL0212A00	1/1
3	460x700x260	375x600x230	72 (18x4)	4	1SL0213A00	1/1
4	590x700x260	500x600x230	96 (24x4)	4	1SL0214A00	1/1
5	590x855x360	500x750x330	120 (24x5)	5	1SL0215A00	1/1
6	840x1005x360	750x900x330	216 (36x6)	6	1SL0216A00	1/1

Opaque door

Size	External		Modules		Code	Unit/Pack
	Dimensions WxHxD (mm)	Internal WxHxD (mm)	Max No. DIN mod.	No. vertical mod. (H=150 mm)		
1	335x400x210	250x300x180	24 (12x2)	2	1SL0201A00	1/1
2	460x550x260	375x450x230	54 (18x3)	3	1SL0202A00	1/1
3	460x700x260	375x600x230	72 (18x4)	4	1SL0203A00	1/1
4	590x700x260	500x600x230	96 (24x4)	4	1SL0204A00	1/1
5	590x855x360	500x750x330	120 (24x5)	5	1SL0205A00	1/1
6	840x1005x360	750x900x330	216 (36x6)	6	1SL0206A00	1/1

Order codes
Basic configuration

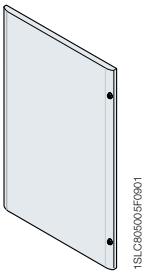


Single box

Single boxes

Size	External dimensions WxHxD (mm)	Internal WxHxD (mm)	Code	Unit/Pack
1	335x400x210	250x300x180	1SL0221A00	1/1
2	460x550x260	375x450x230	1SL0222A00	1/1
3	460x700x260	375x600x230	1SL0223A00	1/1
4	590x700x260	500x600x230	1SL0224A00	1/1
5	590x855x360	500x750x330	1SL0225A00	1/1
6	840x1005x360	750x900x330	1SL0226A00	1/1

Transparent door



Opaque door

Single doors

Transparent door

Size	Box dimensions WxHxD (mm)	Code	Unit/Pack
1	335x400x210	1SL0241A00	1/1
2	460x550x260	1SL0242A00	1/1
3	460x700x260	1SL0243A00	1/1
4	590x700x260	1SL0244A00	1/1
5	590x855x360	1SL0245A00	1/1
6	840x1005x360	1SL0246A00	1/1

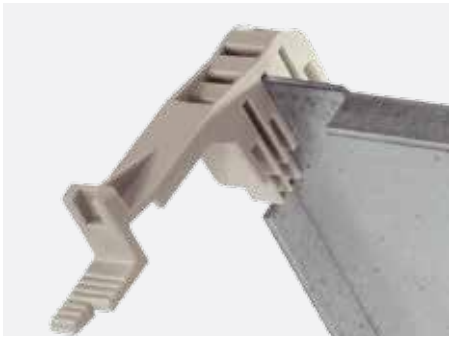
Opaque door

Size	Box dimensions WxHxD (mm)	Code	Unit/Pack
1	335x400x210	1SL0231A00	1/1
2	460x550x260	1SL0232A00	1/1
3	460x700x260	1SL0233A00	1/1
4	590x700x260	1SL0234A00	1/1
5	590x855x360	1SL0235A00	1/1
6	840x1005x360	1SL0236A00	1/1

Order codes
Components for automation applications

Gemini switchboards are designed to be perfectly compatible with ABB components for low voltage control and monitoring. For these applications they can be equipped with modular devices belonging to the System pro *M* range, with Tmax moulded-case circuit-breakers and control and signaling devices, creating a truly integrated automation system.
When deciding the Gemini layout for control and monitoring applications, not only is it possible to select the box and door in the required size, but you can also select the base plate in one of the three versions in the range.

After wiring with the ducts and the Fix-O-Rapid device, the special standard adjustable feet and hooks must be fitted onto the base plate, allowing it to be inserted inside the box at up to seven different depths and three further levels of adjustment: no tools need to be used to carry out these operations. To finish the job, the inner door can be mounted (reversible and in insulating material), guaranteeing IP30 degree of protection when the switchboard door is open. No tools are needed unless the inner door is equipped with buttons, warning lights, etc.



The fixing hooks and feet supplied in the standard versions are applied without having to use tools, making it possible to install the base plate at seven different depths inside the switchboard. They can also be adjusted at three further positions.

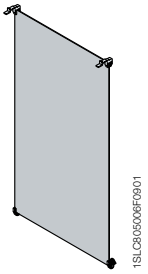
Application of the inner door guarantees IP40 degree of protection when the switchboard door is open.

Example of the configuration of a switchboard for an automation application: some ABB control and protection devices are installed on the plate. The inner door is fitted with light-signaling devices.

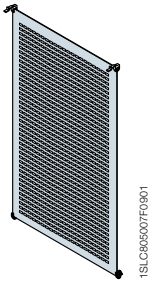
Order codes
Components for automation applications

Base plates

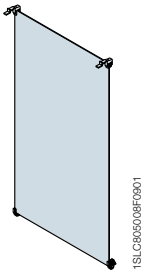
- Available in three versions in blank or drilled metal and insulating material
- Positioning at 3 different depths for size 1, 4 different depths for sizes 2-3-4 and 7 different depths for sizes 5-6 (adjustments with 30 mm pitch)
- Supplied with feet and hooks adjustable at three further positions (with 7.5 mm pitch)
- Snap-on mounting
- Plates can also be mounted directly on the base with the special kit.



Blank metal base plate



Drilled metal base plate



Insulating material base plate

Blank metal

Size of the switchboard	Code	Unit/Pack
1	1SL0259A00	1/6
2	1SL0260A00	1/6
3	1SL0261A00	1/4
4	1SL0262A00	1/4
5	1SL0263A00	1/4
6	1SL0264A00	1/2

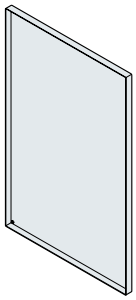
Drilled metal

Size of the switchboard	Code	Unit/Pack
1	1SL0275A00	1/6
2	1SL0276A00	1/6
3	1SL0277A00	1/4
4	1SL0278A00	1/4
5	1SL0279A00	1/4
6	1SL0280A00	1/2

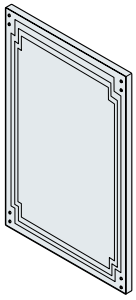
Insulating material

Size of the switchboard	Code	Unit/Pack
1	1SL0267A00	1/6
2	1SL0268A00	1/6
3	1SL0269A00	1/4
4	1SL0270A00	1/4
5	1SL0271A00	1/4
6	1SL0272A00	1/2

Description	Code	Unit/Pack
Base mounting kit for metal plate	1SL0383A00	1/10



Inner door, sizes 1-2



Inner door, sizes 3-4-5-6

Inner doors

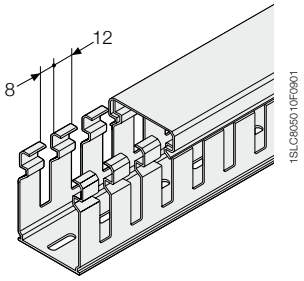
- Made in insulating material
- IP30 degree of protection with door open
- Designed so that door can be hinged onto both vertical sides
- Snap-on mounting and fixing

Size of the switchboard	Code	Unit/Pack
1	1SL0251A00	1/4
2	1SL0252A00	1/4
3	1SL0253A00	1/2
4	1SL0254A00	1/2
5	1SL0255A00	1/2
6	1SL0256A00	1/1

Order codes
Components for automation applications

Wiring ducts

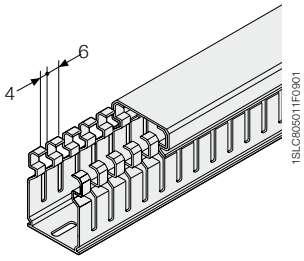
- Made in self-extinguishing thermoplastic material (UL 94 V0), resistant to abnormal heat and fire up to 960 °C (IEC 695-2-1)
- RAL 7030 grey color
- Available in version with 8/12 mm and 4/6 mm slots
- Base strip designed to snap onto Fix-O-Rapid
- Available in standard lengths of 2 m



Wiring duct with 8/12 mm slot

With 8/12 mm slots

Dimensions WxH (mm)	Code	Weight (kg/m)	Unit/Pack-meters
15x17	05 019	0,06	46
25x30	05 033	0,21	58
25x40	05 043	0,25	48
25x60	05 063	0,24	34
25x80	05 083	0,29	28
25x100	05 094	0,46	20
40x30	05 035	0,27	40
40x40	05 045	0,31	30
40x60	05 065	0,34	22
40x80	05 085	0,38	36
40x100	05 095	0,53	28
60x30	05 037	0,38	52
60x40	05 047	0,46	40
60x60	05 067	0,47	32
60x80	05 087	0,50	24
60x100	05 096	0,73	20
80x40	05 049	0,47	32
80x60	05 069	0,52	24
80x80	05 089	0,59	16
80x100	05 097	0,91	14
100x40	05 051	0,55	24
100x60	05 071	0,59	20
100x80	05 091	0,68	16
100x100	05 098	1,06	8
120x40	05 053	0,65	20
120x60	05 073	0,73	14
120x80	05 093	0,89	12
150x100	05 099	1,37	8



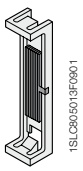
Wiring duct with 4/6 mm slot

With 4/6 mm slots

Dimensions WxH (mm)	Code	Weight (kg/m)	Unit/Pack-meters
15x17	05 119	0,06	46
25x30	05 133	0,21	58
25x40	05 143	0,25	48
25x60	05 163	0,24	34
25x80	05 183	0,29	28
25x100	05 194	0,46	20
40x30	05 135	0,27	40
40x40	05 145	0,31	30
40x60	05 165	0,34	22
40x80	05 185	0,38	36
40x100	05 195	0,53	28
60x30	05 137	0,38	52
60x40	05 147	0,46	40
60x60	05 167	0,47	32
60x80	05 187	0,50	24
60x100	05 196	0,73	20
80x40	05 149	0,47	32
80x60	05 169	0,52	24
80x80	05 189	0,59	16
80x100	05 197	0,91	14
100x40	05 151	0,55	24
100x60	05 171	0,59	20
100x80	05 191	0,68	16
100x100	05 198	1,06	8
120x40	05 153	0,65	20
120x60	05 173	0,73	14
120x80	05 193	0,89	12
150x100	05 199	1,37	8

Fix-O-Rapid

Rapid mounting device for attaching wiring ducts to the base plate: it snaps onto the plate after drilling a ø 7 mm hole. Two Fix-O-Rapid devices are enough for each wiring duct section. Fix-O-Rapid guarantees maximum insulation since it does not involve the use of any metal component inside the wiring duct. If the wrong wiring duct is selected, it can be dismounted and a version with the same base and a different height can be attached to the Fix-O-Rapid.



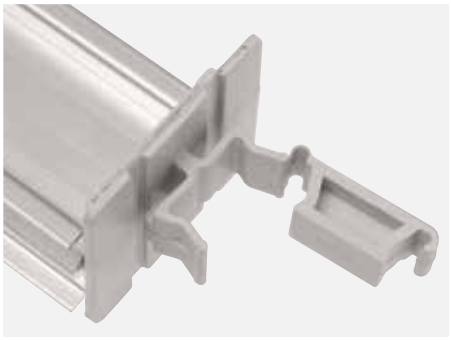
Fix-O-Rapid

Description	Code	Unit/Pack-no. pieces
Rapid mounting device for wiring duct, W 25 mm	05 270	20/600
Rapid mounting device for wiring duct, W 40 mm	05 272	20/600
Rapid mounting device for wiring duct, W 60 mm	05 274	20/600
Rapid mounting device for wiring duct, W 80 mm	05 276	20/240
Rapid mounting device for wiring duct, W 100 mm	05 278	20/240
Rapid mounting device for wiring duct, W 120 mm	05 280	20/240
Rapid mounting device for wiring duct, W 150 mm	05 282	20/240

Order codes
Components for distribution and mixed applications

In distribution and mixed applications, the Gemini switchboard is designed to be fitted with System pro *M* modular devices and Tmax moulded-case circuit breakers. The frame is the load-bearing element of the configuration: DIN rails, partial modular plates and the special Tmax mounting and cabling kits are snapped onto the uprights.
All the components can be adjusted to six different depths with a pitch of 12.5 mm and arranged at heights with standard installation pitch of 150, 225 and 300 mm and a distance of 75 mm between the rows.

Blank or drilled front panels are applied to protect the equipment and these can be hinged onto both sides; the cables are housed inside the vertical wiring duct integrated in the uprights according to an exclusive ABB patent. Wiring is carried out by pulling out the frame and working from the front; the ergonomic grip and the standard feet and snap-on hooks supplied make it easy to insert it inside the switchboard after the job is finished.



The DIN rail is supplied with special hooks already in position for attaching to the uprights.

The upright with the incorporated wiring duct is an exclusive ABB patent that rationalizes the path of cables inside the switchboard.

The depth at which the DIN rail, the modular plates, the kit for fixing the Tmax circuit breakers and the wiring duct are positioned can be adjusted with a simple sliding movement.

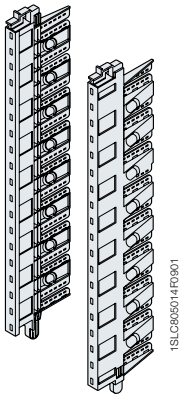
The frame can be extracted to make wiring operations easier at the workbench.

The blank and drilled panels are hinged onto both sides; the description of the installed components can be kept in the special compartment protected by a transparent, hinged flange.

Fixing hooks and feet allow the frame to be snap-mounted inside the box.

Uprights

- Incorporated vertical wiring duct (ABB patent)
- Snap-on mounting of all components (installation pitch of 75 mm)
- Snap-on insertion into box
- Depth of installed components adjusted at a pitch of 12.5 mm
  (4 positions for uprights of size 1 and 6 positions for the remaining ones)
- Ergonomic grip to make it easy to insert and extract

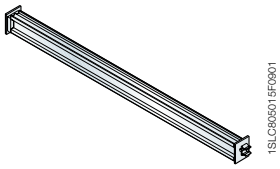


Uprights

Size of the switchboard	Code	Unit/Pack
1	1SL0283A00	1/4
2	1SL0284A00	1/4
3	1SL0285A00	1/4
4	1SL0285A00	1/4
5	1SL0286A00	1/2
6	1SL0287A00	1/1

DIN rails

- Two-sided version
- Supplied with mounting supports that snap onto uprights
- Depth adjustment on uprights
- Designed so that rapid Unifix L mounting bars can be snapped on



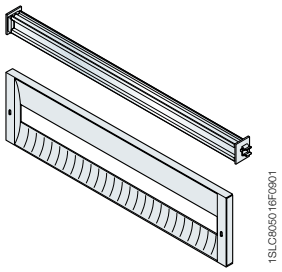
DIN rail

Size of the switchboard	Modules per row	Code	Unit/Pack
1	12	1SL0290A00	1/10
2	18	1SL0291A00	1/10
3	18	1SL0291A00	1/10
4	24	1SL0292A00	1/10
5	24	1SL0292A00	1/10
6	36	1SL0293A00	1/10

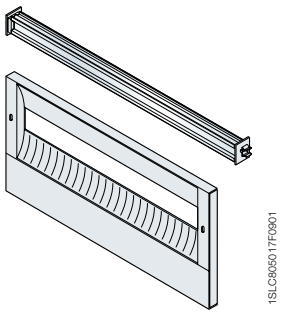
Order codes
Components for distribution and mixed applications

Drilled panels

- **Supplied with DIN rail complete with supports to snap onto uprights and adjustable in depth**
- Available in 1 module (H 150 mm) and 1+1/2 module (H 225 mm, sizes 2-6) dimensions
- Designed to be hinged onto both vertical sides
- Snap-on mounting onto uprights (in compliance with reference Standards a tool must be used for removing the panel)
- Document pocket for storing descriptions of installed devices



Drilled panel, 1 module



Drilled panel, 1 + 1/2 module

1 module

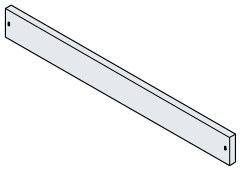
Size of the switchboard	Code	Unit/Pack
1	1SL0307A00	1/8
2	1SL0308A00	1/8
3	1SL0308A00	1/8
4	1SL0309A00	1/4
5	1SL0309A00	1/4
6	1SL0310A00	1/2

1 + 1/2 module

Size of the switchboard	Code	Unit/Pack
2	1SL0313A00	1/8
3	1SL0313A00	1/8
4	1SL0314A00	1/4
5	1SL0314A00	1/4
6	1SL0315A00	1/2

Blank panels

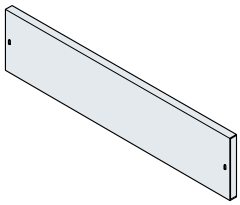
- Available in 1/2 module (H 75 mm), 1 module (H 150 mm) and 2 modules (H 300 mm) dimensions
- H 150 mm and H 300 panels designed to be hinged onto both vertical sides
- Snap-on mounting onto uprights (in compliance with reference Standards a tool must be used for removing the panel)



Blank panel, 1/2 module

1/2 module

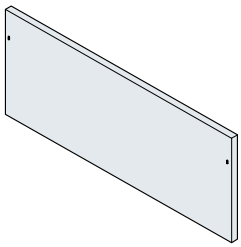
Size of the switchboard	Code	Unit/Pack
1	1SL0318A00	1/10
2	1SL0319A00	1/10
3	1SL0319A00	1/10
4	1SL0320A00	1/6
5	1SL0320A00	1/6
6	1SL0321A00	1/4



Blank panel, 1 module

1 module

Size of the switchboard	Code	Unit/Pack
1	1SL0324A00	1/8
2	1SL0325A00	1/8
3	1SL0325A00	1/8
4	1SL0326A00	1/4
5	1SL0326A00	1/4
6	1SL0327A00	1/4



Blank panel, 2 modules

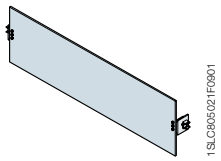
2 modules

Size of the switchboard	Code	Unit/Pack
1	1SL0330A00	1/6
2	1SL0331A00	1/6
3	1SL0331A00	1/6
4	1SL0332A00	1/4
5	1SL0332A00	1/4
6	1SL0333A00	1/4

Order codes
Components for distribution and mixed applications

Partial modular plates

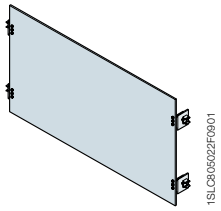
- Available in 1 module (H 150 mm) and 2 module (H 300 mm, sizes 2-6) dimensions
- Snap-on mounting onto uprights with depth adjustment.



Partial modular plate, 1 module

1 module

Size of the switchboard	Code	Unit/Pack
1	1SL0296A00	1/6
2	1SL0297A00	1/4
3	1SL0297A00	1/4
4	1SL0298A00	1/4
5	1SL0298A00	1/4
6	1SL0299A00	1/2



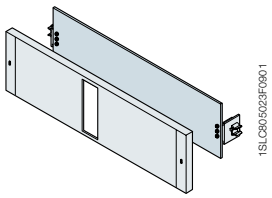
Partial modular plate, 2 modules

2 modules

Size of the switchboard	Code	Unit/Pack
2	1SL0302A00	1/4
3	1SL0302A00	1/4
4	1SL0303A00	1/4
5	1SL0303A00	1/4
6	1SL0304A00	1/2

Kit for installing Tmax moulded-case circuit breakers

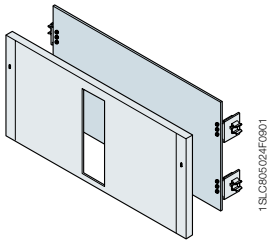
- For installing Tmax moulded-case circuit breakers in fixed version with front terminals
- Composed of a plate with special drilled holes and a protection panel with vertical slots that can be hinged on bothsides and snap-on mounted (in compliance with reference Standards a tool must be used for removing the panel)
- Available for sizes 2-6
- Snap-on mounting onto uprights with the possibility of adjusting the plate depth



H 150 mm

H 150 mm

Size of the switchboard	Code	Unit/Pack
2	1SL0336A00	1/4
3	1SL0336A00	1/4
4	1SL0337A00	1/4
5	1SL0337A00	1/4
6	1SL0338A00	1/2



H 300 mm

H 300 mm

Size of the switchboard	Code	Unit/Pack
2	1SL0370A00	1/4
3	1SL0370A00	1/4
4	1SL0371A00	1/4
5	1SL0371A00	1/4
6	1SL0372A00	1/2

Kit selection

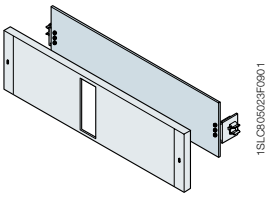
Size	Instal.	Tmax T1				Tmax T2				Tmax T3				Tmax T4				Tmax T5			
		3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D
1	D	■	■	■	■	■	■	■	■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■												
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■		
2	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Caption
- D, installation on DIN rail
- K1, installation with Tmax kit H = 150 (holes made)
- K2, installation with Tmax kit H = 300 (holes made)
- O1, installation on modular plate (1 module, H = 150 mm)
- O2, installation on modular plate (2 modules, H = 300 mm)
- T, installation on total base plate

Order codes
Components for distribution and mixed applications

Kit for installing Tmax XT moulded-case circuit breakers

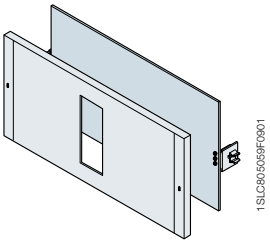
- For installing Tmax XT moulded-case circuit breakers in fixed version with front terminals
- Composed of a plate with special drilled holes and a protection panel with vertical slots that can be hinged on both sides and snap-on mounted (in compliance with reference Standards a tool must be used for removing the panel)
- Available for sizes 2-6
- Snap-on mounting onto uprights with the possibility of adjusting the plate depth



H 150 mm

H 150 mm

Size of the switchboard	Code	Unit/Pack
2	1SL0373A00	1/4
3	1SL0373A00	1/4
4	1SL0374A00	1/4
5	1SL0374A00	1/4
6	1SL0375A00	1/2



H 300 mm

H 300 mm

Size of the switchboard	Code	Unit/Pack
2	1SL0376A00	1/4
3	1SL0376A00	1/4
4	1SL0377A00	1/4
5	1SL0377A00	1/4
6	1SL0378A00	1/2

Kit selection

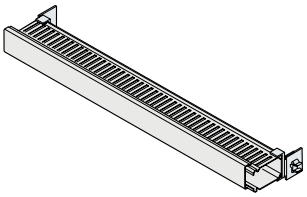
Size	Installation	XT1				XT2				XT3				XT4			
		3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D
1	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	O1	■	■	■	■	■	■	■	■	■	■			■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

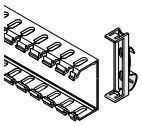
Caption
- D, installation on DIN rail
- K1, installation with Tmax kit H = 150 (holes made)
- K2, installation with Tmax kit H = 300 (holes made)
- O1, installation on modular plate (1 module, H = 150 mm)
- O2, installation on modular plate (2 modules, H = 300 mm)
- T, installation on total base plate

Order codes
Components for distribution and mixed applications

Wiring kits

- Composed of wiring duct in versions 25x60 mm and 40x60 mm (WxH, 8-12 mm slots) and Fix-O-Rapid
- Snap-on mounting on uprights with depth adjustment





1SLC905025F0901

Wiring kit

Wiring duct 25x60 mm

Size of the switchboard	Code	Unit/Pack
1	1SL0353A00	1/4
2	1SL0354A00	1/4
3	1SL0354A00	1/4
4	1SL0355A00	1/4
5	1SL0355A00	1/4
6	1SL0356A00	1/4

Wiring duct 40x60 mm

Size of the switchboard	Code	Unit/Pack
1	1SL0360A00	1/4
2	1SL0361A00	1/4
3	1SL0361A00	1/4
4	1SL0362A00	1/4
5	1SL0362A00	1/4
6	1SL0363A00	1/4

Order codes
Accessories

Gemini switchboards have the same accessories for both automation and distribution applications, ensuring maximum versatility and integration of functions. In particular, the ventilation and anti-condensation kits make it even safer for the devices to run, protecting them from the effects of heat and humidity while the wall brackets, pole mounting kit and pedestal make it easier to install the switchboards in any context.

Three different kinds of locks are supplied for the doors with which it is possible to replace the standard double bit model. The universal drill bit can be used to open the side branch connections. Module covers hide the unused modules of the DIN rail guaranteeing IP40 protection when the door is open in distribution and mixed configurations.

The standard locks supplied can be replaced by the version with ciphered key and handle or with square or triangular impression.

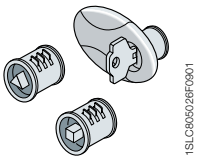
Gemini wall-mounted installation using the special mounting brackets.

The fact that Gemini switchboards can also be pole-mounted (see photo above) or mounted on a special pedestal (see photo at the side) makes them suitable for any application situation.

Order codes
Accessories

Locks

Available in three versions with ciphered key and handle, with triangular and square impressions.

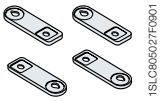


Locks

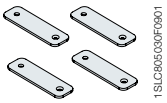
Description	Code	Unit/Pack
Lock with Yale type ciphered key and handle	1SL0340A00	1/10
Lock with triangular impression	1SL0341A00	1/10
Lock with square impression	1SL0339A00	1/10
Tamper-proof locking kit (code 1SL0340A00 included)	1SL0458A00	1/10
Gemini standard lock	1SL0459A00	1/10

Mounting elements

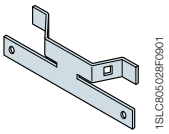
Guarantee optimum wall, pole and floor mounting conditions.



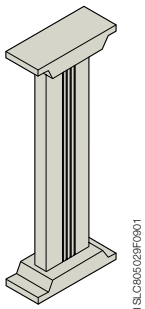
Plastic wall brackets



Iron wall brackets



Pole mounting kit



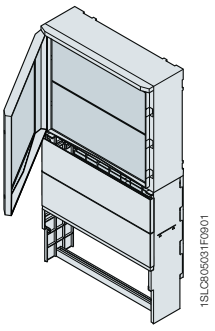
Floor mounting pedestal

Description	Code	Unit/Pack
Horizontal and vertical plastic wall brackets (4 pieces)*	1SL0342A00	1/10
Iron wall brackets (4 pieces	1SL0401A00	1/10
Pole mounting kit for sizes 1 switchboards**	1SL0343A00	1/4
Pole mounting kit for sizes 2-3 switchboards**	1SL0344A00	1/4
Pole mounting kit for sizes 4-5 switchboards**	1SL0345A00	1/2
Pole mounting kit for size 6 switchboards**	1SL0346A00	1/2
IP43 Floor mounting pedestal for sizes 1-4	1SL0352A00	1/1

* There are two types of inserts for adapting brackets to ø 6 e 8 mm fixing devices.
** The kit includes two elements for fixing the upper and the lower part of the switchboard.

Pedestals

Allows the application of the Gemini switchboard to the ground without the need to prepare the construction of concrete footings or foundations when the pedestal is buried.

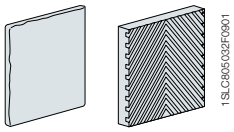


Pedestal

Description	Code	Unit/Pack
Pedestal Gemini size 4	1SL0464A00	1/1
Pedestal Gemini size 5	1SL0465A00	1/1
Pedestal Gemini size 6	1SL0466A00	1/1

IP21/54 ventilation kits

- Composed of plastic grills and filter to ensure switchboard ventilation.
- Degree of protection without filter: IP21.
- Degree of protection with filter: IP54.
- Preassembled seal.



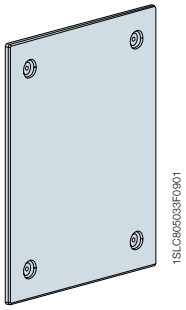
Ventilation kit

Description	Dimensions (mm)	Code	Unit/Pack
Grid + air flow kit	105x105	EN0105K	1/1
Grid + air flow kit (not suitable for size. 1)	150x150	EN0150K	1/1
Grid + air flow kit (not suitable for size. 1)	204x204	EN0204K	1/1

Note: screws not included; use 4 self lock screws 2,9x13 or ask for order code 1SL0384A00.

Base covers

For aesthetic as well as functional purposes, in particular for pedestal installations.

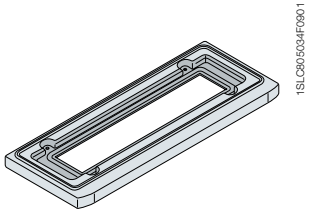


Base cover

Size of the switchboard	Code	Unit/Pack
1	1SL0385A00	1/4
2	1SL0386A00	1/4
3	1SL0387A00	1/2
4	1SL0388A00	1/2
5	1SL0389A00	1/2
6	1SL0390A00	1/2

Coupling kits

It follows the aesthetic outline of the boxes.



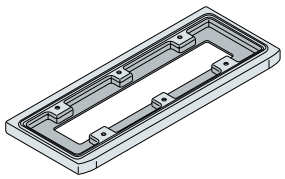
Coupling kit

Description	Code	Unit/Pack
Vertical coupling kit for sizes 2-3 switchboards	1SL0413A00	1/2
Vertical coupling kit for sizes 4 switchboards	1SL0414A00	1/2
Vertical coupling kit for sizes 5 switchboards	1SL0415A00	1/2
Vertical coupling kit for sizes 6 switchboards	1SL0416A00	1/2

Order codes
Accessories

Bottom bases H 30

For fixing the Gemini switchboard directly to the floor.

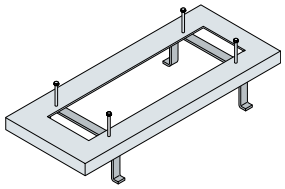


Bottom base

Description	Code	Unit/Pack
Bottom base for size 2-3 switchboards	1SL0423A00	1/2
Bottom base for size 4 switchboards	1SL0424A00	1/2
Bottom base for size 5 switchboards	1SL0425A00	1/2
Bottom base for size 6 switchboards	1SL0426A00	1/2

Fixed frames

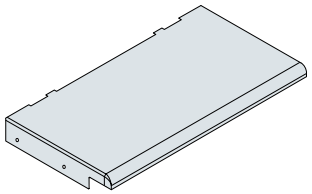
- In combination with bottom base H 30
- For fixing onto poured concrete floors and bases.



Fixed frame

Description	Code	Unit/Pack
Fixed frame for size 2-3 switchboards	1SL0433A00	1/2
Fixed frame for size 4 switchboards	1SL0434A00	1/2
Fixed frame for size 5 switchboards	1SL0435A00	1/2
Fixed frame for size 6 switchboards	1SL0436A00	1/2

Integral covers

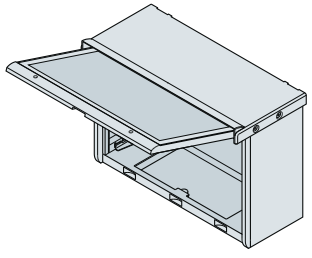


Integral cover

Description	Code	Unit/Pack
Integral cover for size 1 switchboard	1SL0451A00	1/1
INtegral cover for size 2-3 switchboard	1SL0452A00	1/1
Integral cover for size 4 switchboard	1SL0454A00	1/1
Integral cover for size 5switchboard	1SL0455A00	1/1
Integral cover for size 6 switchboard	1SL0456A00	1/1

Horizontal Kits

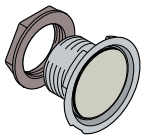
Kit for a proper opening of switchboard upward.



Horizontal Kit Gemini

Description	Code	Unit/Pack
Horizontal Kit Gemini size 3	1SL0470A00	1/1
Horizontal Kit Gemini size 4	1SL0471A00	1/1
Horizontal Kit Gemini size 5	1SL0472A00	1/1
Horizontal Kit Gemini size 6	1SL0473A00	1/1

Anti-condensation kits

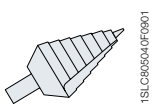


Base socket

- Kit in special material to prevent condensation from forming inside the switchboard: it include GORE™ MEMBRANE VENTING
- Impermeable to water (pressure): 0.6 bar / 60 sec.
- Air flow: 400 ml/min. (dp = 70 mbar)
- 1 kit for sizes 1-2, 2 kits for sizes 3-4 and 3 kits for sizes 5-6 are recommended to guarantee adequate dissipation; in any case the number of kits to be installed depend on the number and type of devices installed inside the switchboard.
- IP66

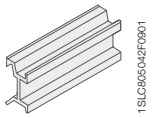
Description	Code	Unit/Pack
Anti-condensation kit	1SL0351A00	1/6

Other accessories



Universal drill bit

Module covers

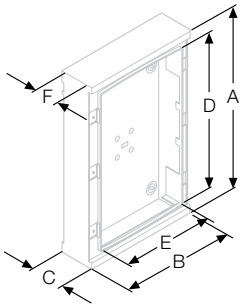


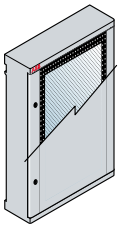
Spacer

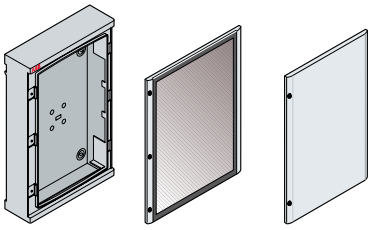
Description	Code	Unit/Pack
Universal drill bit	12894	1/30
Module covers in RAL 7035 grey, 4 modules	12863	25/300
Plastic spacer for installing modular devices and moulded-case circuit breakers at the same depth	12851	10/60
Small bag plate mounting kit	1SL0383A00	1/10
Small bag for ventilation kit	1SL0384A00	10/50

Order codes
Fast selection table

Basic configuration

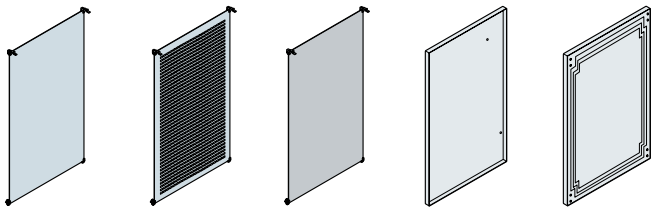




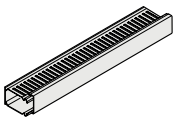


Size	No. of installable DIN modules	No. of vertical mod.	External dimensions			Internal dimensions			Complete switchboard		Box	Door	
	(mod. x row)	(H=150 mm)	A	B	C	D	E	F	Trasparent door	Opaque door		Transparent	Opaque
1	24 (12x2)	2	400	335	210	300	250	180	1SL0211A00	1SL0201A00	1SL0221A00	1SL0241A00	1SL0231A00
2	54 (18x3)	3	550	460	260	450	375	230	1SL0212A00	1SL0202A00	1SL0222A00	1SL0242A00	1SL0232A00
3	72 (18x4)	4	700	460	260	600	375	230	1SL0213A00	1SL0203A00	1SL0223A00	1SL0243A00	1SL0233A00
4	96 (24x4)	4	700	590	260	600	500	230	1SL0214A00	1SL0204A00	1SL0224A00	1SL0244A00	1SL0234A00
5	120 (24x5)	5	855	590	360	750	500	330	1SL0215A00	1SL0205A00	1SL0225A00	1SL0245A00	1SL0235A00
6	216 (36x6)	6	1005	840	360	900	750	330	1SL0216A00	1SL0206A00	1SL0226A00	1SL0246A00	1SL0236A00

Components for automation



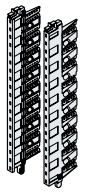
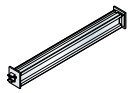
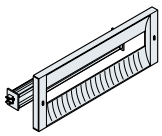
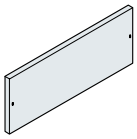
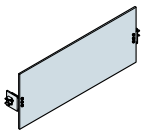
Size	Base plate			Inner door	
	Blank	Drilled	Insulating	Former version	New version
1	1SL0259A00	1SL0275A00	1SL0267A00	1SL0251A00	-
2	1SL0260A00	1SL0276A00	1SL0268A00	1SL0252A00	-
3	1SL0261A00	1SL0277A00	1SL0269A00	-	1SL0253A00
4	1SL0262A00	1SL0278A00	1SL0270A00	-	1SL0254A00
5	1SL0263A00	1SL0279A00	1SL0271A00	-	1SL0255A00
6	1SL0264A00	1SL0280A00	1SL0272A00	-	1SL0256A00



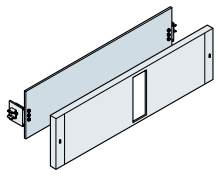
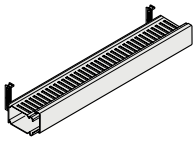
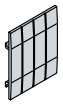
Accessories for distribution

Wiring ducts	Fix-O-Rapid
See pag. 2/8-2/9	See pag. 2/9

Components for automation

Size	Uprights	DIN rail	Drilled panel		Blank panel			Modular plate	
			H=150 mm	H=225 mm	H=75 mm	H=150mm	H=300 mm	H=150 mm	H=300 mm
1	1SL0283A00	1SL0290A00	1SL0307A00	-	1SL0318A00	1SL0324A00	1SL0330A00	1SL0296A00	-
2	1SL0284A00	1SL0291A00	1SL0308A00	1SL0313A00	1SL0319A00	1SL0325A00	1SL0331A00	1SL0297A00	1SL0302A00
3	1SL0285A00	1SL0291A00	1SL0308A00	1SL0313A00	1SL0319A00	1SL0325A00	1SL0331A00	1SL0297A00	1SL0302A00
4	1SL0285A00	1SL0292A00	1SL0309A00	1SL0314A00	1SL0320A00	1SL0326A00	1SL0332A00	1SL0298A00	1SL0303A00
5	1SL0286A00	1SL0292A00	1SL0309A00	1SL0314A00	1SL0320A00	1SL0326A00	1SL0332A00	1SL0298A00	1SL0303A00
6	1SL0287A00	1SL0293A00	1SL0310A00	1SL0315A00	1SL0321A00	1SL0327A00	1SL0333A00	1SL0299A00	1SL0304A00

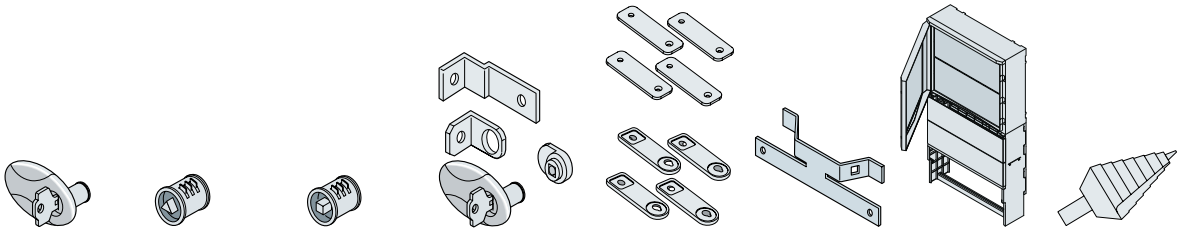




Accessories for distribution

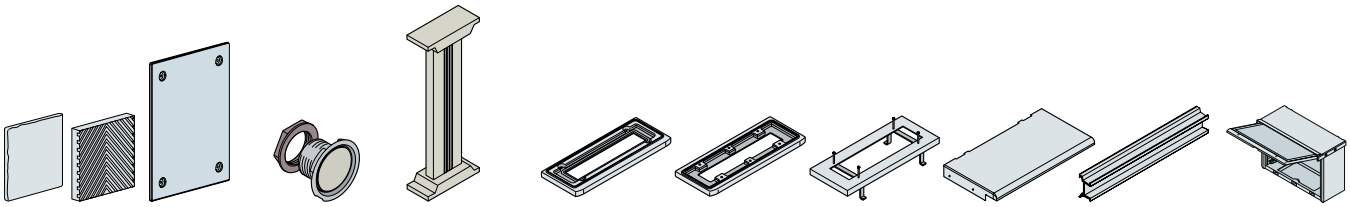
Size	Kit for Tmax		Kit for Tmax XT		x-O-Rapid kit with wiring duct		Module covers RAL 7035
	H. 150 mm	H. 300 mm	H. 150 mm	H. 300 mm	25x60 mm	40x60 mm	
1	-	-	-	-	1SL0353A00	1SL0360A00	12863
2	1SL0336A00	1SL0370A00	1SL0373A00	1SL0376A00	1SL0354A00	1SL0361A00	
3	1SL0336A00	1SL0370A00	1SL0373A00	1SL0376A00	1SL0354A00	1SL0361A00	
4	1SL0337A00	1SL0371A00	1SL0374A00	1SL0377A00	1SL0355A00	1SL0362A00	
5	1SL0337A00	1SL0371A00	1SL0374A00	1SL0377A00	1SL0355A00	1SL0362A00	
6	1SL0338A00	1SL0372A00	1SL0375A00	1SL0378A00	1SL0356A00	1SL0363A00	

Order codes
Fast selection table

Accessories common to the whole range



Size	Lock with handle	Lock with triangular impression	Lock with square impression	Anti tampering locking kit	Bounting brackets	Pole installation kit	Pedestal	Universal drill bit	Base mounting kit for metal plate
1	1SL0340A00	1SL0341A00	1SL0339A00	1SL0458A00	See pag. 2/20	1SL0343A00	-	12894	1SL0383A00
2						1SL0344A00	-		
3						1SL0344A00	-		
4						1SL0345A00	1SL0464A00		
5						1SL0345A00	1SL0465A00		
6						1SL0346A00	1SL0466A00		



Size	Ventilation kit	Base cover	Anti condensation kit	Floor pedestal	Coupling kit	Bottom base H 30	Fixed frame	Integral cover	Depth adapter	Horizontal kit
1	See pag. 2/21	1SL0385A00	1SL0351A00	1SL0352A00	-	-	-	1SL0451A00	12851	-
2		1SL0386A00			1SL0413A00	1SL0423A00	1SL0433A00	1SL0452A00		1SL0470A00
3		1SL0387A00			1SL0413A00	1SL0423A00	1SL0433A00	1SL0452A00		1SL0471A00
4		1SL0388A00			1SL0414A00	1SL0424A00	1SL0434A00	1SL0454A00		
5		1SL0389A00		-	1SL0415A00	1SL0425A00	1SL0435A00	1SL0455A00		1SL0472A00
6		1SL0390A00		-	1SL0416A00	1SL0426A00	1SL0436A00	1SL0456A00		1SL0473A00

Technical information

Technical information
Compliance with standards and technical characteristics

Reference Standards

Standard IEC 62208 (“Empty enclosures for low voltage switch-gear and control gear assemblies. General requirements”), that has implemented at an international level the Standard EN 50298, presently EN 62208, is the prescriptive reference for Gemini switchboards.
The object of Standard CEI EN 50298 is to formulate definitions, classifications, characteristics and test prescriptions for cases designed to be used as part of protection and operating equipment (switchboards) in compliance with the Standards of the EN 60439 series, that have a maximum rated voltage of 1000 V in alternating current for maximum frequencies of 1000 Hz or 1500 V in direct current and are suitable for general use in both internal and external applications.

The Standard applies to empty enclosures, before the user has installed protection and operating devices inside them. The Standard does not apply to enclosures with structural and functional characteristics that make them subject to other prescriptions (e.g. cases for domestic installations and the like). In this case Standards IEC 60670 – CEI 23-48 (“General requirements for enclosures for accessories for household and similar fixed electrical installations”) and CEI 23-49 (“Enclosures for accessories for household and similar fixed electrical installations. Part 2: particular requirements for enclosures for protection devices and accessories dissipating a considerable power in normal use”) apply. On the basis of the indications of the ABB SACE technical characteristics’ table, the installer may have to certify compliance with Standards CEI 23-51 – EN 60439-1 – CEI 17-13-1 (“Part 1: standard equipment subject)

Gemini switchboards features table

Size	1	2	3	4	5	6
Gemini with transparent door	1SL0211A00	1SL0212A00	1SL0213A00	1SL0214A00	1SL0215A00	1SL0216A00
Gemini with opaque door	1SL0201A00	1SL0202A00	1SL0203A00	1SL0204A00	1SL0205A00	1SL0206A00
External dimensions WxHxD (mm)	335x400x210	460x550x260	460x700x260	590x700x260	590x855x360	840x1005x360
Internal dimensions WxHxD (mm)	250x300x180	375x450x230	375x600x230	500x600x230	500x750x330	750x900x330
IP degree	IP66	IP66	IP66	IP66	IP66	IP66
Double isolation	Sì	Sì	Sì	Sì	Sì	Sì
IK degree	10	10	10	10	10	10
GWT (°C)	750	750	750	750	750	750
Operating temperature	-25 °C … +100 °C	-25 °C … +100 °C	-25 °C … +100 °C	-25 °C … +100 °C	-25 °C … +100 °C	-25 °C … +100 °C
No. of DIN modules	24 (12x2)	54 (18x3)	72 (18x4)	96 (24x4)	120 (24x5)	216 (36x6)
No. of vertical modules (H=150 mm)	2	3	4	4	5	6
Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
Fast wiring system	Unifix L	Unifix L	Unifix L	Unifix L	Unifix L	Unifix L
No. of locks	2	2	2	2	3	3
Rated frequency	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
STANDARD CEI 23-51[1]						
- Max. dispersible power[2]	45 W	72 W	85 W	102 W	156 W	248 W
STANDARD CEI EN 60439-1 Over-temperature (par. 8.2.1)[3]						
- Max. dispersible power with over-temperature of 25 °C	40 W	65 W	77 W	91 W	133 W	205 W
- Max. dispersible power with over-temperature of 30 °C	45 W	72 W	85 W	102 W	156 W	248 W
- Max. dispersible power with over-temperature of 35 °C	52 W	85 W	100 W	121 W	187 W	299 W
- Max. dispersible power with over-temperature of 40 °C	62 W	100 W	118 W	143 W	221 W	355 W
Impulse withstand (par. 8.2.2)						
- Rated service voltage[4]	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V
- Rated impulse withstand voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV

[1] Limits of applicability of the standard CEI 23-51
The standard may be applied only when the wired switchboard meets all the following conditions:
- fixed installation with average ambient temperature up to 25 °C, occasionally up to 35 °C;
- alternate current with rated voltage up to 440 V;
- input rated current up to 125 A;
- assumed short circuit rated current up to 10 kA or liming current devices protection with limited current up to 15 kA at their rated breaking capacity.

[2] Maximum dissipation power data was obtained following the indications of Standard CEI 23-49, with a temperature difference of Dt=30 °C.

[3] Note to paragraph 8.2.1 of Standard CEI EN 60439-1
The table gives the thermal dissipation values of Gemini switchboards when they are wall-mounted. The dispersible power figures (in Watts) vary according to the overtemperature allowed in the accessible parts of the switchboard and must be compared with the total amount of power dissipated by all the components installed inside the switchboard taking into due account the factor of contemporaneity.

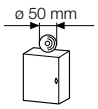
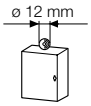
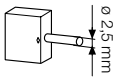
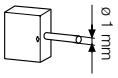
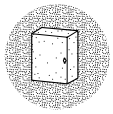
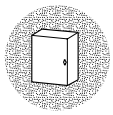
[4] Rated service voltage according to CEI EN 61439-1 1000V AC and 1500V DC

Technical information
IP degree of protection

As indicated in the following table, the IP degree of protection is expressed by two characteristic numbers depending on the behavior of the product to which it refers according to the prescriptions of CEI 70-1 and IEC 529 Standards.

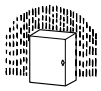
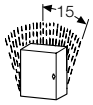
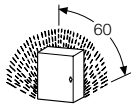
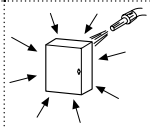
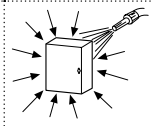
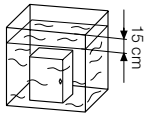
With IP66 degree of protection, Gemini switchboards are totally protected against the penetration of dusts and sprays of seawater.

First number: protection against the penetration of solid bodies

IP		
0		No protection
1		Protection against the penetration of solid bodies with a diameter of over 50 mm
2		Protection against the penetration of solid bodies with a diameter of over 12 mm or a length of over 80 mm
3		Protection against the penetrationof solid bodies with a diameter or thickness of over 2,5 mm
4		Protection against the penetration of solid bodies with a diameter or thickness of over 1,0 mm
5		Protection against the penetration of dusts
6		Total protection against the penetration of dusts

1st number defined by Standards CEI 70-1 – IEC 60529

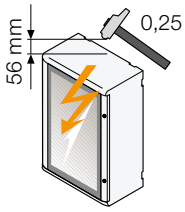
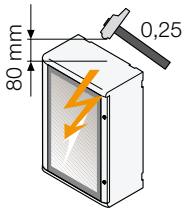
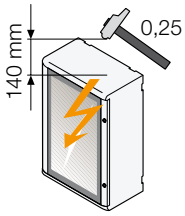
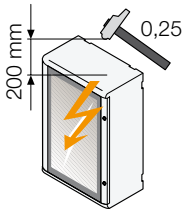
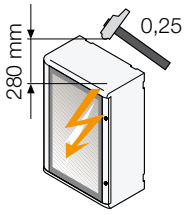
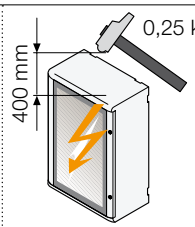
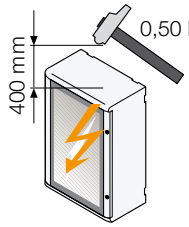
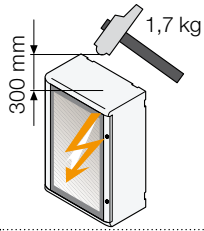
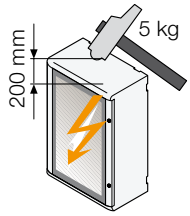
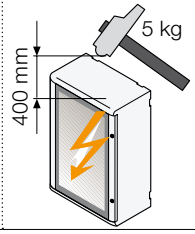
Second number: protection against the penetration of water

IP		
0		No protection
1		Protection against the penetration of drops of water falling vertically
2		Protection against the penetration of drops of water falling at an angle of up to 15° from vertical
3		Protection against the penetration of drops of water falling at an angle of up to 60° from vertical
4		Protection against the penetration of splashes of water from all directions
5		Protection against the penetration of water sprayed by a hose from all directions
6		Protection against the penetration of sea water
7		Protection against the penetration of water during temporary immersion
8		Protection against the penetration of water during continual immersion

2nd number defined by Standards CEI 70-1 - IEC 60529.

Technical information
IK degree of resistance to impacts

The IK degree is expressed in Joules in compliance with Standard CEI EN 50102.

IK 0		No protection against impacts
IK 01		Resistance to impacts with impact energy up to **0,150** J
IK 02		Resistance to impacts with impact energy up to **0,200** J
IK 03		Resistance to impacts with impact energy up to **0,350** J
IK 04		Resistance to impacts with impact energy up to **0,500** J
IK 05		Resistance to impacts with impact energy up to **0,700** J
IK 06		Resistance to impacts with impact energy up to **1,00** J
IK 07		Resistance to impacts with impact energy up to **2,00** J
IK 08		Resistance to impacts with impact energy up to **5,00** J
IK 09		Resistance to impacts with impact energy up to **10,00** J
IK 10		Resistance to impacts with impact energy up to **20,00** J

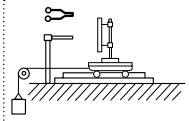
Technical information
Double insulation and self-extinguishing tests

Double insulation

Double insulation guarantees that Gemini is protected against indirect contacts on condition that the manufacturer's instructions are observed when carrying out mounting and wiring operations on the switchboard and that the appropriate accessories are used (e.g. screw-cover caps).

Double insulation is indicated by the graphic symbol ⧈

Self-extinguishing tests

Test text	Equipment required	Compliance with Standards	Purpose	Test results of the test	Test conditions		
					Heat source	Test period	Characteristic elements
Glow-wire test		IEC 695-2-1 CEI 50-11	To assess the danger of fire by simulating thermal stresses produced by heat sources or by ignition (e.g. glowing elements, resistances overloaded for short intervals)	If a flame is generated, it must go out within 30 seconds of removing the glow wire. The test is conducted at temperatures of: - 650 °C - 750 °C - 850 °C - 960 °C	Glow wire ø 4 mm	30 sec.	Assessment of the time it takes for the flame to go out

Technical information
Resistance to chemical agents

Resistance to chemical agents

The behavior of Gemini switchboards in the presence of chemical agents is indicated in the table with the symbols:

Cold water	■
Hot water	■
Sulfuric acid 50%	■
Hydrochloric acid 36%	■
Acetic acid 60%	■
Benzol	▲
Gasoline	▲
Acetone	■
Ethyl alcohol	■
Ammonia	■
Dichloromethane	▲
Diesel oil - naphtha	▲
Mineral oils and greases	■
Food oils and greases	■
Perchloroethylene	▲
Trichlorethene	▲
Ethylether	■
Toluene	▲
Methanol	■
Wine	■
Fruit juices	■
Laundry lye	■
Detergents	■

Caption:

■ high resistance

▲ limited resistance

Technical information
Integration with ABB products

Installation of Tmax moulded-case circuit breakers

The table indicates the type of installation required for the different versions of Tmax moulded-case circuit breakers in Gemini switchboards.

Before carrying out wiring operations check compliance with Standards on the basis of the technical characteristics of the switchboard and circuit breaker (CEI EN 60439-1).

Size	Installation	Tmax T1				Tmax T2				Tmax T3				Tmax T4				Tmax T5			
		3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D
1	D	■	■	■	■	■	■	■	■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■												
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■		
2	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	D	■	■	■	■	■	■	■	■	■	■	■	■								
	K1	■	■	■	■	■	■	■													
	K2								■	■	■	■	■								
	O1	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Caption
- D, installation on DIN rail
- K1, installation with Tmax kit H = 150 (holes made)
- K2, installation with Tmax kit H = 300 (holes made)
- O1, installation on modular plate (1 module, H = 150 mm)
- O2, installation on modular plate (2 modules, H = 300 mm)
- T, installation on total base plate

Installation of Tmax XT moulded-case circuit breakers

The table indicates the type of installation required for the different versions of Tmax XT moulded-case circuit breakers in Gemini switchboards.

Before carrying out wiring operations check compliance with Standards on the basis of the technical characteristics of the switchboard and circuit breaker (CEI EN 60439-1).

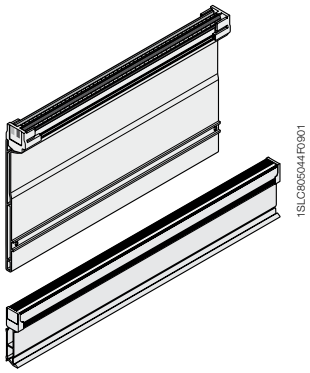
Size	Installation	XT1				XT2				XT3				XT4			
		3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D
1	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	O1	■	■	■	■	■	■	■	■	■	■			■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Caption
- D, installation on DIN rail
- K1, installation with Tmax kit H = 150 (holes made)
- K2, installation with Tmax kit H = 300 (holes made)
- O1, installation on modular plate (1 module, H = 150 mm)
- O2, installation on modular plate (2 modules, H = 300 mm)
- T, installation on total base plate

Unifix L fast wiring system

Unifix is the system patented by ABB for the fast and safe wiring of equipment in the System pro *M* range and Tmax and Isomax moulded-case circuit breakers. It is available in three versions, of which Unifix L is the one most suitable for installing in Gemini switchboards with rated currents of up to 100 A and short-circuit currents of up to 25 kA.
Unifix L is composed by assembling its components listed in the following tables that should be referred to when ordering.

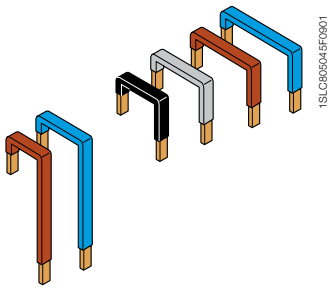
The busbars are housed in a system of ducts with a capacity of 100 A and short-circuit current of 25 kA. They are supplied in two and four-pole versions with from 12 to 36 modules.
They snap onto the back of the DIN rail.



Busbars

Description	Dimensions L (mm)	Code	Pack/Pieces
Busbars 2 poles			
Busbar 100 A, 2 poles, 12 modules	400	ED2993	1/6
Busbar 100 A, 2 poles, 18 modules	450	ED3009	1/6
Busbar 100 A, 2 poles, 24 modules	600	ED3017	1/6
Busbar 100 A, 2 poles, 36 modules	800	ED3025	1/6
Busbars 4 poles			
Busbar 100 A, 4 poles, 12 modules	400	ED2944	1/6
Busbar 100 A, 4 poles, 18 modules	450	ED2951	1/6
Busbar 100 A, 4 poles, 24 modules	600	ED2969	1/6
Busbar 100 A, 4 poles, 36 modules	800	ED2977	1/6

Connections are made in copper, cut to size and bent to allow power supply between the terminals of the modular System pro *M* devices and the Unifix system busbars. They are supplied in the versions L1, L2, L3, N and 1p+N depending on the polarity of the device to be wired.

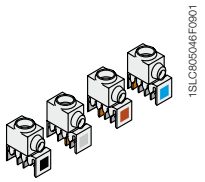


Connections

Description	Code	Pack/Pieces
Connections for different equipment		
Connections with 2 conductors L1/N 16A	ED3108	1/6
Connections with 3 conductors L1/L2/L3 16A	ED3116	1/6
Connections with 4 conductors L1/L2/L3/N 16A single phase	ED3124	1/6
Connections with 2 conductors L1/N 40A	ED3355	1/6
Connections with 3 conductors L1/L2/L3 40A	ED3363	1/6
Connections with 4 conductors L1/L2/L3/N 40A	ED3371	1/6
Connections for devices		
N° 10 connections L1-N 40A	ED3272	1/10
N° 10 connections L2-N 40A	ED3280	1/10
N° 10 connections L3-N 40A	ED3298	1/10
N° 10 connections L1 100A	ED3033	1/10
N° 10 connections L2 100A	ED3041	1/10
N° 10 connections L3 100A	ED3058	1/10
N° 10 connections N 100A	ED3066	1/10
Feeder with cable 4P 100A (L=350mm)	ED3132	1/10
Feeder with cable 4P 100A (L=1500mm)	ED0026	1/10
Feeder with cable 4P 100A (L=2500mm)	ED0025	1/10

Feeder modular devices are available with and without cable. Modular devices with cable have a capacity of 36 A and 2-module dimensions; they are supplied in two and four pole versions. Modular devices with cable have a capacity of 100 A and 1-module dimensions; they are supplied in the L1, L2, L3 and N version. Both modular devices connect to the conductors feeding the busbars directly when installation of the main line switch is not envisaged.

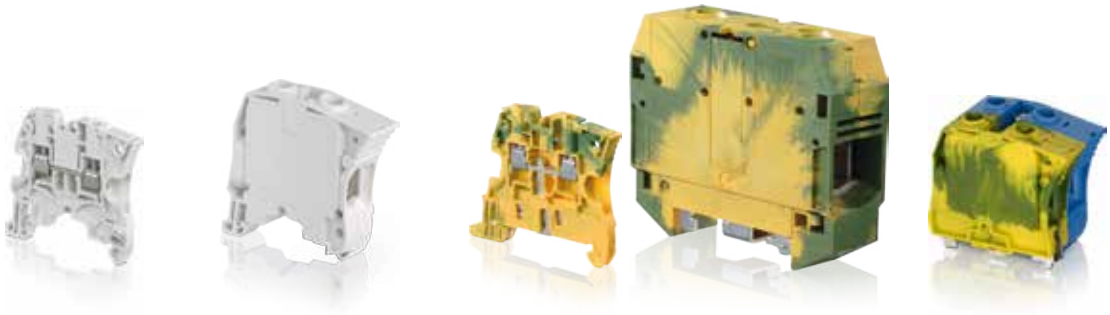
Feeder modular device with cable



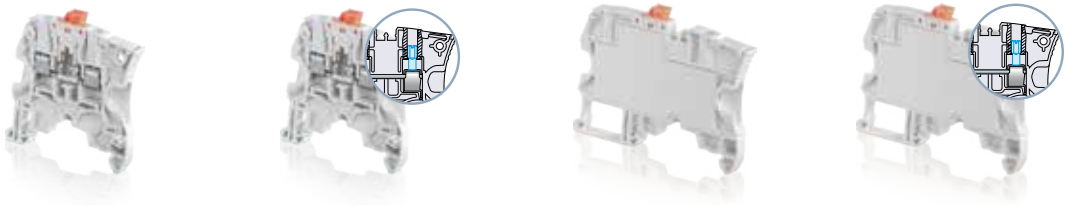
Feeder modular device without cable

Description	Code	Pack/Pieces
Feeder modular device with cable		
Feeder modular device 2P 100A with cable	ED3082	1/6
Feeder modular device 4P 100A with cable (W=600mm)	ED3090	1/6
Feeder modular device 4P 100A with cable (W=800mm)	ED3413	1/6
Feeder modular device 4P 100A with cable (W=1500mm)	ED3439	1/6
Feeder modular device without cable In 100A		
Feeder modular device without cable L1	ED3101	1/10
Feeder modular devices without cable L2	ED3102	1/10
Feeder modular devices without cable L3	ED3103	1/10
Feeder modular devices without cable N	ED3104	1/10

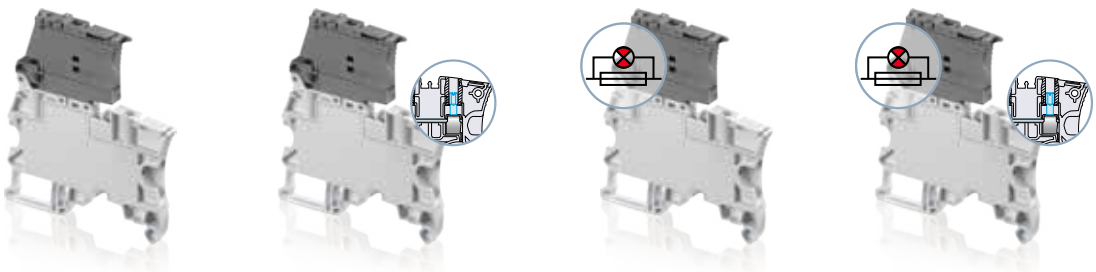
Electrical connection systems
Screw technology connection



Section		Feed-through				Ground circuit					
IEC	*UL/CSA*										
4 mm²	*12 AWG*	**ZS4**	5,2 mm			**ZS4-PE**	5,2 mm				
6 mm²	*10 AWG*	**ZS6**	6 mm			**ZS6-PE**	6 mm				
10 mm²	*6 AWG*	**ZS10**	8 mm			**ZS10-PE**	8 mm				
16 mm²	*4 AWG*	**ZS16**	10 mm			**ZS16-PE**	10 mm				
35 mm²	*0 AWG*			**ZS35**	16 mm						
35 mm²	*2 AWG*							**ZS35-PE**	16 mm	**ZS35-PEN**	35 mm
70 mm²	*00 AWG*			**ZS70**	22 mm			**ZS70-PE**	22 mm		
95 mm²	*0000 AWG*			**ZS95**	26 mm			**ZS95-PE**	26 mm		



Section		Disconnect with blade							
IEC	*UL/CSA*								
4 mm²	*10 AWG*	**ZS4-S**	5,2 mm	**ZS4-S-T2**	5,2 mm	**ZS4-S-R1**	6 mm	**ZS4-S-T2-R1**	6 mm
4 mm²	*10 AWG*			**ZS4-S-T2.3**	5,2 mm			**ZS4-S-T2.3-R1**	6 mm
6 mm²	*10 AWG*	**ZS6-S**	6 mm						
10 mm²	*6 AWG*								
10 mm²	*10 AWG*	**ZS10-S**	8 mm						

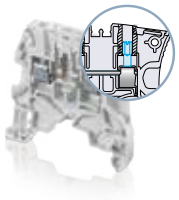


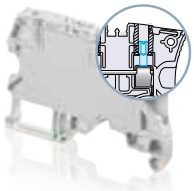
Section		For 5 x 20 mm fuses *(0,197" x 0,787")*							
IEC	*UL/CSA*								
4 mm²	*10 AWG*	**ZS4-SF**	6 mm	**ZS4-SF-T2**	6 mm	**ZS4-SF-R1**	6 mm	**ZS4-SF-R2**	6 mm
4 mm²	*10 AWG*					**ZS4-SF-R3**	6 mm	**ZS4-SF-R4**	6 mm

Note: for additional information refer to SNK Series catalogue, code 1SDC160004D0902.

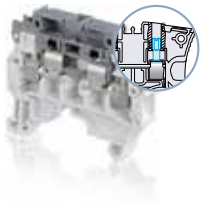
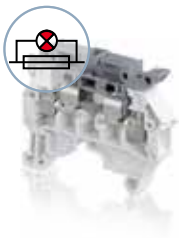
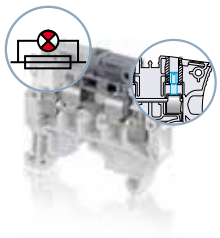



Double Deck - Feed-through				Double Deck with ground circuit			
ZS4-D2	5,2 mm	**ZS4-D1**	5,2 mm				
ZS6-D2	6 mm	**ZS6-D1**	6 mm	**ZS6-D2-PE**	6 mm	**ZS6-D1-PE**	6 mm



Disconnect with plug						Disconnect with lever					
ZS4-SP	5,2 mm	**ZS4-SP-T2**	5,2 mm	**ZS4-SP-R1**	6 mm	**ZS4-SP-T2-R1**	6 mm	**ZS4-S-R2**	6 mm	**ZS4-S-R3**	8 mm
ZS10-SP	8 mm										

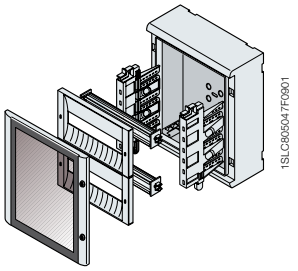





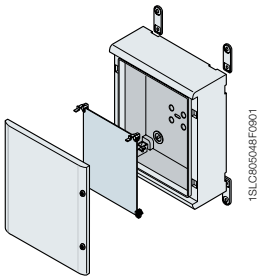

For 5 x 20 mm and 5 x 25 mm fuses *(0,197" x 0,787" e 0,197" x 0,984")*								Feed-through	
ZS4-SF1	8 mm	**ZS4-SF1-T2**	8 mm	**ZS4-SF1-R1**	8 mm	**ZS4-SF1-R2**	8 mm	**ZS4-R1**	8 mm
				ZS4-SF1-R3	8 mm	**ZS4-SF1-R4**	8 mm		

Note: for additional information refer to SNK Series catalogue, code 1SDC160004D0902.

Technical information
Configurations examples

The selection of components for the configuration of Gemini switchboards depends on the space available and the type of application. Two examples for each size are given below.

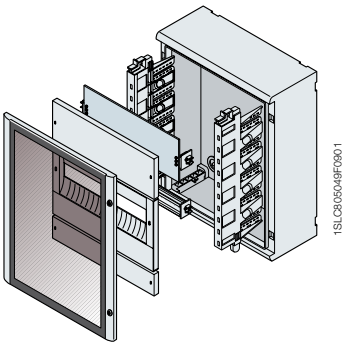


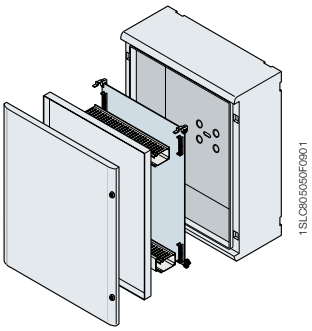


Size 1

Distribution	
Box + transparent door	1SL0211A00
Uprights	1SL0283A00
1-mod. drilled panel + DIN rail	1SL0307A00 (x2)

Automation	
Box + opaque door	1SL0201A00
Metal base plate	1SL0259A00
Inner door	1SL0251A00
Wall-mounting brackets	1SL0342A00

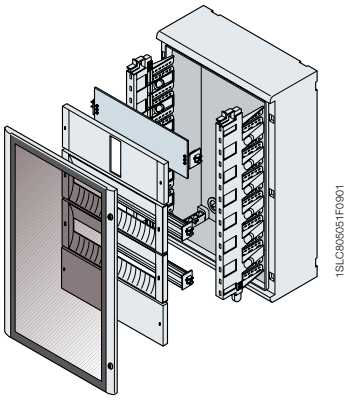


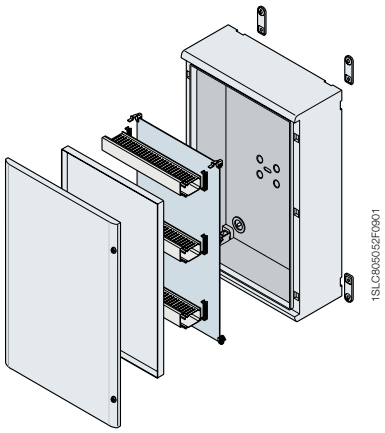


Size 2

Distribution/Mixed	
Box + transparent door	1SL0212A00
Uprights	1SL0284A00
Modular plate 1 mod.	1SL0297A00
Blank panel 1 mod.	1SL0325A00
Drilled panel 1+1/2 mod. + DIN rail	1SL0313A00
Blank panel 1/2 mod.	1SL0319A00
Module covers	12863

Automation	
Box + opaque door	1SL0202A00
Metal base plate	1SL0260A00
Inner door	1SL0252A00
Wiring duct	See pag. 2/8
Fix-O-Rapid	See pag. 2/9

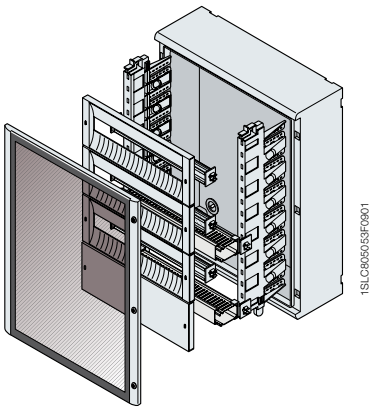


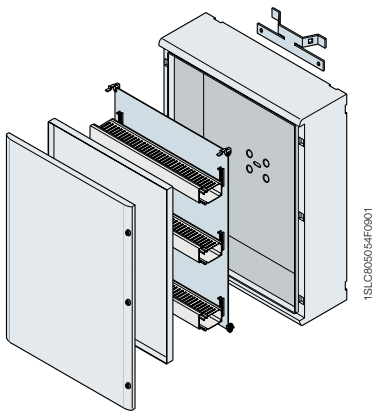


Size 3

Distribution/Mixed	
Box + transparent door	1SL0213A00
Uprights	1SL0285A00
Kit for Tmax	1SL0336A00
Drilled panel 1 mod. + DIN rail	1SL0308A00(x2)
DIN rail	1SL0291A00
Blank panel 1 mod.	1SL0325A00
Entrelec terminals	See pag. 3/12-3/13

Automation	
Box + opaque door	1SL0203A00
Base insulating plate	1SL0269A00
Inner door	1SL0253A00
Wiring duct	See pag. 2/8
Fix-O-Rapid	See pag. 2/9
Wall-mounting brackets	1SL0342A00



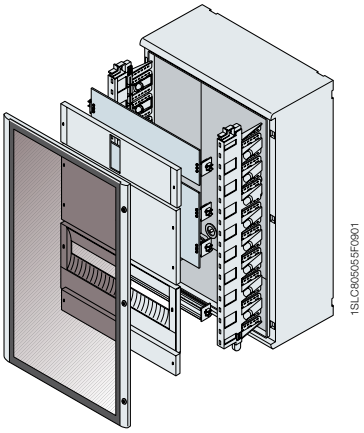


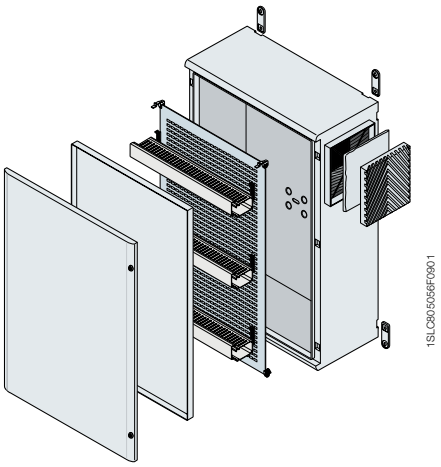
Taglia 4

Distribution/Mixed	
Box + transparent door	1SL0214A00
Uprights	1SL0285A00
Drilled panel 1 mod. + DIN rail	1SL0309A00 (x3)
Blank panel 1 mod.	1SL0326A00
Wiring kit 25x60 mm	1SL0355A00 (x2)
DIN rail	1SL0292A00
Module covers	12863
Entrelec terminals	See pag. 3/12-3/13

Automation	
Box + opaque door	1SL0204A00
Metal base plate	1SL0262A00
Inner door	1SL0254A00
Wiring duct	See pag. 2/8
Fix-O-Rapid	See pag. 2/9
Fixing on pole kit	1SL0345A00

Technical information
Configurations examples

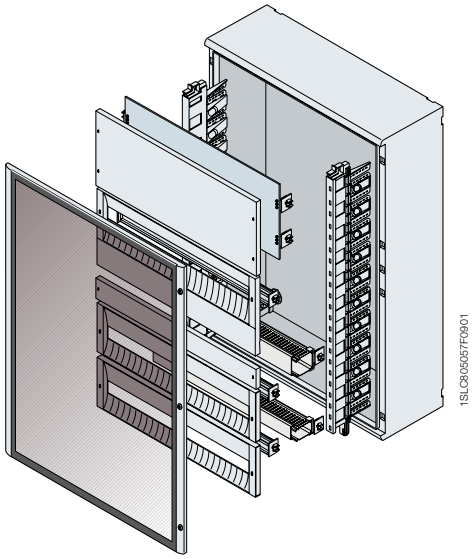


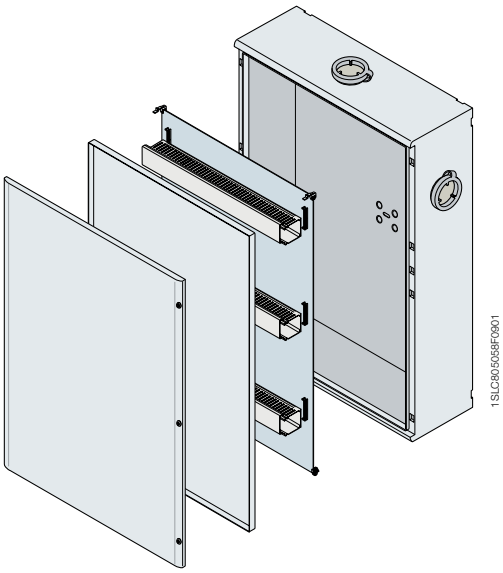


Size 5

Distribution/Mixed	
Box + transparent door	1SL0215A00
Uprights	1SL0286A00
Kit for Tmax	1SL0337A00
Modular plate 2 mod.	1SL0303A00
Blank panel 2 mod.	1SL0332A00
Drilled panel 1+1/2 mod.	1SL0314A00
Blank panel 1/2 mod.	1SL0320A00
Module covers	12863

Automation	
Box + opaque door	1SL0205A00
Drilled base plate	1SL0279A00
Inner door	1SL0255A00
Wiring duct	See pag. 2/8
Fix-O-Rapid	See pag. 2/9
Wall-mounting brackets	1SL0342A00
Ventilation kit	1SL0350A00





Size 6

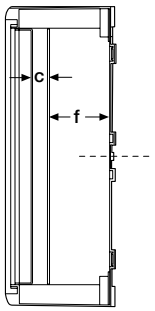
Distribution/Mixed	
Box + transparent door	1SL0216A00
Uprights	1SL0287A00
Modular plate 2 mod.	1SL0304A00
Blank panel 2 mod.	1SL0333A00
Drilled panel 1+1/2 mod.	1SL0315A00
Blank panel 1/2 mod.	1SL0321A00
Panel with holes 1 mod.	1SL0310A00 (x2)
Wiring kit 25x60 mm	1SL0356A00
Wiring kit 40x60 mm	1SL0363A00

Automation	
Box + opaque door	1SL0206A00
Metal base plate	1SL0264A00
Inner door	1SL0256A00
Wiring duct	See pag. 2/8
Fix-O-Rapid	See pag. 2/9
Triangular lock	1SL0341A00 (x3)
Anti-condensation kit	1SL0351A00 (x3)

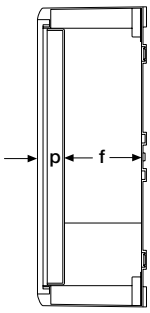
Technical information
Component mounting distances

The reference mounting distances between components for the functional configuration of Gemini switchboards are shown in the diagrams.

Automation components



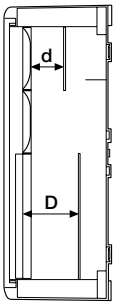
Size	f = distance mounting plate/floor		c = distance mounting plate/inner door	
	MIN.	MAX.	MIN.	MAX.
1	16,3	91	33,5	110
2	36,4	140	33,5	139
3	36,4	140	33,5	139
4	36,4	140	33,5	139
5	47	244	33,5	228
6	47	244	33,5	228

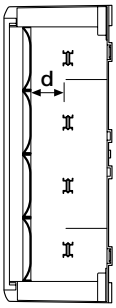


Size	p = distance inner door/door	f = distance door/floor
1	63	128
2	63	177
3	63	177
4	63	177
5	63	277
6	63	277

Technical information
Component mounting distances

Distribution components





d = distance drilled panel/plate

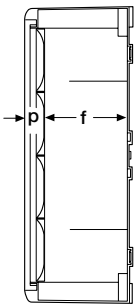
pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
54,7	67,2	79,7	92,2	-	-
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2

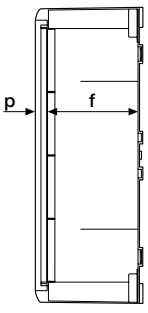
d = distance drilled panel/DIN rail

Size	pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
1	51	63,5	76	88,5	-	-
2	51	63,5	76	88,5	101	113,5
3	51	63,5	76	88,5	101	113,5
4	51	63,5	76	88,5	101	113,5
5	51	63,5	76	88,5	101	113,5
6	51	63,5	76	88,5	101	113,5

D = distance blank panel/plate

pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
71,5	84	96,5	109	-	-
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134





Size	p= distance drilled panel/door	f = distance drilled panel/floor
1	44	145
2	44	197
3	44	197
4	44	197
5	44	297
6	44	297

Size	p= distance blank panel/door	f = distance blank panel/floor
1	26,5	162
2	26,5	214
3	26,5	214
4	26,5	214
5	26,5	314
6	26,5	314

Measurements are in millimeters

Technical information
Disposal instructions

Information about how to dispose of Gemini switchboards when they reach the end of their life

Instructions are given below about the procedures to adopt when disposing of Gemini switchboards at the end of their life cycle.

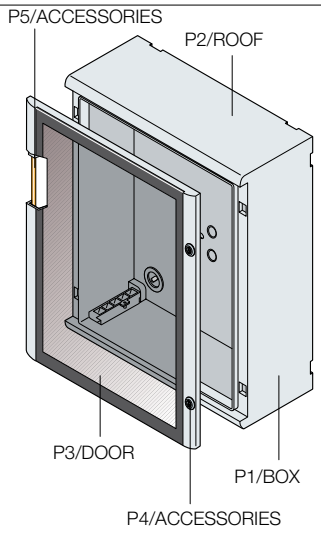
The text is drafted in the form of a table referring to Standard CEI 308-1 “Information table concerning the end of life of electric and electronic products and a compilation guide”, 2002 -04, ed. 1, pamphlet number 308-1 6454.

Section I – Global product specification

Name	Type of product			
Size	With transparent door	With opaque door	Rated weight (kg)	External dimensions WxHxD (mm)
1	1SL0211A00	1SL0201A00	4,3	335x400x210
2	1SL0212A00	1SL0202A00	7,9	460x550x260
3	1SL0213A00	1SL0203A00	9,5	460x700x260
4	1SL0214A00	1SL0204A00	12,0	590x700x260
5	1SL0215A00	1SL0205A00	17,8	590x855x360
6	1SL0216A00	1SL0206A00	21,1	840x1005x360

Section II – Global product table

General code: CER 17 02 03 plastic (more than 95% of the product’s weight)

Part (P1, P2 ecc.)/Component number	Diagram	Quantity % over total weight	Material description	Symbol	Dangerousness (Yes/No)	CER code
P1/BOX		~ 80%	Polypropylene	>PP<	No	17 02 03
P2/ROOF			Polycarbonate	>PP<	No	17 02 03
P3/DOOR		~ 20%	Steel	>PC<	No	17 04 05
P4/ACCESSORIES		< 5%	Brass	-	No	17 04 01
P5/ACCESSORIES		< 5%	Polypropylene	-	No	17 02 03

Technical information
Disposal instructions

Section III – Components to be removed from the product and sent for separate treatment

Refer to section II of the table for a description of the materials.

Notes for recovery and disposal

At the end of its life, after separating it from components, the product can be sent to be recovered.
The product is not biodegradable: do not dispose of it in the environment.
The product/waste product is assimilable as solid urban waste. It must be incinerated or disposed of in compliance with current EEC, national and local regulations. You are recommended to check all reutilization possibilities.

Other recommendations

The information in this sheet are related to the state of supply of the product. Assembled parts of different suppliers should be treated separately according to the reference requirements of their respective manufacturers.

Section IV – Safety instructions

Handling

No special instructions. Refer to the general regulations concerning hygiene on the workplace when using.
The product's main components contain mineral additives and coloring agents in concentrations that comply with current European Directives at the time this catalogue went to press: they do not contain substances classified as dangerous.

Transport

No special instructions.

Storage

No gas or harmful vapors are released during storage.
Thermal decomposition in the event of fire or combustion may release dangerous products: if this should occur, specific means of protection must be used. In the event of fire, conventional fire extinguishing instruments are recommended (atomized water, foam, carbon dioxide, powder).
Empty packages are not contaminated by the product and can therefore be recycled or reused.

Utilization

No special instructions.

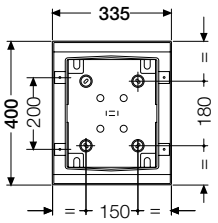
Other instructions

The information given in this section is based on current LVP Division know-how and is aimed at describing the product only for environmental, health and safety purposes. It must not, therefore, be considered as a guarantee of specific properties. LVP Division assumes no responsibility for the behavior of buyers that do not comply with the information given in this table and for incorrect or improper usages of the product or usages that cannot reasonably be envisaged.

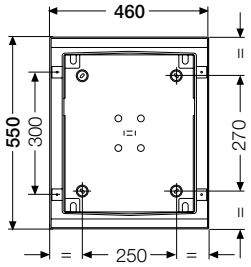
Overall dimensions

Overall dimensions
Basic configuration

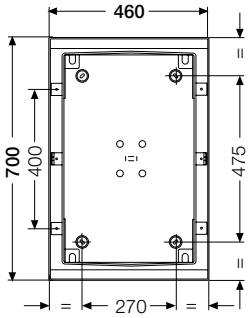
Front view



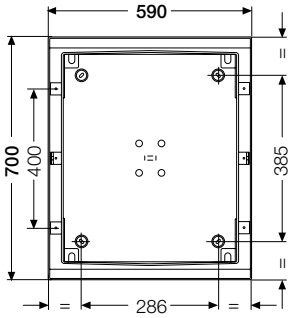
Size 1
1SL0201A00 - 1SL0211A00 - 1SL0221A00



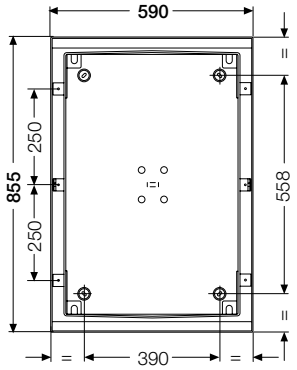
Size 2
1SL0202A00 - 1SL0212A00 - 1SL0222A00



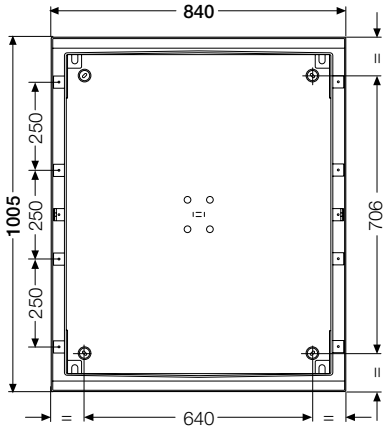
Size 3
1SL0203A00 - 1SL0213A00 - 1SL0223A00



Size 4
1SL0204A00 - 1SL0214A00 - 1SL0224A00

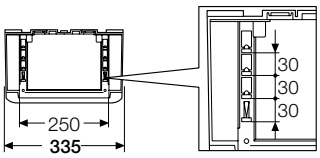


Size 5
1SL0205A00 - 1SL0215A00 - 1SL0225A00

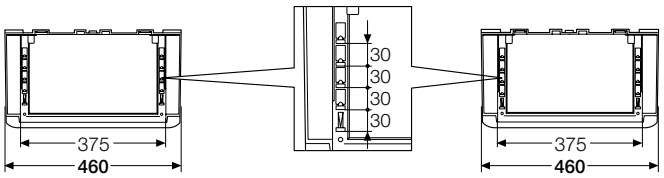


Size 6
1SL0206A00 - 1SL0216A00 - 1SL0226A00

Top view

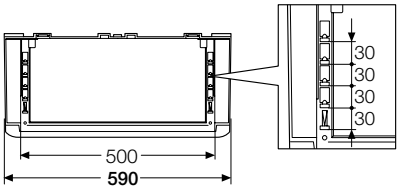


Size 1

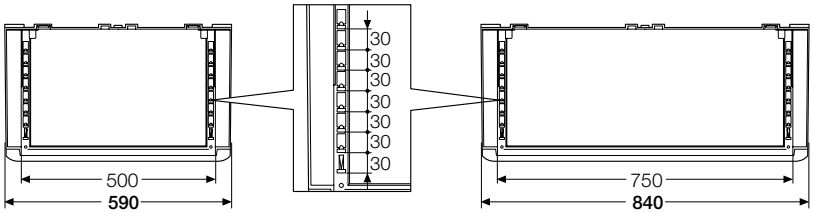


Size 2

Size 3



Size 4

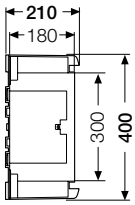


Size 5

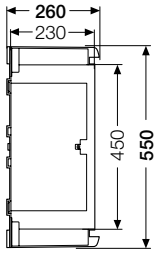
Size 6

Measurements are expressed in millimeters.

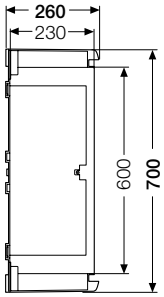
Side view



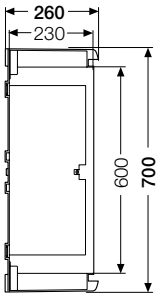
Size 1



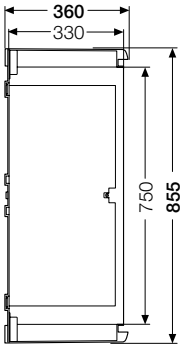
Size 2



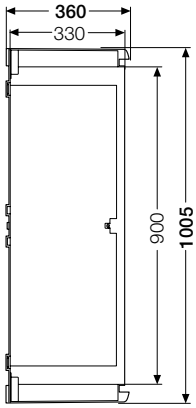
Size 3



Size 4

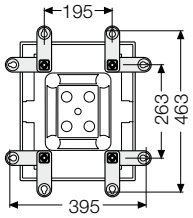


Size 5

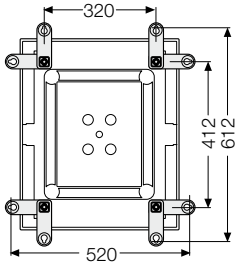


Size 6

Installation with plastic brackets



Size 1



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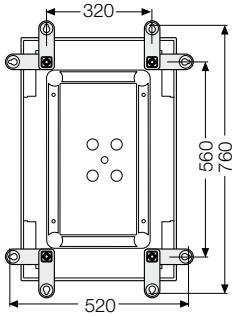
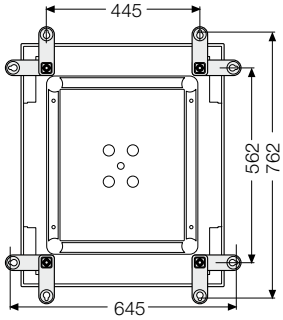
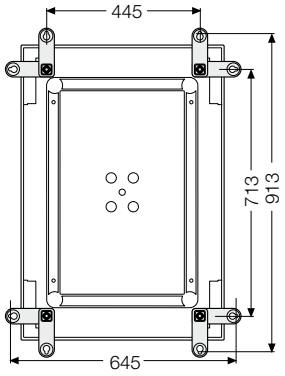


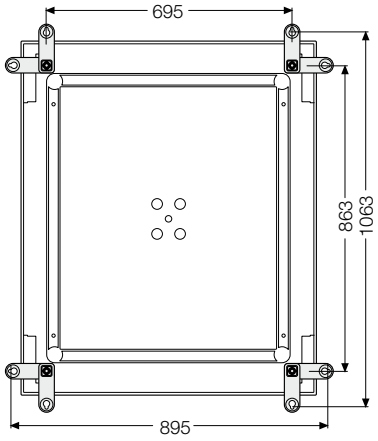
Size 3



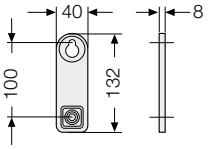
Size 4



Size 5



Size 6

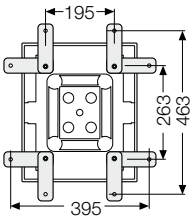


Bracket

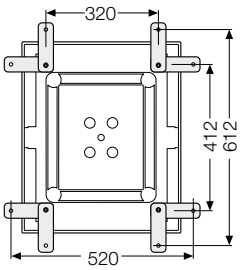
Measurements are expressed in millimeters.

Overall dimensions
Basic configuration

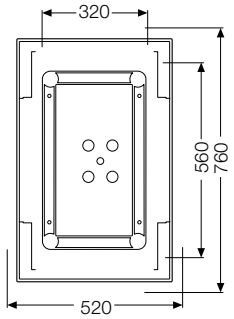
Installation with stainless steel brackets



Size 1



Size 2



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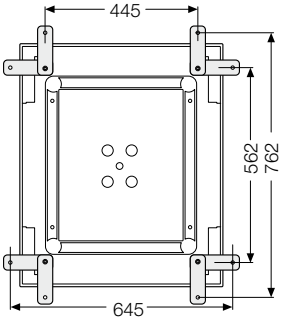
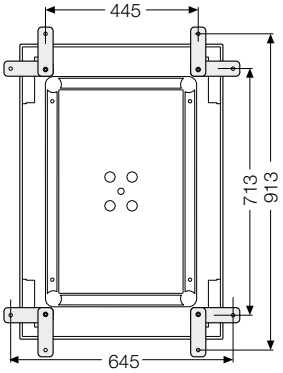
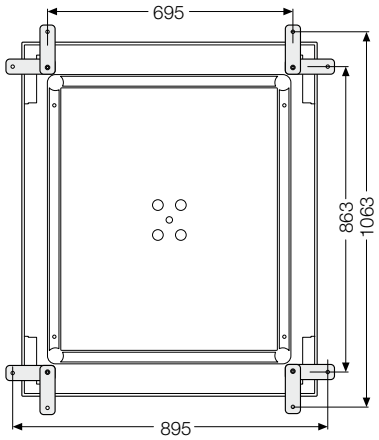


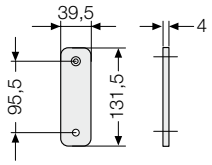
Size 4



Size 5

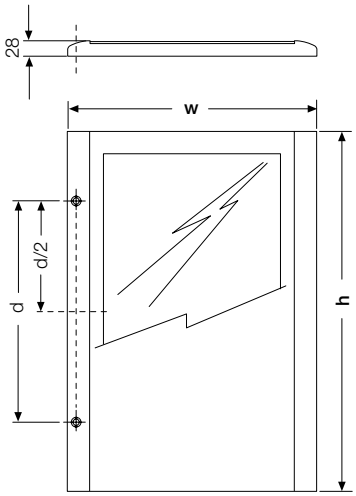


Size 6

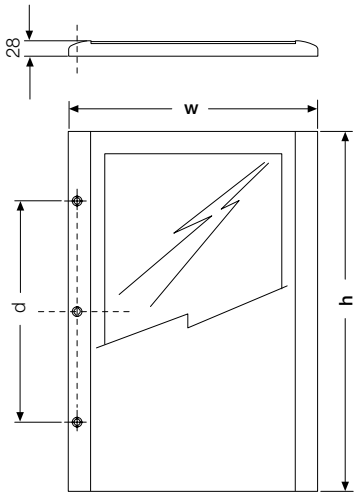


Bracket

External opaque and transparent doors



Size 1, 2, 3, 4



Size 5, 6

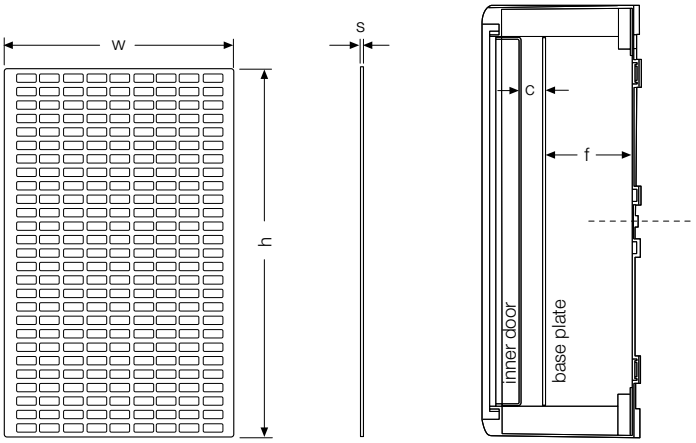
Size	w	h	Locks	d = lock distance
1	325	349	2	200
2	450	499	2	300
3	450	649	2	400
4	575	649	2	400
5	575	799	3	500
6	825	949	3	750

Measurements are expressed in millimeters.

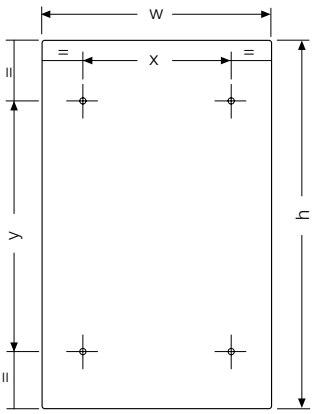
Overall dimensions
Components for automation applications

Base plate

Metal, drilled



Metal, blank and insulating



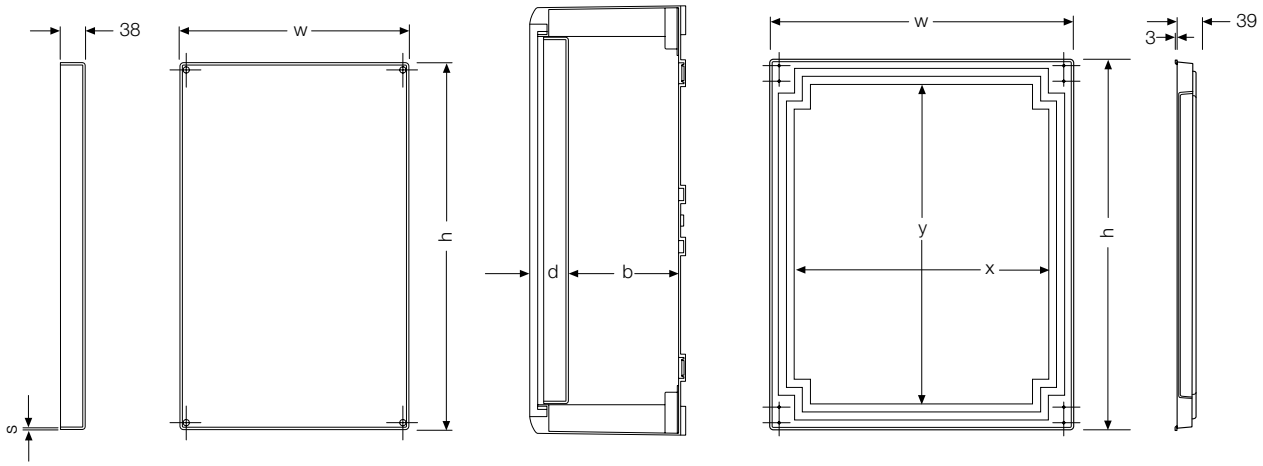
Size	w	h	Metal, blank and drilled	Insulating	f = base distance		c = distance inner door		Distance of the plate from the inner door
			s	s	MIN.	MAX.	MIN.	MAX.	
1	235	285	2	5	16,3	91	33,5	110	-
2	360	435	2	5	36,4	140	33,5	139	152,4
3	360	585	2	5	36,4	140	33,5	139	152,4
4	485	585	2	5	36,4	140	33,5	139	152,4
5	485	735	2	5	47	244	33,5	228	252,0
6	735	885	2	5	47	244	33,5	228	252,0

The distance of the plate from the base and inner door depends on the installation point selected for mounting the plate on the box.

Drilling for base mounting with code 1SL0383A00

Size	x	y
1	–	–
2	337	248
3	337	398
4	462	398
5	462	548
6	711	698

Inner doors

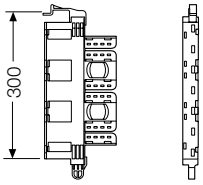


Size	w	h	s	Inner door distance		x	y
				d = door	b = base		
1	250	300	3	63	128	245	295
2	375	450	4	63	177	365	435
3	375	600	4	63	177	215	435
4	500	600	4	63	177	340	440
5	500	750	4	63	277	340	590
6	750	900	4	63	277	585	735

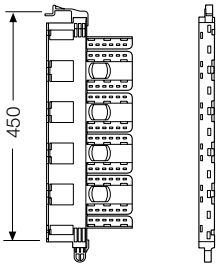
Measurements are expressed in millimeters.

Overall dimensions
Components for distribution and mixed applications

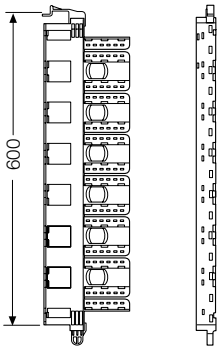
Uprights



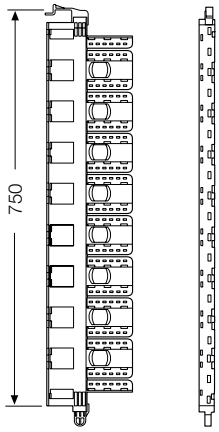
Size 1



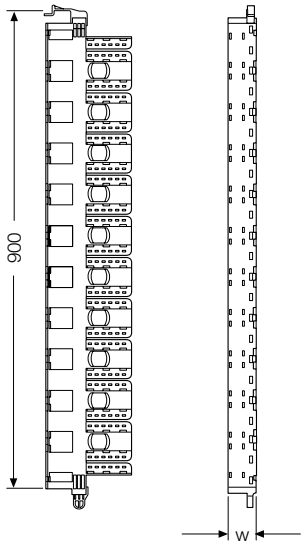
Size 2

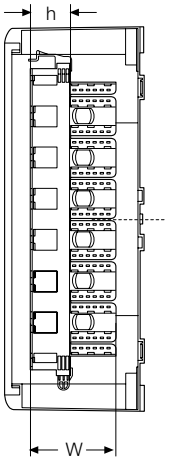


Size 3, 4



Size 5



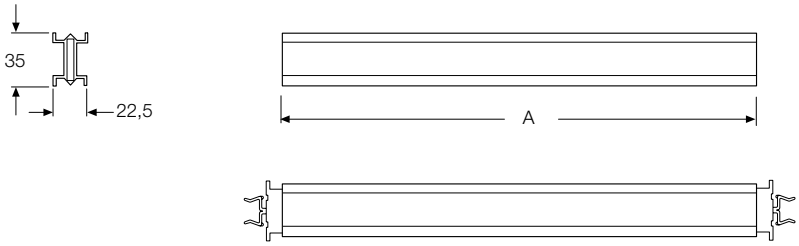


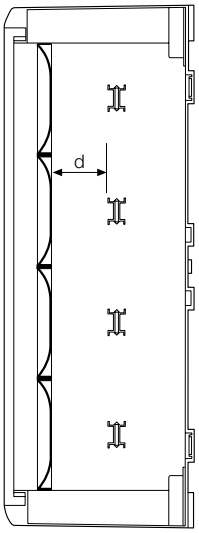
Size 6

Upright		Duct	
Size	**W**	**w**	**h**
1	132	18	46
2	152	27	46
3	152	27	46
4	152	27	46
5	152	36	46
6	152	55	46

Measurements are expressed in millimeters.

DIN rails



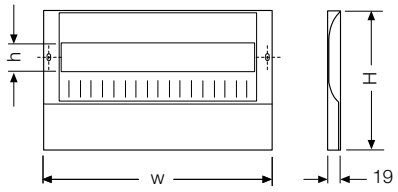


Size	A	d = distance between panel with holes/DIN rail					
		pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
1	210	51	63,5	76	88,5	-	-
2	318	51	63,5	76	88,5	101	113,5
3	318	51	63,5	76	88,5	101	113,5
4	443	51	63,5	76	88,5	101	113,5
5	443	51	63,5	76	88,5	101	113,5
6	663	51	63,5	76	88,5	101	113,5

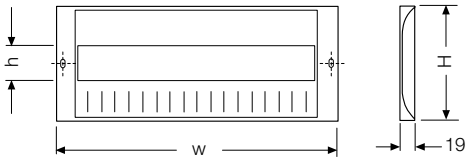
The distances of the DIN rail from the Panel depend on depth adjustment made through rail mountings.

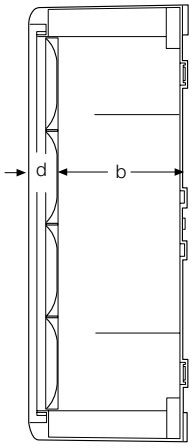
Drilled panels

1 + 1/2 module



1 module





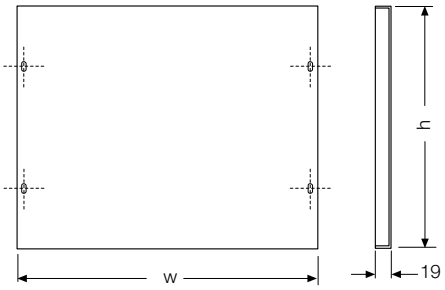
Drilled panel	1 mod.		1+1/2 mod.		Window		Panel distance	
Size	w	H	w	H	h	module	d = door	b = base
1	250	150	-	-	46	12	44	145
2	375	150	375	225	46	18	44	197
3	375	150	375	225	46	18	44	197
4	500	150	500	225	46	24	44	197
5	500	150	500	225	46	24	44	297
6	750	150	750	225	46	36	44	297

Measurements are expressed in millimeters.

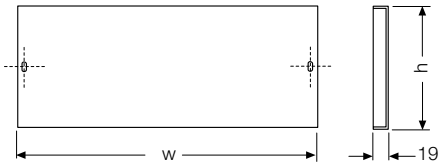
Overall dimensions
Components for distribution and mixed applications

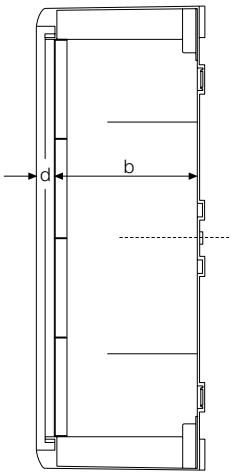
Blank panels

Blank panel 2 modules

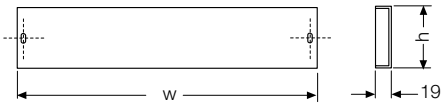


Blank panel 1 module





Blank panel 1/2 module



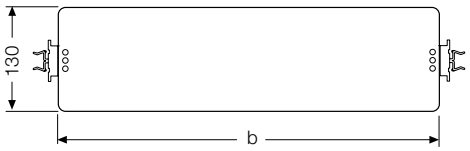
Size	1/2 mod.		1 mod.		2 mod.		Panel distance	
	w	h	w	h	w	h	d = door	b = base
1	250	75	250	150	250	300	26,5	162
2	375	75	375	150	375	300	26,5	214
3	375	75	375	150	375	300	26,5	214
4	500	75	500	150	500	300	26,5	214
5	500	75	500	150	500	300	26,5	314
6	750	75	750	150	750	300	26,5	314

Measurements are expressed in millimeters.

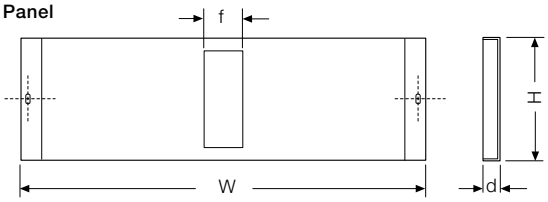
Kit for Tmax

Kit H 150

Plate

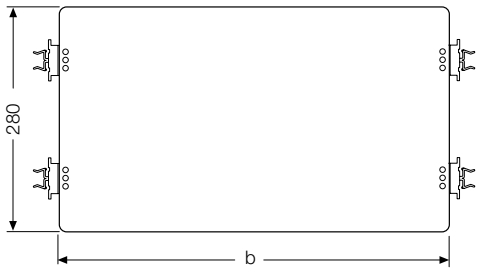


Panel

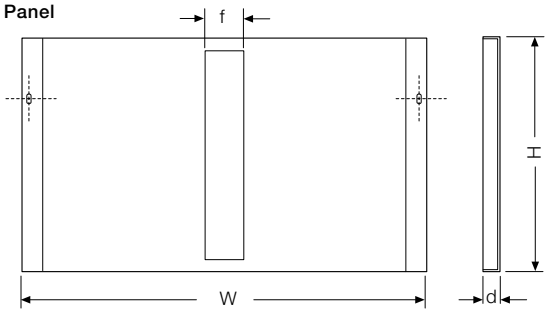


Kit H 300

Plate



Panel



kit for Tmax H 150 (available for sizes 2-6)

Size	W	H	d	f	b
2	375	150	19	46	318
3	375	150	19	46	318
4	500	150	19	46	443
5	500	150	19	46	443
6	750	150	19	46	663

kit for Tmax H 300 (available for sizes 2-6)

Size	W	H	d	f	b
2	375	300	19	46	318
3	375	300	19	46	318
4	500	300	19	46	443
5	500	300	19	46	443
6	750	300	19	46	663

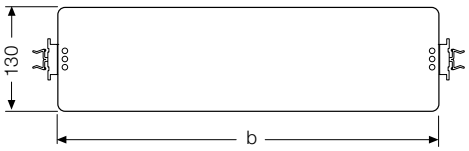
Measurements are expressed in millimeters.

Overall dimensions
Components for distribution and mixed applications

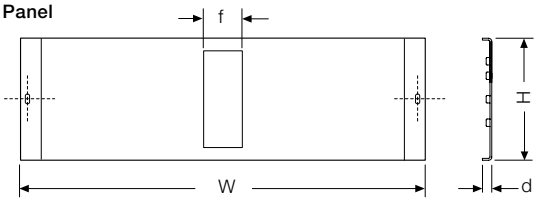
Kit for Tmax XT

Kit H 150

Plate

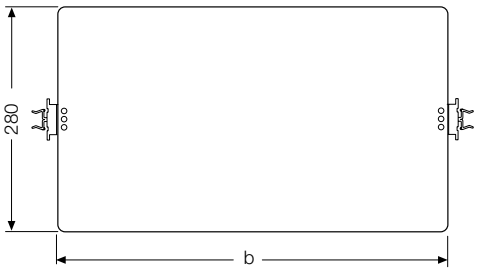


Panel

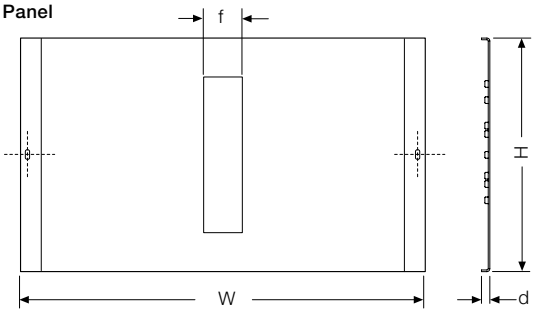


Kit H 300

Plate



Panel



kit for Tmax XT H 150 (available for sizes 2-6)

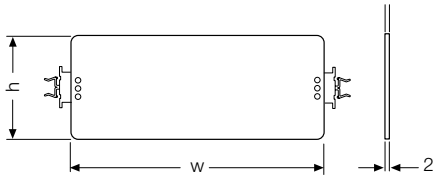
Size	W	H	d	f	b
2	375	150	10	46	318
3	375	150	10	46	318
4	500	150	10	46	443
5	500	150	10	46	443
6	750	150	10	46	663

kit for Tmax XT H 300 (available for sizes 2-6)

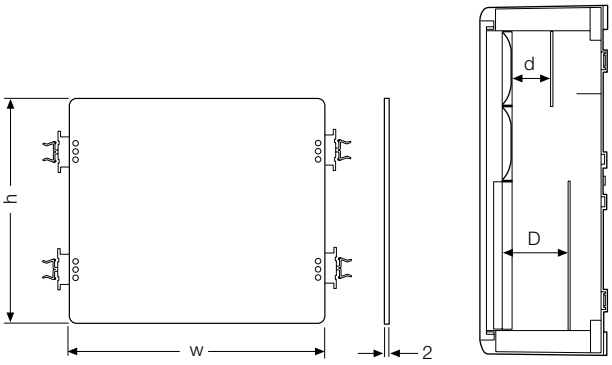
Size	W	H	d	f	b
2	375	300	10	46	318
3	375	300	10	46	318
4	500	300	10	46	443
5	500	300	10	46	443
6	750	300	10	46	663

Measurements are expressed in millimeters.

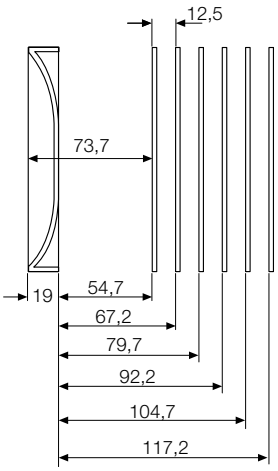
Modular plates



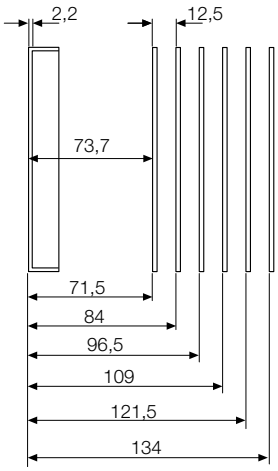
1 module



2 modules



Drilled panel



Blank panel

Size	1 module		2 modules	
	w	h	w	h
1	210	130	-	-
2	318	130	318	280
3	318	130	318	280
4	443	130	443	280
5	443	130	443	280
6	663	130	663	280

D = distance blank panel/plate					
pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
71,5	84	96,5	109	-	-
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134
71,5	84	96,5	109	121,5	134

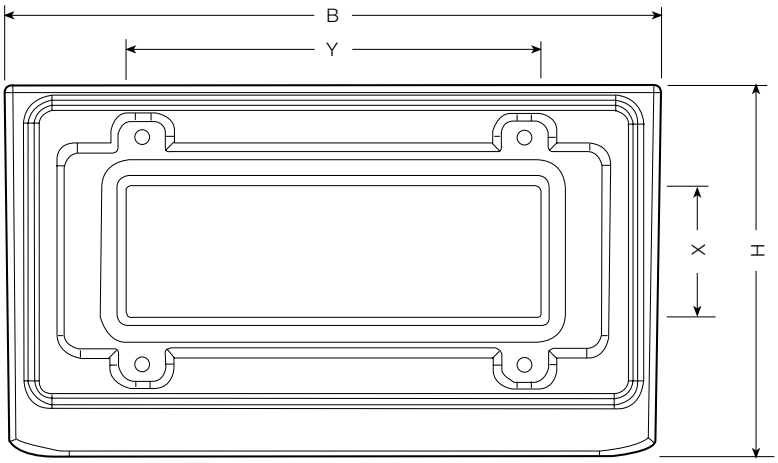
d = distance drilled panel/plate					
pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
54,7	67,2	79,7	92,2	-	-
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2
54,7	67,2	79,7	92,2	104,7	117,2

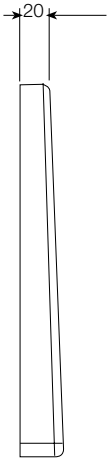
The distance of the panels from the modular plates depends on the depth at which the DIN rail is regulated by using fixing devices.

Measurements are expressed in millimeters.

Overall dimensions
Components for distribution and mixed applications

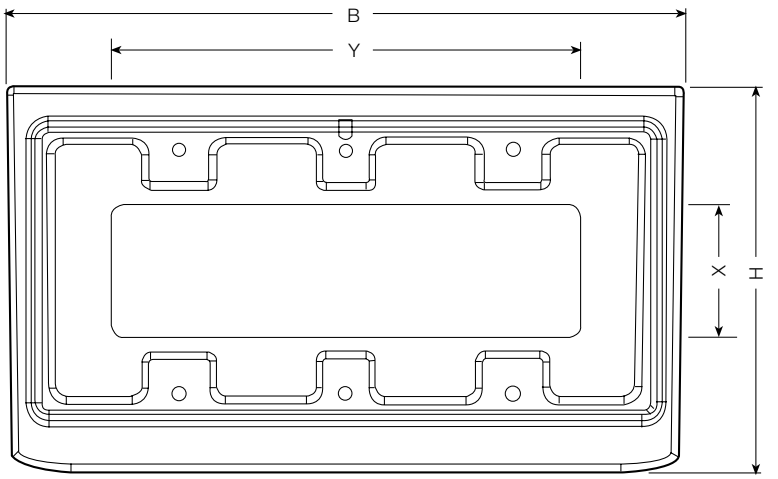
Coupling kit

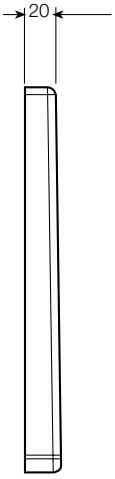




Size	B	H	X	Y
1	-	-	-	-
2	455	258	90	286
3	455	258	90	286
4	583	260	90	412
5	583	360	190	412
6	834	360	190	662

Bottom base H 30

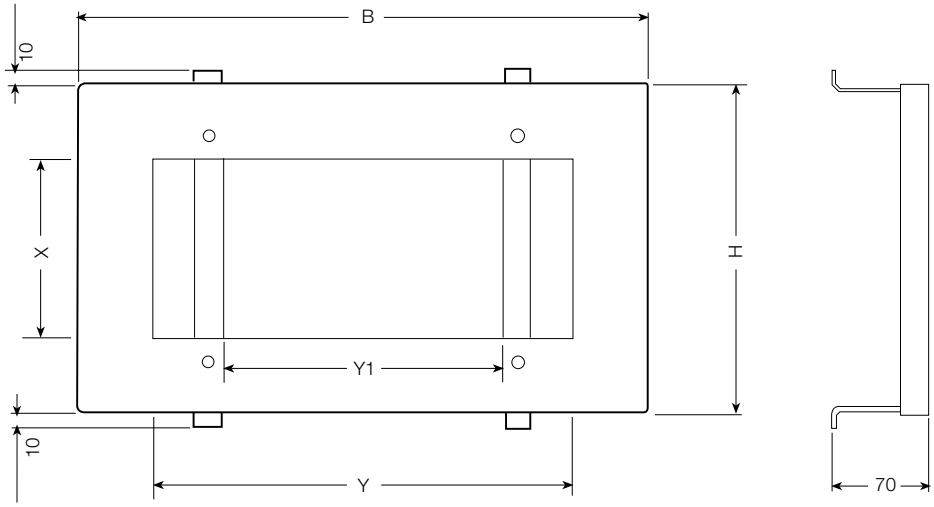




Size	B	H	X	Y
1	-	-	-	-
2	458	260	91	316
3	458	260	91	316
4	583	260	91	440
5	590	366	164	400
6	840	366	164	640

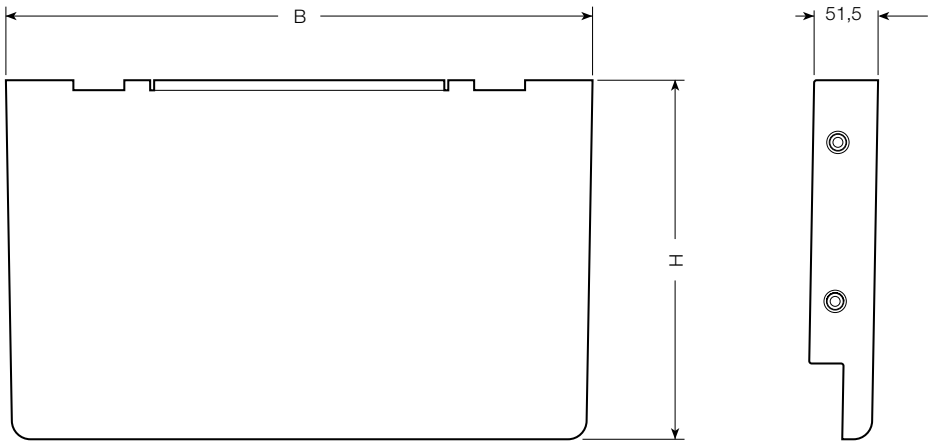
Measurements are expressed in millimeters.

Fixed frame



Size	B	H	X	Y	Y1
1	-	-	-	-	-
2	415	240	130	305	205
3	415	240	130	305	205
4	540	240	130	430	330
5	584	330	210	480	280
6	834	330	210	730	530

Integral cover



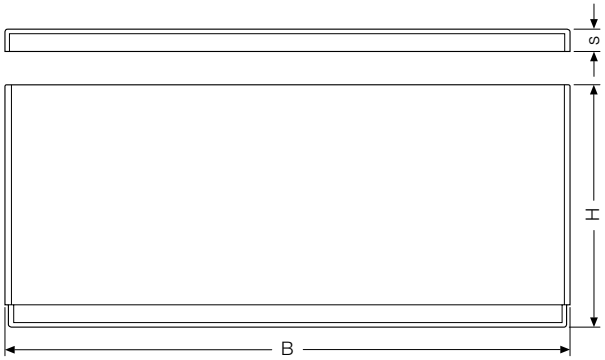
Size	B	H
1	347	238
2	472	289
3	472	289
4	600	289
5	604	390
6	854	390

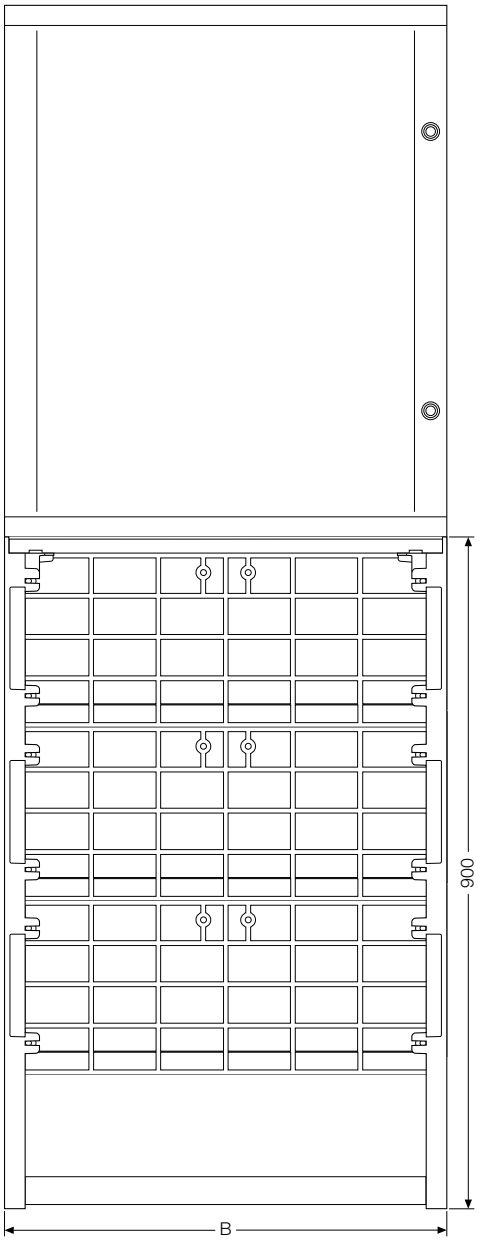
Measurements are expressed in millimeters.

Overall dimensions
Components for distribution and mixed applications

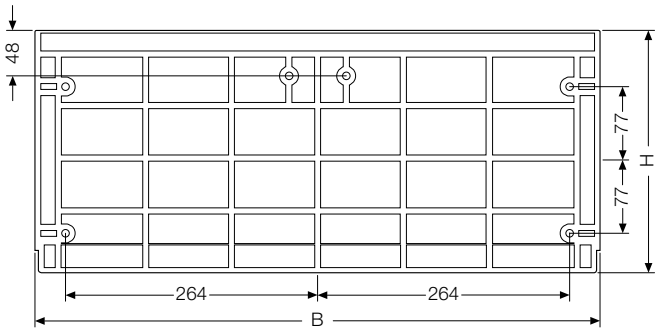
Pedestal

Front view

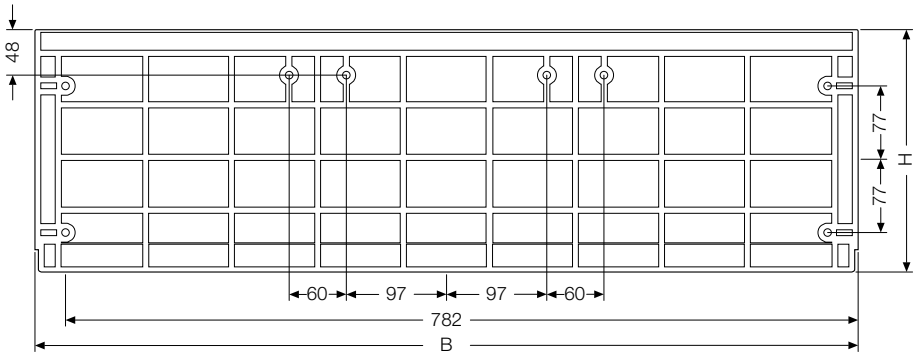




Size 4, 5



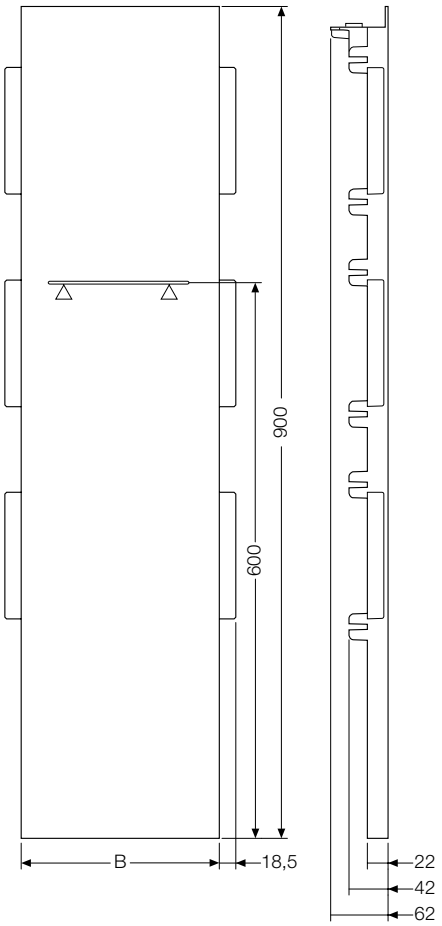
Size 6

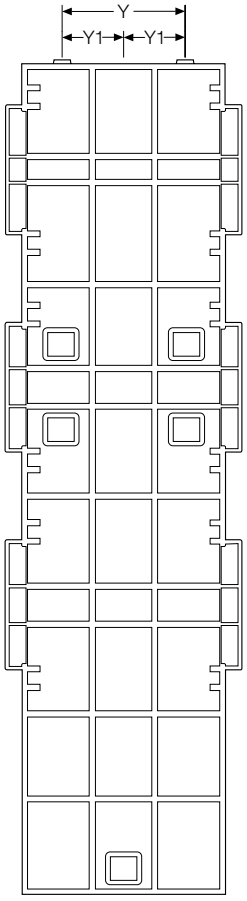


Size	B	H	s
4	592	254	28
5	592	254	28
6	846	254	28

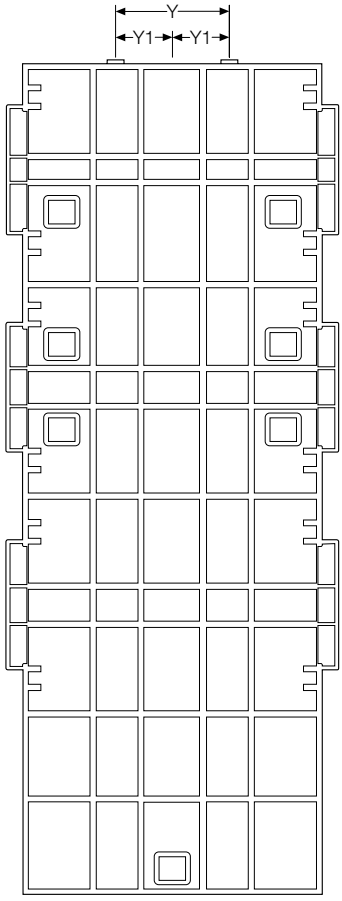
Measurements are expressed in millimeters.

Side view





Size 4



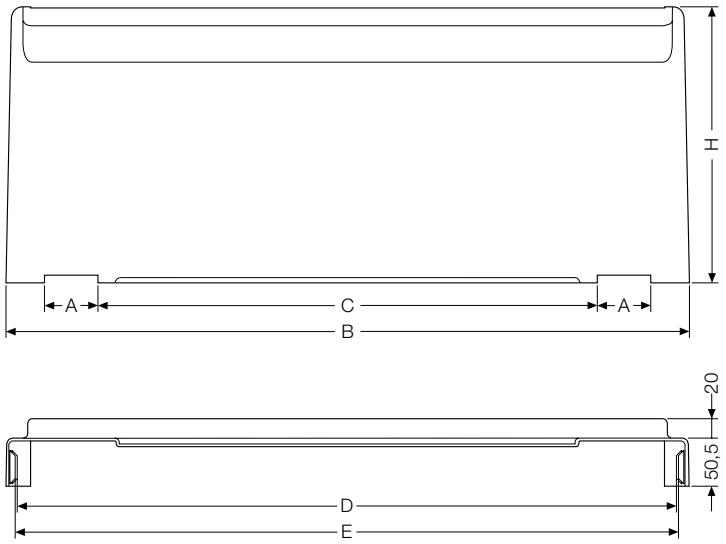
Size 5, 6

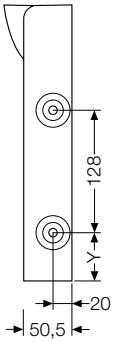
Size	B	Y	Y1
4	213	130	65
5	313	120	60
6	313	120	60

Measurements are expressed in millimeters.

Overall dimensions
Components for distribution and mixed applications

Horizonal Gemini kit

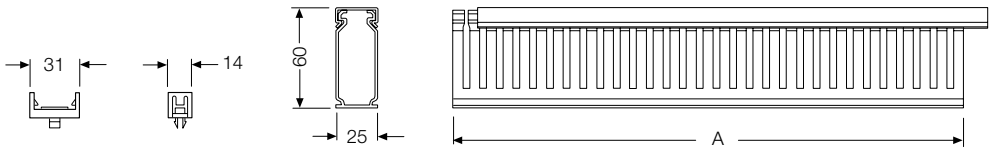




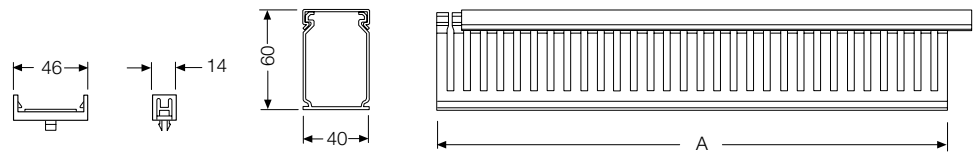
Size	A	B	C	H	Y	D	E
3	56	715,6	523	288	51	692	696
4	56	715,6	523	288	51	692	696
5	60	870	660	388	151	844	848
6	60	1021	810	388	153	994	998

Wiring kit

Duct 25x60 mm



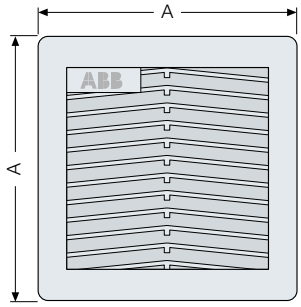
Duct 40x60 mm



Size	A
1	210
2	318
3	318
4	443
5	443
6	663

Measurements are expressed in millimeters.

Ventilation kit



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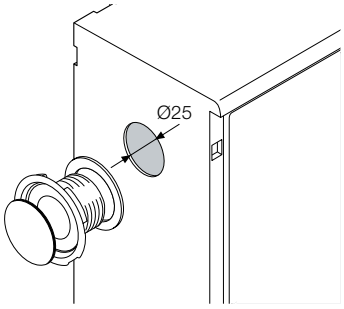
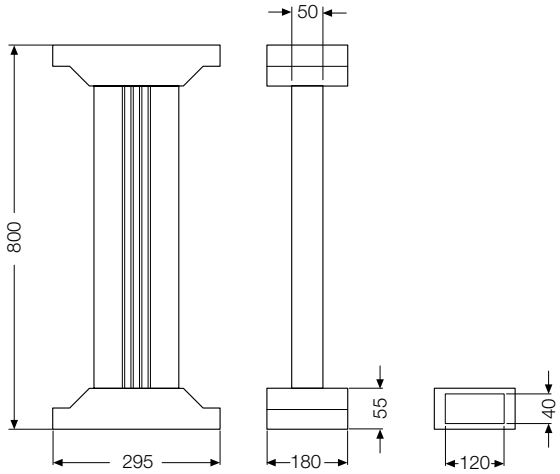
EN0150K	150
EN0204K	204

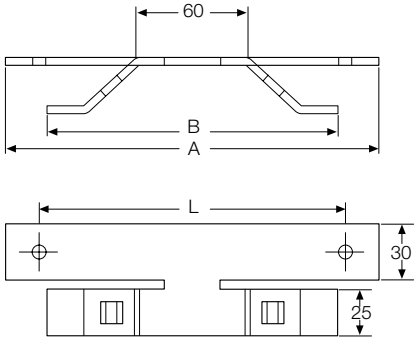
Anti-condensation kit



Floor pedesta



Pole installation kit



Size	A	B	L
1	232	206	196
2	358	332	320
3	358	332	320
4	483	457	447
5	483	457	447
6	733	707	697

Note: minimum pole section = 150 mm

Measurements are expressed in millimeters.

Code list

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