

GENERAL CATALOGUE

2026-2028

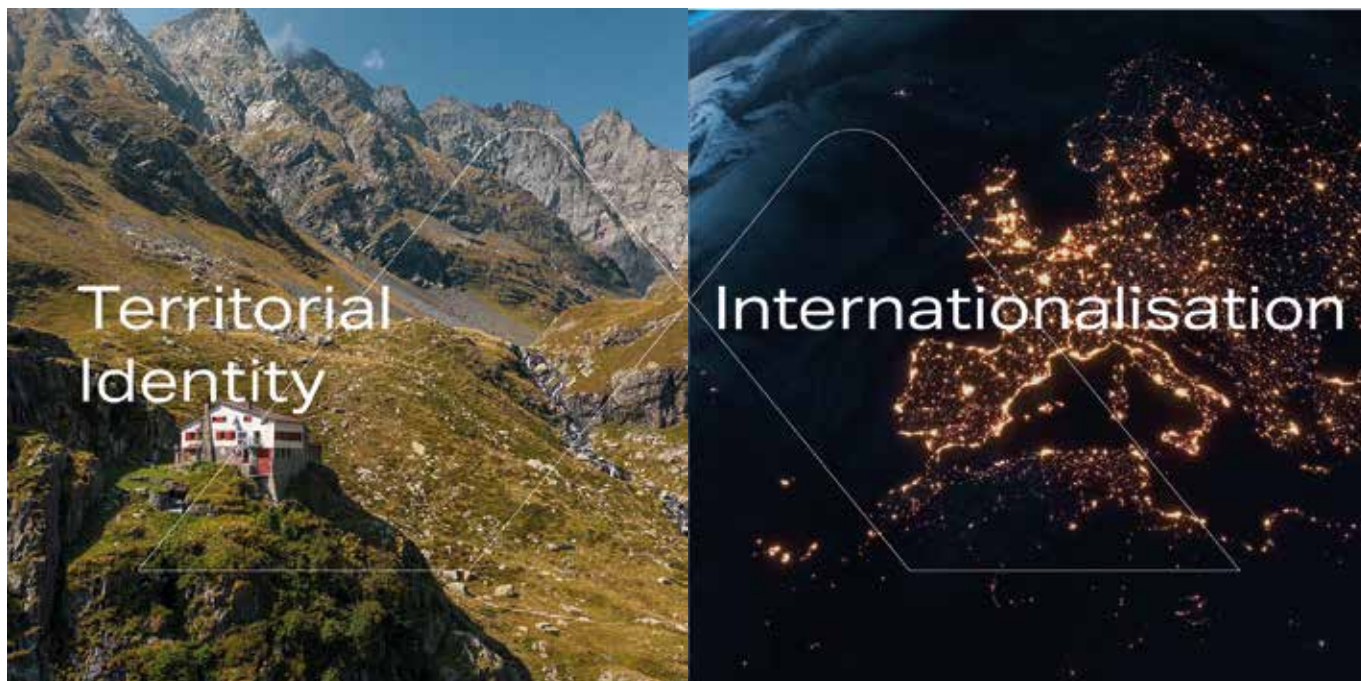


HAZARDOUS
AREAS Ex

GENERAL CATALOGUE 2026-2028

SCAME
feeling connected

www.scame.com



SCAME PARRE S.P.A.

A history of innovation with solid roots

SCAME PARRE S.p.A., head of the SCAME group, is a manufacturer of components and systems for electrical installations in the civil, services and industrial sector, born and raised in the mountains of the upper Val Seriana, in the Province of Bergamo, Northern Italy.

Since 1963, the year of its foundation, in more than half a century of activity, SCAME has never betrayed the spirit of the origins made of attention to the environment and the person, as well as continuous research to provide an innovation that is never an end in itself, but which translates into total quality and real benefits for the user.

Already a pioneer in the field of the solutions dedicated to electric vehicles charging for which it is today considered an absolute benchmark, the continuous search for new markets has led SCAME to develop also an articulated range

of ATEX IECEx products for installation in hazardous areas, without neglecting its traditional offer based on products for domestic and industrial applications, even heavy ones.

A catalog able to meet any installation requirement, a product quality guaranteed by compliance with national and international Standards, a rapid customer service able to support every choice and an high level of service, have enabled SCAME to affirm its presence not only nationally, but also internationally through a network of 16 subsidiaries and a consolidated network of distributors in over 80 countries on 5 continents.

Prized by the Italian Government as an "Historical Brand of National Interest", excellence of true Made in Italy, SCAME is already prepared for the challenges that await it in the future, always ready to innovate and renew itself.





SCAME PARRE S.P.A.

Italia Parre (Bergamo)

SCAME ARGENTINA

Argentina Don Torcuato (Buenos Aires)

SCAME BRASIL

Brasil Atibaia (Sao Paulo)

SCAME BULGARIA

Bulgaria Sofia

SCAME CHILE

Chile Santiago

SCAME IBERICA

Spain El Papiol (Barcelona)

SCAME INDIA

India Mumbai

SCAME MIDDLE EAST

U.A.E. Dubai

SCAME POLSKA

Poland Zawierce (Katowice)

SCAME PORTUGAL

Portugal Albergaria-A-Velha (Aveiro)

SCAME-CZ

Czech Republic Velke Mezirici (Žďár nad Sázavou)

SCAME-RO

Romania Remetea Mare (Timis)

SCAME-SK

Slovakia Dolny Kubin

SCAME-TOP

China Beijing

SCAME-UA

Ukraine Kamenets Podolsky

SCAME-UK

United Kingdom Tewkesbury (Gloucestershire)

SOBEM SCAME

France Sainte-Marie-sur-Ouche (Dijon)



THE CONCEPT OF QUALITY IS AN INTEGRAL PART
OF OUR CULTURE IN ALL ASPECTS AND
EVERY ACTIVITY OF OUR WORK.

SCAME
feeling connected



Guide to the ATEX directives

1. THE RISK OF EXPLOSION

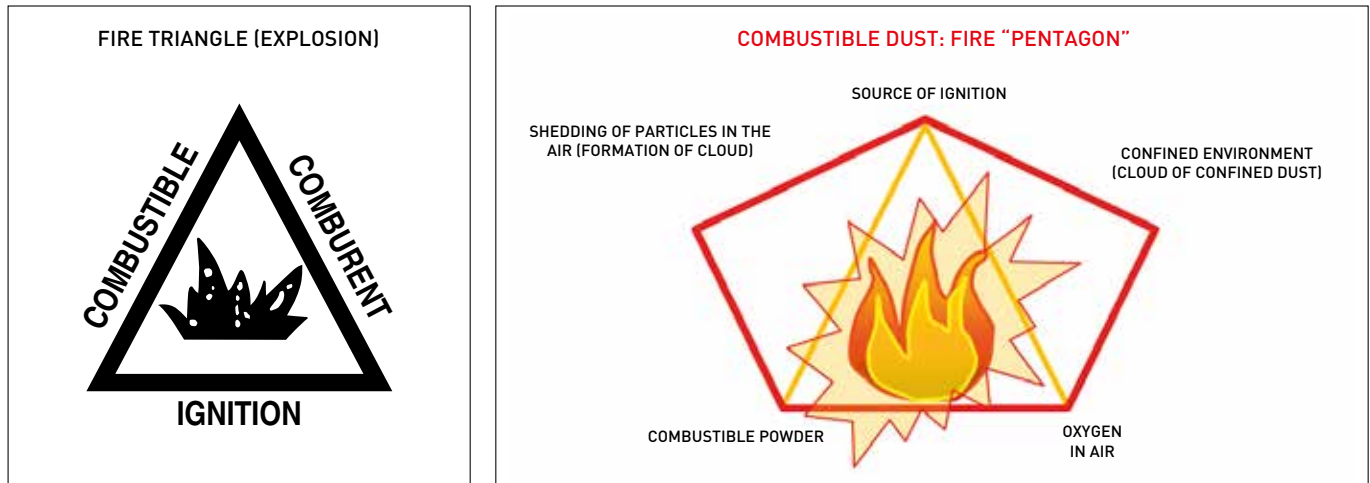
An explosive atmosphere is a mixture of flammable substance with air in such concentration that, after ignition has occurred, combustion quickly spreads to the flammable mixture (in the order of milliseconds) not compatible with the development of fire.

The flammable substance can be formed from substances in the state of gas, vapours, mists or combustible dusts, which can be released by the air containment system under normal atmospheric conditions. The risk of explosion treated by the rule of art referred to in this guide relates to mixtures in normal atmospheric conditions and explosives or chemically unstable substances are excluded. When released, a flammable substance, in order to generate an explosive atmosphere, must be present in concentration in the air which is included between two limits: a lower one (LEL) and an upper one (UEL). Outside the range of the two limits, no explosion occurs. When within the interval, the mixture is in the explosive range and if a source of ignition of sufficient energy is present, the explosion occurs.

Explosive limits and minimum ignition energy are characteristics of each flammable substance, both gases and dusts.

The ignition sources can be of different nature: temperature, friction, mechanical spark, electric spark, electrostatic discharge, light sources, ultrasound, electromagnetic fields.

The phenomenon is described by the well-known fire triangle (gases) and by the explosion pentagon (dusts).



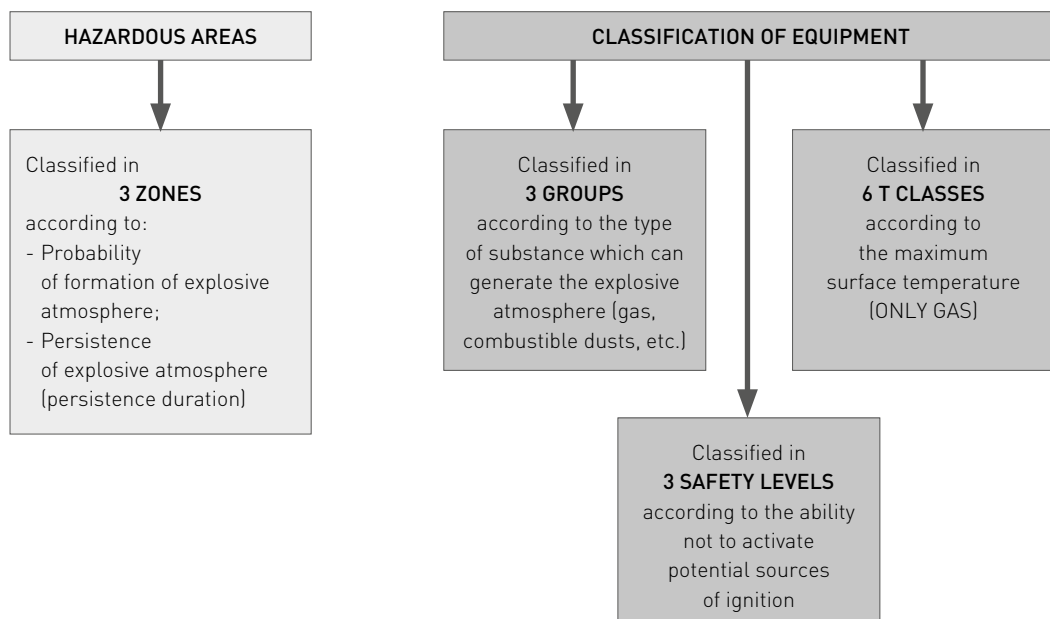
2. THE WORLD Ex - IEC ZONE SYSTEM

IEC (International Electrotechnical Commission) has been dealing with the prevention and protection approach in places at high risk of explosion, by means of standards (IEC standards) which regulate a system also known as IEC ZONE SYSTEM.

The IEC ZONE SYSTEM is based on the integration of the prevention and protection requirements entrusted to specific reference figures: the manufacturer of the equipment, the system manager (typically the employer), the plant designer and the manufacturer of the plant (equipment selection and installation). IEC standards entrust each of these roles with responsibilities.

The system is based on the classification of places in hazardous areas and on the classification of equipment. Workplaces with the presence of flammable substances are classified into: 3 hazardous areas with increasing probability of presence and persistence of explosive atmosphere. The equipment manufacturer classifies them in: 3 groups (in relation to the substance which generates the explosive atmosphere) and in 3 safety levels (in relation to the ability not to ignite in different operating conditions: in case of failures or in normal operation).

Prevention and protection are implemented by the correct choice and installation of the classification of the equipment for the specific classified area.



The Zones/Equipment system suitable for the zones establishes requirements for equipment and systems and identifies the various technical figures with the related responsibilities and competences.

SYSTEM	ACTION	IEC STANDARD	RESPONSIBLE	COMPETENCES (#)
HAZARDOUS AREAS	CLASSIFICATION	60079-10	EMPLOYER / PLANT MANAGER	General information on the explosion danger Substances and production processes Protective equipment and techniques
EQUIPMENT	CONSTRUCTION OF EQUIPMENT WITH PROTECTION TECHNIQUES	60079 -0 AND PARTS 1, 2, 7, 11, 15, 18, 31, etc. depending on the type of protection	APPLIANCE MANUFACTURER	General information on the explosion danger Specifications on protection techniques (protection modes) Specifications on certification procedures
ELECTRICAL SYSTEM	DESIGN, SELECTION AND INSTALLATION OF THE EQUIPMENT	60079-14 (National Guide CEI Guide 31-108)	EMPLOYER / PLANT MANAGER DESIGNER INSTALLER	DIFFERENT LEVEL ACCORDING TO THE ROLE: General information on the explosion danger Specifications on protection techniques (protection modes) Knowing how to read markings and product docs Specifications on the system standard and on the additional requirements of the standard with respect to the protection mode THEY MUST NOT NEGATIVELY AFFECT THE PROTECTION OF THE EQUIPMENT IN THE CHOICE OR INSTALLATION OF THE EQUIPMENT
ELECTRICAL SYSTEM	VERIFICATION	60079-17	EMPLOYER / PLANT MANAGER ELECTRIC WORKER	DIFFERENT LEVEL ACCORDING TO THE ROLE: General information on the explosion danger Specifications on protection techniques (protection modes) Knowing how to read markings and product docs Specifications on the system standard and on the additional requirements of the standard with respect to the protection mode THEY MUST GUARANTEE EFFECTIVE PROTECTION OVER TIME

What does it mean to have the competences and who confers them?

The competences required for the design of electrical systems, the choice and correct installation of electrical equipment are defined in Annex A (normative) of the IEC 60079-14 standard, implemented in Italy by the CEI as CEI EN 60079-14 Standard. The annex explains the **knowledge, skills and competences of the responsible staff, operators/technicians and designers**, as a "regulatory requirement".

This means that declaring a system compliant with the CEI EN 60079-14 standard, for example in a declaration of conformity (DICO) in compliance with D.M. 37/08, means declaring one's specific competence in the field of electrical systems in places with risk of explosion.

Italy has to date no National Law or Standard or National certification scheme of personal competence, which can give evidence of a third party that can attest to having the required knowledge.

The legal obligation of competence remains implicit in the application of the technical standard.

However, there are certification schemes which can certify competences in compliance with IEC 60079-14 and IEC 60079-17 (verifications), but it is up to the individual's will to comply with them or not and often require travelling abroad. Some of these schemes are: IECEx CoP (IEC certification, international), Compex (UK), IsmATEX (France), etc.

Guide to the ATEX directives

3. IEC ZONE SYSTEM - CLASSIFICATION OF AREAS

ZONE	ATMOSPHERE	DEFINITION	STANDARD TO CLASSIFY
ZONE 0	GAS, STEAM	An area in which an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is present permanently, for long periods or often. (> 1000 hours/year)	IEC EN 60079-10-1
ZONE 1		Area in which, during normal activities, the formation of an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is likely. (10 - 1000 hours/year)	
ZONE 2		Area in which, during normal activities, the formation of an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapour or mist is not likely and, if it occurs, it is only of short duration. (< 10 hours/year)	
ZONE 20	COMBUSTIBLE DUST	Area in which an explosive atmosphere in the form of a cloud of combustible dust in the air is present permanently, for long periods or often. (> 1000 hours/year)	IEC EN 60079-10-2
ZONE 21		Area in which, during normal activities, the formation of an explosive atmosphere in the form of a cloud of combustible dust in the air is likely. (10 - 1000 hours/year)	
ZONE 22		Area in which, during normal activities, the formation of an explosive atmosphere in the form of a cloud of combustible dust in the air is not likely and, if it occurs, it is only of short duration. (< 10 hours/year)	

4. IEC ZONE SYSTEM - CLASSIFICATION OF EQUIPMENT

CLASSIFICATION OF EQUIPMENT IN GROUPS (FLAMMABLE SUBSTANCE)

GROUP	EQUIPMENT FOR
GROUP I	Grisou Gas Mine
GROUP IIA	Propane
GROUP IIB	Ethylene
GROUP IIC	Hydrogen and Acetylene
GROUP IIIA	Combustible fibres
GROUP IIIB	Non-conductive dusts
GROUP IIIC	Conductive dusts

CLASSIFICATION OF EQUIPMENT IN TEMPERATURE CLASSES (GAS, STEAM ONLY)

TEMPERATURE CLASS	MAXIMUM SURFACE T
T1	450 °C
T2	300 °C
T3	200 °C
T4	135 °C
T5	100 °C
T6	85 °C

The maximum surface temperature of a piece of equipment for flammable gases or vapours is the maximum temperature reached by the hottest part of the equipment in contact with the explosive atmosphere, which can be outside or inside the enclosure, depending on the type of product, when it is at the maximum declared ambient temperature.

DUST equipment is not classified in Temperature classes, because the IEC system takes into account the two trigger temperatures which characterise dust: **T_{cl}** (dust cloud ignition T) and **T_l** (dust layer ignition T).

CLASSIFICATION OF EQUIPMENT IN COMPLIANCE WITH THE LEVEL OF PROTECTION

(EPL - Equipment Protection Level)

ALL ATMOSPHERES

Protection levels (EPL) in compliance with IEC 60079 classification			
ATMOSPHERE	EPL	PROTECTION LEVEL	INSTALLATION AREA
MINE GAS GROUP I	Ma	VERY HIGH	--
	Mb	HIGH	--
SURFACE GAS GROUP IIA, IIB, IIC	Ga	VERY HIGH	ZONE 0
	Gb	HIGH	ZONE 1
	Gc	NORMAL	ZONE 2
COMBUSTIBLE DUST GROUP IIIA, IIIB, IIIC	Da	VERY HIGH	ZONE 20
	Db	HIGH	ZONE 21
	Dc	NORMAL	ZONE 22

5. IEC ZONE SYSTEM - EQUIPMENT BUILT NOT TO IGNITE: THE PROTECTION MODES

The equipment which complies with the IEC 60079 system is called "Ex" equipment. The two letters are also used as a prefix in the marking of the product, when it is built with one of the protection techniques against ignition, also called "protection modes".

There are different ways of protection depending on the method by which ignition and explosive atmosphere are prevented from meeting:

1. Atmosphere and ignition are allowed to come into contact within the enclosure. The enclosure is constructed in such a way as to withstand the stresses of an internal explosion and not to propagate the flame outside
2. Atmosphere and ignition cannot come into contact: by means of physical impediment or by limiting the presence of the ignition to conditions of rare probability
3. The ignition energy is limited below the minimum energy values of ignition of the atmosphere (energy limitation)

Each type is developed in different protection modes.

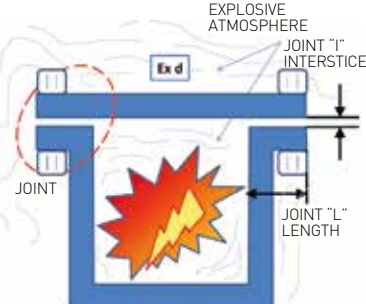
Protection mode	IEC / EN standard	Definition	Connection with types 1, 2 and 3
d	60079-1	Explosion-proof enclosures	type 1: PROTECTION
p	60079-2	Internal overpressure	type 2: PREVENTION - Absence of explosive atmosphere
e	60079-7	Increased security	type 2: PREVENTION - Absence of ignition source
i	60079-11	Intrinsic safety	type 3: PREVENTION - Energy limitation
n	60079-15	Protection mode "n"	type 2: PREVENTION - "nC" (hermetically sealed) and "nR" (limited breathing) modes
m	60079-18	Protection by encapsulation	type 2: PREVENTION - Absence of explosive atmosphere
t	60079-31	Protection by "t" enclosures (combustible dusts)	type 2: PREVENTION - Absence of explosive atmosphere

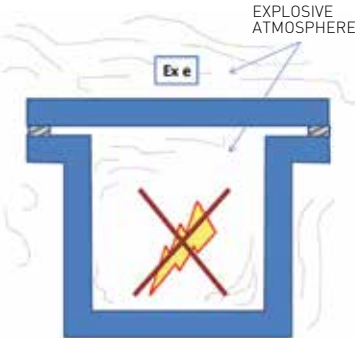
Note 1: The table above shows only the techniques most commonly used in plants. There are other protection modes depending on the technique used and the type of product.

Guide to the ATEX directives

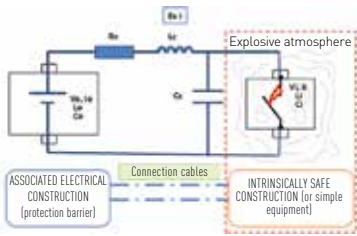
Note 2: The "n" protection mode (standard 60079-15) has changed over time in relation to the evolution of the standards. In fact, in the standard, the following can no longer be found:

- the "nA" mode: transferred to the 60079-7 standard of the protection mode "e" of increased safety, as a protection mode with increased safety for "ec";
- the "nC" Enclosed Break mode: transferred to the 60079-1 standard of the protection mode "d", as explosion-proof enclosures "dc";
- the "nL" mode: transferred to the 60079-11 standard of the intrinsically safe protection mode, as the intrinsic safety protection mode "ic".

Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents
d	60079-1	 FOR GAS ATMOSPHERES ONLY SPARKLING COMPONENTS PROTECTION LEVEL: - VERY HIGH "Ga" (very small volumes) → ZONE 0 - HIGH "Gb" → ZONE 1 - NORMAL "Gc" (the old "nC" enclosed break) → ZONE 2 What does protection do? External enclosure - equipment and components inside the enclosure can be standard (both sparking and non-sparking); - gas can enter inside the enclosure; - if the explosive atmosphere is ignited: 1. The enclosure holds the pressure resulting from the explosion, without being damaged; 2. the joints of the enclosure are designed in such a way that the flame, by passing through them, cools down and only the combustion product arrives outside, which is unable to ignite the surrounding atmosphere. Due to this, Length and Maximum interstice of the joints are regulated according to the gas GROUP; APPLICATIONS: switches, electric actuators, junction boxes, electrical panels, motors, lamps, etc.	Ex "d" enclosures and components, provided only with a component certificate, i.e. marked with the suffix "U", must not be installed in a dangerous place if they are not part of a set with Ex certificate of complete equipment: taking an empty case and building a painting is NOT allowed. Additional holes or modifications to the entrances of an Ex "d" enclosure must be made only by the manufacturer or by a specially qualified and certified service centre. Keep the distance from obstacles (e.g. walls) of the standard according to the gas Group. Explosion-proof joints must not be painted. Special requirements for the use of grease to protect the joint from corrosion Particular requirements on taping of the flange-joint (not allowed for Group IIC) CABLE ENTRIES Plugs certified with "d" for the same gas Group as the equipment. You can use cable gland ONLY if marked "d" for the same gas Group as the equipment. The type of cable gland can be with rubber seal or "barrier" (sealed). This depends on the type of cable. The standard provides requirements for the choice of the type. Entry into the equipment with protection mode "d" can take place: - directly with a sealed explosion-proof cable gland (barrier cable glands), which has an external sealing rubber and has a part, directly in communication with the housing of the "d" equipment, which is sealed on the conductors with a special compound during the installation phase (e.g. two-component resin); - directly with cable gland "d" equipped with a sealing ring (compression) or rubber seal; - directly in the protection tube and related connection components (e.g. fittings, locking fitting); - indirectly, through the use of a combination between an explosion-proof enclosure "d" equipped with a loop and an increased safety terminal box. When using armoured cables, pay attention to the correct assembly of the cable gland in order to guarantee suitable compression of the armour and the consequent continuity on grounding If the entry is in conduit: - locking fitting certified with "d" for the same gas group as the equipment, installed as close as possible to the enclosure. - between enclosure and locking fitting: certified components. - after the locking fitting: non-certified components (e.g. conduit). The locking fitting must be installed as close as possible to the walls of the enclosure "d".	- No tampering - No changes - No damage on the rolling joint - Cable glands, caps, bolts, locking fittings of the correct type (also verify the Gas group) and tightened fully or as per instructions - Suitable cable type - Specific conditions of safe use in the certificate and instructions, fulfilled - Additional requirements 60079-14 met (distance from obstacles, grease on the joint, no paint, etc.) - Verification of adequate protections against external atmospheric agents (corrosion, vibrations, etc.)	Advantages - standard components, also sparking - IP rating does not ensure protection ATTENTION: - do not paint or scratch the joints - to tightening torques - do not lose bolts - to cable entries: choice of cable gland or locking fitting in case of conduit entry. - to cable gland preparation for armoured cable - if barrier cable gland or locking fitting: good execution of the two-component resin coating. - to equipotentiality on cable entries - if there are special conditions for safe use ("X" on the certificate and specific information in the documentation)

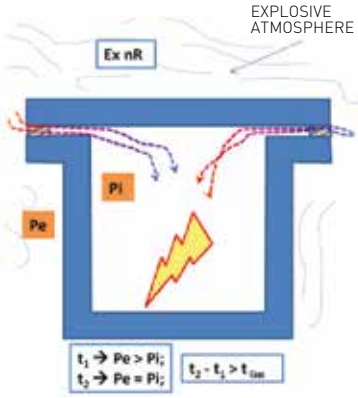
Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents
e	60079-7	 EXPLOSIVE ATMOSPHERE FOR GAS ATMOSPHERES ONLY NON-SPARKLING COMPONENTS PROTECTION LEVEL: - HIGH "Gb" → ZONE 1 - NORMAL "Gc" (the old "nA") → ZONE 2 What does protection do? External enclosure + Internal components Additional measures are applied to provide increased safety against the possibility that the construction will not produce arcs, sparks or excessive temperatures, during normal operation or in specified abnormal conditions. It is applicable for equipment with nominal voltage up to 11 kV in AC/DC ENCLOSURE: IP protection requirements minimum IP54 obtained after: ageing (hot/cold), impact resistance (hot/cold), fall (if portable). The degree of protection has the purpose of preventing the penetration of solids or water (conductors) which may affect the insulation distances, which guarantee the maintenance of the non-sparking property. Non-metallic or metallic material. INTERNAL COMPONENTS: The requirements are such that the non-sparking components are "increased" by increasing insulation distances, mechanical fixings, vibration checks, choice of materials with increased electrical characteristics. Internal components must be certified as "e" components The temperature class of the building is defined by the maximum temperature reached by one part of the equipment under test in the conditions established by the standard, including the surfaces of internal parts to which the potentially explosive atmosphere can access APPLICATIONS: Terminal blocks and equipment terminals; coils; rotating electrical machines; lighting equipment; transformers; junction and junction boxes for general purposes; resistance heating devices (other than heating cables).	Ex "e" enclosures and components provided only with a component certificate, i.e. marked with the suffix "U", must not be installed in a dangerous place if they are not part of a set with Ex certificate of complete equipment: Taking an empty case and setting up a switchboard or junction box is NOT allowed. Additional holes or modifications to the entrances of an Ex "e" appliance must be made only by the manufacturer. Installation of other components inside the enclosure is not allowed. Requirements for limiting the temperature, especially to guarantee the disposal of the heat produced by the power dissipated inside the enclosure, in order to prevent the temperature from exceeding the temperature class of the equipment. The length of the conductors inside the enclosure should be kept as short as possible as a basis for the calculation and not greater than the length of the diagonal of the enclosure. Do not exceed the maximum of 6 conductors for each bundle inside the housing. Fully tighten unused terminals. The manufacturer's documentation contains information on: - maximum number of terminals - size of the conductor - maximum current - maximum number of conductors for each connection point (the standard requires 1, but it depends on the certificate) - preparation of cable terminations: type of terminals, stripping length, etc. - terminal tightening torque - tightening torque of the enclosure screws CABLE ENTRIES Certified plugs "e" for the same gas Group as the equipment. You can use a cable gland ONLY if marked "e" for the degree of protection of the construction certificate with the minimum IP54 (the standard also admits "d" but must guarantee the degree of protection of the certificate with a minimum IP54).	- No tampering - No modifications (internal components and enclosure) - No damage on the enclosure - No damage to the seals on which the enclosure depends - No damage to cables and conductors - Minimum degree of protection IP54 (the one in the certificate) maintained during installation - Minimum degree of protection IP54 (the one in the certificate) maintained in the assembly of the entrances in the enclosure - Cable glands, caps, bolts of the correct type (also check the Gas Group) and tightened as per instructions - Tightening electrical connections and checking the terminals - Tightening the unused terminals to the bottom - Grounding of insulated metal parts (metal cable glands and cable armours) - protections of the motors "e" operating between the time limits tE or tA. - Clean and dry electrical insulating parts - Verification of adequate protections against external atmospheric agents (corrosion, vibrations, etc.)	Advantages - Less rigid plant, closer to the concept of plant in ordinary places - No need for sealed cable entries ATTENTION: - do not damage the thermal part with use outside the ratings or with the addition of components - to tightening torques - to correct cable preparation - do not pile cables inside the enclosures - to insulation voltage of the cables in compliance with that of the equipment - do not lose bolts - to cable entries: choice of cable gland - to cable gland preparation for armoured cable - to equipotentiality on cable entries - to maintenance of IP degree - if there are special conditions for safe use ("X" on the certificate and specific information in the documentation)

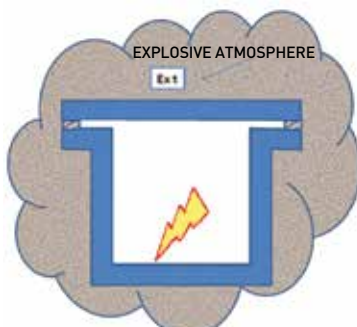
Guide to the ATEX directives

Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents												
i	60079-11	$U_o \leq U_i$$I_o \leq I_i$$C_c = C_o - C_i$$L_c = L_o - L_i$  FOR GAS AND DUST ATMOSPHERES SPARKLING COMPONENTS PROTECTION LEVEL: - VERY HIGH "Ga, Da" → ZONE 0, 20 - HIGH "Gb, Db" → ZONE 1, 21 - NORMAL "Gc, Dc" → ZONE 2, 22 What does protection do? ALL the circuit is composed of: Associated construction (intrinsic safe barrier) + cables (type, section and length) + intrinsic safe equipment Energy is limited (a few watts, with short-circuit currents allowed up to a few Ampere units) through power supplies which supply power, voltage and current (U_o, I_o, P_o output), which is coordinated with the energy of the element in field (U_i, I_i, P_i), that is, if lower, they do not develop energy that triggers the explosive atmosphere, both in normal operation and in conditions of foreseeable and rare failure. Energy is also limited on the concentrated parameters of the circuit (C and L) and cables are also considered in the calculation. Depending on the operating condition in which the limitation is guaranteed (faults or normal operation), the circuit offers the following protection levels. <table><thead><tr><th>LEVEL OF PROTECTION (EPL)</th><th>CONDITIONS WHICH IMPEDE IGNITION</th><th>SYMBOL</th></tr></thead><tbody><tr><td>Ga, Da</td><td> - normal operation, and with the application of two faults - normal operation, and with the application of one fault - normal operation </td><td>ia</td></tr><tr><td>Gb, Db</td><td> - normal operation, and with the application of one fault - normal operation </td><td>ib</td></tr><tr><td>Gc, Dc</td><td> - normal operation </td><td>ic</td></tr></tbody></table> the energy limitation refers to the minimum ignition energy of the substance, therefore intrinsically safe gas equipment is designed and manufactured for a specific group of gases. The protection level is obtained from the barrier protection level. The barrier can be of two types: - Zener diode barrier: voltage limitation by means of Zener diodes parallel to the circuit and current limitation by means of resistors or fuses - Galvanic isolation barrier: isolated and energetically limited circuit The associated electrical construction (barrier), when inside the dangerous area, must be protected by one or more protection modes, with a protection level (EPL) suitable for the classified area [e.g. by means of an Ex d enclosure if installed in zone 1]	LEVEL OF PROTECTION (EPL)	CONDITIONS WHICH IMPEDE IGNITION	SYMBOL	Ga, Da	- normal operation, and with the application of two faults - normal operation, and with the application of one fault - normal operation	ia	Gb, Db	- normal operation, and with the application of one fault - normal operation	ib	Gc, Dc	- normal operation	ic	Intrinsically safe protection is a system (circuit), which must be coordinated in order to prevent that sparks or energy released from have values that trigger the explosive atmosphere, both Gas (Group II) and dusts (Group III): a coordination document for each IS circuit is required, with: - identification of the components (barrier, cables, junction boxes and field equipment, if any) - references to the barrier certificate and to that of the element in field (if it is not a "simple apparatus") - identification of the electrical output parameters of the barrier and input of the construction in field - identification of the concentrated parameters (C, L of output, input and of the various pieces of cable) - calculations of coordination and verification of intrinsic safety - circuit diagram for connecting the equipment There are no particular conditions for the enclosures (minimum IP20), unless the installation or the intrinsically safe construction certificate requires a specific IP degree (for example, dust). They must be marked externally with the label "contains intrinsically safe circuits" The I.S. circuits MUST always be uniquely identified. Labels (TAGs) can be used, but if a colour is used, it must be light blue. The protection level of the intrinsically safe circuit is the lowest of one of the constructions which constitute the circuit (for example, a circuit with constructions of level "ib" and "ic" will have a protection level "ic") CABLES and CABLE INSTALLATION In intrinsically safe circuits, only cables whose test voltages of insulation of the conductor towards the ground, towards the shield and the one of the shield towards the ground, must be at least 500 V AC. or 750 V DC. Inside the place with risk of explosion, the diameter of the individual conductors or strings of stranded cables must not be less than 0.1 mm. Cables must be installed to ensure that intrinsically safe circuit cables cannot be inadvertently connected to circuit cables which are not intrinsically safe. I.S. And non-I.S. cables must be installed: - in separate conduits (grounded if metal) - in the same conduit (grounded if metal) but one of the two cables (both are better) is reinforced, with metallic casing or protection - in separate sections of the same walkway (grounded if metal) CABLES NOT USED - insulated from the ground connected to a single unused terminal, on both sides, or - connected to the same grounding point as the i.s. circuit, typically the barrier ground bar The standard establishes requirements for wiring inside the enclosure, regarding distances between I.S. and not-I.S. Circuits and towards grounded elements. The cables must be connected to the equipment according to the circuit diagrams which include information on how to connect the equipment, as envisaged in the certificate and/or instructions.	EQUIPMENT - presence of the descriptive document of the I.S. circuit - suitable documentation at the protection level/ Zone - equipment installed as specified in the documentation (circuit diagram) - Installation clearly identified as in I.S. and each cable identified I.S., including the TAGs for the conductors connected to the equipment according to the wiring diagrams - No tampering - No modifications (internal components and enclosure) - Barriers correctly installed and earthed according to the standard requirements and the manufacturer/ certificate instructions - Satisfactory housing conditions (IP required) - electrical connections tightened tightly, unused terminals tightened tightly INSTALLATION - cables installed according to documentation - unused cables connected as required by the standard - cable protections grounded in one point (or as per documentation) - cable armour grounded on both sides (instrument and panel) - no damage to cables - point-to-point connections according to the scheme - satisfactory grounding connections: where carried out [e.g. high integrity], cable insulation, minimum cable section, max resistance - separation between I.S. circuits and not - isolation distances - cable terminations as per documentation (terminals, insulation, etc.)	Advantages - circuits can sparkle - low voltage system (<50 V), typically for instrumentation - No need for sealed cable entries - sometimes it does not require special IP requirements (if not from certificate or for dust) - often associated equipment (barrier) in an unclassified area within ordinary switchboards ATTENTION: - to uniquely identified circuits - to the presence of the circuit documentation (complete) - to a careful reading of the documentation and certificates - to choose of barrier coordinated with field equipment - to a coordinated level of protection - to take care of the installation of the cables inside the enclosures (insulation distances) and inside the conduits (separation) - to type of cable and maximum lengths allowed - to grounding connections (barriers, cable shields, cable armours) - if there are special conditions for safe use ("X" on the certificate and specific information in the documentation)
LEVEL OF PROTECTION (EPL)	CONDITIONS WHICH IMPEDE IGNITION	SYMBOL															
Ga, Da	- normal operation, and with the application of two faults - normal operation, and with the application of one fault - normal operation	ia															
Gb, Db	- normal operation, and with the application of one fault - normal operation	ib															
Gc, Dc	- normal operation	ic															

Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents				
i	60079-11	Intrinsically safe equipment is generally equipped with a certificate, unless: - it is a "simple apparatus" in compliance with the standard (passive apparatus, which does not accumulate active energy) - it has ic protection level (only for ATEX certification scheme), but in any case it must be accompanied by information on the input parameters. The barriers are certified even if installed in an unclassified Zone. APPLICATIONS: Instrumentation, low power electronic devices.	GROUND AND EQUIPOTENTIAL CONNECTIONS Zener diode barriers require: - a "high integrity earth connection": made with the connection to a ground bus in the electrical substation (main earth node) and not in the switchboard earth node - insulated ground conductor, and the resistance of the earth connection between the barrier ground bus and the main earth node must have $R \leq 1 \Omega$ - The conductors for the barrier ground connection must have a suitable cross section for carrying the fault current (one conductor $> 4 \text{ mm}^2$ or two insulated conductors $> 1.5 \text{ mm}^2$). Galvanic barriers have no specific grounding requirement (always read the barrier's documentation if required by the certificate or instructions). The cable protections are grounded in a single point (or as required by the system documentation), typically in the switchboard in a safe area. The armours of the armoured cables must be connected to the potential equalization system through the cable entry devices, or with an equivalent system, at each end of the cable path VERIFICATION OF INTRINSICALLY SAFE CIRCUITS (only one barrier in the circuit) The conditions must be verified by examining the certificates: <table><tr><th>Barrier</th><th>Cables</th></tr><tr><td>$U_i \geq U_o$ $I_i \geq I_o$ $P_i \geq P_o$</td><td>$C_i + C_c \times l \leq C_o$ $L_i + L_c \times l \leq L_o$ if $L_i + L_c \times l \geq L_o$ then $L_c/R_c \leq L_o/R_o$</td></tr></table> Where the following suffixes mean: o: Barrier output i: input into the device in field c: cable	Barrier	Cables	$U_i \geq U_o$ $I_i \geq I_o$ $P_i \geq P_o$	$C_i + C_c \times l \leq C_o$ $L_i + L_c \times l \leq L_o$ if $L_i + L_c \times l \geq L_o$ then $L_c/R_c \leq L_o/R_o$		
Barrier	Cables								
$U_i \geq U_o$ $I_i \geq I_o$ $P_i \geq P_o$	$C_i + C_c \times l \leq C_o$ $L_i + L_c \times l \leq L_o$ if $L_i + L_c \times l \geq L_o$ then $L_c/R_c \leq L_o/R_o$								

Guide to the ATEX directives

Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents
nR	60079-15	 FOR GAS ATMOSPHERES ONLY FOR SPARKLING AND NON-SPARKLING COMPONENTS PROTECTION LEVEL: - NORMAL "Gc" → ZONE 2 What does protection do? EXTERNAL ENCLOSURE The limited breathing equipment is built to limit heating during normal operation (ΔT limited to 20 K between enclosure and environment), so that the depression occurring when de-energized, is such as to delay the entry of explosive atmosphere for a time limit indicated by the standard (compatible with the definition of zone 2). INTERNAL COMPONENTS: standard ENCLOSURE - if the components are sparking, a test point for field checks is required - The time in which the depression occurring when the equipment is de-energized returns to environmental pressure is obtained through the mechanical integrity of the enclosure and the seal by means of gaskets. These properties are verified through a breathing test (pressure) after: ageing (hot/cold), impact resistance (hot/cold), fall (if portable). Enclosure material not metallic or metallic. CABLE ENTRIES: Marked with NR, or covered tested with the equipment and supplied by the equipment manufacturer.	Ex "nR" enclosures provided only with a component certificate, i.e. marked with the suffix "U", must not be installed in a dangerous place if they are not part of a set with Ex certificate of complete equipment: Taking an empty case and setting up a switchboard or junction box is NOT allowed. Additional holes or modifications to the entrances of an Ex "nR" appliance must be made only by the manufacturer. Installation of other components inside the enclosure is not allowed. The "nR" equipment must be installed in such a way that easy access to each test door is allowed. The equipment should be equipped with a test port to allow verification of the limited breathing properties limited following installation and during maintenance. See also the information provided in IEC 60079-15. The installation instructions supplied with the equipment containing information on the choice of both cable glands and entry cables or devices with protective tube must be complied with. The effects of heating caused by direct sunlight and other sources of heating or cooling on the enclosure should be taken into consideration. The use of a limited breathing enclosure as protection against ignition caused by sparking contacts is not recommended where, due to the high internal air temperatures, there is an increased risk of letting the explosive atmosphere in the enclosure when the equipment is not powered. A work cycle of this type of equipment should be considered due to the greater probability that the equipment may be de-energized when flammable gas or vapour surrounds the enclosure itself. CABLE ENTRIES: Marked with NR, or covered tested with the equipment and supplied by the equipment manufacturer. INTERNAL CONNECTIONS: In order to avoid the risk of short circuits between adjacent conductors in the terminal block, the insulation of each conductor must be maintained up to the metal part of the terminal. The manufacturer's instructions on cable terminations must be complied with (e.g. tube lug, fork lug, etc.) in order to keep the temperatures limited. A greater number of 6 conductors, in bundles, can also cause temperatures so high as to exceed class T6 and/or damage the insulation and, therefore, should be avoided.	- No tampering - No modifications (internal components and enclosure) - No damage on the enclosure - No damage to the seals on which the enclosure depends - No damage to cables and conductors - Check the wiring (internal filling of the enclosure with bundles of conductors) and terminations (internal T increase) - Cable glands, caps, bolts of the correct type (also check the Gas Group) and tightened as per instructions - Tightening electrical connections and checking the terminals - Tightening the unused terminals to the bottom - Grounding of insulated metal parts (metal cable glands and cable armours) - Verification of adequate protections against external atmospheric agents (corrosion, vibrations, etc.)	Advantages - standard components, also sparking ATTENTION: - Thermal limitation: the use must be rigorous both in terms of ratings and in terms of the type of component: the replacement of an internal component (even if standard) cannot take place with the same electrical characteristics, but it must be a spare part, being related to the temperature tests for which compliance with the protection mode is guaranteed - take the work cycle of the equipment into account, in order not to affect the thermal limitation - installation conditions can increase the internal air temperature ENCLOSURE The enclosure must be periodically and often checked. - Field breathing test, whose frequency is decided according to the environmental conditions of installation. The protection given by the seals must be verified in service: the focus is not on the IP degree, but on the sealing obtained. Attention must be paid to: - all elements with gaskets (including caps, cable glands, flanges and covers of the enclosure) which are not loose - to tightening torques - environmental conditions: vibrations, impacts, extreme conditions - not to pile cables inside the enclosures (increase in temperatures). At most 6 conductor bundles - do not lose bolts - to cable entries: choice of cable gland - if there are special conditions for safe use ("X" on the certificate and specific information in the documentation)

Protection mode	IEC / EN standard	Main features	Installation requirements IEC EN 60079-14	Critical verification requirements IEC EN 60079-17	Contents																
t	60079-31	 FOR DUST ATMOSPHERES ONLY SPARKLING and NON-SPARKLING COMPONENTS PROTECTION LEVEL: - VERY HIGH "Da" → ZONE 20 - HIGH "Db" → ZONE 21 - NORMAL "Dc" → ZONE 22 What does protection do? EXTERNAL ENCLOSURE - enclosures containing electrical equipment, in which the entry of an explosive atmosphere is prevented; - equipment and components inside the enclosure can be standard; - protection level Da, Db or Dc, according to the requirements which the enclosure meets; - for all protection levels, specific characteristics are required on the joints, cable entries, manoeuvring rods, etc. and with respect to all parts of the interface enclosure with the outside, in order to maintain protection against the entry of dust; - for the Da protection level, additional requirements are set to limit the maximum surface temperature; - The protection levels are achieved through protection against the entry of dust, verified by IP protection degree requirements, determined after subjecting the enclosure to the following tests: ageing (hot/cold), impact resistance (hot/cold), fall (if portable), a pressure test. The minimum degree of protection is prescribed in relation to the group of dusts: <table><tr><th>Level of protection</th><th>Group IIIC</th><th>Group IIIB</th><th>Group IIIA</th></tr><tr><td>"ta"</td><td>IP6X</td><td>IP6X</td><td>IP6X</td></tr><tr><td>"tb"</td><td>IP6X</td><td>IP6X</td><td>IP5X</td></tr><tr><td>"tc"</td><td>IP6X</td><td>IP5X</td><td>IP5X</td></tr></table>	Level of protection	Group IIIC	Group IIIB	Group IIIA	"ta"	IP6X	IP6X	IP6X	"tb"	IP6X	IP6X	IP5X	"tc"	IP6X	IP5X	IP5X	Ex "t" enclosures provided only with a component certificate, i.e. marked with the suffix "U", must not be installed in a dangerous place if they are not part of a set with Ex certificate of complete equipment: Taking an empty case and setting up a switchboard or junction box is NOT allowed. Additional holes or modifications to the entrances of an Ex "t" appliance must be made only by the manufacturer. Installation of other components inside the enclosure is not allowed. Requirements for limiting the temperature, especially to guarantee the disposal of the heat produced by the power dissipated inside the enclosure, in order to prevent the temperature from exceeding the temperature class of the equipment. The length of the conductors inside the enclosure should be kept as short as possible as a basis for the calculation and not greater than the length of the diagonal of the enclosure. Fully tighten unused terminals. The manufacturer's documentation contains information on: - size of the conductor - maximum current - maximum number of conductors for each connection point (the standard requires 1, but it depends on the certificate) - preparation of cable terminations: type of terminals, stripping length, etc. - terminal tightening torque - tightening torque of the enclosure screws CABLE ENTRIES "t" certified plugs for the same Gas Group as the appliance. It is possible to use a cable gland ONLY if marked with "t" for the degree of protection of the construction certificate with the minimum IP corresponding to the level of protection	- No tampering - No modifications (internal components and enclosure) - No damage on the enclosure - No damage to the seals on which the enclosure depends - No damage to cables and conductors - Minimum degree of protection IP (the one in the certificate) maintained during installation - Minimum degree of protection IP (the one in the certificate) maintained in the assembly of the entrances in the enclosure - Cable glands, caps, bolts of the correct type (also check the Dust Group) and tightened as per instructions - Tightening electrical connections and checking the terminals - Tightening the unused terminals to the bottom - Grounding of insulated metal parts (metal cable glands and cable armours) - Verification of adequate protections against external atmospheric agents (corrosion, vibrations, etc.)	Advantages - Protection against ignition assigned to the IP5X or IP6X protection degree only - No need for sealed cable entries ATTENTION: - do not damage the thermal part with use outside the ratings or with the addition of components - to tightening torques - to correct cable preparation - do not pile cables inside the enclosures - do not lose bolts - to cable entries: choice of cable gland - to cable gland preparation for armoured cable - to equipotentiality on cable entries - to maintenance of IP degree - if there are special conditions for safe use ("X" on the certificate and specific information in the documentation)
Level of protection	Group IIIC	Group IIIB	Group IIIA																		
"ta"	IP6X	IP6X	IP6X																		
"tb"	IP6X	IP6X	IP5X																		
"tc"	IP6X	IP5X	IP5X																		

Protection mode	IEC / EN standard	PROTECTION LEVEL (on the certificate or EU declaration of conformity)	PROTECTION MODE	INSTALLATION IN THE AREA ALLOWED
d	60079-1	Ga	da	ZONE 0
		Gb	db	ZONE 1
		Gc	dc	ZONE 2
e	60079-7	Gb	eb	ZONE 1
		Gc	ec	ZONE 2
i	60079-11	Ga, Da	ia	ZONE 0, ZONE 20
		Gb, Db	ib	ZONE 1, ZONE 21
		Gc, Dc	ic	ZONE 2, ZONE 22
n	60079-15	Gc	nC, nR	ZONE 2
t	60079-31	Da	ta	ZONE 20
		Db	tb	ZONE 21
		Dc	tc	ZONE 22

The IEC EN 60079-14 standard (design, choice and construction of the electrical system) sets the safety requirements for each protection mode. A piece of equipment can also be created with compound protection modes, for example a "d" enclosure with an "e" terminal block. In this case, both "d" and "e" letters will be present in alphabetical order. As far as the installation rules are concerned, the requirements of both protection modes apply.

Guide to the ATEX directives

6. IEC SYSTEM AND LEGISLATION: ATEX DIRECTIVES

The European Union legislation on equipment, components, assemblies and protection systems intended for use in zoned with explosion risk refers to electrical equipment by adopting the approach of the IEC Zone System.

In this scheme, the technical standards IEC 60079 harmonized by the European Union as EN 60079 standards acquire "presumption of conformity" with the essential safety requirements of European legislation and constitute technical reference for the countries of the Union.

The legislation is also summarized below with reference also to the ATEX product directive 94/9/EC, now repealed and replaced by Directive 2014/34/EU, but which first introduced the classification of equipment as used also in the new Directive.

INTRODUCTION

What is ATEX?

ATEX is an abbreviation for "ATmosphere EXplosible", or explosive atmosphere.

An explosive atmosphere is a mixture of dangerous substances with air, under atmospheric conditions, in the form of gases, vapours, mist or dust in which, after ignition has occurred, combustion spreads to the entire unburned mixture.

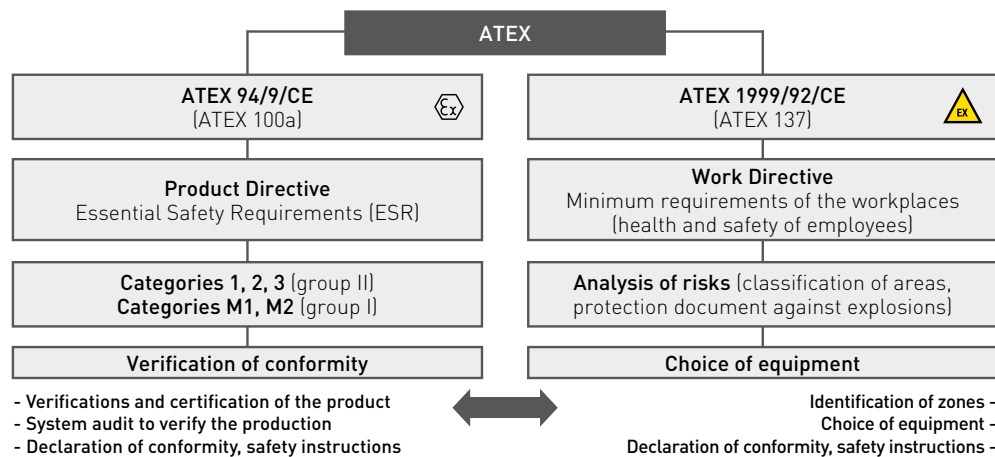
A potentially explosive atmosphere occurs when the flammable substance must be present in a certain concentration; if the concentration is too low (poor mixture) or too high (rich mixture) no explosion occurs, only a combustion reaction occurs, sometimes not even a reaction.

The explosion can therefore only occur in the presence of an ignition source and when the concentration is within the explosive range of the substances, between the minimum (LEL) and maximum (UEL) explosive limits. Explosive limits depend on the pressure of the environment and the percentage of oxygen present in the air.

ATEX DIRECTIVES

The European Union, in the context of the risk due to the presence of potentially explosive atmospheres, has adopted two harmonised health and safety directives, known as ATEX 94/9/EC (also ATEX 100a, which from 20 April 2016 onwards was replaced by the new directive 2014/34/EU) and ATEX 99/92/EC (also ATEX 137).

ATEX directive 94/9/EC establishes the **Essential Safety Requirements** for products and protection systems intended for use in potentially explosive atmospheres and the related compliance procedures. ATEX directive 99/92/EC, on the other hand, defines the **minimum health and safety requirements on the workplace** with the presence of potentially explosive atmospheres; in particular, it subdivides them into zones, according to their probability of the presence of an explosive atmosphere and specifies the criteria according to which the products are chosen within said zones.



NEW ATEX PRODUCT DIRECTIVE: 2014/34/EU (former Directive 94/9/EC)

On 29 March 2014, the new ATEX directive 2014/34/EU was published which repealed, with effect from 20 April 2016, ATEX directive 94/9/EC.

The revision of the directive does not introduce substantial changes compared to the previous one, but it gives greater importance to the obligations of the various operators in the supply chain, such as manufacturers, authorised representatives, importers and distributors.

Products and equipment placed on the market which comply with the previous directive may continue to be marketed on the EU territory even after the effective date as long as they comply with the harmonised technical standards in force at that time (indicated in the declaration of conformity of the product). Since 20 April 2016 onwards, the declarations of conformity of the products have been mandatory in compliance with the new directive 2014/34/EU.

ATEX 94/9/EC DIRECTIVE: PRODUCTS

The ATEX directive entered into force on 1 July 2003 throughout the European Union and replaces the different national and European legislation existing in the field of explosive atmospheres; since that date, it has been possible to market only products which comply with the directive and have the CE ATEX marking and declaration of conformity.

It applies to all products, both electrical and mechanical, intended for places with risk of explosion and is among the directives which allow the free movement of goods and define the essential safety requirements (ESR) of the products envisaged.

In particular, the directive defines the categories of products and the features they must satisfy in order to be installed in places where there is a risk of explosion; it also describes the procedures to follow to achieve compliance.

The scope of the Directive also extends to safety, control and regulation devices which are installed outside of potentially explosive air, but on which the safety of products installed in an explosive atmosphere depends.

CLASSIFICATION OF EQUIPMENT (IDENTICAL TO DIRECTIVE 2014/34/EU)

The directive includes surface and mining equipment, because hazard, protective measures and test methods are similar for both types of product; the first distinction is made by dividing it into two groups:

- group I: products to be used in grisou mines;
- group II: equipment intended for use on the surface. Directive 94/9/EC classifies products into categories, in relation to the level of protection and according to the degree of dangerousness of the environment where they will be inserted.

PRODUCT GROUP I

Mine products are divided into 2 categories:

M1 category: equipment or protection systems which guarantee a very high level of protection;

M2 category: equipment or protection systems which guarantee a high level of protection; one must be able to disconnect them in the presence of gas.

PRODUCT GROUP II

Surface equipment (group II) are divided into 3 categories, according to the level of protection (area of use); the categories are identified by the number 1, 2, 3 followed by letter G (Gas) or D (Dust).

- **category 1:** equipment or protection systems which guarantee a very high level of protection;
- **category 2:** equipment or protection systems which guarantee a high level of protection;
- **category 3:** equipment or protection systems which guarantee a normal level of protection.

CLASSIFICATION OF EQUIPMENT IN ATEX DIRECTIVE Vs IEC/EN 60079 STANDARDS

Protection levels (EPL) in compliance with IEC 60079 classification				ATEX classification	
ATMOSPHERE	EPL	PROTECTION LEVEL	INSTALLATION AREA	GROUP	CATEGORY
MINE GAS GROUP I	Ma	VERY HIGH	--	I	Ma
	Mb	HIGH	--		Mb
SURFACE GAS GROUP IIA, IIB, IIC	Ga	VERY HIGH	ZONE 0	II	1G
	Gb	HIGH	ZONE 1		2G
	Gc	NORMAL	ZONE 2		3G
COMBUSTIBLE DUST GROUP IIIA, IIIB, IIIC	Da	VERY HIGH	ZONE 20		1D
	Db	HIGH	ZONE 21		2D
	Dc	NORMAL	ZONE 22		3D

COMPLIANCE PROCEDURES (IDENTICAL TO DIRECTIVE 2014/34/EU)

For the purposes of marking, various compliance procedures are provided according to the product and the category to which it belongs. All **category 1 and category 2 electrical equipment** must be **certified ("EC Type Examination", which in Directive 2014/34 / EU takes the name of "EU type examination")** by **ATEX Notified Bodies**, also Notified Body, i.e. the Bodies to which the national authority has entrusted the task of verifying compliance with the directive (in Italy, for example: IMQ, CESI, ICEPI, TUV, etc.). The updated list of ATEX Notified Bodies (ExNB) is available on the website: <http://ec.europa.eu/enterprise/newapproach/nando/>

Companies that produce category 1 and category 2 electrical appliances, are obliged to notify and monitor the quality system via NB ATEX; the organisation's identification number is affixed to the plate together with the CE marking.

Self-certification is envisaged for all category 3 equipment, with internal manufacturing control; in the case of SCAME, the manufacturing control is satisfied by the company quality certification ISO 9001: 2008, released by CSQ.

The manufacturer must prepare the technical documentation which demonstrates the compliance of the equipment with the requirements of the Directive; the documentation must remain available for at least 10 years from the last release on the market.

All products (categories 1, 2 and 3) must be accompanied by the EC declaration of conformity (called "EU declaration of conformity" in Directive 2014/34/EU) as well as by the safety and use instructions.

The following table shows the type of certification required according to the category of products.

PRODUCT CATEGORY	EPL	CERTIFICATION OF PRODUCT BY NB	CERTIFICATION OF COMPANY BY NB	SELF-CERTIFICATION	DECLARATION OF CONFORMITY AND INSTRUCTION MANUAL
M1	Ma	YES	YES	NO	YES
M2	Mb	YES	YES	NO	YES
1G	Ga	YES	YES	NO	YES
1D	Da	YES	YES	NO	YES
2G	Gb	YES	YES	NO	YES
2D	Db	YES	YES	NO	YES
3G	Gc	Elective	NO	YES	YES
3D	Dc	Elective	NO	YES	YES

Guide to the ATEX directives

MARKING

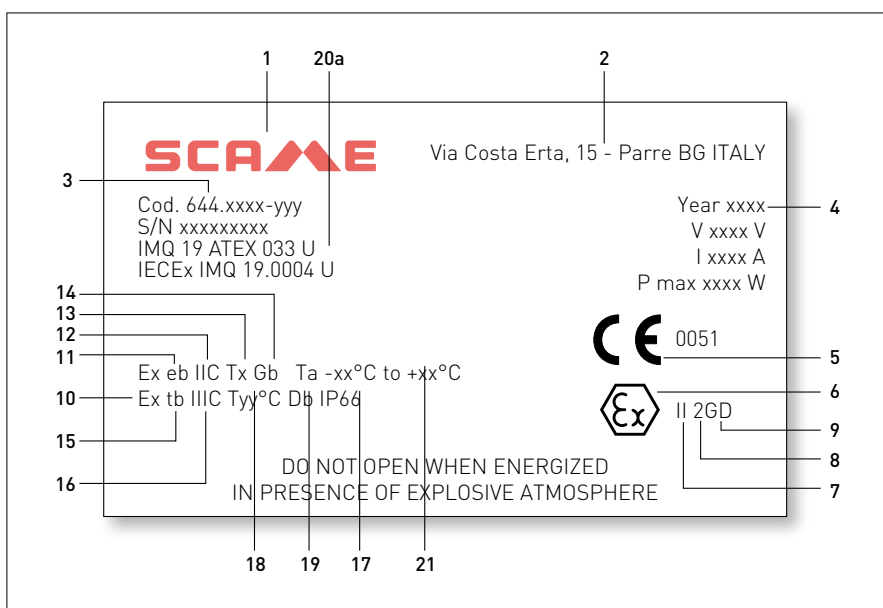


The products must be equipped with the appropriate identification plate which must have, in addition to the CE marking, the specific marking of explosive protection (Epsilon-x, in the hexagon) followed by the group (I or II) and category; for group II, the letter G is added for equipment for Gas while equipment for dust is identified by the letter D (Dust).

In addition to the data required by the ATEX Directive, the plate must also indicate the type of protection as provided for by the standard and the information useful for correct identification and use of the product.

The table below specifies the main information provided on the product plates with relative explanatory notes and their meaning, with reference to the symbol numbers on the example plate.

Marking example



N°	Marking	Meaning	Variants
1	SCAME	Manufacturer	-
2	Via Costa Erta 15 PARRE (BG) – ITALY	Manufacturer's address	-
3	Cod. 644.xxx-yyy	Product designation	-
4	2015	Year of manufacture	-
5	CE	Conformity mark	For categories 1 and 2 it must be followed by the number of the notified body (*)
6	Epsilon-x in a hexagon	Specific marking of explosive protection	-
7	II	Equipment group	I: electrical equipment for mines II: electrical equipment for surface installations
8	2	Product category	1 for category 1 2 for category 2 3 for category 3
9	GD	Type of explosive atmosphere	G: gas / D: dust / GD: gas and dust

(*) Number (4-digit number) of the notified body responsible for ATEX company monitoring (for example: the number 0051 corresponds to IMQ, the number 0722 corresponds to CESI, etc.).

Gas (specific information)

N°	Marking	Meaning	Variants
10	Ex	Prefix of the types of protection for electrical equipment	-
11	e	Type of protection applied	Types of protection for GAS: - "d": explosion-proof enclosure - "e": increased safety - "ia" or "ib" or "ic": intrinsic safety, level of protection "ia" or "ib" or "ic" - "ma", "mb" or "mc": encapsulation, level of protection "ma" or "mb" - "nA": type of protection "nA" - "nC": type of protection "nC" - "nR": type of protection "nR" - "o": oil immersion - "px" or "py" or "pz": pressurized apparatus, level of protection "px" or "py" or "pz" - "q": powder filling
12	IIC	Flammable gas group	Group to which the flammable gas present on the installation belongs: IIA, IIB or IIC
13	Tx	Temperature class = maximum temperature that the electrical equipment can reach	Temperature class (Group II): T1 = 450°C T2 = 300°C T3 = 200°C T4 = 130°C T5 = 100°C T6 = 85°C
14	Gb	EPL Gas	Gas equipment protection level (EPL): Ga: very high (suited for zone 0) Gb: high (suited for zone 1) Gc: increased (suited for zone 2)

Dust (specific information)

N°	Marking	Meaning	Variants
15	tb	Type of protection applied	Types of protection for dust: - "ta", "tb" or "tc": protection by enclosure - "ia", "ib" or "ic": intrinsic safety protection - "ma", "mb" or "mc": protection with encapsulation - "px" or "py" or "pz": protection with pressurized enclosures, level of protection "px" or "py" or "pz"
16	IIIC	Group of combustible dust	Group to which the combustible dust present on the installation belongs: IIIA: fibres IIIB: non-conductive dust IIIC: conductive dust
17	IP66	Degree of protection (IP)	IP6X: apparatus suitable for Zone 22 with the presence of conductive dust IP5X: apparatus suitable for Zone 22 with the presence of non-conductive dust
18	Tyy°C	Maximum surface temperature that the electrical equipment can reach	Tyy°C: maximum surface temperature of the equipment expressed in °C
19	Db	EPL Dust	Combustible dust equipment protection level (EPL): Da: very high (suited for zone 20) Db: high (suited for zone 21) Dc: increased (suited for zone 22)

Additional Information

N°	Marking	Meaning	Variants
20a	U	Indicates the ATEX components	"U": indicates an EX component
20b	X	Particular additional information	"X": indicates the presence of special conditions for safe use (to be checked on the certificate or in the instructions for use)
21	Ta -xx°C to +xx°C	Ambient temperature range	If not indicated, the range is: -20°C +40°C

Guide to the ATEX directives

7. EX WORLD GEOGRAPHY

In order to circulate in the European Union, a product intended to be installed in an explosive atmosphere MUST bear the ATEX mark in compliance with Directive 2014/34/EU whose compliance procedures are described in the previous paragraphs.

When is a product destined for non-European countries?

At global level, there are mainly two regions with two different approaches, in terms of area classification, equipment classification, protection techniques and installation requirements.

The first "region" is made up of the co-participating IEC countries (including European Union countries), in which there are local laws for each country, but if the product is certified in compliance with the IEC scheme for hazardous areas (IECEx Certification) it is possible to "transfer" the certification into a certificate pursuant to the law/regulation of that country.

The IECEx certification scheme is relative to the verification of compliance with the IEC 60079 series of standards and is a voluntary certification scheme, however, the fact that it is an "open" system or that documents are available to everyone on the scheme portal makes it usable for conversion to "local" certification.

IECEx CERTIFICATION SCHEME

The scheme is in fact based on the IEC Zone System scheme described in these pages, with the following certification procedures.

All electrical equipment with EPL Ga, Da, Gb, Db, Gc and Dc must be certified ("Certificate of Conformity - IECEx CoC") by IECEx Certification Bodies (ExCB). The updated list of ExCB Certification Bodies is available on the website: <http://iecex.com/>

The difference from the ATEX directive is that the products for Zone 2 and Zone 22 are also certified by a third-party body: there is no self-certification.

The scheme is based on 3 procedures leading to the issuance of the following 3 documents:

IECEx CoC	IECEx Certificate of Conformity	- Assessment of conformity of the project in compliance with the IEC 60079 standard of reference for the way of protection of the equipment. It is based on the IECEx TR
IECEx TR	Test Report of the type tests	- Type tests in compliance with IEC 60079 of reference
IECEx QAR	Quality Assessment Report	- Assessment report of the quality management system, which must ensure that all products are made in compliance with the project. It is based on the IEC 80079-34 standard, for quality management systems for the production of Ex products.

AMERICAN SCHEME - HAZARDOUS LOCATIONS

The second "world region" that we consider is NORTH AMERICA (USA and CANADA), where historically a method of classification of areas and products has developed parallel to the IEC Zone System, but based on a different approach. The regulation that sets requirements for products and installations in hazardous areas in the USA is NFPA 70 (National Fire Protection Association # 70), also known as NEC (National Electrical Code). The NEC is approved as an "American National Standard" by ANSI (American National Standard Institute) as ANSI/NFPA 70.

The NEC is also accepted and published in CANADA by the Canadian Standard Association (CSA) as Canadian Electrical Code CSA C22.1.

The NEC not only provides prescriptions for hazardous areas, but it sets the requirements for all electrical equipment and electrical systems, with a focus on electrical safety and fire protection. For this reason, it is always required that a product intended to be installed in a hazardous area (Hazardous Location) primarily meets the requirements for ordinary places to which, unlike the European system, it cannot be declared compliant by means of self-certification, but it must be verified by a certification body recognised by the system.

The bodies accredited to issue a certification in accordance with the NEC (both for the USA and Canada), can be different, among the best known are: UL (Underwriters Laboratories), CSA, FM (Factory Mutuals), INTERTEK, etc.

In essence, the product is required to be "listed" if it is an equipment or "recognized" if it is a component, by one of these bodies, in accordance with the requirements of the NEC for the specific place where it is intended: ordinary (i.e. not dangerous) or dangerous (hazardous locations).

The NEC is structured in chapters: from chapter 1 to chapter 4, the requirements for products and systems (e.g. pipes, entries in enclosures, etc.) for ordinary places are set. Chapters 5 to 7 modify and/or extend the ordinary requirements for equipment intended for hazardous locations. In particular, articles 500 to 506 of Chapter 5 deal with explosive atmospheres.

ARTICLE 500 OF NEC

Article 500 of Chapter 5 deals with the "Hazardous Locations", intended as areas with risk of explosion which are divided as follows:

- Subdivision into 3 classes according to the type of explosive atmosphere
 - Class I (gas, vapours, combustible mists)
 - Class II (dusts)
 - Class III (combustible fibres)
- Each class is divided into two types of explosion hazard areas according to the frequency or duration of the formation of an explosive atmosphere
 - Division 1
 - Division 2

The following tables show the descriptions of the classified areas.

GAS, VAPOURS, COMBUSTIBLE MISTS	
CLASS I	
Areas where gas, vapours or combustible mists are or may be present in sufficient quantity to produce explosive or ignitable mixtures	
DIVISION 1	DIVISION 2
EXPLOSIVE CONCENTRATION DURING NORMAL OPERATIONS EXPLOSIVE CONCENTRATION FREQUENTLY PRESENT IN CASE OF MAINTENANCE/REPAIR OR IN CASE OF DRAWING THE BREAKING OF A APPLIANCE OR A PROCESS MAY RELEASE EXPLOSIVE CONCENTRATION AND HAVE A CONTEMPORARY FAILURE IN ELECTRICAL EQUIPMENT, WHICH CAN CAUSE IT TO BECOME AN IGNITION SOURCE	THE SUBSTANCES ARE CONFINED IN CONTAINMENT SYSTEMS AND CAN ONLY EXIT IN THE EVENT OF FAILURE EXPLOSIVE CONCENTRATION PREVENTED BY A VENTILATION SYSTEM. THE DANGEROUS AREA CAN FORM AS A RESULT OF A BREAKDOWN OF THE VENTILATION SYSTEM EXPLOSIVE CONCENTRATION DUE TO AREAS NEXT TO DIVISION 1, WITHOUT PREVENTION BY PRESSURISATION OR VENTILATION

COMBUSTIBLE DUST	
CLASS II	
Areas at risk of explosion for the presence of combustible dusts	
DIVISION 1	DIVISION 2
DUST PRESENT IN EXPLOSIVE CONCENTRATION DURING NORMAL OPERATIONS THE BREAKING OR FAULT CONDITIONS OF AN APPLIANCE OR MACHINE MAY RELEASE DUST IN EXPLOSIVE CONCENTRATION AND HAVE A CONTEMPORARY FAILURE IN ELECTRICAL EQUIPMENT, WHICH CAN CAUSE IT TO BECOME AN IGNITION SOURCE PRESENCE OF METALLIC DUSTS SUCH AS ALUMINUM AND MAGNESIUM (GROUP E), IN A DANGEROUS QUANTITY	PRESENCE OF COMBUSTIBLE DUST IN AIR, IN CONSEQUENCE OF A FAULT AND IN QUANTITY WHICH CAUSES AN EXPLOSIVE CONCENTRATION LAYERS OF DUST ARE PRESENT, BUT THEY ARE NORMALLY INSUFFICIENT TO INTERFERE WITH THE NORMAL OPERATION OF THE EQUIPMENT; HOWEVER, THEY COULD BE LIFTED IN CASE OF MALFUNCTION AND ORIGINATE EXPLOSIVE CONCENTRATION LAYERS OF DUST IN THE SURROUNDINGS OR DEPOSITED ON THE EQUIPMENT WHICH MAY CHANGE THE DISSIPATION CAPACITY AND IGNITE

COMBUSTIBLE FIBERS	
CLASS III	
Hazardous environments due to the presence of easily ignitable fibres or where materials producing volatile fuel are used, but in which these fibres are not likely to be present in sufficient quantities to create an explosive mixture	
DIVISION 1	DIVISION 2
ENVIRONMENTS IN WHICH EASILY IGNITABLE FIBERS ARE HANDLED, PRODUCED OR USED	ENVIRONMENTS IN WHICH THEY ARE STORED OR HANDLED NOT IN THE PRODUCTION PROCESS EASILY IGNITABLE FIBERS

Even art. 500 divides substances into groups (and therefore also equipment).

CLASS I Classification in Groups

Unlike the IEC Zone System, it considers Acetylene and Hydrogen separately by assigning it to two separate groups. Another difference is the reverse order of hazard. In the IEC system the gas hazard is increasing from Group A to Group C (Hydrogen and Acetylene). The division into groups of the NEC 500, on the other hand, confers the hazard in reverse or decreasing order from Group A (Acetylene) to Group D.

CLASS	GROUP	EQUIPMENT FOR
CLASS I	A	ACETYLENE
	B	HYDROGEN MSEG ≤ 0,45 mm MIC ≤ 0,40
	C	ETHYLENE 0,45 mm < MSEG ≤ 0,75 mm 0,40 < MIC ≤ 0,80
	D	PROPANE MSEG > 0,75 mm MIC > 0,80

CLASS II and CLASS III Classification in Groups

Unlike the IEC system, in which Group III of dusts, with the exception of fibres, is divided into conductive and non-conductive powders, the NEC 500 divides the powders into 3 groups.

Fibres constitute Class III, which is not divided into groups.

CLASS	GROUP	EQUIPMENT FOR
CLASS II	E	METALLIC COMBUSTIBLE DUSTS, INCLUDING ALUMINIUM, MAGNESIUM AND THEIR COMMERCIAL ALLOYS, OR OTHER COMBUSTIBLE DUSTS OF PARTICULAR DIMENSIONS, ABRASIVITY AND CONDUCTIVITY WHICH PRESENT SIMILAR RISK IN ELECTRICAL USES
	F	VOLATILE CARBON-BASED COMBUSTIBLE DUSTS IN A PERCENTAGE OF MORE THAN 8% TOTAL, OR WHICH HAVE BEEN SENSITISED BY OTHER MATERIALS
	G	DUSTS NOT INCLUDED IN THE E AND F GROUPS, INCLUDING FLOWER, WHEAT, WOOD, PLASTIC AND CHEMICAL DUSTS
CLASS III	-	COMBUSTIBLE FIBERS

Guide to the ATEX directives

Protection techniques

Article 500.7 defines the accepted protection techniques for the classification of Hazardous Locations in Classes and Divisions. These are close to the protection techniques of the IEC system protection modes, but in reality they have very different design and test requirements (more compelling in the case of DIVISION 1) and therefore cannot be superimposed. IEC 60079 protection techniques are instead applicable to the classification of areas in accordance with articles NEC 505 and 506 (see below).

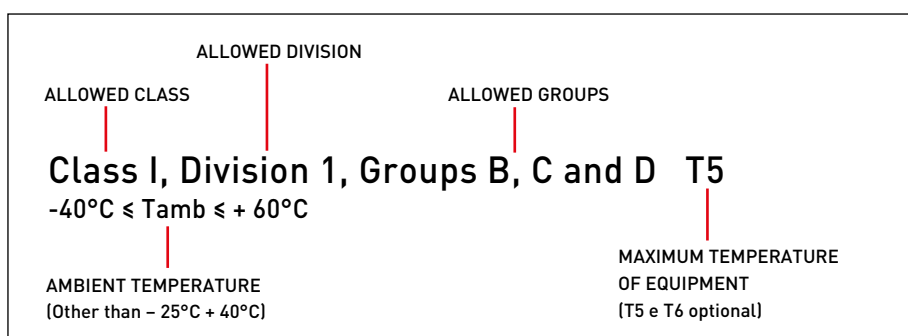
CLASSIFICATION OF PRODUCTS IN RELATION TO THE MAXIMUM SURFACE TEMPERATURE

Article 500 requires that the maximum surface temperature is indicated on the marking. The equipment is divided into classes like in the IEC system (based on six classes from T1 to T6), but intermediate "subclasses" are added between one class and another. The following table shows the classification in temperature classes referring to the maximum surface temperature of the equipment. In the last column, the comparison with the classes of the IEC system is shown.

MAXIMUM SURFACE TEMPERATURE (°C)	NEC TEMPERATURE CLASS	IEC TEMPERATURE CLASS
450	T1	T1
300	T2	T2
280	T2A	-
260	T2B	-
230	T2C	-
215	T2D	-
200	T3	T3
180	T3A	-
165	T3B	-
160	T3C	-
135	T4	T4
120	T4A	-
100	T5	T5
85	T6	T6

EXAMPLE OF NEC ART. MARKING 500.....

The marking of a product for Hazardous Locations, in addition to the certification body's mark and the product information (manufacturer, manufacturer's address, product name, serial number, electrical ratings, etc.), contains the following information:



In addition, optionally and with the exception of "intrinsic safety" (I.S.), the protection technique can be used (e.g. "explosion proof").

ARTICLES 505 AND 506 OF NEC

Since the USA and CANADA also share articles 505 and 506 with IEC, they essentially adopt the IEC Zone System, i.e. the classification of hazardous areas in Zones and the IEC classification of equipment. However, some historical differences between the two worlds persist and the following differences occur.

GAS – ART. 505	DUST - ART. 506																																									
Classification of the Areas (CLASS I REMAINS) <table><tr><td>CLASS I</td><td>ZONE 0</td></tr><tr><td>CLASS I</td><td>ZONE 1</td></tr><tr><td>CLASS I</td><td>ZONE 2</td></tr></table> Classification of the Equipment in Groups <table><tr><td>Group IIA</td></tr><tr><td>Group IIB</td></tr><tr><td>Group IIC</td></tr></table> Comparison with art. 500 <table><tr><td>Group IIA</td><td>Group D</td></tr><tr><td>Group IIB</td><td>Group C</td></tr><tr><td>Group IIC</td><td>Groups B and A</td></tr></table> Classification of the equipment by temperature classes <table><tr><th>TEMPERATURE CLASS</th><th>MAXIMUM SURFACE T</th></tr><tr><td>T1</td><td>450 °C</td></tr><tr><td>T2</td><td>300 °C</td></tr><tr><td>T3</td><td>200 °C</td></tr><tr><td>T4</td><td>135 °C</td></tr><tr><td>T5</td><td>100 °C</td></tr><tr><td>T6</td><td>85 °C</td></tr></table> Marking IEC construction for NEC takes the prefix "AEx" Class I, Zone 0 AEx ia IIB T6	CLASS I	ZONE 0	CLASS I	ZONE 1	CLASS I	ZONE 2	Group IIA	Group IIB	Group IIC	Group IIA	Group D	Group IIB	Group C	Group IIC	Groups B and A	TEMPERATURE CLASS	MAXIMUM SURFACE T	T1	450 °C	T2	300 °C	T3	200 °C	T4	135 °C	T5	100 °C	T6	85 °C	Classification of the Areas (CLASS II DISAPPEARS) <table><tr><td>ZONE 20</td></tr><tr><td>ZONE 21</td></tr><tr><td>ZONE 22</td></tr></table> Classification of the Equipment in Groups <table><tr><td>Group IIIA</td></tr><tr><td>Group IIIB</td></tr><tr><td>Group IIIC</td></tr></table> Comparison with art. 500 <table><tr><td>Group IIIA</td><td>Class III</td></tr><tr><td>Group IIIB</td><td>Class II, Group F</td></tr><tr><td>Group IIIC</td><td>Class II, Group E</td></tr></table> Marking IEC construction for NEC takes the prefix "AEx" Zone 21, AEx tb IIIB T165 °C	ZONE 20	ZONE 21	ZONE 22	Group IIIA	Group IIIB	Group IIIC	Group IIIA	Class III	Group IIIB	Class II, Group F	Group IIIC	Class II, Group E
CLASS I	ZONE 0																																									
CLASS I	ZONE 1																																									
CLASS I	ZONE 2																																									
Group IIA																																										
Group IIB																																										
Group IIC																																										
Group IIA	Group D																																									
Group IIB	Group C																																									
Group IIC	Groups B and A																																									
TEMPERATURE CLASS	MAXIMUM SURFACE T																																									
T1	450 °C																																									
T2	300 °C																																									
T3	200 °C																																									
T4	135 °C																																									
T5	100 °C																																									
T6	85 °C																																									
ZONE 20																																										
ZONE 21																																										
ZONE 22																																										
Group IIIA																																										
Group IIIB																																										
Group IIIC																																										
Group IIIA	Class III																																									
Group IIIB	Class II, Group F																																									
Group IIIC	Class II, Group E																																									

The methods of art. 500 (Classes and Divisions) and the methods of articles 505 and 506 (IEC Zones) are considered equivalent by NEC, the choice depends on the criterion adopted in the initial classification of the areas. Once the classification has been chosen, the requirements for that classification in terms of equipment protection techniques and installation rules (always provided by NEC within the same reference article 500 or 505 and 506) must be strictly followed.



Certified for the Quality

Scame Parre is ISO9001 certified for the quality of its production and management system.

In addition, with specific reference to the production of products intended for installation in potentially explosive atmospheres, has obtained from IMQ the QAN Notification of compliance with ATEX Directive 2014/34/EU and from IEC, through IMQ notification body, the QAR Notification of compliance with the IECEx international Scheme.

Moreover, Scame has also obtained from IMQ the CTF (Customers' Testing Facilities) Stage2 Recognition of its laboratory for what concerns ATEX, allowing the internal conduct of certain tests authorized for the purpose of the recognition, in the presence of IMQ personnel, to the benefit of the speed of the process, delegating to external notification bodies as IMQ, INERIS and TUV only the tests which cannot be carried out internally.

The ATEX, IECEx, UKCA and INMETRO certifications of its products has also included the possible customisations to which they can be subject, thus enabling Scame to offer solutions tailored on customer needs.



CUSTOMISATION SERVICE

An efficient in-house analysis and quoting service is able to support clients during the decision-making process, generating offers and feasibility studies in a short time.

Furthermore, thanks to its production flexibility based on the principles of Lean Production, the use of leading edge technologies and the employment of highly qualified personnel, Scame can produce junction boxes and local control and command stations in customised configurations

based on client specifications, without necessarily the need for large production batches.

The result of careful design and construction are also the compact distribution assemblies of interlocked socket outlets that are used alongside traditional skids for applications in the presence of gas, vapours, mists or dust deriving from production processes, where the choice of materials and certified components is fundamental.



Custom made solutions

According to type of product, custom made solutions proposed by Scame are characterized by the high possibility of customisation with a wide range of accessories:



ZENITH-P Series
Ex II 1G - 2GD



ZENITH-S Series
Ex II 1G - 2GD

ACCESSORIES FOR JUNCTION BOXES

- Cable glands / caps
- Drain and Breather/drain valve
- Earth continuity plate (internal) in zinc-plated steel
- Earth stud (pin, nuts and washer) in brass or stainless steel AISI 316L
- External fixing brackets
- External flanges (only for stainless steel enclosures)
- Internal mounting plate
- Terminals
- Threaded earth-bar



COMPACT-EX[GD] Series
Ex II 2GD



ZENITH-P Series
Ex II 2GD

ACCESSORIES FOR LOCAL CONTROL STATIONS AND DISTRIBUTION ASSEMBLIES

Actuators and operation-heads

- Buzzer
- Double push button
- Emergency stop
- Mushroom
- Pilot light
- Potentiometer
- Push button
- Push-button with pilot light

Instruments

- Ammeter
- Milliammeter
- Voltmeter

Circuit breaker modules

- Circuit breaker module
- Ac contactor module
- Ac contactor module + thermorelay
- Control transformer
- Creepage breaker module
- Thermorelay module

Electronic components

- Diode module
- Electronic relay module
- Fuses module
- Resistance module
- Voltage suppressor diode module
- Zener diode module



ZENITH-S Series
Ex II 2GD



ZENITH-P Series
Ex II 2GD

All this, without neglecting the possibility of customising the individual switched interlocked socket outlets and switch-disconnectors with dedicated accessories.



ADVANCE-GRP[GD] Series
Ex II 2GD



ISOLATORS-EX[GD] Series
Ex II 2GD

ACCESSORIES FOR SWITCHED INTERLOCKED SOCKET OUTLETS AND SWITCH-DISCONNECTORS

- Auxiliary contacts
- Breather/drain valve (only for switch disconnectors)
- Earth stud (external)
- Earth continuity plate with internal earth stud
 - With EMC metallic cable glands
 - With metallic cable glands for armoured cable
 - With metallic cable glands for unarmoured cable

Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEx Scheme.

For more information about customisation service or to submit your customisation request please contact the Technical Information Center by sending an email to export@scame.com.





1. HAZARDOUS AREAS Ex

Products for electrical installation in environments with potentially explosive atmosphere for presence of gas and/or dust

Complete range of plugs, switched interlocked socket outlets, switch-disconnectors, junction boxes, local control stations and everything necessary for a modern and safe energy distribution system in environments with potentially explosive atmosphere for presence of gas and/or dust.

p. 26



INFORMATION

Technical insights

Information of technical, regulatory and applicative nature to emphasize the peculiarities of the products of which the Scame offer is made up.

p. 142

INDEX HAZARDOUS AREAS Ex

1.1 SWITCHED INTERLOCKED SOCKET OUTLETS	29	1.6 JUNCTION BOXES	79
ZENITH-P Series	32	ZENITH-P Series	82
ADVANCE-GRP[GD] Series	36		
ADVANCE-GRP[EX] Series	40	1.7 LOCAL CONTROL STATIONS	87
1.2 COUPLERS	43	COMPACT-EX[GD] Series	90
OPTIMA-EX[GD] Series.....	46	ZENITH-P Series	102
1.3 PLUGS	49	1.8 SWITCHES	109
OPTIMA-EX[GD] Series.....	52	ROCKER-EX[GD] Series	112
OPTIMA-EX Series.....	55	ISOLATORS-EX[GD] Series.....	114
		ISOLATORS-EX Series.....	118
1.4 EXTENSION CORDS	57	1.9 CABLE GLANDS	121
OPTIMA-EX[GD] Series.....	60	UNION-EX[PA] Series.....	124
1.5 ENCLOSURES	63	UNION-EX[OTN] Series	128
ZENITH-P Series	66	UNION-EX[AI] Series.....	135
ZENITH-S Series	70		
ALUBOX-EX Series	76		

INDEX TECHNICAL INFORMATION

SWITCHED INTERLOCKED SOCKET OUTLETS	144	JUNCTION BOXES	159
ZENITH-P Series	144	ZENITH-P Series	159
ADVANCE-GRP[GD] Series	146		
ADVANCE-GRP[EX] Series	148	LOCAL CONTROL STATIONS	160
COUPLERS	150	COMPACT-EX[GD] Series	160
OPTIMA-EX[GD] Series.....	150	ZENITH-P Series	162
PLUGS	152	SWITCHES	163
OPTIMA-EX[GD] Series.....	152	ROCKER-EX[GD] Series	163
OPTIMA-EX Series.....	154	ISOLATORS-EX[GD] Series.....	165
		ISOLATORS-EX Series.....	168
ENCLOSURES	156	CABLE GLANDS	171
ZENITH-P Series	156	UNION-EX[PA] Series.....	171
ZENITH-S Series	157	UNION-EX[OTN] Series	172
ALUBOX-EX Series	158	UNION-EX[AI] Series.....	173



1. HAZARDOUS AREAS Ex

INDEX HAZARDOUS AREAS Ex

1.1 SWITCHED INTERLOCKED SOCKET OUTLETS	29	1.6 JUNCTION BOXES	79
ZENITH-P Series	32	ZENITH-P Series	82
ADVANCE-GRP[GD] Series	36		
ADVANCE-GRP[EX] Series	40	1.7 LOCAL CONTROL STATIONS	87
1.2 COUPLERS	43	COMPACT-EX[GD] Series	90
OPTIMA-EX[GD] Series.....	46	ZENITH-P Series	102
1.3 PLUGS	49	1.8 SWITCHES	109
OPTIMA-EX[GD] Series.....	52	ROCKER-EX[GD] Series	112
OPTIMA-EX Series.....	55	ISOLATORS-EX[GD] Series.....	114
1.4 EXTENSION CORDS	57	ISOLATORS-EX Series.....	118
OPTIMA-EX[GD] Series.....	60	1.9 CABLE GLANDS	121
1.5 ENCLOSURES	63	UNION-EX[PA] Series.....	124
ZENITH-P Series	66	UNION-EX[OTN] Series	128
ZENITH-S Series	70	UNION-EX[AI] Series.....	135
ALUBOX-EX Series	76		





SWITCHED INTERLOCKED SOCKET OUTLETS



1.1 SWITCHED INTERLOCKED SOCKET OUTLETS



SWITCHED INTERLOCKED SOCKET OUTLETS

ZENITH-P SERIES

p. 32

Distribution assemblies of switched interlocked socket outlets for Zone 1-2 (Gas) and 21-22 (Dust)


 II 2GD

ADVANCE-GRP[GD] SERIES

p. 36

Switched interlocked socket outlets in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)


 II 2GD

ADVANCE-GRP[EX] SERIES

p. 40

Switched interlocked socket outlets in thermosetting GRP material for Zone 21-22 (Dust)


 II 2D

1.1 SWITCHED INTERLOCKED SOCKET OUTLETS

ZENITH-P Series



ZENITH-P Series

Distribution assemblies of switched interlocked socket outlets for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T4/T5/T6 Gb Ex tb IIIC T85°C Db
Certificates:	IMQ 19 ATEX 034 X IECEX IMQ 19.0005 X CPEX 25.2247 X

technical sheet p. 144

Technical information

Main characteristics



- | | |
|--|---|
| 01 Enclosure in thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity | 04 Mechanical interlock by non-sparking switch-disconnector (Ex db eb) and possibility of auxiliary contacts |
| 02 Transparent window to visually inspect the status of the protections | 05 Socket body in dissipative thermoplastic material reinforced with glass fiber |
| 03 Captive stainless steel closing screws | 06 IP66 cover ring nut |



CUSTOMISED SOLUTIONS



ZENITH-P Series distribution assemblies can be customised with a wide range of accessories with separate ATEX-IECEx certification, or different size of enclosures to obtain multiple socket outlets configurations.

Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEx Scheme.

For product customisation service see p. 23



1.1 SWITCHED INTERLOCKED SOCKET OUTLETS

ADVANCE-GRP[GD] Series

■ SURFACE MOUNTING IP66 >> MCB 6KA



IP: IP66

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	6	50 60	200-250		644.0585-1683.06		644.0585-3283.06	
3P+E	6	50 60	380-415		644.0585-1686.06		644.0585-3286.06	
3P+N+E	6	50 60	346-415		644.0585-1687.06		644.0585-3287.06	

■ SURFACE MOUNTING IP66 >> MCB 10KA



IP: IP66

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	6	50 60	200-250		644.0585-1683.10		644.0585-3283.10	
3P+E	6	50 60	380-415		644.0585-1686.10		644.0585-3286.10	
3P+N+E	6	50 60	346-415		644.0585-1687.10		644.0585-3287.10	

■ ACCESSORIES >> EXTERNAL MOUNTING BRACKETS



Description	Code	
MOUNTING BRACKETS KIT	644.C075	1/10

■ ACCESSORIES >> EXTERNAL MOUNTING VERTICAL FEET



Description	Code	
WALL MOUNTING BRACKETS KIT	644.D075	1/10



SWITCHED INTERLOCKED SOCKET OUTLETS
ADVANCE-GRP[GD] SERIES

1.1 SWITCHED INTERLOCKED SOCKET OUTLETS ADVANCE-GRP[GD] Series



ADVANCE-GRP[GD] Series

Switched interlocked socket outlets in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T3, T4, T5, T6 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 15 ATEX 0017X IECEX IEC 15.0033X EMA CML 21 UKEX 11259X CPEX 25.2230 X

technical sheet p. 146

Technical information

Main characteristics



- 01** Enclosure in thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity
- 02** Wide space for easy and comfortable wiring
- 03** Mechanical interlock by non-sparking switch-disconnector (Ex db eb) and possibility of auxiliary contacts
- 04** Easily extractable support
- 05** Ergonomic knob padlockable in ON and OFF position
- 06** Module in high-temperature resistant GRP material
- 07** Captive stainless steel closing screws



CUSTOMISED SOLUTIONS



ADVANCE-GRP[GD] Series switched interlocked socket outlets can be customised with a wide range of accessories with separate ATEX-IECEX certification.

Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEX Scheme.

For product customisation service see p. 23



SWITCHED INTERLOCKED SOCKET OUTLETS
ADVANCE-GRP[GD] SERIES



1.1 SWITCHED INTERLOCKED SOCKET OUTLETS

ADVANCE-GRP[GD] Series

■ SURFACE MOUNTING IP66 -35°C >> WITHOUT FUSE CARRIER



IP: IP66
Flange:
130X260MM

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	4	50 60	100-130	Yellow	504.1670	1	504.3270	1
	6	50 60	200-250	Blue	504.1683	1	504.3283	1
	7	50 60	480-500	Black	504.16836	1	504.32836	1
	9	50 60	380-415	Red	504.1678	1	504.3278	1
3P+N+E	3	50 60	380-440	Red	504.16864	1	504.32864	1
	4	50 60	100-130	Yellow	504.1672	1	504.3272	1
	5	50 60	600-690	Red	504.16867	1	504.32867	1
	6	50 60	380-415	Red	504.1686	1	504.3286	1
	7	50 60	480-500	Black	504.16866	1	504.32866	1
	9	50 60	200-250	Blue	504.1674	1	504.3274	1
	11	60	440-460	Red	504.16865	1	504.32865	1
	3	50 60	380 50Hz / 440 60Hz 480-500	Red	504.16874	1	504.32874	1
3P+N+E	4	50 60	100-130	Yellow	504.1679	1	504.3279	1
	5	50 60	600-690	Red	504.16877	1	504.32877	1
	6	50 60	346-415	Red	504.1687	1	504.3287	1
	7	50 60	480-500	Black	504.16876	1	504.32876	1
	9	50 60	208-250	Blue	504.1675	1	504.3275	1
	11	60	440-460	Red	504.16875	1	504.32875	1

You can request the customised configuration of the cable input for the entire series of the ADVANCE-GRP[GD] socket. All versions include Ex cable gland and drilled-hole.



IP: IP66
Flange 63A:
170X380MM
Flange 125:
280X575MM

Poles	h	Hz	Volt	Colour	63A		125A	
3P+E	3	50 60	380-440	Red	504.63864	1	504.125864 ¹⁾	1
	4	50 60	100-130	Yellow	504.6372	1	504.12572 ¹⁾	1
	5	50 60	600-690	Red	504.63867	1	504.125867 ¹⁾	1
	6	50 60	380-415	Red	504.6386	1	504.12586 ¹⁾	1
	7	50 60	480-500	Black	504.63866	1	504.125866 ¹⁾	1
	9	50 60	200-250	Blue	504.6374	1	504.12574 ¹⁾	1
3P+N+E	11	60	440-460	Red	504.63865	1	504.125865 ¹⁾	1
	3	50 60	380 50Hz / 440 60Hz 480-500	Red	504.63874	1	504.125874 ¹⁾	1
	4	50 60	100-130	Yellow	504.6379	1	504.12579 ¹⁾	1
	5	50 60	600-690	Red	504.63877	1	504.125877 ¹⁾	1
	6	50 60	346-415	Red	504.6387	1	504.12587 ¹⁾	1
	7	50 60	480-500	Black	504.63876	1	504.125876 ¹⁾	1
	9	50 60	208-250	Blue	504.6375	1	504.12575 ¹⁾	1
	11	60	440-460	Red	504.63875	1	504.125875 ¹⁾	1

You can request the customised configuration of the cable input for the entire series of the ADVANCE-GRP[GD] socket. All versions include Ex cable gland and drilled-hole.

¹⁾With black ring nut.

■ SAFETY KEY

The switched interlocked socket outlets of ADVANCE-GRP[GD] Series are equipped with an insertion key (in compliance with the IEC EN 60079-0 Standard) which allows mating only with the plugs of the OPTIMA-EX[GD] Series.



1.1 SWITCHED INTERLOCKED SOCKET OUTLETS

ADVANCE-GRP[EX] Series



ADVANCE-GRP[EX] Series

Switched interlocked socket outlets in thermosetting GRP material for Zone 21-22 (Dust)

Ex CHARACTERISTICS

Product category: II 2D (surface mounting sockets)
 II 3D (combination units)

Ex protection type: Ex tb IIIC T90°C Db

Certificates: IMQ 11 ATEX 010
 EMA 22 UKEX 0020

technical sheet p. 148

SURFACE MOUNTING IP66 >> WITHOUT FUSE CARRIER



IP: IP66
 Flange: 130X260MM

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	4	50 60	100-130		503.1670	1		
	6	50 60	200-250		503.1683	1	503.3283	1
3P+E	6	50 60	380-415		503.1686	1	503.3286	1
3P+N+E	6	50 60	346-415		503.1687	1	503.3287	1



IP: IP66
 Flange: 170X380MM

Poles	h	Hz	Volt	Colour	63A	
2P+E	6	50 60	200-250		503.6383	1
3P+E	6	50 60	380-415		503.6386	1
3P+N+E	6	50 60	346-415		503.6387	1

SURFACE MOUNTING IP66 >> WITH FUSE CARRIER



IP: IP66
 Flange: 130X260MM

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	6	50 60	200-250		503.1683-F	1	503.3283-F	1
3P+E	6	50 60	380-415		503.1686-F	1	503.3286-F	1
3P+N+E	6	50 60	346-415		503.1687-F	1	503.3287-F	1

Fuses not supplied.



IP: IP66
 Flange: 170X380MM

Poles	h	Hz	Volt	Colour	63A	
2P+E	6	50 60	200-250		503.6383-F	1
3P+E	6	50 60	380-415		503.6386-F	1
3P+N+E	6	50 60	346-415		503.6387-F	1

Fuses not supplied.

COMBINATION UNITS



Product category:
Ex II 3D

N° Socket outlets	16A			32A			63A		Rated current	Rated voltage	Terminal (mm²)	Cable entries	Code
	2P+E	3P+E	3P+N+E	2P+E	3P+E	3P+N+E	3P+E	3P+N+E					
1	1								16A	230V	3x6	M32	579.EX10-126
			1						16A	400V	5x6	M32	579.EX10-127
						1			32A	400V	5x10	M32	579.EX10-129
2			2						25A	400V	5x10	M32	579.EX20-103
	1		1						25A	400V	5x6	M32	579.EX20-104
	1					1			32A	400V	5x16	M32	579.EX20-105
	1	1							25A	400V	5x6	M32	579.EX20-113
	2								25A	230V	3x6	M32	579.EX20-125
		2							25A	400V	4x6	M32	579.EX20-128
	1					1			32A	400V	5x16	M32	579.EX20-151
		1	1						25A	400V	5x10	M32	579.EX20-155
						2			40A	400V	4x35	M40	579.EX20-161
3	1		2						25A	400V	5x16	M32	579.EX30-109
	2		1						25A	400V	5x10	M32	579.EX30-115
	1		1			1			32A	400V	5x16	M32	579.EX30-116
	1	1				1			32A	400V	5x16	M32	579.EX30-122
	3								25A	230V	3x10	M32	579.EX30-130
	2	1							25A	400V	5x10	M32	579.EX30-132
	1	2							25A	400V	5x10	M32	579.EX30-152
	1	1				1			32A	400V	5x16	M32	579.EX30-153
	1					1	1		55A	400V	5x35	M32	579.EX30-156
	1					2			55A	400V	5x35	M32	579.EX30-163
	1					1		1	70A	400V	5x35	M50	579.EX30-173
	2					1			32A	400V	5x16	M32	579.EX30-175
	1		1					1	60A	400V	5x16	M32	579.EX30-176
4	1		3						40A	400V	5x16	M32	579.EX40-106
	3		1						40A	400V	5x16	M32	579.EX40-107
	2		2						40A	400V	5x16	M32	579.EX40-108
	1	3							40A	400V	5x16	M32	579.EX40-123
	2		1			1			45A	400V	5x16	M32	579.EX40-131
	2					2			45A	400V	5x16	M32	579.EX40-132
	1		1			1		1	70A	400V	5x35	M50	579.EX40-133
		3	1						40A	400V	5x16	M32	579.EX40-154
	2					2			45A	400V	5x16	M32	579.EX40-162

Cable entries to drill.

ACCESSORIES



Description	Code	
JUNCTION BOX KIT 63A M50-EX	579.EX0201	

Only for the 63A version. Cable gland M50 available upon request.

CONTACT BLOCKS



Description	Colour	Switch size	Code	
NC CONTACT	■	16-32A	590.PL004001 ¹⁾	10/60
	■	63A	590.PL004003 ¹⁾	10
NO CONTACT	■	16-32A	590.PL004002 ¹⁾	10/60
	■	63A	590.PL004004 ¹⁾	10
CHANGE OVER CONTACT		16-32A	590.PL004005	10
		63A	590.PL004006	10

Snap catch.

¹⁾NO=Normally open.

¹⁾NC=Normally closed



SWITCHED INTERLOCKED SOCKET OUTLETS
ADVANCE-GR[EX] SERIES





COUPLERS





COUPLERS

OPTIMA-EX[GD] SERIES

p. 46

Couplers for Zone 1-2 (Gas) and 21-22 (Dust)





OPTIMA-EX[GD] Series

Couplers for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T3/T4 Gb Ex tb IIIC T85°C Db
Certificates:	IMQ 23 ATEX 045 X IECEX IMQ 23.0006 X EMA 24 UKEX 0001 X CPEX 25.2175 X

technical sheet p. 150

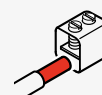
Technical information

Main characteristics



- 01** IP66 cover ring nut
- 02** Enclosure in dissipative thermoplastic material reinforced with glass-fibre with very high mechanical resistance (7J), to heat and fire, to atmospheric agents and UV rays
- 03** Lowered body with non-slip finish to facilitate grip
- 04** Non-sparking switch with mechanical interlock
- 05** Lockable handle and plate with indicators of voltage presence
- 06** Protected enclosure locking points
- 07** Ergonomic cable gland in thermoplastic material reinforced with glass-fibre

Terminals



mantle terminals
Optimal connections
for high currents



COUPLERS "EX[GD]" - IP66



IP: IP66

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	4	50 60	100-130	Yellow	319.1640	1	319.3240	1
	6	50 60	200-250	Blue	319.1643	1	319.3243	1
	7	50 60	480-500	Black	319.16436		319.32436	
	9	50 60	380-415	Red	319.1648	1	319.3248	1
3P+E	3	50 60	380 50Hz / 440 60Hz	Red	319.16464	1	319.32464	1
	4	50 60	100-130	Yellow	319.1641	1	319.3241	1
	5	50 60	600-690	Black	319.16467		319.32467	
	6	50 60	380-415	Red	319.1646	1	319.3246	1
	7	50 60	480-500	Black	319.16466		319.32466	
	9	50 60	200-250	Blue	319.1644	1	319.3244	1
3P+N+E	11	60	440-460	Red	319.16465	1	319.32465	1
	3	50 60	380 50Hz / 440 60Hz	Red	319.16474	1	319.32474	1
	4	50 60	100-130	Yellow	319.1642	1	319.3242	1
	5	50 60	600-690	Black	319.16477		319.32477	
	6	50 60	346-415	Red	319.1647	1	319.3247	1
	7	50 60	480-500	Black	319.16476		319.32476	
	9	50 60	208-250	Blue	319.1645	1	319.3245	1
	11	60	440-460	Red	319.16475	1	319.32475	1

ACCESSORIES



Description	Code	
FIXING ACCESSORY Ø42mm SMALL	319.F042	1/10
FIXING ACCESSORY Ø52mm MEDIUM	319.F052	1/10
FIXING ACCESSORY Ø58mm LARGE	319.F058	1/10

SAFETY KEY

The couplers of OPTIMA-EX[GD] Series are equipped with an insertion key (in compliance with the IEC EN 60079-0 Standard) which allows mating only with plugs of the same series.



COUPLERS
OPTIMA-EX[GD] SERIES







PLUGS





PLUGS

OPTIMA-EX[GD] SERIES

p. 52

Industrial plugs for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

OPTIMA-EX SERIES

p. 55

Industrial plugs for Zone 21-22 (Dust)



Ex II 2D



OPTIMA-EX[GD] Series

Industrial plugs for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC T3, T4, T5, T6 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 15 ATEX 0017X IECEX IEC 15.0033X CML 21 UKEX 11259X CPEX 25.2230 X

technical sheet p. 152

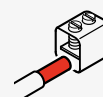
Technical information

Main characteristics



- 01** Unlosable co-moulded silicone gasket
- 02** Ultra smooth anti-corrosion nickel-plated brass pins
- 03** Stainless steel coupling screws
- 04** Body in reinforced dissipative thermoplastic material reinforced with glass-fibre with very high mechanical resistance (7J), to heat and fire, to atmospheric agents and UV rays
- 05** Tulip external cable clamp with cable gland function

Terminals



mantle terminals
Optimal connections
for high currents



■ PLUGS EX[GD]



IP: IP66

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	4	50 60	100-130		219.1630	1/12	219.3230	1/12
	6	50 60	200-250		219.1633	1/12	219.3233	1/12
	7	50 60	480-500		219.16336	1/12	219.32336	1/12
	9	50 60	380-415		219.1638	1/12	219.3238	1/12
3P+E	3	50 60	380 50Hz / 440 60Hz		219.16364	1/12	219.32364	1/12
	4	50 60	100-130		219.1631	1/12	219.3231	1/12
	5	50 60	600-690		219.16367	1/12	219.32367	1/12
	6	50 60	380-415		219.1636	1/12	219.3236	1/12
	7	50 60	480-500		219.16366	1/12	219.32366	1/12
	9	50 60	200-250		219.1634	1/12	219.3234	1/12
3P+N+E	11	60	440-460		219.16365	1/12	219.32365	1/12
	3	50 60	380 50Hz / 440 60Hz		219.16374	1/12	219.32374	1/12
	4	50 60	100-130		219.1632	1/12	219.3232	1/12
	5	50 60	600-690		219.16377	1/12	219.32377	1/12
	6	50 60	346-415		219.1637	1/12	219.3237	1/12
	7	50 60	480-500		219.16376	1/12	219.32376	1/12
	9	50 60	208-250		219.1635	1/12	219.3235	1/12
	11	60	440-460		219.16375	1/12	219.32375	1/12



IP: IP66

Poles	h	Hz	Volt	Colour	63A		125A	
3P+E	3	50 60	380 50Hz / 440 60Hz		219.63364	1/8	219.125364 ¹⁾	1/8
	4	50 60	100-130		219.6331	1/8	219.12531 ¹⁾	1/8
	5	50 60	600-690		219.63367	1/8	219.125367 ¹⁾	1/8
	6	50 60	380-415		219.6336	1/8	219.12536 ¹⁾	1/8
	7	50 60	480-500		219.63366	1/8	219.125366 ¹⁾	1/8
	9	50 60	200-250		219.6334	1/8	219.12534 ¹⁾	1/8
	11	60	440-460		219.63365	1/8	219.125365 ¹⁾	1/8
3P+N+E	3	50 60	380 50Hz / 440 60Hz		219.63374	1/8	219.125374 ¹⁾	1/8
	4	50 60	100-130		219.6332	1/8	219.12532 ¹⁾	1/8
	5	50 60	600-690		219.63377	1/8	219.125377 ¹⁾	1/8
	6	50 60	346-415		219.6337	1/8	219.12537 ¹⁾	1/8
	7	50 60	480-500		219.63376	1/8	219.125376 ¹⁾	1/8
	9	50 60	208-250		219.6335	1/8	219.12535 ¹⁾	1/8
	11	60	440-460		219.63375	1/8	219.125375 ¹⁾	1/8

OPTIMA-EX[GD] plugs can be coupled only with the switched interlocked socket outlets of the ADVANCE-GRP[GD] Series.

When in "safe zone" they can be connected to any industrial socket outlet compliant with IEC EN 60309-1 and IEC EN 60309-2 Standards

¹⁾ With black ring nut.

■ ACCESSORIES >> COVERS



Description	IP	Current	Poles	Code	
PLUG CAP	IP66/IP67/IP69	16A	2P+E	570.90163	10/100
	IP66/IP67/IP69	16A	3P+E	570.90164	10/100
	IP66/IP67/IP69	16A	3P+N+E	570.90165	10/100
	IP66/IP67/IP69	32A	3P+N+E	570.90325	10/100
	IP66/IP67/IP69	32A	2/3P+E	570.90324	10/100
	IP66/IP67/IP69	63A	ALL	570.9063	10
	IP66/IP67/IP69	125A	ALL	570.9125	10

When the plug is not in use, it is recommended to apply the protective cap to prevent the deposit of dirt on the pins, thus ensuring a contact always optimal in subsequent uses.

**OPTIMA-EX Series**

Industrial plugs for Zone 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2D
Ex protection type:	Ex tb IIIC T90°C Db
Certificates:	IMQ 11 ATEX 011 EMA 22 UKEX 0019

 technical sheet **p. 154**
PLUGS "EX" - IP66
**IP: IP66**

Poles	h	Hz	Volt	Colour	16A		32A	
2P+E	6	50 60	200-250		218.EX1633	1/12	218.EX3233	1/12
3P+E	6	50 60	380-415		218.EX1636	1/12	218.EX3236	1/12
3P+N+E	6	50 60	346-415		218.EX1637	1/12	218.EX3237	1/12

**IP: IP66**

Poles	h	Hz	Volt	Colour	63A	
2P+E	6	50 60	200-250		218.EX6333	1/8
3P+E	6	50 60	380-415		218.EX6336	1/8
3P+E	11	60	440-460		218.EX63365	1/8
3P+N+E	6	50 60	346-415		218.EX6337	1/8

ACCESSORIES >> COVERS


Description	IP	Current	Poles	Code	
PLUG CAP	IP66/IP67/IP69	16A	2P+E	570.90163	10/100
	IP66/IP67/IP69	16A	3P+E	570.90164	10/100
	IP66/IP67/IP69	16A	3P+N+E	570.90165	10/100
	IP66/IP67/IP69	32A	3P+N+E	570.90325	10/100
	IP66/IP67/IP69	32A	2/3P+E	570.90324	10/100
	IP66/IP67/IP69	63A	ALL	570.9063	10

When the plug is not in use, it is recommended to apply the protective cap to prevent the deposit of dirt on the pins, thus ensuring a contact always optimal in subsequent uses.





EXTENSION CORDS



EXTENSION CORDS

OPTIMA-EX[GD] SERIES

p. 60

Extension cords for Zone 1-2 (Gas) and 21-22 (Dust)



 II 2GD

EXTENSION CORDS

OPTIMA-EX[GD] Series



OPTIMA-EX[GD] Series

Extension cords for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

	Coupler	Plug
Product category:	Ex II 2GD	Ex II 2GD
Ex protection type:	Ex db eb IIC T3/T4 Gb Ex tb IIIC T85°C Db	Ex eb IIC T3, T4, T5, T6 Gb Ex tb IIIC T80°C Db
Certificates:	IMQ 23 ATEX 045 X IECEX IMQ 23.0006 X EMA 24 UKEX 0001 X CPEX 25.2175 X	INERIS 15 ATEX 0017X IECEX INE 15.0033X CML 21 UKEX 11259X CPEX 25.2230 X

EXTENSION CORDS



Current	Poles	h	Hz	Volt	Colour	Cable lenght	Cable section	Code	
16A	2P+E	6	50 60	200-250		5m	3x2,5mm ²	759.1633-05	1
	3P+E	6	50 60	380-415		5m	4x2,5mm ²	759.1636-05	1
	3P+N+E	6	50 60	346-415		5m	5x2,5mm ²	759.1637-05	1
	2P+E	6	50 60	200-250		10m	3x2,5mm ²	759.1633-10	1
	3P+E	6	50 60	380-415		10m	4x2,5mm ²	759.1636-10	1
	3P+N+E	6	50 60	346-415		10m	5x2,5mm ²	759.1637-10	1
	2P+E	6	50 60	200-250		25m	3x2,5mm ²	759.1633-25	1
	3P+E	6	50 60	380-415		25m	4x2,5mm ²	759.1636-25	1
	3P+N+E	6	50 60	346-415		25m	5x2,5mm ²	759.1637-25	1
32A	2P+E	6	50 60	200-250		5m	3x6mm ²	759.3233-05	1
	3P+E	6	50 60	380-415		5m	4x6mm ²	759.3236-05	1
	3P+N+E	6	50 60	346-415		5m	5x6mm ²	759.3237-05	1
	2P+E	6	50 60	200-250		10m	3x6mm ²	759.3233-10	1
	3P+E	6	50 60	380-415		10m	4x6mm ²	759.3236-10	1
	3P+N+E	6	50 60	346-415		10m	5x6mm ²	759.3237-10	1
	2P+E	6	50 60	200-250		25m	3x6mm ²	759.3233-25	1
	3P+E	6	50 60	380-415		25m	4x6mm ²	759.3236-25	1
	3P+N+E	6	50 60	346-415		25m	5x6mm ²	759.3237-25	1

■ ACCESSORIES >> COVERS



Description	IP	Current	Poles	Code	
PLUG CAP	IP66/IP67/IP69	16A	2P+E	570.90163	10/100
	IP66/IP67/IP69	16A	3P+E	570.90164	10/100
	IP66/IP67/IP69	16A	3P+N+E	570.90165	10/100
	IP66/IP67/IP69	32A	3P+N+E	570.90325	10/100
	IP66/IP67/IP69	32A	2/3P+E	570.90324	10/100

When the plug is not in use, it is recommended to apply the protective cap to prevent the deposit of dirt on the pins, thus ensuring a contact always optimal in subsequent uses.







ENCLOSURES



ENCLOSURES

ZENITH-P SERIES

p. 66

Empty enclosures in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

ZENITH-S SERIES

p. 70

Empty enclosures in stainless steel for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

ALUBOX-EX SERIES

p. 76

Empty enclosures in die-cast aluminium for Zone 2-22 (Dust)



Ex II 3GD



ZENITH-P Series

Empty enclosures in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC Gb Ex tb IIIC Db
Certificates:	IMQ 19 ATEX 033U IECEx IMQ 19.004U EMA 21 UKEX 0066U CPEX 25.2210U

 technical sheet **p. 156**

Technical information

Main characteristics



- 01

Enclosure in thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity
- 02

Captive stainless steel closing screws

Available in various sizes, all with screw-mount cover, the empty enclosures of the **ZENITH-P Series** are approved with "U" component certification, which can be used as a basis for certification of a complete system or to ensure IP66 and/or Zone 2/Gc-22/Dc protection in self-certification applications.

ENCLOSURES IP66



Description	Dimensions	IP	Code	
SURFACE MOUNTING BOX	80x75x75mm	IP66	644.0200	1/36
	110x75x55mm	IP66	644.0110	1/24
	110x75x75mm	IP66	644.0210	1/24
	122x120x90mm	IP66	644.0345	1/8
	160x160x90mm	IP66	644.0360	1/6
	160x75x55mm	IP66	644.0120	1/18
	160x75x75mm	IP66	644.0220	1/18
	190x75x55mm	IP66	644.0130	1/18
	190x75x75mm	IP66	644.0230	1/12
	220x120x90mm	IP66	644.0350	1/9
	230x75x55mm	IP66	644.0140	1/18
	230x75x75mm	IP66	644.0240	1/12
	255x250x120mm	IP66	644.0465	1/4
	260x160x90mm	IP66	644.0370	1/6
	360x160x90mm	IP66	644.0380	1/6
	400x250x120mm	IP66	644.0485	1/3
	400x250x165mm	IP66	644.0585	1/3
	400x405x165mm	IP66	644.0595	1
	560x160x90mm	IP66	644.0390	1/3
	700x400x250mm	IP66	644.0840	1

PLATES >> EARTH CONTINUITY PLATE



Description	Enclosure dimensions	Code	
EARTH CONTINUITY PLATE	80x75x55mm	644.A0100	1/36
	80x75x75mm	644.A0200	1/36
	110x75x55mm	644.A0110	1/24
	110x75x75mm	644.A0210	1/24
	122x120mm	644.A0345	1/9
	160x160mm	644.A0360	1/6
	160x75x55mm	644.A0120	1/18
	160x75x75mm	644.A0220	1/18
	190x75x55mm	644.A0130	1/18
	190x75x75mm	644.A0230	1/12
	220x120mm	644.A0350	1/9
	230x75x55mm	644.A0140	1/18
	230x75x75mm	644.A0240	1/12
	255x250mm	644.A0465	1/6
	260x160mm	644.A0370	1/6
	360x360mm	644.A0380	1/6
	400x250mm	644.A0485	1/6
	400x250mm	644.A0585	1/4
	400x405mm	644.A0595	1/3
	560x160mm	644.A0390	1/6
	700x400mm	644.A0840	1

Type "L" earth continuity plate available only with metal cable glands.



ENCLOSURES

ZENITH-P Series

■ PLATES >> EARTH CONTINUITY PLATE (TYPE L)



Description	Enclosure dimensions	Code	
EARTH CONTINUITY PLATE	80x75x55mm	644.A0100L	1/36
	80x75x75mm	644.A0200L	1/36
	110x75x55mm	644.A0110L	1/24
	110x75x75mm	644.A0210L	1/24
	122x120mm	644.A0345L	1/9
	160x160mm	644.A0360L	1/6
	160x75x55mm	644.A0120L	1/18
	160x75x75mm	644.A0220L	1/18
	190x75x55mm	644.A0130L	1/18
	190x75x75mm	644.A0230L	1/12
	220x120mm	644.A0350L	1/9
	230x75x55mm	644.A0140L	1/18
	230x75x75mm	644.A0240L	1
	255x250mm	644.A0465L	1/6
	260x160mm	644.A0370L	1/6
	360x360mm	644.A0380L	1/6
	400x250mm	644.A0485L	1/6
	400x250mm	644.A0585L	1/4
	400x405mm	644.A0595L	1/3
	560x160mm	644.A0390L	1/6
	700x400mm	644.A0840L	1

Type "L" earth continuity plate available only with metal cable glands.

■ PLATES >> INTERNAL MOUNTING PLATE



Description	Enclosure dimensions	Code	
MOUNTING PLATE	80x75mm	644.B00	1/36
	110x75mm	644.B10	1/24
	122x120mm	644.B45	1/18
	160x160mm	644.B60	1/12
	160x75mm	644.B20	1/18
	190x75mm	644.B30	1/18
	220x120mm	644.B50	1/18
	230x75mm	644.B40	1/36
	255x250mm	644.B65	1/12
	260x160mm	644.B70	1/12
	360x160mm	644.B80	1/15
	400x250mm	644.B85	1/12
	400x405mm	644.B95	1/12
	560x160mm	644.B90	1/15
	700x400mm	644.B98	1

■ ACCESSORIES >> EXTERNAL MOUNTING BRACKETS



Description	Dimensions	Code	
MOUNTING BRACKETS KIT	75mm	644.C075	1/10
	120mm	644.C120	1/10
	160mm	644.C160	1/10

■ ACCESSORIES >> EXTERNAL MOUNTING VERTICAL FEET



Description	Dimensions	Code	
WALL MOUNTING BRACKETS KIT	75mm	644.D075	1/10
	120mm	644.D120	1/10
	160mm	644.D160	1/10
	250mm	644.D250	1/10
	405mm	644.D405	1/10

■ ACCESSORIES >> EARTH STUD



Description	Dimensions	Material	Code	
EARTH STUD KIT	M6x50mm	Brass	644.E650	1/20
	M6x50mm	Stainless steel AISI 316L	644.E651	1/20
	M10x75mm	Brass	644.E1075	1/20
	M10x75mm	Stainless steel AISI 316L	644.E1076	1/20

■ ACCESSORIES >> KIT FOR PADLOCKING



Description	Dimensions	Code	
KIT FOR PADLOCKING	75x55mm	644.G001	1/10
	75x75mm	644.G002	1/10
	120x90mm	644.G003	1/10
	160x90mm	644.G004	1/10
	250x120mm	644.G005	1/10
	250x165mm	644.G007	1/8
	405x165mm	644.G006	1/10



ZENITH-S Series

Empty enclosures in stainless steel for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC Gb Ex tb IIIC Db
Certificates:	IMQ 19 ATEX 033U IECEX IMQ 19.004U EMA 21 UKEX 0066U CPEX 25.2210U

 technical sheet **p. 157**

Technical information

Main characteristics



- 01

Enclosure in AISI 304L or AISI 316L stainless steel
- 02

Lid fixing by stainless steel screws or by hinges with key lock

Available in various sizes, the empty enclosures of the **ZENITH-S Series** are approved with 'U' component certification, which can be used as a basis for the certification of a complete system or to ensure IP66 and/or Zone 2/Gc-22/Dc protection in self-certification applications.



CUSTOMISED SOLUTIONS



ZENITH-S Series enclosures can be equipped with a wide range of accessories with separate ATEX-IECEX certification, to obtain various configurations of junction boxes and local control stations. Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEX Scheme.

For product customisation service see p. 23

■ SCREW LID BOXES >> ENCLOSURES >> AISI304L-SILICON



Description	Dimensions	IP	Colour	Code	
SURFACE MOUNTING BOX	90x90x75mm	IP66		645.B4S01	1
	100x100x90mm	IP66		645.B4S02	1
	100x160x90mm	IP66		645.B4S03	1
	100x220x90mm	IP66		645.B4S04	1
	150x160x120mm	IP66		645.B4S05	1
	150x220x120mm	IP66		645.B4S06	1
	150x280x120mm	IP66		645.B4S07	1
	200x220x120mm	IP66		645.B4S08	1
	200x280x120mm	IP66		645.B4S09	1
	250x280x120mm	IP66		645.B4S10	1
	250x340x150mm	IP66		645.B4S11	1
	300x340x150mm	IP66		645.B4S12	1
	300x400x150mm	IP66		645.B4S13	1
	400x400x150mm	IP66		645.B4S14	1

■ SCREW LID BOXES >> ENCLOSURES >> AISI316L-SILICON



Description	Dimensions	IP	Colour	Code	
SURFACE MOUNTING BOX	90x90x75mm	IP66		645.B6S01	1
	100x100x90mm	IP66		645.B6S02	1
	100x160x90mm	IP66		645.B6S03	1
	100x220x90mm	IP66		645.B6S04	1
	150x160x120mm	IP66		645.B6S05	1
	150x220x120mm	IP66		645.B6S06	1
	150x280x120mm	IP66		645.B6S07	1
	200x220x120mm	IP66		645.B6S08	1
	200x280x120mm	IP66		645.B6S09	1
	250x280x120mm	IP66		645.B6S10	1
	250x340x150mm	IP66		645.B6S11	1
	300x340x150mm	IP66		645.B6S12	1
	300x400x150mm	IP66		645.B6S13	1
	400x400x150mm	IP66		645.B6S14	1



ENCLOSURES

ZENITH-S Series

■ SCREW LID BOXES >> INTERNAL MOUNTING PLATE >> AISI304L



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	100x160mm		645.B4P03	1
	100x220mm		645.B4P04	1
	150x160mm		645.B4P05	1
	150x220mm		645.B4P06	1
	150x280mm		645.B4P07	1
	200x220mm		645.B4P08	1
	200x280mm		645.B4P09	1
	250x280mm		645.B4P10	1
	250x340mm		645.B4P11	1
	300x340mm		645.B4P12	1
	300x400mm		645.B4P13	1
	400x400mm		645.B4P14	1

■ SCREW LID BOXES >> INTERNAL MOUNTING PLATE >> AISI316L



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	100x160mm		645.B6P03	1
	100x220mm		645.B6P04	1
	150x160mm		645.B6P05	1
	150x220mm		645.B6P06	1
	150x280mm		645.B6P07	1
	200x220mm		645.B6P08	1
	200x280mm		645.B6P09	1
	250x280mm		645.B6P10	1
	250x340mm		645.B6P11	1
	300x340mm		645.B6P12	1
	300x400mm		645.B6P13	1
	400x400mm		645.B6P14	1

■ SCREW LID BOXES >> INTERNAL MOUNTING PLATE >> GALVANIZED STEEL



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	100x160mm		645.B8P03	1
	100x220mm		645.B8P04	1
	150x160mm		645.B8P05	1
	150x220mm		645.B8P06	1
	150x280mm		645.B8P07	1
	200x220mm		645.B8P08	1
	200x280mm		645.B8P09	1
	250x280mm		645.B8P10	1
	250x340mm		645.B8P11	1
	300x340mm		645.B8P12	1
	300x400mm		645.B8P13	1
	400x400mm		645.B8P14	1

■ SCREW LID BOXES >> FIXING BRACKETS (2 PZ.)



Description	Material	Colour	Code	
METAL FIXING BRACKETS	Stainless steel AISI 304L		645.B4F	1
	Stainless steel AISI 316L		645.B6F	1

■ CABINETS >> ENCLOSURES >> AISI304L-SILICON



Description	Dimensions	IP	Colour	Code	
CABINET	260x260x150mm	IP66		645.C4S000	1
	300x300x210mm	IP66		645.C4S010	1
	300x380x210mm	IP66		645.C4S020	1
	300x450x210mm	IP66		645.C4S030	1
	380x300x210mm	IP66		645.C4S040	1
	380x380x210mm	IP66		645.C4S050	1
	380x600x210mm	IP66		645.C4S060	1
	400x500x210mm	IP66		645.C4S070	1
	450x300x210mm	IP66		645.C4S080	1
	450x450x210mm	IP66		645.C4S090	1
	450x450x250mm	IP66		645.C4S100	1
	450x600x210mm	IP66		645.C4S110	1
	450x600x250mm	IP66		645.C4S120	1
	500x700x250mm	IP66		645.C4S130	1
	600x380x210mm	IP66		645.C4S140	1
	600x450x250mm	IP66		645.C4S150	1
	600x600x210mm	IP66		645.C4S160	1
	600x600x250mm	IP66		645.C4S170	1
	600x600x300mm	IP66		645.C4S180	1
	600x750x210mm	IP66		645.C4S190	1
	600x750x250mm	IP66		645.C4S200	1
	600x750x300mm	IP66		645.C4S210	1
	600x900x300mm	IP66		645.C4S220	1
	750x1000x300mm	IP66		645.C4S230	1
	800x1200x300mm	IP66		645.C4S240	1

Standard version supplied with double-bit lock.
Versions with external flanges available on request.

■ CABINETS >> ENCLOSURES >> AISI316L-SILICON



Description	Dimensions	IP	Colour	Code	
CABINET	260x260x150mm	IP66		645.C6S000	1
	300x300x210mm	IP66		645.C6S010	1
	300x380x210mm	IP66		645.C6S020	1
	300x450x210mm	IP66		645.C6S030	1
	380x300x210mm	IP66		645.C6S040	1
	380x380x210mm	IP66		645.C6S050	1
	380x600x210mm	IP66		645.C6S060	1
	400x500x210mm	IP66		645.C6S070	1
	450x300x210mm	IP66		645.C6S080	1
	450x450x210mm	IP66		645.C6S090	1
	450x450x250mm	IP66		645.C6S100	1
	450x600x210mm	IP66		645.C6S110	1
	450x600x250mm	IP66		645.C6S120	1
	500x700x250mm	IP66		645.C6S130	1
	600x380x210mm	IP66		645.C6S140	1
	600x450x250mm	IP66		645.C6S150	1
	600x600x210mm	IP66		645.C6S160	1
	600x600x250mm	IP66		645.C6S170	1
	600x600x300mm	IP66		645.C6S180	1
	600x750x210mm	IP66		645.C6S190	1
	600x750x250mm	IP66		645.C6S200	1
	600x750x300mm	IP66		645.C6S210	1
	600x900x300mm	IP66		645.C6S220	1
	750x1000x300mm	IP66		645.C6S230	1
	800x1200x300mm	IP66		645.C6S240	1

Standard version supplied with double-bit lock.
Versions with external flanges available on request.

ENCLOSURES

ZENITH-S Series

■ CABINETS >> INTERNAL MOUNTING PLATE >> AISI304L



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	260x260mm		645.C4P00	1
	300x300mm		645.C4P01	1
	300x380mm		645.C4P02	1
	300x450mm		645.C4P03	1
	380x380mm		645.C4P05	1
	380x600mm		645.C4P06	1
	400x500mm		645.C4P07	1
	450x450mm		645.C4P09	1
	450x600mm		645.C4P11	1
	500x700mm		645.C4P13	1
	600x600mm		645.C4P16	1
	600x750mm		645.C4P19	1
	600x900mm		645.C4P22	1
	750x1000mm		645.C4P23	1
	800x1200mm		645.C4P24	1

Screws and seal are included.

■ CABINETS >> INTERNAL MOUNTING PLATE >> AISI316L



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	260x260mm		645.C6P00	1
	300x300mm		645.C6P01	1
	300x380mm		645.C6P02	1
	300x450mm		645.C6P03	1
	380x380mm		645.C6P05	1
	380x600mm		645.C6P06	1
	400x500mm		645.C6P07	1
	450x450mm		645.C6P09	1
	450x600mm		645.C6P11	1
	500x700mm		645.C6P13	1
	600x600mm		645.C6P16	1
	600x750mm		645.C6P19	1
	600x900mm		645.C6P22	1
	750x1000mm		645.C6P23	1
	800x1200mm		645.C6P24	1

Screws and seal are included.

■ CABINETS >> INTERNAL MOUNTING PLATE >> GALVANIZED STEEL



Description	Enclosure dimensions	Colour	Code	
MOUNTING PLATE	260x260mm		645.C8P00	1
	300x300mm		645.C8P01	1
	300x380mm		645.C8P02	1
	300x450mm		645.C8P03	1
	380x380mm		645.C8P05	1
	380x600mm		645.C8P06	1
	400x500mm		645.C8P07	1
	450x450mm		645.C8P09	1
	450x600mm		645.C8P11	1
	500x700mm		645.C8P13	1
	600x600mm		645.C8P16	1
	600x750mm		645.C8P19	1
	600x900mm		645.C8P22	1
	750x1000mm		645.C8P23	1
	800x1200mm		645.C8P24	1

Screws and seal are included.

■ CABINETS >> FIXING BRACKETS (4 PZ.)



Description	Material	Colour	Code	
METAL FIXING BRACKETS	Stainless steel AISI 304L		645.C4FL	1
	Stainless steel AISI 316L		645.C6FL	1

Only for enclosures with hinged lid and key lock.

■ ACCESSORIES



Description	Dimensions	Material	Colour	Code	
DOCUMENT HOLDER				645.004	1
EARTH STUD KIT	M10x75mm	BRASS		644.E1075	1/20
	M10x75mm	Stainless steel AISI 316L		644.E1076	1/20
	M6x50mm	BRASS		644.E650	1/20
	M6x50mm	Stainless steel AISI 316L		644.E651	1/20
LOCK KIT	YALE KEY	Stainless steel AISI 316L		645.001	1
	STANDARD DOUBLE-BIT LOCK	Stainless steel AISI 316L		645.002	1
	STANDARD DOUBLE-BIT KEY	Stainless steel AISI 316L		645.003	1



**ALUBOX-EX Series**

Empty enclosures in die-cast aluminium for Zone 2-22 (Dust)

Ex CHARACTERISTICSProduct category: **Ex II 3GD**Ex protection type: **Ex ec IIC Gc**
Ex tc IIIC Dc
 technical sheet **p. 158**
ENCLOSURES IP66 - EX


Description	Dimensions	IP	Colour	Code	
SURFACE MOUNTING BOX	100x100x58mm	IP66		653.9000 ¹⁾	1/32
	140x115x60mm	IP66		653.9001 ¹⁾	1/24
	166x142x64mm	IP66		653.9002 ¹⁾	1/16
	192x168x80mm	IP66		653.9003 ²⁾	1/12
	253x217x93mm	IP66		653.9004 ²⁾	1/6
	314x264x122mm	IP66		653.9005 ²⁾	1/2
	410x315x150mm	IP66		653.9007 ²⁾	1

Enclosure and cover in die-cast aluminium.

Externally varnished.

With stainless steel screws for attaching cover and self-tapping zinccoated steel screws for earthing the enclosure and cover.

¹⁾ Counter-sunk head screw.²⁾ Flat head screw.
 MOUNTING PLATES


Description	Dimensions	Colour	Code	
MOUNTING PLATE	140x115x60mm		653.011	1/40
	166x142x64mm		653.012	1/20
	192x168x80mm		653.013	1/20
	253x217x93mm		653.014	1/10
	314x264x122mm		653.015	1/10
	410x315x150mm		653.017	1/5

Zinc-coated steel plate.

With zinc-coated steel self-tapping screws for attaching the plate.

■ DIN RAIL KIT



Description	Dimensions	Colour	Code	
DIN RAIL KIT	100x100x58mm		653.020	1/25
	140x115x60mm		653.021	1/25
	166x142x64mm		653.022	1/20
	192x168x80mm		653.023	1/25
	253x217x93mm		653.024	1/20
	314x264x122mm		653.025	1/30
	410x315x150mm		653.027	1/50







JUNCTION BOXES



JUNCTION BOXES

ZENITH-P SERIES

p. 82

Junction boxes in thermosetting GRP material
for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 1G - 2GD

1.6

JUNCTION BOXES

ZENITH-P Series



ZENITH-P Series

Junction boxes in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 1G - 2GD
Ex protection type:	Ex eb IIC T6/T5/T4 Gb Ex eb ia IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga
Certificates:	IMQ 19 ATEX 034 X IECEX IMQ 19.0005 X EMA 21 UKEX 0067X CPEX 25.2247X

technical sheet p. 159

Technical information

Main characteristics



- 01

Enclosure in thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity
- 02

Captive stainless steel closing screws
- 03

ATEX-IECEX certified cable glands available in plastic or metallic material, for armoured or unarmoured cable



CUSTOMISED SOLUTIONS

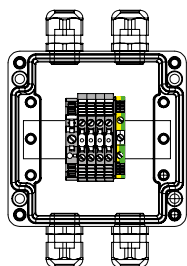


ZENITH-P Series junction boxes can be customised with a wide range of accessories with separate ATEX-IECEEx certification. Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEEx Scheme.

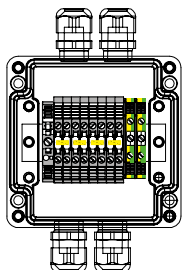
For product customisation service see p. 23



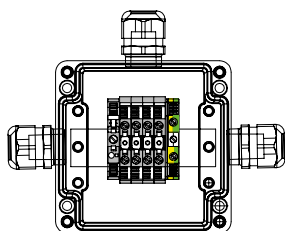
■ JUNCTION BOXES



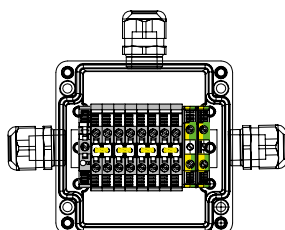
Description	Dimensions	Cable entries	Code	
4XWDU + 1WPE 4,0mm²	122x120x90mm	4xM20	644.0345-J01	1



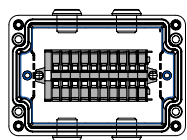
Description	Dimensions	Cable entries	Code	
8XWDU 4,0mm² (BRIDGED 2/2) + 2WPE	122x120x90mm	4xM20	644.0345-J02	1



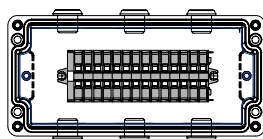
Description	Dimensions	Cable entries	Code	
4XWDU + 1WPE 6,0MM²	122x120x90mm	3xM20	644.0345-J03	1



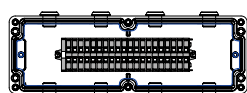
Description	Dimensions	Cable entries	Code	
8XWDU 6,0MM² (BRIDGED 2/2) + 2WPE	122x120x90mm	3xM20	644.0345-J04	1



Description	Dimensions	Cable entries	Code	
10X2,5MM² CAGE TERMINAL	75x110x75mm	4xM20 (plugged)	644.0210-J10	1



Description	Dimensions	Cable entries	Code	
14X2,5MM² CAGE TERMINAL	75x160x75mm	6xM20 (plugged)	644.0220-J14	1



Description	Dimensions	Cable entries	Code	
20X2,5MM² CAGE TERMINAL	75x230x75mm	8xM20 (plugged)	644.0240-J20	1

■ ACCESSORIES >> EXTERNAL MOUNTING BRACKETS



Description	Dimensions	Code	
MOUNTING BRACKETS KIT	75mm	644.C075	1/10
	120mm	644.C120	1/10
	160mm	644.C160	1/10

■ ACCESSORIES >> EXTERNAL MOUNTING VERTICAL FEET



Description	Dimensions	Code	
WALL MOUNTING BRACKETS KIT	75mm	644.D075	1/10
	120mm	644.D120	1/10
	160mm	644.D160	1/10
	250mm	644.D250	1/10
	405mm	644.D405	1/10

■ ACCESSORIES >> KIT FOR PADLOCKING



Description	Dimensions	Code	
KIT FOR PADLOCKING	75x55mm	644.G001	1/10
	75x75mm	644.G002	1/10
	120x90mm	644.G003	1/10
	160x90mm	644.G004	1/10
	250x120mm	644.G005	1/10
	405x165mm	644.G006	1/10







LOCAL CONTROL STATIONS



LOCAL CONTROL STATIONS

COMPACT-EX[GD] SERIES

p. 90

Modular local control stations in thermoplastic material for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

ZENITH-P SERIES

p. 102

Local control stations in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

1.7

LOCAL CONTROL STATIONS
COMPACT-EX[GD] Series



COMPACT-EX[GD] Series

Modular local control stations in thermoplastic material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db
Certificates:	ATEX 22 IMQ 006 X IECEX IMQ 22.0001 X EMA 22 UKEX 0046 X CPEX 25.2241 X

 technical sheet p. 160

 Technical information

Main characteristics



- 01

Enclosure in thermoplastic material reinforced with glass-fibre
- 02

Base with lowered side walls for easy access to wiring component terminals
- 03

Captive stainless steel closing screws
- 04

Blank sides with drilling point marks
- 05

Open external and slotted fixing points
- 06

Ex polyamide cable gland supplied

CUSTOMISED SOLUTIONS

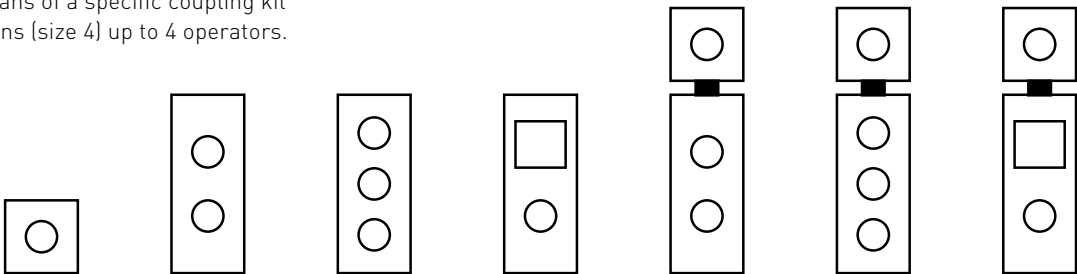


COMPACT-EX[GD] Series local control stations can be customised with a wide range of accessories with separate ATEX-IECEX certification. Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEX Scheme.

For product customisation service see p. 23

Type of enclosures

The two available sizes of enclosures (size 1 and size 3) can be coupled by means of a specific coupling kit so to obtain configurations (size 4) up to 4 operators.



Dimensions	95x95x80mm	180x95x80mm	180x95x80mm	180x95x80mm	275x95x80mm	275x95x80mm	275x95x80mm
Size	1	3	3	3	4	4	4
Number of bases	1	1	1	1	2	2	2

Combination examples



Local control stations

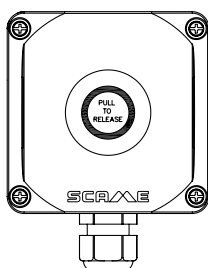


Local control and measurement stations

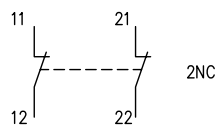
LOCAL CONTROL STATIONS

COMPACT-EX[GD] Series

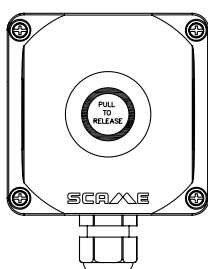
LOCAL CONTROL STATIONS – ONE OPERATOR



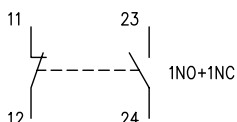
EMERGENCY push button



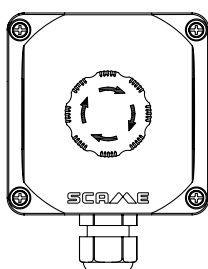
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON PULL TO RELEASE	1	1xM20	2NC	593.111-1ES	1



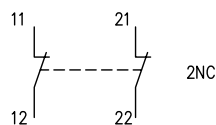
EMERGENCY push button



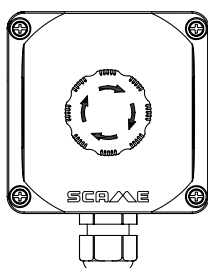
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON PULL TO RELEASE	1	1xM20	1NO+1NC	593.111-1ES1	1



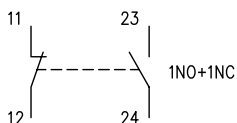
EMERGENCY push button



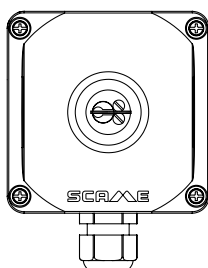
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON TWIST TO RELEASE	1	1xM20	2NC	593.111-1ER	1



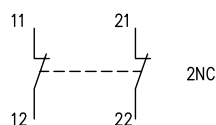
EMERGENCY push button



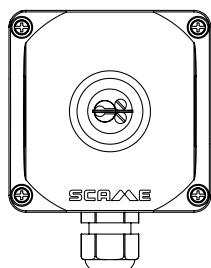
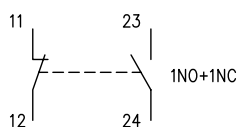
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON TWIST TO RELEASE	1	1xM20	1NO+1NC	593.111-1ER1	1



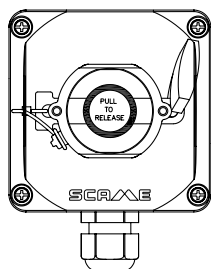
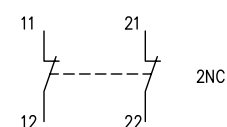
EMERGENCY push button



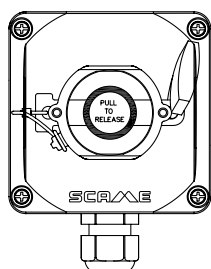
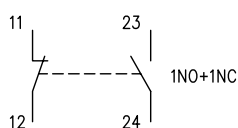
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON KEY TO RELEASE	1	1xM20	2NC	593.111-1EK	1

**EMERGENCY push button**

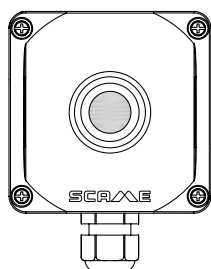
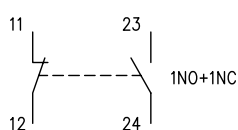
Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON KEY TO RELEASE	1	1xM20	1NO+1NC	593.111-1EK1	1

**EMERGENCY push button**

Description	Size	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON PULL TO RELEASE WITH SAFETY-LATCH	1	1xM20	2NC	593.111-1ESL	1

**EMERGENCY push button**

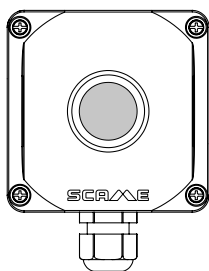
Description	Size	Cable entries	Function	Code	
EMERGENCY BUTTON PULL TO RELEASE WITH SAFETY-LATCH	1	1xM20	1NO+1NC	593.111-1ESL1	1

**Push button**

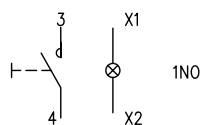
Description	Size	Cable entries	Function	Code	
GREEN PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1PBG	1
RED PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1PBR	1
WHITE PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1PBW	1
YELLOW PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1PBY	1
BLACK PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1PBK	1

LOCAL CONTROL STATIONS

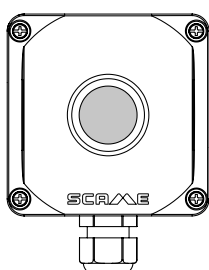
COMPACT-EX[GD] Series



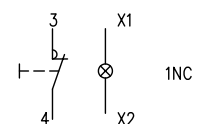
Lighted push button



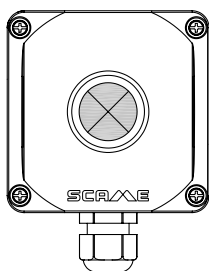
Description	Size	Cable entries	Function	Code	
GREEN LIGHT PUSH BUTTON	1	1xM20	1NO	593.111-1PLGO	1
RED LIGHT PUSH BUTTON	1	1xM20	1NO	593.111-1PLRO	1
WHITE LIGHT PUSH BUTTON	1	1xM20	1NO	593.111-1PLWO	1
YELLOW LIGHT PUSH BUTTON	1	1xM20	1NO	593.111-1PLYO	1
BLUE LIGHT PUSH BUTTON	1	1xM20	1NO	593.111-1PLBO	1



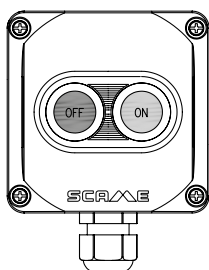
Lighted push button



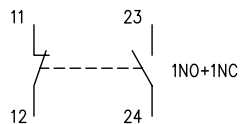
Description	Size	Cable entries	Function	Code	
GREEN LIGHT PUSH BUTTON	1	1xM20	1NC	593.111-1PLGC	1
RED LIGHT PUSH BUTTON	1	1xM20	1NC	593.111-1PLRC	1
WHITE LIGHT PUSH BUTTON	1	1xM20	1NC	593.111-1PLWC	1
YELLOW LIGHT PUSH BUTTON	1	1xM20	1NC	593.111-1PLYC	1
BLUE LIGHT PUSH BUTTON	1	1xM20	1NC	593.111-1PLBC	1



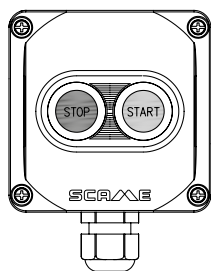
Description	Size	Cable entries	Function	Code	
GREEN LED LIGHT	1	1xM20		593.111-1LDG	1
RED LED LIGHT	1	1xM20		593.111-1LDR	1
WHITE LED LIGHT	1	1xM20		593.111-1LDW	1
YELLOW LED LIGHT	1	1xM20		593.111-1LDY	1
BLUE LED LIGHT	1	1xM20		593.111-1LDB	1



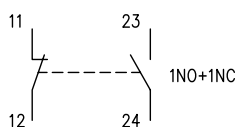
ON/OFF double push button



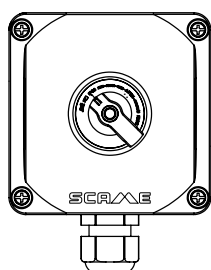
Description	Size	Cable entries	Function	Code	
ON/OFF DOUBLE PUSH BUTTON	1	1xM20	1NO+1NC	593.111-10F	1



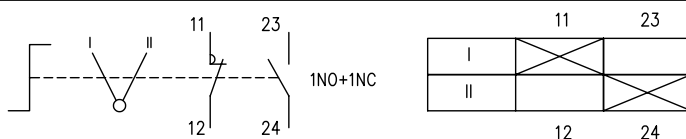
START/STOP double push button



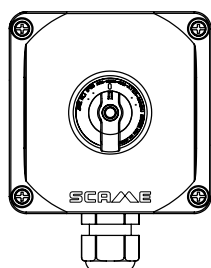
Description	Size	Cable entries	Function	Code	
START/STOP DOUBLE PUSH BUTTON	1	1xM20	1NO+1NC	593.111-1SS	1



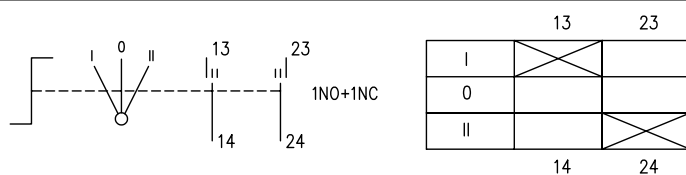
Selector switch I-II



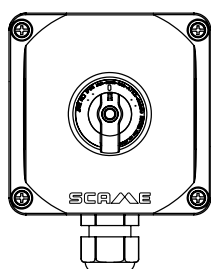
Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-II	1	1xM20	1NO+1NC	593.111-1SE2	1



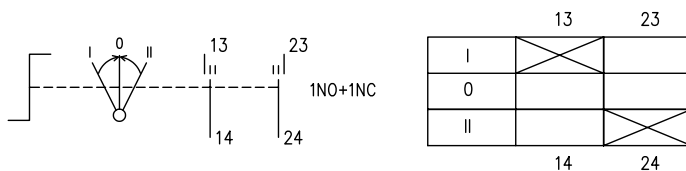
Selector switch I-0-II



Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-0-II	1	1xM20	2NO label 0 1NO label I - 1NC label II fixed position	593.111-1SE3	1



Selector switch I-0-II

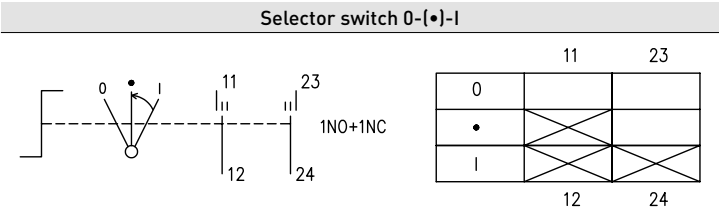
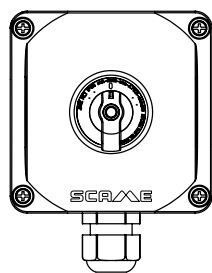


Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-0-II	1	1xM20	2NO label 0 1NO label I - 1NC label II spring return 0	593.111-1SE4	1

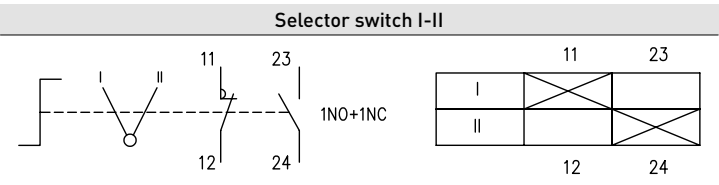
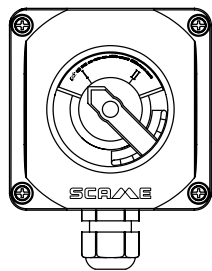
1.7

LOCAL CONTROL STATIONS

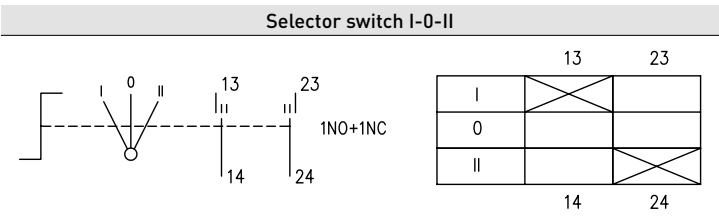
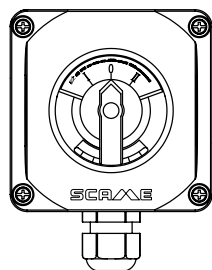
COMPACT-EX[GD] Series



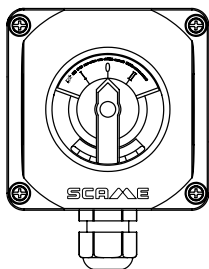
Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH 0-(•)-I	1	1xM20	2NO label 0 1NO+1NC label (•) spring return I-0	593.111-1SE5	1



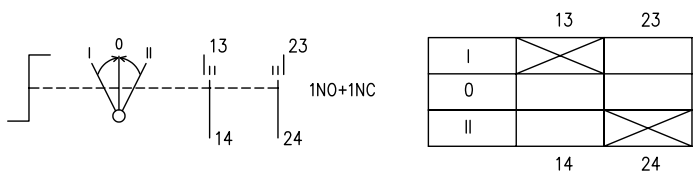
Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-II LOCKABLE HANDLE	1	1xM20	1NO+1NC	593.111-1SE2L	1



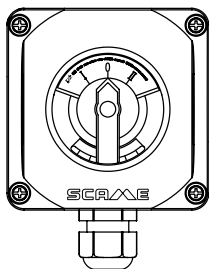
Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-0-II LOCKABLE HANDLE	1	1xM20	2NO label 0 1NO label I - 1NC label II fixed position	593.111-1SE3L	1



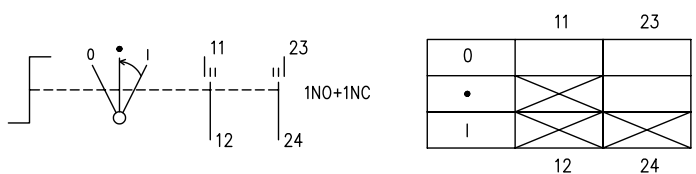
Selector switch I-0-II



Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH I-0-II LOCKABLE HANDLE	1	1xM20	2NO label 0 1NO label I - 1NC label II spring return 0	593.111-1SE4L	1



Selector switch 0-(•)-I

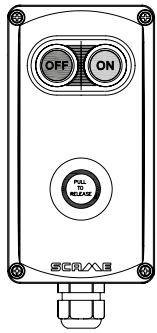


Description	Size	Cable entries	Function	Code	
SELECTOR SWITCH 0-(•)-I LOCKABLE HANDLE	1	1xM20	2NO label 0 1NO+1NC label (•) spring return I-0	593.111-1SE5L	1

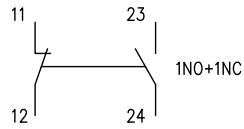
LOCAL CONTROL STATIONS

COMPACT-EX[GD] Series

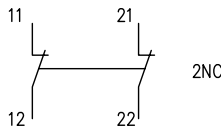
LOCAL CONTROL STATIONS – TWO OPERATORS



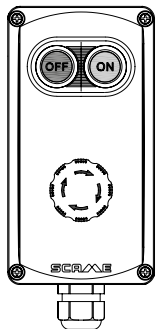
ON/OFF double push button



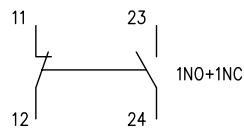
EMERGENCY push button



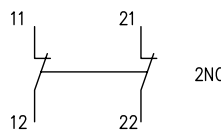
Description	Size	Cable entries	Function	Code	
ON/OFF DOUBLE PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	3	1xM25	ON/OFF 1NO+1NC EMERGENCY 2NC	593.321-50FE	1



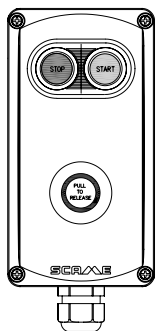
ON/OFF double push button



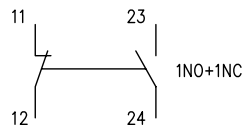
EMERGENCY push button



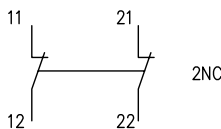
Description	Size	Cable entries	Function	Code	
ON/OFF DOUBLE PUSH BUTTON+ EMERGENCY PUSH BUTTON TWIST TO RELEASE	3	1xM25	ON/OFF 1NO+1NC EMERGENCY 2NC	593.321-50FER	1



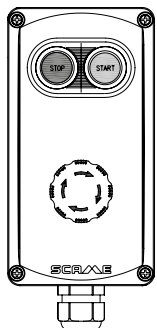
START/STOP double push button



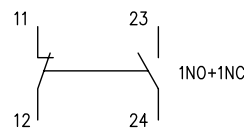
EMERGENCY push button



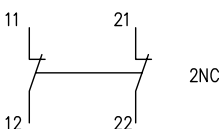
Description	Size	Cable entries	Function	Code	
START/STOP DOUBLE PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	3	1xM25	START/STOP 1NO+1NC EMERGENCY 2NC	593.321-5SSE	1



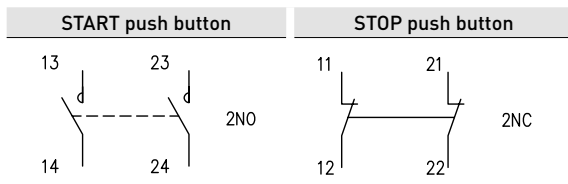
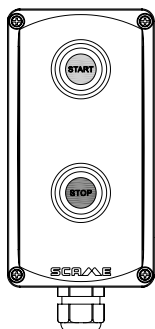
START/STOP double push button



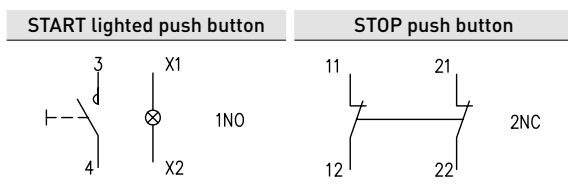
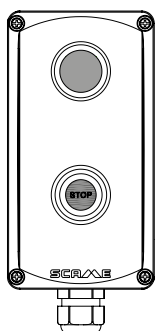
EMERGENCY push button



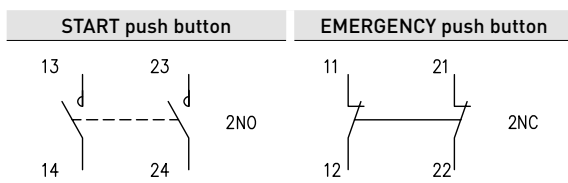
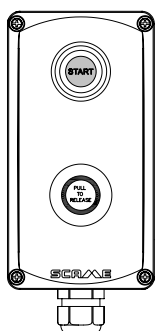
Description	Size	Cable entries	Function	Code	
START/STOP DOUBLE PUSH BUTTON + EMERGENCY PUSH BUTTON TWIST TO RELEASE	3	1xM25	START/STOP 1NO+1NC EMERGENCY 2NC	593.321-5SSER	1



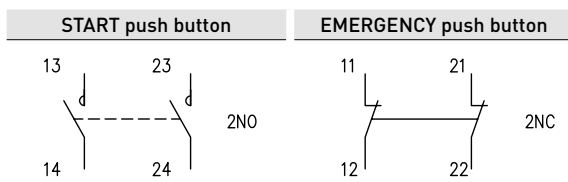
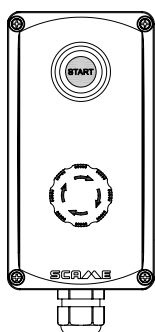
Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + STOP PUSH BUTTON	3	1xM25	START 2NO STOP 2NC	593.321-5SS	1



Description	Size	Cable entries	Function	Code	
START LIGHTED PUSH BUTTON + STOP PUSH BUTTON	3	1xM25	START 1NO STOP 2NC	593.321-5SSL	1



Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	3	1xM25	START 2NO EMERGENCY 2NC	593.321-5SE	1

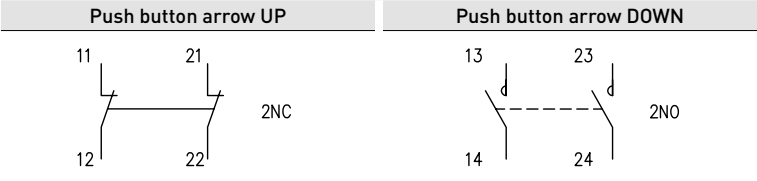
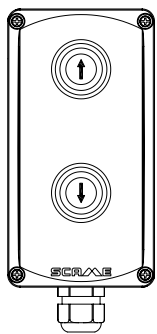


Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + EMERGENCY PUSH BUTTON TWIST TO RELEASE	3	1xM25	START 2NO EMERGENCY 2NC	593.321-5SER	1

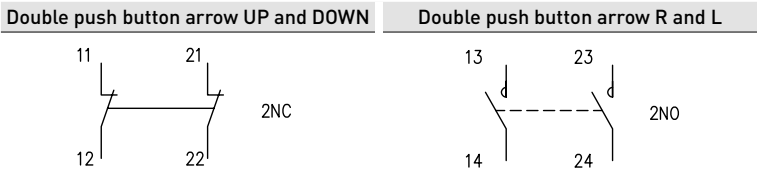
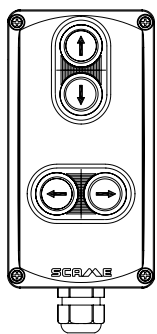
1.7

LOCAL CONTROL STATIONS

COMPACT-EX[GD] Series



Description	Size	Cable entries	Function	Code	
PUSH BUTTON ARROW UP + PUSH BUTTON ARROW DOWN	3	1xM25	Arrow UP 2NC Arrow DOWN 2NO	593.321-5UD	1

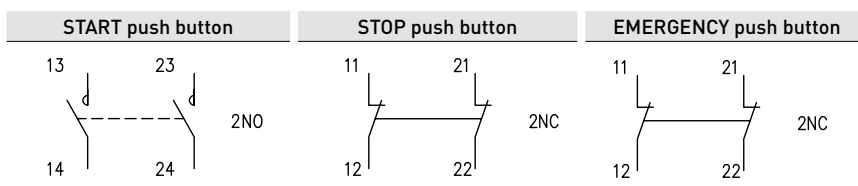
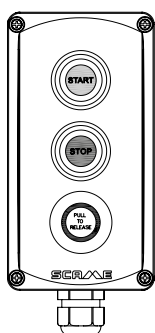


Description	Size	Cable entries	Function	Code	
DOUBLE PUSH BUTTON ARROW UP AND DOWN + DOUBLE PUSH BUTTON ARROW RIGHT AND LEFT	3	1xM25	Arrow UP and DOWN 2NC Arrow R and L 2NO	593.321-5UDLR	1

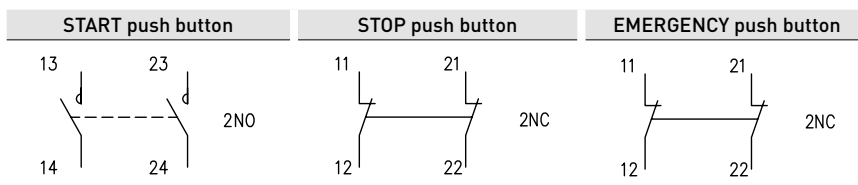
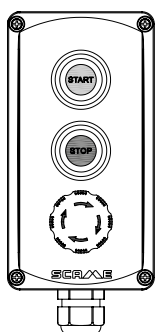
LOCAL CONTROL STATIONS - THREE OPERATORS



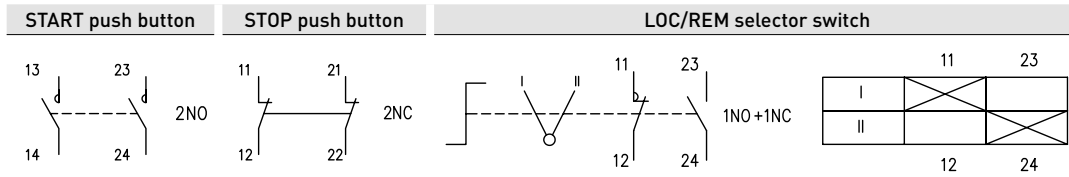
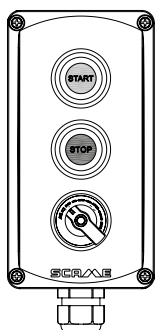
LOCAL CONTROL STATIONS
COMPACT-EX[GD] SERIES



Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + STOP PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	3	1xM25	START 2NO STOP 2NC EMERGENCY 2NC	593.331-5SSE	1



Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + STOP PUSH BUTTON + EMERGENCY PUSH BUTTON TWIST TO RELEASE	3	1xM25	START 2NO STOP 2NC EMERGENCY 2NC	593.331-5SSER	1



Description	Size	Cable entries	Function	Code	
START PUSH BUTTON + STOP PUSH BUTTON + LOC/REM SELECTOR	3	1xM25	START 2NO STOP 2NC SELECTOR SWITCH 1NO+1NC	593.331-5SSD	1



ZENITH-P Series

Local control stations in thermosetting GRP material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T6/T5/T4 Gb Ex db eb mb IIC T6/T5/T4 Gb Ex eb mb IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T130°C Db
Certificates:	IMQ 19 ATEX 034 X IECEX IMQ 19.0005 X EMA 21 UKEX 0067X CPEX 25.2247X

technical sheet p. 162

Technical information

Main characteristics



01 Enclosure in thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity

02 Captive stainless steel closing screws



CUSTOMISED SOLUTIONS



ZENITH-P Series local control stations can be customised with a wide range of accessories with separate ATEX-IECEx certification. Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEx Scheme.

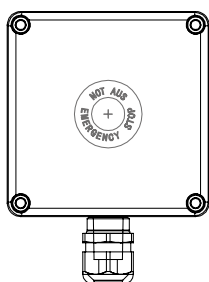
For product customisation service see p. 23



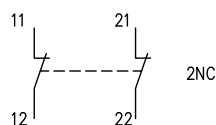
LOCAL CONTROL STATIONS

ZENITH-P Series

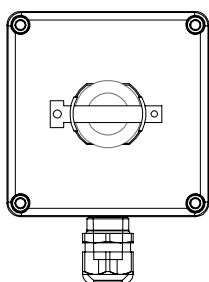
LOCAL CONTROL STATION – ONE OPERATOR



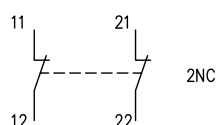
EMERGENCY push button



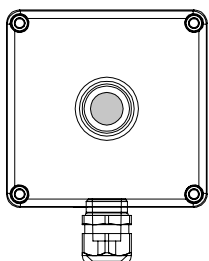
Description	Dimensions	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON PULL TO RELEASE	122x120x90mm	1xM20	2NC	644.0345-ES	1



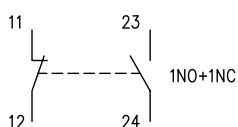
EMERGENCY push button



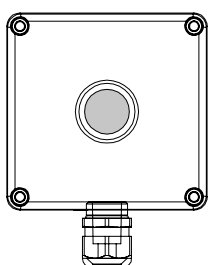
Description	Dimensions	Cable entries	Function	Code	
EMERGENCY PUSH BUTTON PULL TO RELEASE WITH SAFETY-LATCH	122x120x90mm	1xM20	2NC	644.0345-ESL	1



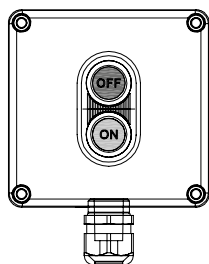
Push button



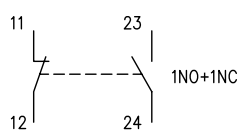
Description	Dimensions	Cable entries	Function	Code	
GREEN PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-PBG	1
RED PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-PBR	1
WHITE PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-PBW	1
YELLOW PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-PBY	1
BLACK PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-PBK	1



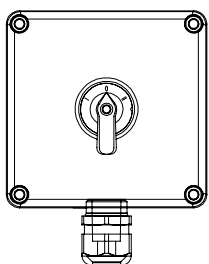
Description	Dimensions	Cable entries	Function	Code	
GREEN LED LIGHT	122x120x90mm	1xM20	-	644.0345-LDG	1
RED LED LIGHT	122x120x90mm	1xM20	-	644.0345-LDR	1
WHITE LED LIGHT	122x120x90mm	1xM20	-	644.0345-LDW	1
YELLOW LED LIGHT	122x120x90mm	1xM20	-	644.0345-LDY	1
BLUE LED LIGHT	122x120x90mm	1xM20	-	644.0345-LDB	1



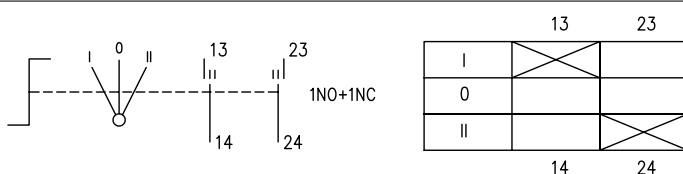
ON/OFF double push button



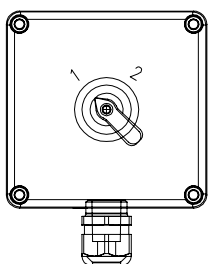
Description	Dimensions	Cable entries	Function	Code	
ON/OFF DOUBLE PUSH BUTTON	122x120x90mm	1xM20	1NO+1NC	644.0345-OF	1



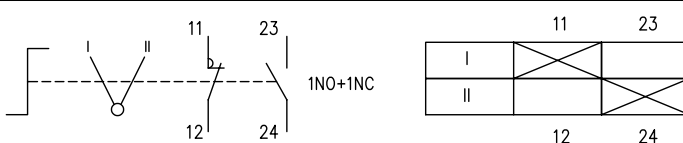
Selector switch I-0-II



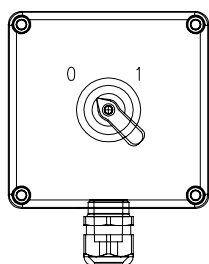
Description	Dimensions	Cable entries	Function	Code	
SELECTOR SWITCH I-0-II	122x120x90mm	1xM20	2NO label 0 1NO label I - 1NC label II fixed position	644.0345-SE3	1



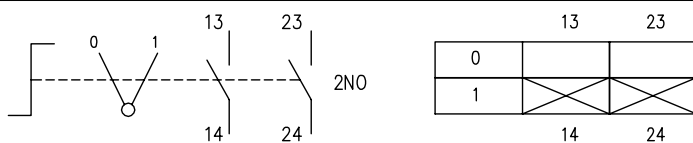
Selector switch I-II



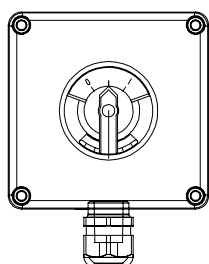
Description	Dimensions	Cable entries	Function	Code	
SELECTOR SWITCH I-II	122x120x90mm	1xM20	1NO+1NC	644.0345-SE2	1



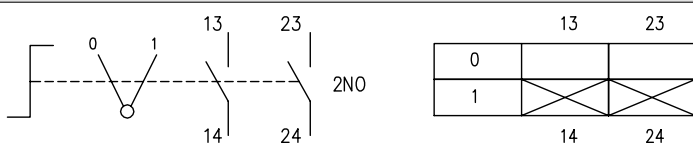
Selector switch 0-I



Description	Dimensions	Cable entries	Function	Code	
SELECTOR SWITCH 0-I	122x120x90mm	1xM20	2NO	644.0345-SE1	1



Selector switch 0-I

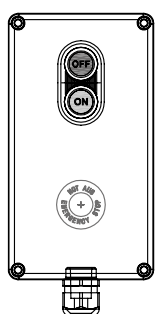


Description	Dimensions	Cable entries	Function	Code	
SELECTOR SWITCH 0-I LOCKABLE HANDLE	122x120x90mm	1xM20	2NO	644.0345-SE1L	1

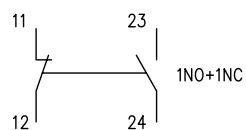
LOCAL CONTROL STATIONS

ZENITH-P Series

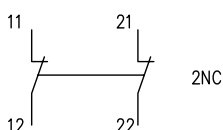
LOCAL CONTROL STATION – TWO OPERATORS



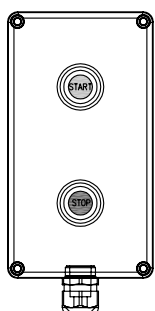
ON/OFF double push button



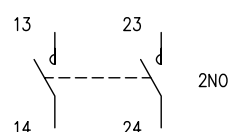
EMERGENCY push button



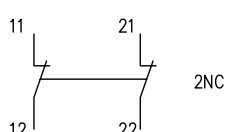
Description	Dimensions	Cable entries	Function	Code	
ON/OFF DOUBLE PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	220x120x90mm	1xM25	ON/OFF 1NO+1NC EMERGENCY 2NC	644.0350-OFE	1



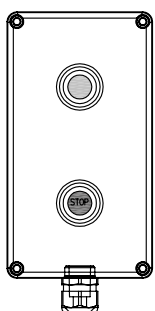
START push button



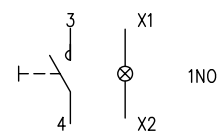
STOP push button



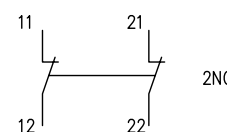
Description	Dimensions	Cable entries	Function	Code	
START PUSH BUTTON + STOP PUSH BUTTON	220x120x90mm	1xM25	START 2NO STOP 2NC	644.0350-SS	1



START lighted push button



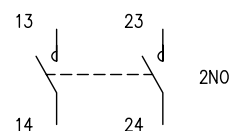
STOP push button



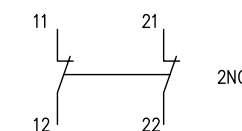
Description	Dimensions	Cable entries	Function	Code	
START LIGHTED PUSH BUTTON + STOP PUSH BUTTON	220x120x90mm	1xM25	START 1NO STOP 2NC	644.0350-SGS	1



START push button



EMERGENCY push button



Description	Dimensions	Cable entries	Function	Code	
START PUSH BUTTON + EMERGENCY PUSH BUTTON PULL TO RELEASE	220x120x90mm	1xM25	START 2NO EMERGENCY 2NC	644.0350-SE	1

■ ACCESSORIES >> EXTERNAL MOUNTING BRACKETS



Description	Dimensions	Code	
MOUNTING BRACKETS KIT	120mm	644.C120	1/10

■ ACCESSORIES >> EXTERNAL MOUNTING VERTICAL FEET



Description	Dimensions	Code	
WALL MOUNTING BRACKETS KIT	120mm	644.D120	1/10

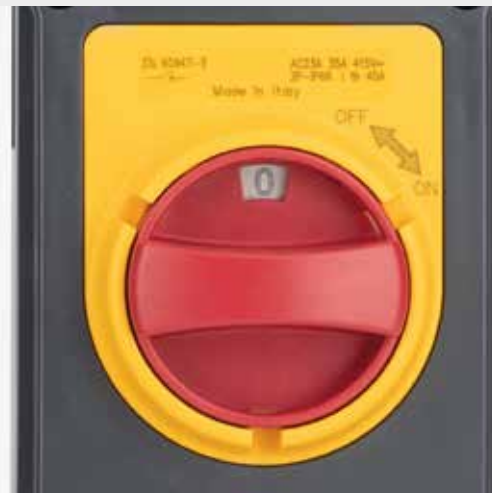
■ ACCESSORIES >> KIT FOR PADLOCKING



Description	Dimensions	Code	
KIT FOR PADLOCKING	120x90mm	644.G003	1/10







SWITCHES





SWITCHES

ROCKER-EX[GD] SERIES

p. 112

Lighting switches in thermoplastic material for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

ISOLATORS-EX[GD] SERIES

p. 114

Enclosed switch-disconnectors for Zone 1-2 (Gas) and 21-22 (Dust)



Ex II 2GD

ISOLATORS-EX SERIES

p. 118

Enclosed switch-disconnectors for Zone 21-22 (Dust)



Ex II 2D



ROCKER-EX[GD] Series

Lighting switches in thermoplastic material for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T6 Gb (Ta +40°C) Ex db eb IIC T4 Gb (Ta +60°C) Ex tb IIIC T80°C Db
Certificates:	INERIS 19 ATEX 0014X IECEX INE 19.0012X EMA 21 UKEX 0065X CPEX 25.2185 X

 technical sheet **p. 163**

 Technical information

Main characteristics



- 01** Enclosure in thermoplastic material reinforced with glass-fibre for high mechanical resistance

02 Large rocker to ease operability

03 Luminescent label for identification in the dark
- 04** Captive stainless steel closing screws

05 Possibility of installing polyamide or nickel-plated brass cable glands for armoured or unarmoured. ATEX-IECEX certified cables

■ SCREW CAPS PA - POLYAMIDE -35°C



Description	Current	IP	Cable entry	Colour	Code	
PUSH BUTTON	16A	IP66	2xM20	■	592.R003-02-P	1/8
DOUBLE POLE SWITCH	16AX	IP66	1xM20+2xM20	■	592.R001-03-P	1/8
TWO WAY SWITCH	16AX	IP66	1xM20+2xM20	■	592.R002-03-P	1/8

Open threaded cable entry with cap.

■ CABLE GLANDS PA - POLYAMIDE -35°C



Description	Current	IP	Cable entry	Colour	Code	
PUSH BUTTON	16A	IP66	1xM20	■	592.R003-01	1/8
	16A	IP66	2xM20	■	592.R003-02	1/8
	16AX	IP66	1xM20	■	592.R001-01	1/8
DOUBLE POLE SWITCH	16AX	IP66	2xM20	■	592.R001-02	1/8
	16AX	IP66	1xM20+2xM20	■	592.R001-03	1/8
	16AX	IP66	1xM20	■	592.R002-01	1/8
TWO WAY SWITCH	16AX	IP66	2xM20	■	592.R002-02	1/8
	16AX	IP66	1xM20+2xM20	■	592.R002-03	1/8

Polyamide cable glands.

■ CABLE GLANDS RN - METAL -50°C - FOR UNARMoured CABLE



Description	Current	IP	Cable entry	Colour	Code	
PUSH BUTTON	16A	IP66	1xM20	■	592.R003-01-A	1/8
	16A	IP66	2xM20	■	592.R003-02-A	1/8
	16AX	IP66	1xM20	■	592.R001-01-A	1/8
DOUBLE POLE SWITCH	16AX	IP66	2xM20	■	592.R001-02-A	1/8
	16AX	IP66	1xM20+2xM20	■	592.R001-03-A	1/8
	16AX	IP66	1xM20	■	592.R002-01-A	1/8
TWO WAY SWITCH	16AX	IP66	2xM20	■	592.R002-02-A	1/8
	16AX	IP66	1xM20+2xM20	■	592.R002-03-A	1/8

Cable glands also available in AISI 316L steel (on request).

Nickel plated brass cable glands and silicon seal.

Earth plate and earth stud included.

■ CABLE GLANDS RAD - METAL -50°C - FOR ARMoured CABLE



Description	Current	IP	Cable entry	Colour	Code	
PUSH BUTTON	16A	IP66	1xM20	■	592.R003-01-B	1/8
	16A	IP66	2xM20	■	592.R003-02-B	1/8
	16AX	IP66	1xM20	■	592.R001-01-B	1/8
DOUBLE POLE SWITCH	16AX	IP66	2xM20	■	592.R001-02-B	1/8
	16AX	IP66	1xM20+2xM20	■	592.R001-03-B	1/8
	16AX	IP66	1xM20	■	592.R002-01-B	1/8
TWO WAY SWITCH	16AX	IP66	2xM20	■	592.R002-02-B	1/8
	16AX	IP66	1xM20+2xM20	■	592.R002-03-B	1/8

Cable glands also available in AISI 316L steel (on request).

Nickel plated brass cable glands and silicon seal.

Earth plate and earth stud included.





ISOLATORS-EX[GD] Series

Enclosed switch-disconnectors for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T4/T5 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 14 ATEX 0030X IECEX INE 14.0040X EMA 21 UKEX 0063X CPEX 25.2184 X

technical sheet p. 165

Technical information

Main characteristics



- | | |
|---|--|
| <p>01 Enclosure available in:</p> <ul style="list-style-type: none"> - thermosetting GRP (Glass-fibre Reinforced Polyester) material filled with carbon black to eliminate the risk of ignition due to the formation of sparks from static electricity - AISI 316 L stainless steel - aluminum with epoxy polyurethane paint with high resistance to atmospheric agents | <p>02 Knob padlockable in ON and OFF position</p> <p>03 Mechanical interlock by non-sparking switch-disconnector (Ex db eb) and possibility of auxiliary contacts</p> <p>04 Captive stainless steel closing screws</p> <p>05 ATEX-IECEX certified cable glands available in plastic or metallic material, for armoured or unarmoured cable</p> |
|---|--|



CUSTOMISED SOLUTIONS

SWITCHES
ISOLATORS-EX[GD] SERIES

ISOLATORS-EX[GD] Series enclosed switch-disconnectors can be customised with a wide range of accessories with separate ATEX-IECEx certification. Any customised configuration must be designed and built exclusively by Scame Parre as manufacturer, under penalty of forfeiture of the certificate of conformity to the ATEX Directive or to the IECEx Scheme.

For product customisation service see p. 23

■ SURFACE MOUNTING [EX-GD] - ENGINEERING PLASTIC VERSION >> FOR GENERAL USE



Type: GENERAL

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25	160x160x90mm		591.PGE2002	1
	3/4P	IP66	2XM25	160x160x90mm		591.PGE2004	1
25A	2P	IP66	2XM25	160x160x90mm		591.PGE2502	1
	3/4P	IP66	2XM25	160x160x90mm		591.PGE2504	1
32A	2P	IP66	2XM25	160x160x90mm		591.PGE3202	1
	3/4P	IP66	2XM32	160x160x90mm		591.PGE3204	1
40A	2P	IP66	2XM32	250x255x120mm		591.PGE4002	1
	3/4P	IP66	2XM40	250x255x120mm		591.PGE4004	1
63A	2P	IP66	2XM40	250x255x120mm		591.PGE6302	1
	3/4P	IP66	2XM50	250x255x120mm		591.PGE6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

■ SURFACE MOUNTING [EX-GD] - ENGINEERING PLASTIC VERSION >> FOR EMERGENCY USE



Type: EMERGENCY

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25	160x160x90mm		591.PEM2002	1
	3/4P	IP66	2XM25	160x160x90mm		591.PEM2004	1
25A	2P	IP66	2XM25	160x160x90mm		591.PEM2502	1
	3/4P	IP66	2XM25	160x160x90mm		591.PEM2504	1
32A	2P	IP66	2XM25	160x160x90mm		591.PEM3202	1
	3/4P	IP66	2XM32	160x160x90mm		591.PEM3204	1
40A	2P	IP66	2XM32	250x255x120mm		591.PEM4002	1
	3/4P	IP66	2XM40	250x255x120mm		591.PEM4004	1
63A	2P	IP66	2XM40	250x255x120mm		591.PEM6302	1
	3/4P	IP66	2XM50	250x255x120mm		591.PEM6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

SWITCHES

ISOLATORS-EX[GD] Series

■ SURFACE MOUNTING [EX-GD] - METAL VERSION >> FOR GENERAL USE



Type: **GENERAL**

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25	202x232x142mm		591.AGE2002	1
	3/4P	IP66	2XM25	202x232x142mm		591.AGE2004	1
25A	2P	IP66	2XM25	202x232x142mm		591.AGE2502	1
	3/4P	IP66	2XM25	202x232x142mm		591.AGE2504	1
32A	2P	IP66	2XM25	202x232x142mm		591.AGE3202	1
	3/4P	IP66	2XM32	202x232x142mm		591.AGE3204	1
40A	2P	IP66	2XM32	250x255x120mm		591.AGE4002	1
	3/4P	IP66	2XM40	250x255x120mm		591.AGE4004	1
63A	2P	IP66	2XM40	202x232x142mm		591.AGE6302	1
	3/4P	IP66	2XM50	202x232x142mm		591.AGE6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.
Earth-stud included.

■ SURFACE MOUNTING [EX-GD] - METAL VERSION >> FOR EMERGENCY USE



Type: **EMERGENCY**

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25	202x232x142mm		591.AEM2002	1
	3/4P	IP66	2XM25	202x232x142mm		591.AEM2004	1
25A	2P	IP66	2XM25	202x232x142mm		591.AEM2502	1
	3/4P	IP66	2XM25	202x232x142mm		591.AEM2504	1
32A	2P	IP66	2XM25	202x232x142mm		591.AEM3202	1
	3/4P	IP66	2XM32	202x232x142mm		591.AEM3204	1
40A	2P	IP66	2XM32	250x255x120mm		591.AEM4002	1
	3/4P	IP66	2XM40	250x255x120mm		591.AEM4004	1
63A	2P	IP66	2XM40	202x232x142mm		591.AEM6302	1
	3/4P	IP66	2XM50	202x232x142mm		591.AEM6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.
Earth-stud included.

■ SURFACE MOUNTING [EX-GD] - INOX VERSION >> FOR GENERAL USE



Type: GENERAL

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25	141x200x126mm		591.SGE2002	1
	3/4P	IP66	2XM25	141x200x126mm		591.SGE2004	1
25A	2P	IP66	2XM25	141x200x126mm		591.SGE2502	1
	3/4P	IP66	2XM25	141x200x126mm		591.SGE2504	1
32A	2P	IP66	2XM25	141x200x126mm		591.SGE3202	1
	3/4P	IP66	2XM32	141x200x126mm		591.SGE3204	1
40A	2P	IP66	2XM32	201x270x160mm		591.SGE4002	1
	3/4P	IP66	2XM40	201x270x160mm		591.SGE4004	1
63A	2P	IP66	2XM40	201x270x160mm		591.SGE6302	1
	3/4P	IP66	2XM50	201x270x160mm		591.SGE6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.
Earth-stud included.

■ SURFACE MOUNTING [EX-GD] - INOX VERSION >> FOR EMERGENCY USE



Type: EMERGENCY

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	3/4P	IP66	2XM25	141x200x126mm		591.SEM2004	1
25A	2P	IP66	2XM25	141x200x126mm		591.SEM2502	1
	3/4P	IP66	2XM25	141x200x126mm		591.SEM2504	1
32A	2P	IP66	2XM25	141x200x126mm		591.SEM3202	1
	3/4P	IP66	2XM25	141x200x126mm		591.SEM3204	1
40A	2P	IP66	2XM32	201x270x160mm		591.SEM4002	1
	3/4P	IP66	2XM32	201x270x160mm		591.SEM4004	1
63A	2P	IP66	2XM40	201x270x160mm		591.SEM6302	1
	3/4P	IP66	2XM40	201x270x160mm		591.SEM6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.
Earth-stud included.





ISOLATORS-EX Series

Enclosed switch-disconnectors for Zone 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	Ex II 2D
Ex protection type:	Ex tb IIIC T80°C Db Ex tb IIIC T90°C Db
Thermoplastic certificates:	TÜV IT 14 ATEX 005 EMA 21 UKEX 0078
Aluminium certificates:	TÜV IT 14 ATEX 006 EMA 21 UKEX 0077

technical sheet **p. 168**

■ SURFACE MOUNTING [EX] - ENGINEERING PLASTIC VERSION >> FOR GENERAL USE



Type: **GENERAL**

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE2002	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE2003	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE2004	1/12
32A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE3202	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE3203	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE3204	1/12
40A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE4002	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE4003	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XGE4004	1/12

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

■ SURFACE MOUNTING [EX] - ENGINEERING PLASTIC VERSION >> FOR EMERGENCY USE



Type: **EMERGENCY**

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM2002	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM2003	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM2004	1/12
32A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM3202	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM3203	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM3204	1/12
40A	2P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM4002	1/12
	3P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM4003	1/12
	4P	IP66	2XM25 + 1XM20	115x190x128mm		590.XEM4004	1/12

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

■ SURFACE MOUNTING [EX] - METAL VERSION >> FOR GENERAL USE



Type: GENERAL

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE2002	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE2003	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE2004	1
32A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE3202	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE3203	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE3204	1
40A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE4002	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE4003	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHGE4004	1
63A	2P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHGE6302	1
	3P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHGE6303	1
	4P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHGE6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

Cable inlets 1xM20 (top): on request.

■ SURFACE MOUNTING [EX] - METAL VERSION >> FOR EMERGENCY USE



Type: EMERGENCY

Current	Poles	IP	Cable entry	Dimensions	Colour	Code	
20A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM2002	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM2003	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM2004	1
32A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM3202	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM3203	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM3204	1
40A	2P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM4002	1
	3P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM4003	1
	4P	IP65	2XM25 + 1XM20 (high)	105x150x82mm	■	590.XHEM4004	1
63A	2P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHEM6302	1
	3P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHEM6303	1
	4P	IP65	2XM32 + 1XM20 (high)	150x210x107mm	■	590.XHEM6304	1

Handle padlockable in OFF (3 padlocks) and ON (1 padlock) position.

Cable inlets 1xM20 (top): on request.

■ CONTACT BLOCKS



Description	Colour	Switch size	Code	
NC CONTACT	■	20A, 32A, 40A	590.PL004001 ²⁾	10/60
	■	63A	590.PL004003 ²⁾	10
NO CONTACT	■	20A, 32A, 40A	590.PL004002 ¹⁾	10/60
	■	63A	590.PL004004 ¹⁾	10
CHANGE OVER CONTACT		20A, 32A, 40A	590.PL004005	10
		63A	590.PL004006	10

Snap catch.

¹⁾ NO=Normally open.

²⁾ NC=Normally closed.







CABLE GLANDS



CABLE GLANDS

UNION-EX[PA] SERIES

p. 124

Plastic cable glands for Zone 1-2 (Gas) and 21-22 (Dust)



UNION-EX[OTN] SERIES

p. 128

Cable glands in nickel-plated brass for Zone 1-2 (Gas) and 21-22 (Dust)



UNION-EX[AI] SERIES

p. 135

Cable glands in stainless steel for Zone 1-2 (Gas) and 21-22 (Dust)



CABLE GLANDS

UNION-EX[PA] Series



UNION-EX[PA] Series

Plastic cable glands for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category:	II 2GD
Ex protection type:	Ex eb IIC Ga Ex tb IIIC Db
Certificates:	LCIE 07 ATEX 6082 X LCI 10.0008 X BR 230661-X RU C-FR.ГБ05.B.00955

technical sheet p. 171

CABLE GLANDS >> SHORT THREAD



IP: IP66/IP68

Thread	Cable size	Colour	Code	
M12X1,5	ø3-5mm	Black	805.EX5412.KR	50
	ø3-5mm	Blue	805.EX5412.BR	50
	ø4,5-6,5mm	Black	805.EX5412.K	50
	ø4,5-6,5mm	Blue	805.EX5412.B	50
M16X1,5	ø4-6mm	Black	805.EX5416.KR	50
	ø4-6mm	Blue	805.EX5416.BR	50
	ø4-7mm	Black	805.EX5417.KR	50
	ø4-7mm	Blue	805.EX5417.BR	50
	ø5-8mm	Black	805.EX5416.K	50
	ø5-8mm	Blue	805.EX5416.B	50
	ø5-10mm	Black	805.EX5417.K	50
	ø5-10mm	Blue	805.EX5417.B	50
M20X1,5	ø5-9mm	Black	805.EX5420.KR	50
	ø5-9mm	Blue	805.EX5420.BR	50
	ø7-12mm	Black	805.EX5420.K	50
	ø7-12mm	Blue	805.EX5420.B	50
	ø8-12mm	Black	805.EX5421.KR	50
	ø8-12mm	Blue	805.EX5421.BR	50
	ø10-14mm	Black	805.EX5421.K	50
	ø10-14mm	Blue	805.EX5421.B	50
M25X1,5	ø8-12mm	Black	805.EX5425.KR	50
	ø8-12mm	Blue	805.EX5425.BR	50
	ø10-14mm	Black	805.EX5425.K	50
	ø10-14mm	Blue	805.EX5425.B	50
	ø10-16mm	Black	805.EX5426.KR	25
	ø10-16mm	Blue	805.EX5426.BR	25
	ø12-18mm	Black	805.EX5426.K	25
	ø12-18mm	Blue	805.EX5426.B	25
M32X1,5	ø14-21mm	Black	805.EX5432.KR	20
	ø14-21mm	Blue	805.EX5432.BR	20
	ø16-25mm	Black	805.EX5432.K	20
	ø16-25mm	Blue	805.EX5432.B	20
M40X1,5	ø16-26mm	Black	805.EX5440.KR	10
	ø16-26mm	Blue	805.EX5440.BR	10
	ø22-32mm	Black	805.EX5440.K	10
	ø22-32mm	Blue	805.EX5440.B	10
M50X1,5	ø20-31mm	Black	805.EX5450.KR	5
	ø20-31mm	Blue	805.EX5450.BR	5
	ø28-38,5mm	Black	805.EX5450.K	5
	ø28-38,5mm	Blue	805.EX5450.B	5
M63X1,5	ø30-39mm	Black	805.EX5463.KR	5
	ø30-39mm	Blue	805.EX5463.BR	5
	ø40-48mm	Black	805.EX5463.K	5
	ø40-48mm	Blue	805.EX5463.B	5

■ CABLE GLANDS >> LONG THREAD



IP: IP66/IP68

Thread	Cable size	Colour	Code	
M12X1,5	ø3-5mm	■	805.EX5512.KR	50
	ø3-5mm	■	805.EX5512.BR	50
	ø4,5-6,5mm	■	805.EX5512.K	50
	ø4,5-6,5mm	■	805.EX5512.B	50
M16X1,5	ø4-6mm	■	805.EX5516.KR	50
	ø4-6mm	■	805.EX5516.BR	50
	ø4-7mm	■	805.EX5517.KR	50
	ø4-7mm	■	805.EX5517.BR	50
	ø5-8mm	■	805.EX5516.K	50
	ø5-8mm	■	805.EX5516.B	50
	ø5-10mm	■	805.EX5517.K	50
	ø5-10mm	■	805.EX5517.B	50
M20X1,5	ø5-9mm	■	805.EX5520.KR	50
	ø5-9mm	■	805.EX5520.BR	50
	ø7-12mm	■	805.EX5520.K	50
	ø7-12mm	■	805.EX5520.B	50
	ø8-12mm	■	805.EX5521.KR	50
	ø8-12mm	■	805.EX5521.BR	50
	ø10-14mm	■	805.EX5521.K	50
	ø10-14mm	■	805.EX5521.B	50
M25X1,5	ø8-12mm	■	805.EX5525.KR	50
	ø8-12mm	■	805.EX5525.BR	50
	ø10-14mm	■	805.EX5525.K	50
	ø10-14mm	■	805.EX5525.B	50
	ø10-16mm	■	805.EX5526.KR	25
	ø10-16mm	■	805.EX5526.BR	25
	ø12-18mm	■	805.EX5526.K	25
	ø12-18mm	■	805.EX5526.B	25
M32X1,5	ø14-21mm	■	805.EX5532.KR	20
	ø14-21mm	■	805.EX5532.BR	20
	ø16-25mm	■	805.EX5532.K	20
	ø16-25mm	■	805.EX5532.B	20
M40X1,5	ø16-26mm	■	805.EX5540.KR	10
	ø16-26mm	■	805.EX5540.BR	10
	ø22-32mm	■	805.EX5540.K	10
	ø22-32mm	■	805.EX5540.B	10
M50X1,5	ø20-31mm	■	805.EX5550.KR	5
	ø20-31mm	■	805.EX5550.BR	5
	ø28-38,5mm	■	805.EX5550.K	5
	ø28-38,5mm	■	805.EX5550.B	5
M63X1,5	ø30-39mm	■	805.EX5563.KR	5
	ø30-39mm	■	805.EX5563.BR	5
	ø40-48mm	■	805.EX5563.K	5
	ø40-48mm	■	805.EX5563.B	5

With gasket.



CABLE GLANDS
UNION-EX[PA] SERIES

CABLE GLANDS

UNION-EX[PA] Series

ACCESSORIES >> REDUCER



IP: IP66/IP68

Thread	Colour	Code	
M12X1,5		805.EX5112.K	50
		805.EX5112	50
M16X1,5		805.EX5116.K	50
		805.EX5116	50
M20X1,5		805.EX5120.K	50
		805.EX5120	50
M25X1,5		805.EX5125.K	20
		805.EX5125	20
M32X1,5		805.EX5132.K	20
		805.EX5132	20
M40X1,5		805.EX5140.K	20
		805.EX5140	20
M50X1,5		805.EX5150.K	10
		805.EX5150	10

With neoprene seal.

ACCESSORIES >> ENLARGER



IP: IP66/IP68

Thread	Colour	Code	
M16X1,5		805.EX5016.K	50
		805.EX5016	50
M20X1,5		805.EX5020.K	50
		805.EX5020	50
M25X1,5		805.EX5025.K	50
		805.EX5025	50
M32X1,5		805.EX5032.K	25
		805.EX5032	25
M40X1,5		805.EX5040.K	10
		805.EX5040	10
M50X1,5		805.EX5050.K	10
		805.EX5050	10
M63X1,5		805.EX5063.K	10
		805.EX5063	10

ACCESSORIES >> NUTS



IP: IP66/IP68

Thread	Colour	Code	
M12X1,5		805.EX5712.K	50
		805.EX5712	50
M16X1,5		805.EX5716.K	50
		805.EX5716	50
M20X1,5		805.EX5720.K	50
		805.EX5720	50
M25X1,5		805.EX5725.K	50
		805.EX5725	50
M32X1,5		805.EX5732.K	50
		805.EX5732	50
M40X1,5		805.EX5740.K	20
		805.EX5740	20
M50X1,5		805.EX5750.K	10
		805.EX5750	10
M63X1,5		805.EX5763.K	5
		805.EX5763	5

■ ACCESSORIES >> SCREW CAPS



IP: IP66/IP68

Thread	Colour	Code	
M12X1,5		805.EX5812.K	50
		805.EX5812	50
M16X1,5		805.EX5816.K	50
		805.EX5816	50
M20X1,5		805.EX5820.K	50
		805.EX5820	50
M25X1,5		805.EX5825.K	20
		805.EX5825	20
M32X1,5		805.EX5832.K	20
		805.EX5832	20
M40X1,5		805.EX5840.K	20
		805.EX5840	20
M50X1,5		805.EX5850.K	10
		805.EX5850	10
M63X1,5		805.EX5863.K	5
		805.EX5863	5

With neoprene seal.

■ ACCESSORIES >> SEALS (NEOPRENE)



IP: IP66/IP68

Thread	Colour	Code	
M12X1,5		805.EX5912	50
M16X1,5		805.EX5916	50
M20X1,5		805.EX5920	50
M25X1,5		805.EX5925	20
M32X1,5		805.EX5932	20
M40X1,5		805.EX5940	20
M50X1,5		805.EX5950	10
M63X1,5		805.EX5963	5

CABLE GLANDS
UNION-EX[PA] SERIES

CABLE GLANDS

UNION-EX[OTN] Series



UNION-EX[OTN] Series

Cable glands in nickel-plated brass for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category: II 2GD / IM2

Ex protection type: Ex db IIC Gb / Ex eb IIC Gb - Ex nR IIC Gc
Ex db I Mb / Ex eb I Mb - Ex tb IIIC

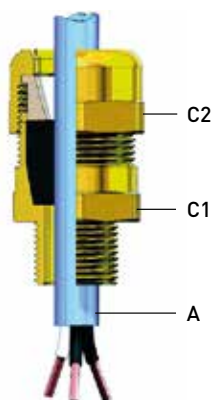
Certificates: INERIS 06 ATEX 0014X
INERIS 17 ATEX 3009X (Ex nR IIC Gc)
IECEX INE 10.0010X
Ru C-IT.A945.B.00909
CCC Ex NEPSI Nr. 2021322313003706
CML 21UKEX1590X
CML 21UKEX1591X

technical sheet p. 172

■ CABLE GLANDS >> RN-EPDM



**IP: IP66/IP68
FOR UNARMoured
CABLE**



Cable glands for unarmoured cable with seal outside the cable.

Thread	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RN1612.EN	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RN1616.EN ¹⁾	1
	ø5,5÷13mm	30mm	32mm	805.RN2016.EN	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RN1620.EN	1
	ø5,5÷13mm	30mm	32mm	805.RN2020.EN ¹⁾	1
	ø8÷18mm	35mm	36mm	805.RN2520.EN	1
M25X1,5	ø5,5÷13mm	30mm	32mm	805.RN2025.EN	1
	ø8÷18mm	35mm	36mm	805.RN2525.EN ¹⁾	1
	ø13÷24mm	42mm	45mm	805.RN3225.EN	1
M32X1,5	ø13÷24mm	42mm	45mm	805.RN3232.EN ¹⁾	1
M40X1,5	ø21÷30mm	48mm	50mm	805.RN4040.EN ¹⁾	1
	ø24÷36mm	55mm	57mm	805.RN5040.EN	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RN5050.EN ¹⁾	1
	ø36÷45mm	68mm	67mm	805.RN6350.EN	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RN6363.EN ¹⁾	1
	ø45÷54mm	80mm	80mm	805.RN7563.EN	1
M75X1,5	ø45÷54mm	80mm	80mm	805.RN7575.EN ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9075.EN	1
	ø54÷68mm	100mm	100mm	805.RN9175.EN	1
M90X2	ø54÷68mm	100mm	100mm	805.RN9090.EN ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9190.EN ¹⁾	1

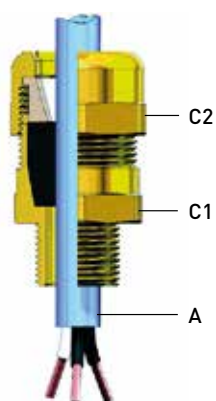
The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾Standard size.

■ CABLE GLANDS >> RN-SIL



**IP: IP66/IP68
FOR UNARMoured
CABLE**



Cable glands for
unarmoured cable with
seal outside the cable.

Thread	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RN1612.SN	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RN1616.SN ¹⁾	1
	ø5,5÷13mm	30mm	32mm	805.RN2016.SN	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RN1620.SN	1
	ø5,5÷13mm	30mm	32mm	805.RN2020.SN ¹⁾	1
	ø8÷18mm	35mm	36mm	805.RN2520.SN	1
M25X1,5	ø5,5÷13mm	30mm	32mm	805.RN2025.SN	1
	ø8÷18mm	35mm	36mm	805.RN2525.SN ¹⁾	1
	ø13÷24mm	42mm	45mm	805.RN3225.SN	1
M32X1,5	ø13÷24mm	42mm	45mm	805.RN3232.SN ¹⁾	1
M40X1,5	ø21÷30mm	48mm	50mm	805.RN4040.SN ¹⁾	1
	ø24÷36mm	55mm	57mm	805.RN5040.SN	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RN5050.SN ¹⁾	1
	ø36÷45mm	68mm	67mm	805.RN6350.SN	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RN6363.SN ¹⁾	1
	ø45÷54mm	80mm	80mm	805.RN7563.SN	1
M75X1,5	ø45÷54mm	80mm	80mm	805.RN7575.SN ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9075.SN	1
	ø54÷68mm	100mm	100mm	805.RN9175.SN	1
M90X2	ø54÷68mm	100mm	100mm	805.RN9090.SN ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9190.SN ¹⁾	1

The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾ Standard size.



CABLE GLANDS
UNION-EX[OTN] SERIES

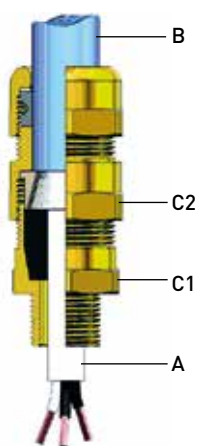
CABLE GLANDS

UNION-EX[OTN] Series

■ CABLE GLANDS >> RAD-EPDM



**IP: IP66/IP68
FOR ARMoured
CABLE**



Cable glands
for armoured cable,
locking under the
armor and outside.
Earthing of the armor.

Thread	Cables internal sheath (A)	Cables outer sheath (B)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1612.EN	1
M16X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1616.EN ¹⁾	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2016.EN	1
M20X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1620.EN	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2020.EN ¹⁾	1
	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2520.EN	1
M25X1,5	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2025.EN	1
	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2525.EN ¹⁾	1
	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3225.EN	1
M32X1,5	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3232.EN ¹⁾	1
M40X1,5	ø21÷30mm	ø26÷37mm	48mm	50mm	805.RAD4040.EN ¹⁾	1
	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5040.EN	1
M50X1,5	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5050.EN ¹⁾	1
	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6350.EN	1
M63X1,5	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6363.EN ¹⁾	1
	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7563.EN	1
M75X1,5	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7575.EN ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9075.EN	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9175.EN	1
M90X2	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9090.EN ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9190.EN ¹⁾	1

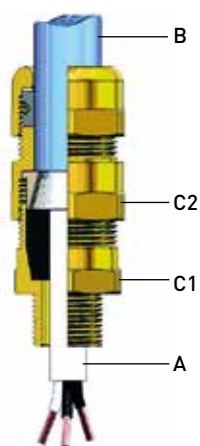
The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾ Standard size.

■ CABLE GLANDS >> RAD-SIL



**IP: IP66/IP68
FOR ARMoured
CABLE**



Cable glands
for armoured cable,
locking under the
armour and outside.
Earthing of the armour.

Thread	Cables internal sheath (A)	Cables outer sheath (B)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1612.SN	1
M16X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1616.SN ¹⁾	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2016.SN	1
M20X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1620.SN	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2020.SN ¹⁾	1
M25X1,5	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2520.SN	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2025.SN	1
M32X1,5	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2525.SN ¹⁾	1
	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3225.SN	1
M40X1,5	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3232.SN ¹⁾	1
	ø21÷30mm	ø26÷37mm	48mm	50mm	805.RAD4040.SN ¹⁾	1
M50X1,5	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5040.SN	1
	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5050.SN ¹⁾	1
M63X1,5	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6350.SN	1
	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6363.SN ¹⁾	1
M75X1,5	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7563.SN	1
	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7575.SN ¹⁾	1
M90X2	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9075.SN	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9175.SN	1
M90X2	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9090.SN ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9190.SN ¹⁾	1

The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾Standard size.



CABLE GLANDS
UNION-EX[OTN] SERIES

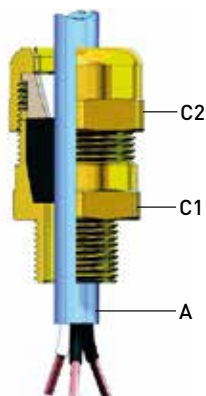
CABLE GLANDS

UNION-EX[OTN] Series

CABLE GLANDS >> RAS-EPDM



**IP: IP66/IP68
EMC**



Cable glands for unarmoured cable with seal outside the cable.

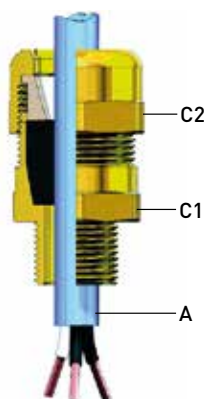
Thread	Type	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1612.EN	1
M16X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1616.EN	1
	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2016.EN	1
M20X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1620.EN	1
	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2020.EN	1
	EMC	ø8÷18mm	35mm	36mm	805.RAS2520.EN	1
M25X1,5	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2025.EN	1
	EMC	ø8÷18mm	35mm	36mm	805.RAS2525.EN	1
	EMC	ø13÷24mm	42mm	45mm	805.RAS3225.EN	1
M32X1,5	EMC	ø13÷24mm	42mm	45mm	805.RAS3232.EN	1
M40X1,5	EMC	ø21÷30mm	48mm	50mm	805.RAS4040.EN	1
	EMC	ø24÷36mm	55mm	57mm	805.RAS5040.EN	1
M50X1,5	EMC	ø24÷36mm	55mm	57mm	805.RAS5050.EN	1
	EMC	ø36÷45mm	68mm	67mm	805.RAS6350.EN	1
M63X1,5	EMC	ø36÷45mm	68mm	67mm	805.RAS6363.EN	1
	EMC	ø45÷54mm	80mm	80mm	805.RAS7563.EN	1
M75X1,5	EMC	ø45÷54mm	80mm	80mm	805.RAS7575.EN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9075.EN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9175.EN	1
M90X2	EMC	ø54÷68mm	100mm	100mm	805.RAS9090.EN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9190.EN	1

EMC (Electromagnetic Compatibility) compliant connection.

CABLE GLANDS >> RAS-SIL



**IP: IP66/IP68
EMC**



Cable glands for unarmoured cable with seal outside the cable.

Thread	Type	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1612.SN	1
M16X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1616.SN	1
	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2016.SN	1
M20X1,5	EMC	ø4÷10mm	24mm	24mm	805.RAS1620.SN	1
	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2020.SN	1
	EMC	ø8÷18mm	35mm	36mm	805.RAS2520.SN	1
M25X1,5	EMC	ø5,5÷13mm	30mm	32mm	805.RAS2025.SN	1
	EMC	ø8÷18mm	35mm	36mm	805.RAS2525.SN	1
	EMC	ø13÷24mm	42mm	45mm	805.RAS3225.SN	1
M32X1,5	EMC	ø13÷24mm	42mm	45mm	805.RAS3232.SN	1
M40X1,5	EMC	ø21÷30mm	48mm	50mm	805.RAS4040.SN	1
	EMC	ø24÷36mm	55mm	57mm	805.RAS5040.SN	1
M50X1,5	EMC	ø24÷36mm	55mm	57mm	805.RAS5050.SN	1
	EMC	ø36÷45mm	68mm	67mm	805.RAS6350.SN	1
M63X1,5	EMC	ø36÷45mm	68mm	67mm	805.RAS6363.SN	1
	EMC	ø45÷54mm	80mm	80mm	805.RAS7563.SN	1
M75X1,5	EMC	ø45÷54mm	80mm	80mm	805.RAS7575.SN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9075.SN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9175.SN	1
M90X2	EMC	ø54÷68mm	100mm	100mm	805.RAS9090.SN	1
	EMC	ø54÷68mm	100mm	100mm	805.RAS9190.SN	1

EMC (Electromagnetic Compatibility) compliant connection.

■ ACCESSORIES >> SCREW CAPS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RT12.N	1
M16X1,5	805.RT16.N	1
M20X1,5	805.RT20.N	1
M25X1,5	805.RT25.N	1
M32X1,5	805.RT32.N	1
M40X1,5	805.RT40.N	1
M50X1,5	805.RT50.N	1
M63X1,5	805.RT63.N	1
M75X1,5	805.RT75.N	1
M90X2	805.RT90.N	1

Gasket not included.

CABLE GLANDS
UNION-EX[PA] SERIES

■ ACCESSORIES >> NUTS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RL12.N	10
M16X1,5	805.RL16.N	10
M20X1,5	805.RL20.N	10
M25X1,5	805.RL25.N	10
M32X1,5	805.RL32.N	10
M40X1,5	805.RL40.N	10
M50X1,5	805.RL50.N	10
M63X1,5	805.RL63.N	10
M75X1,5	805.RL75.N	10
M90X2	805.RL90.N	10

■ ACCESSORIES >> EARTHING TAGS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RE12.N	10
M16X1,5	805.RE16.N	10
M20X1,5	805.RE20.N	10
M25X1,5	805.RE25.N	10
M32X1,5	805.RE32.N	10
M40X1,5	805.RE40.N	10
M50X1,5	805.RE50.N	10
M63X1,5	805.RE63.N	10
M75X1,5	805.RE75.N	10
M90X2	805.RE90.N	10

■ ACCESSORIES >> SEALS (SILICON)



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RG12.S	10
M16X1,5	805.RG16.S	10
M20X1,5	805.RG20.S	10
M25X1,5	805.RG25.S	10
M32X1,5	805.RG32.S	10
M40X1,5	805.RG40.S	10
M50X1,5	805.RG50.S	10
M63X1,5	805.RG63.S	10
M75X1,5	805.RG75.S	10
M90X2	805.RG90.S	10

■ ACCESSORIES >> SEALS (NYLON)



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RG12.Y	10
M16X1,5	805.RG16.Y	10
M20X1,5	805.RG20.Y	10
M25X1,5	805.RG25.Y	10
M32X1,5	805.RG32.Y	10
M40X1,5	805.RG40.Y	10
M50X1,5	805.RG50.Y	10
M63X1,5	805.RG63.Y	10
M75X1,5	805.RG75.Y	10
M90X2	805.RG90.Y	10

■ ACCESSORIES >> SHROUDS (PVC)



Thread	Code	
M16X1,5	805.RS16	1/10
M20X1,5	805.RS20	1/10
M25X1,5	805.RS25	1/10
M32X1,5	805.RS32	1/10
M40X1,5	805.RS40	1/10
M50X1,5	805.RS50	1/10
M63X1,5	805.RS63	1/10
M75X1,5	805.RS75.EP	1/10
M90X2	805.RS90.EP	1/10



UNION-EX[A] Series

Cable glands in stainless steel for Zone 1-2 (Gas) and 21-22 (Dust)

Ex CHARACTERISTICS

Product category: II 2GD / IM2

Ex protection type: Ex db IIC Gb / Ex eb IIC Gb - Ex nR IIC Gc
Ex db I Mb / Ex eb I Mb - Ex tb IIIC

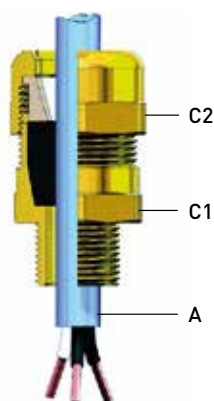
Certificates:
 INERIS 06 ATEX 0014X
 INERIS 17 ATEX 3009X (Ex nR IIC Gc)
 IECEX INE 10.0010X
 Ru C-IT.AЯ45.B.00909
 CCC Ex NEPSI Nr. 2021322313003706
 CML 21UKEX1590X
 CML 21UKEX1591X

technical sheet p. 173

■ CABLE GLANDS >> RN-EPDM



**IP: IP66/IP68
FOR UNARMoured
CABLE**



Cable glands for
unarmoured cable with
seal outside the cable.

Thread	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RN1612.ES	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RN1616.ES ¹⁾	1
	ø5,5÷13mm	30mm	32mm	805.RN2016.ES	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RN1620.ES	1
	ø5,5÷13mm	30mm	32mm	805.RN2020.ES ¹⁾	1
	ø8÷18mm	35mm	36mm	805.RN2520.ES	1
M25X1,5	ø5,5÷13mm	30mm	32mm	805.RN2025.ES	1
	ø8÷18mm	35mm	36mm	805.RN2525.ES ¹⁾	1
	ø13÷24mm	42mm	45mm	805.RN3225.ES	1
M32X1,5	ø13÷24mm	42mm	45mm	805.RN3232.ES ¹⁾	1
M40X1,5	ø21÷30mm	48mm	50mm	805.RN4040.ES ¹⁾	1
	ø24÷36mm	55mm	57mm	805.RN5040.ES	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RN5050.ES ¹⁾	1
	ø36÷45mm	68mm	67mm	805.RN6350.ES	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RN6363.ES ¹⁾	1
	ø45÷54mm	80mm	80mm	805.RN7563.ES	1
	ø45÷54mm	80mm	80mm	805.RN7575.ES ¹⁾	1
M75X1,5	ø54÷68mm	100mm	100mm	805.RN9075.ES	1
	ø54÷68mm	100mm	100mm	805.RN9175.ES	1
M90X2	ø54÷68mm	100mm	100mm	805.RN9090.ES ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9190.ES ¹⁾	1

The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾ Standard size.

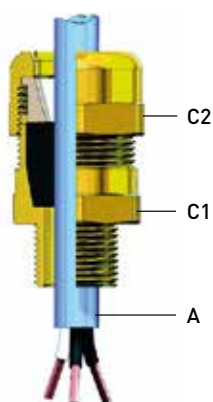
CABLE GLANDS

UNION-EX[AI] Series

CABLE GLANDS >> RN-SIL



**IP: IP66/IP68
FOR UNARMoured
CABLE**



Cable glands for
unarmoured cable with
seal outside the cable.

Thread	Cables outer sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RN1612.SS	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RN1616.SS ¹⁾	1
	ø5,5÷13mm	30mm	32mm	805.RN2016.SS	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RN1620.SS	1
	ø5,5÷13mm	30mm	32mm	805.RN2020.SS ¹⁾	1
	ø8÷18mm	35mm	36mm	805.RN2520.SS	1
M25X1,5	ø5,5÷13mm	30mm	32mm	805.RN2025.SS	1
	ø8÷18mm	35mm	36mm	805.RN2525.SS ¹⁾	1
	ø13÷24mm	42mm	45mm	805.RN3225.SS	1
M32X1,5	ø13÷24mm	42mm	45mm	805.RN3232.SS ¹⁾	1
M40X1,5	ø21÷30mm	48mm	50mm	805.RN4040.SS ¹⁾	1
	ø24÷36mm	55mm	57mm	805.RN5040.SS	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RN5050.SS ¹⁾	1
	ø36÷45mm	68mm	67mm	805.RN6350.SS	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RN6363.SS ¹⁾	1
	ø45÷54mm	80mm	80mm	805.RN7563.SS	1
M75X1,5	ø45÷54mm	80mm	80mm	805.RN7575.SS ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9075.SS	1
	ø54÷68mm	100mm	100mm	805.RN9175.SS	1
M90X2	ø54÷68mm	100mm	100mm	805.RN9090.SS ¹⁾	1
	ø54÷68mm	100mm	100mm	805.RN9190.SS ¹⁾	1

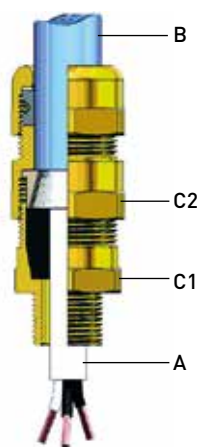
The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾ Standard size.

CABLE GLANDS >> RAD-EPDM



**IP: IP66/IP68
FOR ARMoured
CABLE**



Cable glands
for armoured cable,
locking under the
armour and outside.
Earthing of the armour.

Thread	Cables internal sheath (A)	Cables outer sheath (B)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1612.ES	1
M16X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1616.ES ¹⁾	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2016.ES	1
M20X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1620.ES	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2020.ES ¹⁾	1
	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2520.ES	1
M25X1,5	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2025.ES	1
	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2525.ES ¹⁾	1
	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3225.ES	1
M32X1,5	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3232.ES ¹⁾	1
M40X1,5	ø21÷30mm	ø26÷37mm	48mm	50mm	805.RAD4040.ES ¹⁾	1
	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5040.ES	1
M50X1,5	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5050.ES ¹⁾	1
	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6350.ES	1
M63X1,5	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6363.ES ¹⁾	1
	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7563.ES	1
M75X1,5	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7575.ES ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9075.ES	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9175.ES	1
M90X2	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9090.ES ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9190.ES ¹⁾	1

The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾Standard size.



CABLE GLANDS
UNION-EX[A] SERIES

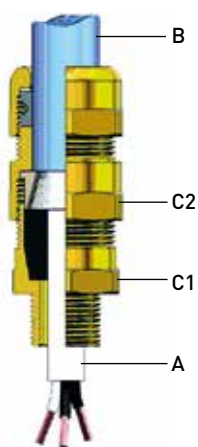
CABLE GLANDS

UNION-EX[AI] Series

CABLE GLANDS >> RAD-SIL



**IP: IP66/IP68
FOR ARMoured
CABLE**



Cable glands
for armoured cable,
locking under the
armor and outside.
Earthing of the armor.

Thread	Cables internal sheath (A)	Cables outer sheath (B)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1612.SS	1
M16X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1616.SS ¹⁾	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2016.SS	1
M20X1,5	ø4÷10mm	ø5÷15mm	24mm	24mm	805.RAD1620.SS	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2020.SS ¹⁾	1
M25X1,5	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2520.SS	1
	ø5,5÷13mm	ø10÷19mm	30mm	32mm	805.RAD2025.SS	1
	ø8÷18mm	ø15÷24mm	35mm	36mm	805.RAD2525.SS ¹⁾	1
M32X1,5	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3225.SS	1
	ø13÷24mm	ø20÷31mm	42mm	45mm	805.RAD3232.SS ¹⁾	1
M40X1,5	ø21÷30mm	ø26÷37mm	48mm	50mm	805.RAD4040.SS ¹⁾	1
	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5040.SS	1
M50X1,5	ø24÷36mm	ø31÷43mm	55mm	57mm	805.RAD5050.SS ¹⁾	1
	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6350.SS	1
M63X1,5	ø36÷45mm	ø42÷53mm	68mm	67mm	805.RAD6363.SS ¹⁾	1
	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7563.SS	1
M75X1,5	ø45÷54mm	ø52÷64mm	80mm	80mm	805.RAD7575.SS ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9075.SS	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9175.SS	1
M90X2	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9090.SS ¹⁾	1
	ø54÷68mm	ø54÷78mm	100mm	100mm	805.RAD9190.SS ¹⁾	1

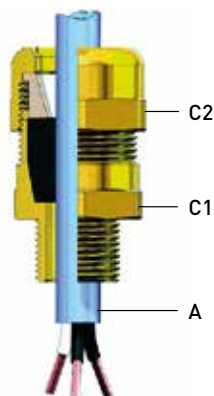
The cable gland kit is supplied with a set of rubbers for securing the cable; nut and gasket must be purchased separately.

¹⁾ Standard size.

■ CABLE GLANDS >> RAS-EPDM



IP: IP66/IP68
EMC



Cable glands for
unarmoured cable with
seal outside the cable.

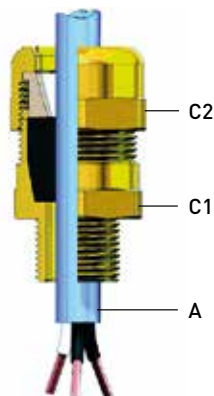
Thread	Cables internal sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RAS1612.ES	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RAS1616.ES	1
	ø5,5÷13mm	30mm	32mm	805.RAS2016.ES	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RAS1620.ES	1
	ø5,5÷13mm	30mm	32mm	805.RAS2020.ES	1
M25X1,5	ø8÷18mm	35mm	36mm	805.RAS2520.ES	1
	ø5,5÷13mm	30mm	32mm	805.RAS2025.ES	1
M32X1,5	ø8÷18mm	35mm	36mm	805.RAS2525.ES	1
	ø13÷24mm	42mm	45mm	805.RAS3225.ES	1
M40X1,5	ø13÷24mm	42mm	45mm	805.RAS3232.ES	1
	ø21÷30mm	48mm	50mm	805.RAS4040.ES	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RAS5040.ES	1
	ø24÷36mm	55mm	57mm	805.RAS5050.ES	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RAS6350.ES	1
	ø36÷45mm	68mm	67mm	805.RAS6363.ES	1
M75X1,5	ø45÷54mm	80mm	80mm	805.RAS7563.ES	1
	ø45÷54mm	80mm	80mm	805.RAS7575.ES	1
M90X2	ø54÷68mm	100mm	100mm	805.RAS9075.ES	1
	ø54÷68mm	100mm	100mm	805.RAS9175.ES	1
M90X2	ø54÷68mm	100mm	100mm	805.RAS9090.ES	1
	ø54÷68mm	100mm	100mm	805.RAS9190.ES	1

EMC (Electromagnetic Compatibility) compliant connection.

■ CABLE GLANDS >> RAS-SIL



IP: IP66/IP68
EMC



Cable glands for
unarmoured cable with
seal outside the cable.

Thread	Cables internal sheath (A)	Wrench body fixing (C1)	Wrench nut fixing (C2)	Code	
M12X1,5	ø4÷10mm	24mm	24mm	805.RAS1612.SS	1
M16X1,5	ø4÷10mm	24mm	24mm	805.RAS1616.SS	1
	ø5,5÷13mm	30mm	32mm	805.RAS2016.SS	1
M20X1,5	ø4÷10mm	24mm	24mm	805.RAS1620.SS	1
	ø5,5÷13mm	30mm	32mm	805.RAS2020.SS	1
M25X1,5	ø8÷18mm	35mm	36mm	805.RAS2520.SS	1
	ø5,5÷13mm	30mm	32mm	805.RAS2025.SS	1
M32X1,5	ø8÷18mm	35mm	36mm	805.RAS2525.SS	1
	ø13÷24mm	42mm	45mm	805.RAS3225.SS	1
M40X1,5	ø13÷24mm	42mm	45mm	805.RAS3232.SS	1
	ø21÷30mm	48mm	50mm	805.RAS4040.SS	1
M50X1,5	ø24÷36mm	55mm	57mm	805.RAS5040.SS	1
	ø24÷36mm	55mm	57mm	805.RAS5050.SS	1
M63X1,5	ø36÷45mm	68mm	67mm	805.RAS6350.SS	1
	ø36÷45mm	68mm	67mm	805.RAS6363.SS	1
M75X1,5	ø45÷54mm	80mm	80mm	805.RAS7563.SS	1
	ø45÷54mm	80mm	80mm	805.RAS7575.SS	1
M90X2	ø54÷68mm	100mm	100mm	805.RAS9075.SS	1
	ø54÷68mm	100mm	100mm	805.RAS9175.SS	1
M90X2	ø54÷68mm	100mm	100mm	805.RAS9090.SS	1
	ø54÷68mm	100mm	100mm	805.RAS9190.SS	1

EMC (Electromagnetic Compatibility) compliant connection.



CABLE GLANDS
UNION-EX[II] SERIES

■ ACCESSORIES >> SCREW CAPS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RT12.S	1
M16X1,5	805.RT16.S	1
M20X1,5	805.RT20.S	1
M25X1,5	805.RT25.S	1
M32X1,5	805.RT32.S	1
M40X1,5	805.RT40.S	1
M50X1,5	805.RT50.S	1
M63X1,5	805.RT63.S	1
M75X1,5	805.RT75.S	1
M90X2	805.RT90.S	1

Gasket not included.

■ ACCESSORIES >> NUTS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RL12.S	10
M16X1,5	805.RL16.S	10
M20X1,5	805.RL20.S	10
M25X1,5	805.RL25.S	10
M32X1,5	805.RL32.S	10
M40X1,5	805.RL40.S	10
M50X1,5	805.RL50.S	10
M63X1,5	805.RL63.S	10
M75X1,5	805.RL75.S	10
M90X2	805.RL90.S	10

■ ACCESSORIES >> EARTHING TAGS



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RE12.S	10
M16X1,5	805.RE16.S	10
M20X1,5	805.RE20.S	10
M25X1,5	805.RE25.S	10
M32X1,5	805.RE32.S	10
M40X1,5	805.RE40.S	10
M50X1,5	805.RE50.S	10
M63X1,5	805.RE63.S	10
M75X1,5	805.RE75.S	10
M90X2	805.RE90.S	10

■ ACCESSORIES >> SEALS (SILICON)



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RG12.S	10
M16X1,5	805.RG16.S	10
M20X1,5	805.RG20.S	10
M25X1,5	805.RG25.S	10
M32X1,5	805.RG32.S	10
M40X1,5	805.RG40.S	10
M50X1,5	805.RG50.S	10
M63X1,5	805.RG63.S	10
M75X1,5	805.RG75.S	10
M90X2	805.RG90.S	10

■ ACCESSORIES >> SEALS (NYLON)



IP: IP66/IP68

Thread	Code	
M12X1,5	805.RG12.Y	10
M16X1,5	805.RG16.Y	10
M20X1,5	805.RG20.Y	10
M25X1,5	805.RG25.Y	10
M32X1,5	805.RG32.Y	10
M40X1,5	805.RG40.Y	10
M50X1,5	805.RG50.Y	10
M63X1,5	805.RG63.Y	10
M75X1,5	805.RG75.Y	10
M90X2	805.RG90.Y	10

■ ACCESSORIES >> SHROUDS (PVC)



Thread	Code	
M16X1,5	805.RS16	1/10
M20X1,5	805.RS20	1/10
M25X1,5	805.RS25	1/10
M32X1,5	805.RS32	1/10
M40X1,5	805.RS40	1/10
M50X1,5	805.RS50	1/10
M63X1,5	805.RS63	1/10
M75X1,5	805.RS75.EP	1/10
M90X2	805.RS90.EP	1/10





INFORMATION

INDEX TECHNICAL INFORMATION

SWITCHED INTERLOCKED SOCKET OUTLETS 144

ZENITH-P Series	144
ADVANCE-GRP[GD] Series	146
ADVANCE-GRP[EX] Series	148

COUPLERS 150

OPTIMA-EX[GD] Series.....	150
---------------------------	-----

PLUGS 152

OPTIMA-EX[GD] Series.....	152
OPTIMA-EX Series.....	154

ENCLOSURES 156

ZENITH-P Series	156
ZENITH-S Series	157
ALUBOX-EX Series	158

JUNCTION BOXES 159

ZENITH-P Series	159
-----------------------	-----

LOCAL CONTROL STATIONS 160

COMPACT-EX[GD] Series	160
ZENITH-P Series	162

SWITCHES 163

ROCKER-EX[GD] Series	163
ISOLATORS-EX[GD] Series.....	165
ISOLATORS-EX Series.....	168

CABLE GLANDS 171

UNION-EX[PA] Series.....	171
UNION-EX[OTN] Series	172
UNION-EX[AI] Series	173

DISTRIBUTION ASSEMBLIES OF SWITCHED INTERLOCKED SOCKET OUTLETS



VERSIONS



Distribution assemblies of switched interlocked socket outlets

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T4/T5/T6 Gb Ex tb IIIC T85°C Db
Certificates:	IMQ 19 ATEX 034 X IECEx IMQ 19.0005 X CPEX 25.2247 X

REFERENCE STANDARDS

IEC EN 60309-1	IEC EN 60947-1
IEC EN 60309-2	IEC EN 60947-3
IEC EN 60309-4	IEC EN 61439-1
	IEC EN 61439-2

ATEX-IECEX STANDARDS

IEC EN 60079-0	IEC EN 60079-7
IEC EN 60079-1	IEC EN 60079-31

MARKINGS AND DIRECTIVES



QUALITY MARKS

IECEx

TECHNICAL CHARACTERISTICS

Rated current:	16A-32A
Rated voltage:	> 100÷690V
Frequency:	50÷60Hz
Protection degree:	IP66
Installation temperature:	-35°C +40°C (-50° on request)
Material:	Dissipative thermosetting GRP (enclosure) Dissipative thermoplastic reinforced with glass-fibre (socket)
Colour:	Black RAL 9011
Impact resistance (IK degree):	7J
Cable entries:	16A: 1xM25 (cable gland) - 1xM20 (cap) 32A: 1xM32 (cable gland) - 1xM20 (cap)
Max diameter of the padlock arch (socket and window):	4,7mm

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ CABLE ENTRIES

Rated Current			16A	32A
Cable entries			1xM25 + 1xM20	1xM32 + 1xM20
ø cable	(mm)	Min	12-10	13-10
		Max	18-14	21-14

■ TERMINAL CONTACT Ex eb

Rated current (A)	Switch terminals contacts - Torque		Cable gland tightening torque - (Nm)
	Min	Max	
16	2.5 mm ²	10 mm ²	0.8
32	6 mm ²	10 mm ²	0.8

■ ELECTRICAL CHARACTERISTICS

Rated current In				16A	32A	
Rated operational current Ie	AC22A	Mixed resistive and inductive loads, including moderate overloads	400V	A	-	-
			500V	A	-	-
			690V	A	16	32
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	400V	A	-	-
			500V	A	16	32
			690V	A	-	-
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	-	-
			500V	A	16	25
			690V	A	-	-
Associate fuse size for conditional short circuit current - gG type				kA	10	10

The manufacturer's EMC assessment establishes that the equipment in question is inherently benign in terms of electromagnetic compatibility (both issue and immunity), therefore, pursuant to Article 2(2d) of Directive 2014/30/EU, the EMC Directive does not apply.

■ MCCB AND RCD DEVICE TECHNICAL CHARACTERISTICS

Rated current	In	A	16A-32A
Rated voltage	U _r	V	690
Rated service shortcircuit breaking capacity	I _{cc}	kA	6-10
Trip characteristic curve			B, C, D
Auxiliary contact 1NC+1NO		A	250V-400V, 50/60Hz, 4A 110Vdc, 0.5A



2 ADVANCE-GRP[GD] SERIES

■ SWITCHED INTERLOCKED SOCKET OUTLETS IN THERMOSETTING GRP MATERIAL



■ VERSIONS



With switch-disconnector

■ Ex CHARACTERISTICS

Product category:	II 2GD
Ex protection type:	Ex db eb IIC T3, T4, T5, T6 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 15 ATEX 0017X IECEX INE 15.0033X EMA CML 21 UKEX 11259X CPEX 25.2230 X

■ REFERENCE STANDARDS

IEC EN 60309-1
IEC EN 60309-2
IEC EN 60309-4

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ TECHNICAL CHARACTERISTICS

Rated current:	16A-32A-63A-125A
Rated voltage:	>50÷690V
Frequency:	50/60Hz
Insulating voltage:	690V
Enclosure material:	Dissipative thermosetting GRP
Colour:	Black RAL 9005
Protection degree:	IP66
Installation temperature:	-50°C +60°C (16A-32A) -35°C +60°C (63A) -35°C +40°C (125A)
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J
Insulation class:	Class II (double insulation)
Auxiliary contacts:	Max. 2 auxiliary contacts max. 2A (1 with early make late break)
Handle lock (with padlock):	OFF and ON
Max diameter of the padlock arch for handle padlocking:	16A-32A 5mm 63A 6,3mm 125 6,3mm

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ WIRING CAPACITY OF THE TERMINALS

Switch type			16A	32A	63A	125A
Cross sectional areas conductors	(mm²)	Min	4	6	16	50
		Max	10	10	25	70
Tightening torque	(Nm)		0.8	0.8	2.5	3.5

■ EARTH TERMINALS CONTACTS - TORQUE

Socket Type		16A	32A	63A	125A
Max. cross sectional areas conductors	(mm ²)	10 finely-stranded 16 single-wire	10 finely-stranded 16 single-wire	35 Weidmuller Ex eb Terminal Type - WPE35	50/70 CZ0513-180A Switch-Earth Terminal
Tightening torque		(Nm)	1.2	3.5	3.5

■ AMBIENT TEMPERATURE RANGE

Socket type	Ambient Temperature Range [Ta]	Temperature class - Gas	Optional Auxiliary Contacts	Max. Surface Temperature - Dust
			EX-TECH SOLUTION ZBWE-....	
504.16...	-50°C to +50°C	T6	Yes	T80°C
	-50°C to +60°C	T5	Yes	T80°C
504.32...	-50°C to +60°C	T4	-	T80°C
	-50°C to +50°C	T4	-	T80°C
	-50°C to +40°C	T5	Yes	T80°C
	-40°C to +60°C	T4	-	T80°C
	-40°C to +50°C	T4	-	T80°C
	-40°C to +40°C	T5	Yes	T80°C
	-40°C to +40°C	T5	Yes	T80°C
504.63...	-35°C to +60°C	T3	-	T80°C
	-35°C to +50°C	T3	-	T80°C
	-35°C to +40°C	T4	Yes	T80°C
504.125...	-35°C to +40°C	T4	-	T80°C

The ambient temperature range will be limited by the component (Auxiliary contacts) with lowest rating.
Refer to the label on the specific products.

■ CABLE ENTRIES

Rated Current			16A	32A	63A	125A
Cable entries			1xM25	1xM32	1xM40	1xM50
ø cable	(mm)	Min	12	16	22	28
		Max	18	25	32	38.5

■ SWITCH-DISCONNECTOR TECHNICAL CHARACTERISTICS

Rated current In					16A	32A	63A	125A
Rated operational current Ie	AC22A	Mixed resistive and inductive loads, including moderate overloads	500V	A	-	-	-	-
			690V	A	16	32	63	125
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	500V	A	16	32	-	-
			690V	A	-	-	63	125
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	500V	A	16	25	50	-
			690V	A	-	-	-	125

SWITCHED INTERLOCKED SOCKET OUTLETS IN THERMOSETTING GRP MATERIAL



REFERENCE STANDARDS

IEC EN 60309-1
IEC EN 60309-2
IEC EN 60309-4

ATEX-IECEx STANDARDS

IEC EN 60079-0
IEC EN 60079-31

MARKINGS AND DIRECTIVES



VERSIONS

	With switch-disconnector
	With switch-disconnector and fuse

Ex CHARACTERISTICS

Product category:	II 2D (surface mounting sockets) II 3D (combination units)
Ex protection type:	Ex tb IIIC T90°C Db
Certificates:	IMQ 11 ATEX 010 EMA 22 UKEX 0020

TECHNICAL CHARACTERISTICS

Rated current:	16A-32A-63A
Rated voltage::	>50÷690V
Frequency:	50/60Hz
Insulating voltage:	690V
Enclosure material:	Thermosetting GRP
Colour:	Grey RAL 7037
Protection degree:	IP66
Installation temperature:	-25°C +60°C
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J
Fusibili:	16A-32A gG 10,3x38mm 63A gG 22x58mm
Insulation class:	Class II (double insulation)
Auxiliary contacts:	Max 2 auxiliary contacts (optional with early make late break)
Handle lock (with padlock):	OFF and ON
Max diameter of the padlock arch for handle padlocking:	16A-32A 5mm 63A 6,3mm

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ WIRING CAPACITY OF THE TERMINALS

Rated current			16A	32A	63A
Built-in control and / or protection device		Code	Terminals - Torque (Nm)		
SCAME Command series switch disconnecter		503.16... 503.32... 503.63...	0,8	0,8	3.6
Command and related fuses 16-32A: 10: 3 38 days 63A: CH 22 X 58 63A gG		503.16...F 503.32...F 503.63...F	0,8	0,8	3.6
Earth terminal		503.16... 503.32... 503.63...	1,2	1,2	3.5

■ TERMINAL SECTION

Rated current	Single-wire (mm ²)	Flexible (mm ²)
16A	4	4
32A	10	10
63A	25	25

■ CABLE TEMPERATURE

Rated current		16A	32A	63A
Maximum current	Ta 40°C	-	-	55A
	Ta 50°C	-	-	50A
	Ta 60°C	16A	25A	45A
Cable temperature		-	-	85°C

■ CABLE ENTRIES

Rated Current			16A	32A	63A ¹⁾
Cable entries			1xM25	1xM32	1xM50
ø cable	(mm)	Min	12	16	28
		Max	18	25	38.5

¹⁾ Only for 63A version cable gland available upon request with junction box kit 579.EX0201.



■ COUPLERS



■ VERSIONS



Couplers

■ REFERENCE STANDARDS

IEC EN 60309-1
IEC EN 60309-2
IEC EN 60309-4

IEC EN 60947-1
IEC EN 60947-3

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1

IEC EN 60079-7
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEx

■ TECHNICAL CHARACTERISTICS

Rated current:	16A-32A
Rated voltage:	690V
Frequency:	50÷60Hz
Protection degree:	IP66
Installation temperature:	-50°C +60°C
Enclosure material:	Dissipative thermoplastic reinforced with glass-fibre
Colour:	Black RAL 9011
Impact resistance (IK degree):	7J
Cable entries:	11mm÷17mm (16A) 14mm÷22mm (32A)
Max diameter of the padlock arch:	4,7mm

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T3/T4 Gb Ex tb IIIC T85°C Db
Certificates:	IMQ 23 ATEX 045 X IECEx IMQ 23.0006 X EMA 24 UKEX 0001 X CPEX 25.2175 X

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ CABLE ENTRIES

Rated current			16A	32A
Cable size diameter accepted (Example H07RN-F) Do Not Use Armoured Cable	(mm)	2P+E	11-14	14-19
		3P+E	12-14.5	14-19
		3P+N+E	14-17	17.5-22
Cable Gland / Cable Clamp Tightening-Torque	(Nm)	2P+E	5,6	9
		3P+E	5,6	9
		3P+N+E	5,6	9

■ TERMINAL CONTACT Ex eb

Rated current (A)	Switch terminals contacts - Torque		Cable gland tightening torque - (Nm)
	Min	Max	
16	2.5 mm ²	10 mm ²	0.8
32	6 mm ²	10 mm ²	0.8

■ ELECTRICAL CHARACTERISTICS

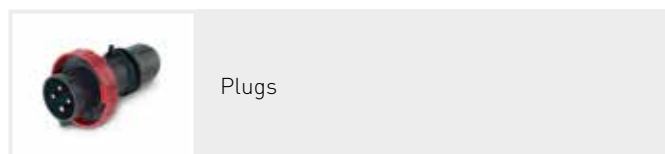
Rated current I _n				16A	32A	
Rated operational current I _e	AC22A	Mixed resistive and inductive loads, including moderate overloads	400V	A	-	-
			500V	A	-	-
			690V	A	16	32
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	400V	A	-	-
			500V	A	16	32
			690V	A	-	-
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	-	-
			500V	A	16	25
			690V	A	-	-
Associate fuse size for conditional short circuit current - gG type				kA	10	10

The manufacturer's EMC assessment establishes that the equipment in question is inherently benign in terms of electromagnetic compatibility (both issue and immunity), therefore, pursuant to Article 2(2d) of Directive 2014/30/EU, the EMC Directive does not apply.

■ INDUSTRIAL PLUGS



■ VERSIONS



Plugs

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC T3, T4, T5, T6 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 15 ATEX 0017X IECEx IEC 15.0033X CML 21 UKEX 11259X CPEX 25.2230 X

■ REFERENCE STANDARDS

IEC EN 60309-1
IEC EN 60309-2

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-7
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEx

■ TECHNICAL CHARACTERISTICS

Rated current:	16A-32A-63A-125A
Rated voltage:	>100÷690V
Frequency:	50÷60Hz
Insulating voltage:	2P+E 500V 3P+E / 3P+N+E 690V
Protection degree:	IP66
Installation temperature:	-50°C +60°C
Enclosure material:	Dissipative thermoplastic reinforced with glass-fibre
Colour:	Black RAL 9011
Impact resistance (IK degree):	7J
Construction characteristics/ type of closure:	Separate body and handle / Screws with threaded inserts (4)
Terminals:	Mantle
Nickel-plated pins:	16A-32A-63A-125A
Mobile versions cable entry device:	IP66 cable gland/ external cable clamp

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ WIRING CAPACITY OF THE TERMINALS

Rated current		16A	32A	63A	125A	
Cable section L1 – L2 – L3 – N Ground cable section	(mm²)	4	6	16	50	
Power Supply Terminals - Tightening-Torque	(Nm)	1	1.5	2	4	
Cable size diameter accepted (Example H07RN-F) Do Not Use Armoured Cable	(mm)	2P+E	13 - 14.5	16 - 19.5	21 - 32	31-49
		3P+E	13 - 14.5	16 - 19.5	21 - 32	31-49
		3P+N+E	15 - 19.5	17 - 22.5	21 - 32	31-49
Cable Gland / Cable Clamp Tightening-Torque	(Nm)	2P+E	5,6	10	10	25
		3P+E	5,6	10	10	25
		3P+N+E	5,6	10	10	25
Cable-Gland/Cable-Clamp (Screw) - Tightening-Torque	(Nm)	0.8	0.8	0.8	0.8	
Handle Screws – Tightening-Torque	(Nm)	1	1	1,2	1,5	

■ TECHNICAL CHARACTERISTICS

Rated current (A)	Maximum Current		
	Ta 40°C	Ta 50°C	Ta 60°C
16	16A	16A	16A
32	32A	32A	32A
63	63A	63A	63A
125	125A	-	-

■ INDUSTRIAL PLUGS



■ VERSIONS



Plugs

■ Ex CHARACTERISTICS

Product category:	Ex II 2D
Ex protection type:	Ex tb IIIC T90°C Db
Certificates:	IMQ 11 ATEX 011 EMA 22 UKEX 0019

■ REFERENCE STANDARDS

IEC EN 60309-1
IEC EN 60309-2

■ ATEX-IECEx STANDARDS

IEC EN 60079-0
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ TECHNICAL CHARACTERISTICS

Rated current:	16A-32A-63A
Rated voltage:	> 50÷690V
Insulating voltage:	690V
Frequency:	50/60Hz
Enclosure material:	Thermoplastic reinforced with glass-fibre
Colour:	Black RAL 9011
Protection degree:	IP66
Installation temperature:	-25°C +60°C
Impact resistance (IK degree):	7J
Construction characteristics/ type of closure	Separate body and handle / Screws with self-threaded inserts
Terminals:	Screw
Nickel-plated pins:	16A-32A-63A
Self extinguishing degree (GWT):	960°C
Versions cable entry device:	Cable gland IP66

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ WIRING CAPACITY OF THE TERMINALS

Rated current		16A	32A	63A	
Section of flexible copper cables suitable for power supply terminals and earth terminal	(mm²)	2.5	6	16	
Power terminal screws tightening torque	(Nm)	0.8	0.8	2.2	
Pilot terminal screw tightening torque	(Nm)	-	-	0.8	
Diameter of the cables that can be clamped by the cable clamp (H07RN-F)	(mm)	2P+E	10.9-14	14-18	21.8-27.6
		3P+E	12.1-15.5	15.7-20	23.8-30.1
		3P+N+E	13.3-17	17.5-22.5	26.4-33.3
Cable gland-cable clamp tightening torque	(Nm)	2P+E	5.6	5.6	13
		3P+E	5.6	5.6	13
		3P+N+E	5.6	9	13
Cable gland screw tightening torque	(Nm)	-	-	0.8	
Handle screw tightening torque	(Nm)	-	-	0.9	

■ CABLE TEMPERATURE

Rated current		16A	32A	63A
Maximum current	Ta 40°C	-	-	55A
	Ta 50°C	-	-	50A
	Ta 60°C	16A	25A	45A
Cable temperature		-	85°C	90°C



■ EMPTY ENCLOSURES IN THERMOSETTING GRP MATERIAL



■ VERSIONS



Empty enclosures

■ REFERENCE STANDARDS

EN 60529

■ ATEX-IECEx STANDARDS

IEC EN 60079-0

IEC EN 60079-7

IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEx

■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66
Material:	Dissipative thermosetting GRP
Colour:	Black RAL 9005
Installation temperature:	-60°C +100°C
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC Gb Ex tb IIIC Db
Certificates:	IMQ 19 ATEX 033U IECEx IMQ 19.004U EMA 21 UKEX 0066U CPEX 25.2210U

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ EMPTY ENCLOSURES IN STAINLESS STEEL



■ VERSIONS



Screw lid enclosure



Cabinet with hinged door and key-lock

■ REFERENCE STANDARDS

EN 60529

■ ATEX-IECEx STANDARDS

IEC EN 60079-0

IEC EN 60079-7

IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEx

■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66
Material:	Stainless steel AISI 316L or 304L
Finishing:	Glossy satin
Installation temperature:	-50°C +100°C
Impact resistance (IK degree):	7J

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC Gb Ex tb IIIC Db
Certificates:	IMQ 19 ATEX 033U IECEx IMQ 19.004U EMA 21 UKEX 0066U CPEX 25.2210U

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

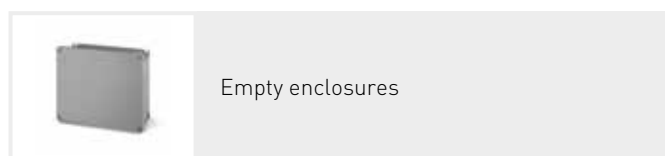


2 ALUBOX-EX SERIES

■ EMPTY ENCLOSURES IN DIE-CAST ALUMINIUM



■ VERSIONS



■ REFERENCE STANDARDS

IEC EN 60670-1
IEC EN 60670-22
EN 60529

■ ATEX-IECEx STANDARDS

IEC EN 60079-0
IEC EN 60079-15
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66
Material:	Die-cast aluminium
Colour:	RAL 7037
Installation temperature:	-20°C +80°C
Impact resistance (IK degree):	4J
DIN rail fixing:	Yes

■ Ex CHARACTERISTICS

Product category:	Ex II 3GD
Ex protection type:	Ex ec IIC Gc Ex tc IIIC Dc

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Limited resistance	Limited resistance	Limited resistance	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ JUNCTION BOXES IN THERMOSETTING GRP MATERIAL

■ ATEX-IECEX STANDARDS

IEC EN 60079-0

IEC EN 60079-7

IEC EN 60079-31



■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ VERSIONS



Junction boxes

■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66
Material:	Dissipative thermosetting GRP
Colour:	Black RAL 9005
Installation temperature:	-60°C +95°C
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J

■ Ex CHARACTERISTICS

Product category:	Ex II 1G - 2GD
Ex protection type:	Ex eb IIC T6/T5/T4 Gb Ex eb ia IIC T6/T5/T4 Gb Ex ia IIC T6/T5/T4 Ga
Certificates:	IMQ 19 ATEX 034 X IECEX IMQ 19.0005 X EMA 21 UKEX 0067X CPEX 25.2247X

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.



2 COMPACT-EX[GD] SERIES

MODULAR LOCAL CONTROL STATIONS IN THERMOPLASTIC MATERIAL



VERSIONS



Local control stations

REFERENCE STANDARDS

IEC EN 60947-1	IEC EN 60947-5-5
IEC EN 60947-3	EN 60529
IEC EN 60947-5-1	EN ISO 13850

ATEX-IECEX STANDARDS

IEC EN 60079-0	IEC EN 60079-18
IEC EN 60079-1	IEC EN 60079-31
IEC EN 60079-7	

MARKINGS AND DIRECTIVES



QUALITY MARKS

IECEX

TECHNICAL CHARACTERISTICS

Rated current:	16A
Rated voltage:	400V
Protection degree:	IP66
Installation temperature:	-35°C +40°C
Material:	Thermoplastic reinforced with glass-fibre
Colour:	Black RAL 9011
Impact resistance (IK degree):	7J
Cable entries:	1 operator: 1xM20 2-3 operators: 1xM25

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db
Certificates:	ATEX 22 IMQ 006 X IECEX IMQ 22.0001 X EMA 22 UKEX 0046 X CPEX 25.2241 X

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ CABLE ENTRIES

Size 1		Size 3		
Top	Bottom	Top	Bottom	ø cable (mm) mix-max
1xM20x1.5	1xM20x1.5	1xM20x1.5	1xM20x1.5	10÷14
2xM20x1.5	2xM20x1.5	2xM20x1.5 ⁽¹⁾	2xM20x1.5	10÷14
1xM25x1.5 ⁽¹⁾	1xM25x1.5 ⁽¹⁾	1xM25x1.5 ⁽¹⁾	1xM25x1.5 ⁽¹⁾	12÷18

⁽¹⁾ configuration not allowed when metallic cable gland are used.

■ TECHNICAL CHARACTERISTICS

Rated current I _n					16A
Rated impulse withstand voltage			U _{imp}	kV	6
Rated operational current I _e	AC12	Control of resistive loads and solid state loads with isolation by optocouplers	400V	A	16
	AC15	Control of electromagnetic loads (>72 VA)	400V	A	10
	DC13	Control of electromagnets	125V	A	2
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	16
	AC23	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	400V	A	16
Short circuit withstand current			(I _{cw}) (1s)	kA	0,4
Rated short circuit making capacity			(I _{cm})	kA	0.566
Short circuit protection				A/V	16/500



LOCAL CONTROL STATIONS IN THERMOSETTING GRP MATERIAL



VERSIONS



Local control stations

ATEX-IECEx STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-18
IEC EN 60079-31

MARKINGS AND DIRECTIVES



QUALITY MARKS

IECEx

TECHNICAL CHARACTERISTICS

Protection degree:	IP66
Material:	Dissipative thermosetting GRP
Colour:	Black RAL 9005
Installation temperature:	-60°C +95°C
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T6/T5/T4 Gb Ex db eb mb IIC T6/T5/T4 Gb Ex eb mb IIC T6/T5/T4 Gb Ex tb IIIC T80°C/T95°C/T130°C Db
Certificates:	IMQ 19 ATEX 034 X IECEx IMQ 19.0005 X EMA 21 UKEX 0067X CPEX 25.2247X

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

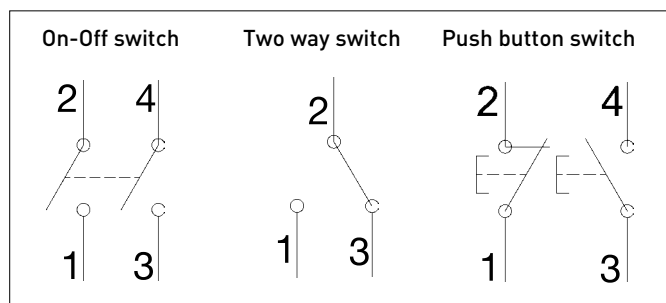
■ LIGHTING SWITCHES IN THERMOPLASTIC MATERIAL



■ VERSIONS

	Plastic screw caps
	Plastic cable glands
	Metallic cable glands

■ WIRING DIAGRAMS



■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

■ REFERENCE STANDARDS

IEC EN 60669-1
EN 60529

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1

IEC EN 60079-7
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ TECHNICAL CHARACTERISTICS

Rated current:	16AX
Rated voltage:	250V AC
Frequency:	50/60Hz
Material:	Dissipative thermoplastic reinforced with glass-fibre
Colour:	Black RAL 9011
Protection degree:	IP66
Installation temperature:	-50°C +60°C -35°C +60°C
Self extinguishing degree (GWT):	960°C
Impact resistance (IK degree):	7J

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T6 Gb (Ta +40°C) Ex db eb IIC T4 Gb (Ta +60°C) Ex tb IIIC T80°C Db
Certificates:	INERIS 19 ATEX 0014X IECEX INE 19.0012X EMA 21 UKEX 0065X CPEX 25.2185 X



■ CABLE ENTRIES TA -35°C

Rated Current			592.R00*-01	592.R00*-02	592.R00*-03
Cable entries			1xM20	2xM20	3xM20
ø cable	(mm)	Min	10	10	10
		Max	14	14	14

■ CABLE ENTRIES TA -50°C

Rated Current			592.R00*-01	592.R00*-02	592.R00*-03
Cable entries			1xM20	2xM20	3xM20
ø cable	(mm)	Min	8	8	8
		Max	10.5	10.5	10.5

■ TYPE VERSIONS

Type	Max. Current	Max. Voltage	Contacts	Fixed screws
ON-OFF switch	16AX	250Vca - 50/60Hz	2NO	4 x M4x22mm In AISI
Change Over Switch	16AX	250Vca - 50/60Hz	1NO+1NC	4 x M4x22mm In AISI
Push Button	16AX	250Vca - 50/60Hz	1NO+1NC	4 x M4x22mm In AISI

■ WIRING CAPACITY OF THE TERMINALS

Terminals Contacts - Torque		
ROCKER-EX[GD] - In	Cross Sectional Areas Conductors	Tightening Torque - (Nm)
Terminals	2.5 mm ²	1.2
Earth-Terminal	2.5 mm ²	1.2

■ ENCLOSED SWITCH-DISCONNECTORS



■ VERSIONS

	Thermosetting GRP - General use - Emergency use
	Stainless steel - General use - Emergency use
	Aluminium - General use - Emergency use

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex db eb IIC T4/T5 Gb Ex tb IIIC T80°C Db
Certificates:	INERIS 14 ATEX 0030X IECEX INE 14.0040X EMA 21 UKEX 0063X CPEX 25.2184 X

■ REFERENCE STANDARDS

IEC EN 60947-1
IEC EN 60947-3
EN 60529

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-31

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ TECHNICAL CHARACTERISTICS

Rated current:	20A-25A-32A-40A-63A
Polarity:	2P-3P-4P
Rated voltage:	690V
Insulating voltage:	690V
Frequency:	50/60Hz
Enclosure material:	Dissipative thermosetting GRP Stainless steel AISI 316L Die-cast aluminium
Colour:	RAL 9005 (thermosetting GRP) RAL 9006 (aluminium)
Protection degree:	IP66
Installation temperature:	-35°C +60°C (20A-25A thermosetting GRP - stainless steel-aluminium) -35°C +55°C (32A-40A thermosetting GRP - stainless steel) -35°C +60°C (32A aluminium) -35°C +50°C (63A thermosetting GRP) -35°C +55°C (63A aluminium) -35°C +40°C (63A stainless steel) -50°C optional
Self extinguishing degree (GWT):	960°C (thermosetting GRP)
Impact resistance (IK degree):	7J
Auxiliary contacts:	Max 2 auxiliary contacts, 2A (1 with early make late break)
Handle lock (with padlock):	OFF and ON
Max diameter of the padlock arch:	6mm

■ WIRING CAPACITY OF THE TERMINALS

Type COMMAND-EX (In)		20A-25A-32A	40A-63A	Earth Terminal - 20A-25A-32A WPE 10	Earth Terminal - 40A-63A WPE 35
Cross sectional areas conductors	(mm ²)	10 finely-stranded 16 single-wire	25 finely-stranded 35 single-wire	10 finely-stranded 16 single-wire	35 finely-stranded 35 single-wire
Tightening Torque	(Nm)	0.8	2.5	2.4	5

■ CABLE ENTRIES

Rated Current			20A		25A		32A		40A		63A	
Poles			2	3-4	2	3-4	2	3-4	2	3-4	2	3-4
Cable entries			2x M25x1,5	2x M25x1,5	2x M25x1,5	2x M25x1,5	2x M25x1,5	2x M32x1,5	2x M32x1,5	2x M40x1,5	2x M40x1,5	2x M50x1,5
Ø cable	(mm)	Min	12	12	12	12	16	16	16	22	22	28
		Max	18	18	18	18	25	25	25	32	32	38.5

■ SWITCH-DISCONNECTOR TECHNICAL CHARACTERISTICS

Rated current In					20A	25A	32A	40A	63A
Max. Voltage (Ui)					690V	690V	690V	690V	690V
Rated operational current Ie	AC22A	Mixed resistive and inductive loads, including moderate overloads	690V	A	20A	25A	32A	40A	63A
			500V	A	20	25	32	40	63
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	690V	A	-	-	-	40A	63A
			500V	A	20A	25A	25A	40A	50A
Frequency					50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS - THERMOSETTING GRP

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS - STAINLESS STEEL

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS - ALUMINIUM

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited resistance	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

ENCLOSED SWITCH-DISCONNECTORS



VERSIONS



Thermoplastic
- General use
- Emergency use



Aluminium
- General use
- Emergency use

Ex CHARACTERISTICS

Product category:	Ex II 2D
Ex protection type:	Ex tb IIIC T80°C Db Ex tb IIIC T90°C Db
Thermoplastic certificates:	TÜV IT 14 ATEX 005 EMA 21 UKEX 0078
Aluminium certificates:	TÜV IT 14 ATEX 006 EMA 21 UKEX 0077

REFERENCE STANDARDS

IEC EN 60947-1
IEC EN 60947-3
EN 60529

ATEX-IECEx STANDARDS

IEC EN 60079-0
IEC EN 60079-31

MARKINGS AND DIRECTIVES



TECHNICAL CHARACTERISTICS

Rated current:	20A-32A-40A (thermoplastic) 20A-32A-40A-63A (aluminium)
Polarity:	2P-3P-4P
Rated voltage:	690V
Insulating voltage:	690V
Frequency:	50/60Hz
Enclosure material:	Thermoplastic Die-cast aluminium
Colour:	Grey RAL 7016 (thermoplastic) Grey RAL 7015 (aluminium)
Protection degree:	IP66 (thermoplastic) IP65 (aluminium)
Installation temperature:	-25°C +40°C (T80°C) -25°C +60°C (T90°C)
Self extinguishing degree (GWT):	960C (thermoplastic)
Impact resistance (IK degree):	7J
Auxiliary contacts:	Max 2 auxiliary contacts, 2A (optional with early make late break)
Handle lock (with padlock):	OFF and ON
Max diameter of the padlock arch:	4,7mm

■ SWITCH-DISCONNECTOR TECHNICAL CHARACTERISTICS - THERMOPLASTIC

Rated current I _n					20A	32A	40A
Rated insulation voltage U _i				VAC	690	690	690
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	415V	A	20	32	35
			690V	A	16	25	25
	AC3	Squirrel-cage motor: starting,switching off motor during running (3 phase / 3 pole)	400V	A	16	28.5	28.5
			600V	A	12	20	20
Nominal frequency				Hz	50/60	50/60	50/60

■ SWITCH-DISCONNECTOR TECHNICAL CHARACTERISTICS - ALUMINIUM

Rated current In					20A	32A	40A	63A
Rated insulation voltage Ui				VAC	690	690	690	690
	AC23A	Switching of motor loads or other highly inductive loads (3 phase/3 pole)	415V	A	20	32	35	63
			690V	A	16	25	25	30
	AC3	Squirrel-cage motor: starting,switching off motor during running (3 phase / 3 pole)	400V	A	16	28.5	28.5	40
			600V	A	12	20	20	25
Nominal frequency				Hz	50/60	50/60	50/60	50/60

■ CABLE ENTRIES - THERMOPLASTIC

Rated Current			20A	32A	40A
Cable entries			2xM25 + 1xM20	2xM32 + 1xM20	2xM32 + 1xM20
ø cable	(mm)	Min	12-10	13-10	13-10
		Max	18-14	21-14	21-14

■ CABLE ENTRIES - ALUMINIUM

Rated Current			20A	32A	40A	63A
Cable entries			2xM25 + 1xM20 (high)	2xM25 + 1xM20 (high)	2xM25 + 1xM20 (high)	2xM32 + 1xM20 (high)
ø cable	(mm)	Min	12-10	12-10	12-10	16-10
		Max	18-14	18-14	18-14	25-14

■ TECHNICAL FEATURES AUXILIARY CONTACTS

Technical features auxiliary contacts type 590.PL00400*		
Auxiliary contact	Available current	Note
1NC or 1NO	Max 2A	With 1 auxiliary contact the maximum current is 2A
2NC or 2NO	Max 1A	With 2 auxiliary contacts the maximum current is 1A each
Technical features auxiliary contacts type 590.PL004005 - Anticipated (VFD Typical applications)		
1 NC/NO	Max 2A	With 1 auxiliary in contact exchange. Maximum current withdrawable 2A
2 NC/NO	Max 1A	With 2 auxiliary in contacts exchange. Maximum current withdrawable 1A

■ TECHNICAL DATA OF POWER/EARTH TERMINALS

Power terminals / connectable wires and tightening torques		
Power terminal version	Cable section to be used (rigid or flexible) mm ²	Tightening torque (Nm)
20A	4	0,8
32A	6	0,8
40A	6	0,8
63A	10	3,6
Internal earth terminal	Maximum section 10	2
External earth terminal	Section 4 – 6	1,2

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS - THERMOPLASTIC

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Limited resistance	Limited resistance	Resistant	Limited resistance	Limited resistance	Resistant	Limited resistance	Resistant

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS - ALUMINIUM

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited resistance	Resistant	Resistant

Resistance values to chemical agents have to be considered indicative. For further information and specific substances, contact the technical service.

POLYAMIDE CABLE GLANDS



VERSIONS

Polyamide

ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-31
IEC EN 60079-15

MARKINGS AND DIRECTIVES



QUALITY MARKS



TECHNICAL CHARACTERISTICS

Protection degree:	IP66/IP68
Material:	Polyamide
Colour:	Black or blue
Installation temperature:	-20°C +80°C (M12) -35°C +95°C (M16-M63)
Self extinguishing degree (GWT):	960°C

Ex CHARACTERISTICS

Product category:	Ex II 2GD
Ex protection type:	Ex eb IIC Gb Ex tb IIIC Db
Certificates:	LCIE 07 ATEX 6082 X LCI 10.0008 X BR 230661-X RU C-FR.ГБ05.В.00955

■ BRASS CABLE GLANDS



■ VERSIONS

	For unarmoured cable
	For armoured cable
	EMC versions

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-31
IEC EN 60079-15

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66 - IP66/IP68
Material:	Nickel-plated brass
Colour:	Grey
Installation temperature:	-40°C +100°C (with EDPM seal) -65°C +220°C (with silicon seal)

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD / IM2
Ex protection type:	Ex db IIC Gb / Ex eb IIC Gb Ex nR IIC Gc Ex db I Mb / Ex eb I Mb Ex tb IIC
Certificates:	INERIS 06 ATEX 0014X INERIS 17 ATEX 3009X (Ex nR IIC Gc) IECEX INE 10.0010X Ru C-IT.A945.B.00909 CCC Ex NEPSI Nr. 2021322313003706 CML 21UKEX1590X CML 21UKEX1591X

■ STAINLESS STEEL CABLE GLANDS



■ VERSIONS

	For unarmoured cable
	For armoured cable
	EMC versions

■ ATEX-IECEX STANDARDS

IEC EN 60079-0
IEC EN 60079-1
IEC EN 60079-7
IEC EN 60079-31
IEC EN 60079-15

■ MARKINGS AND DIRECTIVES



■ QUALITY MARKS

IECEX

■ TECHNICAL CHARACTERISTICS

Protection degree:	IP66 - IP66/IP68
Material:	Stainless steel AISI 316L
Colour:	Grey
Installation temperature:	-40°C +100°C (with EDPM seal) -65°C +220°C (with silicon seal)

■ Ex CHARACTERISTICS

Product category:	Ex II 2GD / IM2
Ex protection type:	Ex db IIC Gb / Ex eb IIC Gb Ex nR IIC Gc Ex db I Mb / Ex eb I Mb Ex tb IIIC
Certificates:	INERIS 06 ATEX 0014X INERIS 17 ATEX 3009X (Ex nR IIC Gc) IECEX INE 10.0010X Ru C-IT.AЯ45.B.00909 CCC Ex NEPSI Nr. 2021322313003706 CML 21UKEX1590X CML 21UKEX1591X



INDEX BY PRODUCT NUMBER

Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.
218.EX1633	55	219.16377	53	319.1645	47	503.3283	40	504.16874	38	570.90164	55	579.EX30-173	41
218.EX1636	55	219.1638	53	319.1646	47	503.3283-F	40	504.16875	38	570.90164	61	579.EX30-175	41
218.EX1637	55	219.3230	53	319.16464	47	503.3286	40	504.16876	38	570.90165	54	579.EX30-176	41
218.EX3233	55	219.3231	53	319.16465	47	503.3286-F	40	504.16877	38	570.90165	55	579.EX40-106	41
218.EX3236	55	219.3232	53	319.16466	47	503.3287	40	504.3270	38	570.90165	61	579.EX40-107	41
218.EX3237	55	219.3233	53	319.16467	47	503.3287-F	40	504.3272	38	570.90324	54	579.EX40-108	41
218.EX6333	55	219.32336	53	319.1647	47	503.6383	40	504.3274	38	570.90324	55	579.EX40-123	41
218.EX6336	55	219.3234	53	319.16474	47	503.6383-F	40	504.3275	38	570.90324	61	579.EX40-131	41
218.EX63365	55	219.3235	53	319.16475	47	503.6386	40	504.3278	38	570.90325	54	579.EX40-132	41
218.EX6337	55	219.3236	53	319.16476	47	503.6386-F	40	504.3279	38	570.90325	55	579.EX40-133	41
219.12531	53	219.32364	53	319.16477	47	503.6387	40	504.3283	38	570.90325	61	579.EX40-154	41
219.12532	53	219.32365	53	319.1648	47	503.6387-F	40	504.32836	38	570.9063	54	579.EX40-162	41
219.12534	53	219.32366	53	319.3240	47	504.12572	38	504.3286	38	570.9063	55	590.PL004001	41
219.12535	53	219.32367	53	319.3241	47	504.12574	38	504.32864	38	570.9063	61	590.PL004001	119
219.12536	53	219.3237	53	319.3242	47	504.12575	38	504.32865	38	570.9125	54	590.PL004002	41
219.125364	53	219.32374	53	319.3243	47	504.12579	38	504.32866	38	570.9125	55	590.PL004002	119
219.125365	53	219.32375	53	319.32436	47	504.12586	38	504.32867	38	570.9125	61	590.PL004003	41
219.125366	53	219.32376	53	319.3244	47	504.125864	38	504.3287	38	579.EX0201	41	590.PL004003	119
219.125367	53	219.32377	53	319.3245	47	504.125865	38	504.32874	38	579.EX10-126	41	590.PL004004	41
219.12537	53	219.3238	53	319.3246	47	504.125866	38	504.32875	38	579.EX10-127	41	590.PL004004	119
219.125374	53	219.6331	53	319.32464	47	504.125867	38	504.32876	38	579.EX10-129	41	590.PL004005	41
219.125375	53	219.6332	53	319.32465	47	504.12587	38	504.32877	38	579.EX20-103	41	590.PL004005	119
219.125376	53	219.6334	53	319.32466	47	504.125874	38	504.6372	38	579.EX20-104	41	590.PL004006	41
219.125377	53	219.6335	53	319.32467	47	504.125875	38	504.6374	38	579.EX20-105	41	590.PL004006	119
219.1630	53	219.6336	53	319.3247	47	504.125876	38	504.6375	38	579.EX20-113	41	590.XEM2002	118
219.1631	53	219.63364	53	319.32474	47	504.125877	38	504.6379	38	579.EX20-125	41	590.XEM2003	118
219.1632	53	219.63365	53	319.32475	47	504.1670	38	504.6386	38	579.EX20-128	41	590.XEM2004	118
219.1633	53	219.63366	53	319.32476	47	504.1672	38	504.63864	38	579.EX20-151	41	590.XEM3202	118
219.16336	53	219.63367	53	319.32477	47	504.1674	38	504.63865	38	579.EX20-155	41	590.XEM3203	118
219.1634	53	219.6337	53	319.3248	47	504.1675	38	504.63866	38	579.EX20-161	41	590.XEM3204	118
219.1635	53	219.63374	53	319.F042	47	504.1678	38	504.63867	38	579.EX30-109	41	590.XEM4002	118
219.1636	53	219.63375	53	319.F052	47	504.1679	38	504.6387	38	579.EX30-115	41	590.XEM4003	118
219.16364	53	219.63376	53	319.F058	47	504.1683	38	504.63874	38	579.EX30-116	41	590.XEM4004	118
219.16365	53	219.63377	53	503.1670	40	504.16836	38	504.63875	38	579.EX30-122	41	590.XGE2002	118
219.16366	53	319.1640	47	503.1683	40	504.1686	38	504.63876	38	579.EX30-130	41	590.XGE2003	118
219.16367	53	319.1641	47	503.1683-F	40	504.16864	38	504.63877	38	579.EX30-132	41	590.XGE2004	118
219.1637	53	319.1642	47	503.1686	40	504.16865	38	570.90163	54	579.EX30-152	41	590.XGE3202	118
219.16374	53	319.1643	47	503.1686-F	40	504.16866	38	570.90163	55	579.EX30-153	41	590.XGE3203	118
219.16375	53	319.16436	47	503.1687	40	504.16867	38	570.90163	61	579.EX30-156	41	590.XGE3204	118
219.16376	53	319.1644	47	503.1687-F	40	504.1687	38	570.90164	54	579.EX30-163	41	590.XGE4002	118

INDEX BY PRODUCT NUMBER

Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.
590.XGE4003	118	591.AGE6302	116	592.R001-02	113	593.111-1PLB0	94	644.0345-ES	104	644.0585-3287.10	34	644.A0840L	68
590.XGE4004	118	591.AGE6304	116	592.R001-02-A	113	593.111-1PLGC	94	644.0345-ESL	104	644.0595	67	644.B00	68
590.XHEM2002	119	591.PEM2002	115	592.R001-02-B	113	593.111-1PLG0	94	644.0345-J01	84	644.0840	67	644.B10	68
590.XHEM2003	119	591.PEM2004	115	592.R001-03	113	593.111-1PLRC	94	644.0345-J02	84	644.A0100	67	644.B20	68
590.XHEM2004	119	591.PEM2502	115	592.R001-03-A	113	593.111-1PLR0	94	644.0345-J03	84	644.A0100L	68	644.B30	68
590.XHEM3202	119	591.PEM2504	115	592.R001-03-B	113	593.111-1PLWC	94	644.0345-J04	84	644.A0110	67	644.B40	68
590.XHEM3203	119	591.PEM3202	115	592.R001-03-P	113	593.111-1PLW0	94	644.0345-LDB	104	644.A0110L	68	644.B45	68
590.XHEM3204	119	591.PEM3204	115	592.R002-01	113	593.111-1PLYC	94	644.0345-LDG	104	644.A0120	67	644.B50	68
590.XHEM4002	119	591.PEM4002	115	592.R002-01-A	113	593.111-1PLY0	94	644.0345-LDR	104	644.A0120L	68	644.B60	68
590.XHEM4003	119	591.PEM4004	115	592.R002-01-B	113	593.111-1SE2	95	644.0345-LDW	104	644.A0130	67	644.B65	68
590.XHEM4004	119	591.PEM6302	115	592.R002-02	113	593.111-1SE2L	96	644.0345-LDY	104	644.A0130L	68	644.B70	68
590.XHEM6302	119	591.PEM6304	115	592.R002-02-A	113	593.111-1SE3	95	644.0345-OF	105	644.A0140	67	644.B80	68
590.XHEM6303	119	591.PGE2002	115	592.R002-02-B	113	593.111-1SE3L	96	644.0345-PBG	104	644.A0140L	68	644.B85	68
590.XHEM6304	119	591.PGE2004	115	592.R002-03	113	593.111-1SE4	95	644.0345-PBK	104	644.A0200	67	644.B90	68
590.XHGE2002	119	591.PGE2502	115	592.R002-03-A	113	593.111-1SE4L	97	644.0345-PBR	104	644.A0200L	68	644.B95	68
590.XHGE2003	119	591.PGE2504	115	592.R002-03-B	113	593.111-1SE5	96	644.0345-PBW	104	644.A0210	67	644.B98	68
590.XHGE2004	119	591.PGE3202	115	592.R002-03-P	113	593.111-1SE5L	97	644.0345-PBY	104	644.A0210L	68	644.C075	35
590.XHGE3202	119	591.PGE3204	115	592.R003-01	113	593.111-1SS	95	644.0345-SE1	105	644.A0220	67	644.C075	69
590.XHGE3203	119	591.PGE4002	115	592.R003-01-A	113	593.321-50FE	98	644.0345-SE1L	105	644.A0220L	68	644.C075	85
590.XHGE3204	119	591.PGE4004	115	592.R003-01-B	113	593.321-50FER	98	644.0345-SE2	105	644.A0230	67	644.C120	69
590.XHGE4002	119	591.PGE6302	115	592.R003-02	113	593.321-5SE	99	644.0345-SE3	105	644.A0230L	68	644.C120	85
590.XHGE4003	119	591.PGE6304	115	592.R003-02-A	113	593.321-5SER	99	644.0350	67	644.A0240	67	644.C120	107
590.XHGE4004	119	591.SEM2004	117	592.R003-02-B	113	593.321-5SS	99	644.0350-OFE	106	644.A0240L	68	644.C160	69
590.XHGE6302	119	591.SEM2502	117	592.R003-02-P	113	593.321-5SSE	98	644.0350-SE	106	644.A0345	67	644.C160	85
590.XHGE6303	119	591.SEM2504	117	593.111-1EK	92	593.321-5SSER	98	644.0350-SGS	106	644.A0345L	68	644.D075	35
590.XHGE6304	119	591.SEM3202	117	593.111-1EK1	93	593.321-5SSL	99	644.0350-SS	106	644.A0350	67	644.D075	69
591.AEM2002	116	591.SEM3204	117	593.111-1ER	92	593.321-5UD	100	644.0360	67	644.A0350L	68	644.D075	85
591.AEM2004	116	591.SEM4002	117	593.111-1ER1	92	593.321-5UDLR	100	644.0370	67	644.A0360	67	644.D120	69
591.AEM2502	116	591.SEM4004	117	593.111-1ES	92	593.331-5SSD	101	644.0380	67	644.A0360L	68	644.D120	85
591.AEM2504	116	591.SEM6302	117	593.111-1ES1	92	593.331-5SSE	101	644.0390	67	644.A0370	67	644.D120	107
591.AEM3202	116	591.SEM6304	117	593.111-1ESL	93	593.331-5SSER	101	644.0465	67	644.A0370L	68	644.D160	69
591.AEM3204	116	591.SGE2002	117	593.111-1ESL1	93	644.0110	67	644.0485	67	644.A0380	67	644.D160	85
591.AEM4002	116	591.SGE2004	117	593.111-1LDB	94	644.0120	67	644.0585	67	644.A0380L	68	644.D250	69
591.AEM4004	116	591.SGE2502	117	593.111-1LDG	94	644.0130	67	644.0585-1683.06	34	644.A0390	67	644.D250	85
591.AEM6302	116	591.SGE2504	117	593.111-1LDR	94	644.0140	67	644.0585-1683.10	34	644.A0390L	68	644.D405	69
591.AEM6304	116	591.SGE3202	117	593.111-1LDW	94	644.0200	67	644.0585-1686.06	34	644.A0465	67	644.D405	85
591.AGE2002	116	591.SGE3204	117	593.111-1LDY	94	644.0210	67	644.0585-1686.10	34	644.A0465L	68	644.E1075	69
591.AGE2004	116	591.SGE4002	117	593.111-10F	94	644.0210-J10	84	644.0585-1687.06	34	644.A0485	67	644.E1075	75
591.AGE2502	116	591.SGE4004	117	593.111-1PBG	93	644.0220	67	644.0585-1687.10	34	644.A0485L	68	644.E1076	69
591.AGE2504	116	591.SGE6302	117	593.111-1PBK	93	644.0220-J14	84	644.0585-3283.06	34	644.A0585	67	644.E1076	75
591.AGE3202	116	591.SGE6304	117	593.111-1PBR	93	644.0230	67	644.0585-3283.10	34	644.A0585L	68	644.E650	69
591.AGE3204	116	592.R001-01	113	593.111-1PBW	93	644.0240	67	644.0585-3286.06	34	644.A0595	67	644.E650	75
591.AGE4002	116	592.R001-01-A	113	593.111-1PBY	93	644.0240-J20	84	644.0585-3286.10	34	644.A0595L	68	644.E651	69
591.AGE4004	116	592.R001-01-B	113	593.111-1PLBC	94	644.0345	67	644.0585-3287.06	34	644.A0840	67	644.E651	75

Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.
644.G001	69	645.B4S14	71	645.C4P03	74	645.C6P07	74	645.C8P16	75	805.EX5016.K	126	805.EX5421.BR	124
644.G001	85	645.B6F	72	645.C4P05	74	645.C6P09	74	645.C8P19	75	805.EX5020	126	805.EX5421.K	124
644.G002	69	645.B6P03	72	645.C4P06	74	645.C6P11	74	645.C8P22	75	805.EX5020.K	126	805.EX5421.KR	124
644.G002	85	645.B6P04	72	645.C4P07	74	645.C6P13	74	645.C8P23	75	805.EX5025	126	805.EX5425.B	124
644.G003	69	645.B6P05	72	645.C4P09	74	645.C6P16	74	645.C8P24	75	805.EX5025.K	126	805.EX5425.BR	124
644.G003	85	645.B6P06	72	645.C4P11	74	645.C6P19	74	653.011	76	805.EX5032	126	805.EX5425.K	124
644.G003	107	645.B6P07	72	645.C4P13	74	645.C6P22	74	653.012	76	805.EX5032.K	126	805.EX5425.KR	124
644.G004	69	645.B6P08	72	645.C4P16	74	645.C6P23	74	653.013	76	805.EX5040	126	805.EX5426.B	124
644.G004	85	645.B6P09	72	645.C4P19	74	645.C6P24	74	653.014	76	805.EX5040.K	126	805.EX5426.BR	124
644.G005	69	645.B6P10	72	645.C4P22	74	645.C6S000	73	653.015	76	805.EX5050	126	805.EX5426.K	124
644.G005	85	645.B6P11	72	645.C4P23	74	645.C6S010	73	653.017	76	805.EX5050.K	126	805.EX5426.KR	124
644.G006	69	645.B6P12	72	645.C4P24	74	645.C6S020	73	653.020	77	805.EX5063	126	805.EX5432.B	124
644.G006	85	645.B6P13	72	645.C4S000	73	645.C6S030	73	653.021	77	805.EX5063.K	126	805.EX5432.BR	124
644.G007	69	645.B6P14	72	645.C4S010	73	645.C6S040	73	653.022	77	805.EX5112	126	805.EX5432.K	124
645.001	75	645.B6S01	71	645.C4S020	73	645.C6S050	73	653.023	77	805.EX5112.K	126	805.EX5432.KR	124
645.002	75	645.B6S02	71	645.C4S030	73	645.C6S060	73	653.024	77	805.EX5116	126	805.EX5440.B	124
645.003	75	645.B6S03	71	645.C4S040	73	645.C6S070	73	653.025	77	805.EX5116.K	126	805.EX5440.BR	124
645.004	75	645.B6S04	71	645.C4S050	73	645.C6S080	73	653.027	77	805.EX5120	126	805.EX5440.K	124
645.B4F	72	645.B6S05	71	645.C4S060	73	645.C6S090	73	653.9000	76	805.EX5120.K	126	805.EX5440.KR	124
645.B4P03	72	645.B6S06	71	645.C4S070	73	645.C6S100	73	653.9001	76	805.EX5125	126	805.EX5450.B	124
645.B4P04	72	645.B6S07	71	645.C4S080	73	645.C6S110	73	653.9002	76	805.EX5125.K	126	805.EX5450.BR	124
645.B4P05	72	645.B6S08	71	645.C4S090	73	645.C6S120	73	653.9003	76	805.EX5132	126	805.EX5450.K	124
645.B4P06	72	645.B6S09	71	645.C4S100	73	645.C6S130	73	653.9004	76	805.EX5132.K	126	805.EX5450.KR	124
645.B4P07	72	645.B6S10	71	645.C4S110	73	645.C6S140	73	653.9005	76	805.EX5140	126	805.EX5463.B	124
645.B4P08	72	645.B6S11	71	645.C4S120	73	645.C6S150	73	653.9007	76	805.EX5140.K	126	805.EX5463.BR	124
645.B4P09	72	645.B6S12	71	645.C4S130	73	645.C6S160	73	759.1633-05	60	805.EX5150	126	805.EX5463.K	124
645.B4P10	72	645.B6S13	71	645.C4S140	73	645.C6S170	73	759.1633-10	60	805.EX5150.K	126	805.EX5463.KR	124
645.B4P11	72	645.B6S14	71	645.C4S150	73	645.C6S180	73	759.1633-25	60	805.EX5412.B	124	805.EX5512.B	125
645.B4P12	72	645.B8P03	72	645.C4S160	73	645.C6S190	73	759.1636-05	60	805.EX5412.BR	124	805.EX5512.BR	125
645.B4P13	72	645.B8P04	72	645.C4S170	73	645.C6S200	73	759.1636-10	60	805.EX5412.K	124	805.EX5512.K	125
645.B4P14	72	645.B8P05	72	645.C4S180	73	645.C6S210	73	759.1636-25	60	805.EX5412.KR	124	805.EX5512.KR	125
645.B4S01	71	645.B8P06	72	645.C4S190	73	645.C6S220	73	759.1637-05	60	805.EX5416.B	124	805.EX5516.B	125
645.B4S02	71	645.B8P07	72	645.C4S200	73	645.C6S230	73	759.1637-10	60	805.EX5416.BR	124	805.EX5516.BR	125
645.B4S03	71	645.B8P08	72	645.C4S210	73	645.C6S240	73	759.1637-25	60	805.EX5416.K	124	805.EX5516.K	125
645.B4S04	71	645.B8P09	72	645.C4S220	73	645.C8P00	75	759.3233-05	60	805.EX5416.KR	124	805.EX5516.KR	125
645.B4S05	71	645.B8P10	72	645.C4S230	73	645.C8P01	75	759.3233-10	60	805.EX5417.B	124	805.EX5517.B	125
645.B4S06	71	645.B8P11	72	645.C4S240	73	645.C8P02	75	759.3233-25	60	805.EX5417.BR	124	805.EX5517.BR	125
645.B4S07	71	645.B8P12	72	645.C6FL	75	645.C8P03	75	759.3236-05	60	805.EX5417.K	124	805.EX5517.K	125
645.B4S08	71	645.B8P13	72	645.C6P00	74	645.C8P05	75	759.3236-10	60	805.EX5417.KR	124	805.EX5517.KR	125
645.B4S09	71	645.B8P14	72	645.C6P01	74	645.C8P06	75	759.3236-25	60	805.EX5420.B	124	805.EX5520.B	125
645.B4S10	71	645.C4FL	75	645.C6P02	74	645.C8P07	75	759.3237-05	60	805.EX5420.BR	124	805.EX5520.BR	125
645.B4S11	71	645.C4P00	74	645.C6P03	74	645.C8P09	75	759.3237-10	60	805.EX5420.K	124	805.EX5520.K	125
645.B4S12	71	645.C4P01	74	645.C6P05	74	645.C8P11	75	759.3237-25	60	805.EX5420.KR	124	805.EX5520.KR	125
645.B4S13	71	645.C4P02	74	645.C6P06	74	645.C8P13	75	805.EX5016	126	805.EX5421.B	124	805.EX5521.B	125

INDEX BY PRODUCT NUMBER

Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.	Catalogue Number	Pg.
805.EX5521.BR	125	805.EX5812.K	127	805.RAD2025.ES	137	805.RAD7575.ES	137	805.RAS5050.SN	132	805.RG16.Y	141	805.RL40.S	140
805.EX5521.K	125	805.EX5816	127	805.RAD2025.SN	131	805.RAD7575.SN	131	805.RAS6350.EN	132	805.RG20.S	134	805.RL50.N	133
805.EX5521.KR	125	805.EX5816.K	127	805.RAD2025.SS	138	805.RAD7575.SS	138	805.RAS6350.SN	132	805.RG20.S	141	805.RL50.S	140
805.EX5525.B	125	805.EX5820	127	805.RAD2520.EN	130	805.RAD9075.EN	130	805.RAS6363.EN	132	805.RG20.Y	134	805.RL63.N	133
805.EX5525.BR	125	805.EX5820.K	127	805.RAD2520.ES	137	805.RAD9075.ES	137	805.RAS6363.SN	132	805.RG20.Y	141	805.RL63.S	140
805.EX5525.K	125	805.EX5825	127	805.RAD2520.SN	131	805.RAD9075.SN	131	805.RAS7563.EN	132	805.RG25.S	134	805.RL75.N	133
805.EX5525.KR	125	805.EX5825.K	127	805.RAD2520.SS	138	805.RAD9075.SS	138	805.RAS7563.SN	132	805.RG25.S	141	805.RL75.S	140
805.EX5526.B	125	805.EX5832	127	805.RAD2525.EN	130	805.RAD9090.EN	130	805.RAS7575.EN	132	805.RG25.Y	134	805.RL90.N	133
805.EX5526.BR	125	805.EX5832.K	127	805.RAD2525.ES	137	805.RAD9090.ES	137	805.RAS7575.SN	132	805.RG25.Y	141	805.RL90.S	140
805.EX5526.K	125	805.EX5840	127	805.RAD2525.SN	131	805.RAD9090.SN	131	805.RAS9075.EN	132	805.RG32.S	134	805.RN1612.EN	128
805.EX5526.KR	125	805.EX5840.K	127	805.RAD2525.SS	138	805.RAD9090.SS	138	805.RAS9075.SN	132	805.RG32.S	141	805.RN1612.ES	135
805.EX5532.B	125	805.EX5850	127	805.RAD3225.EN	130	805.RAD9175.EN	130	805.RAS9090.EN	132	805.RG32.Y	134	805.RN1612.SN	129
805.EX5532.BR	125	805.EX5850.K	127	805.RAD3225.ES	137	805.RAD9175.ES	137	805.RAS9090.SN	132	805.RG32.Y	141	805.RN1612.SS	136
805.EX5532.K	125	805.EX5863	127	805.RAD3225.SN	131	805.RAD9175.SN	131	805.RAS9175.EN	132	805.RG40.S	134	805.RN1616.EN	128
805.EX5532.KR	125	805.EX5863.K	127	805.RAD3225.SS	138	805.RAD9175.SS	138	805.RAS9175.SN	132	805.RG40.S	141	805.RN1616.ES	135
805.EX5540.B	125	805.EX5912	127	805.RAD3232.EN	130	805.RAD9190.EN	130	805.RAS9190.EN	132	805.RG40.Y	134	805.RN1616.SN	129
805.EX5540.BR	125	805.EX5916	127	805.RAD3232.ES	137	805.RAD9190.ES	137	805.RAS9190.SN	132	805.RG40.Y	141	805.RN1616.SS	136
805.EX5540.K	125	805.EX5920	127	805.RAD3232.SN	131	805.RAD9190.SN	131	805.RE12.N	133	805.RG50.S	134	805.RN1620.EN	128
805.EX5540.KR	125	805.EX5925	127	805.RAD3232.SS	138	805.RAD9190.SS	138	805.RE12.S	140	805.RG50.S	141	805.RN1620.ES	135
805.EX5550.B	125	805.EX5932	127	805.RAD4040.EN	130	805.RAS1612.EN	132	805.RE16.N	133	805.RG50.Y	134	805.RN1620.SN	129
805.EX5550.BR	125	805.EX5940	127	805.RAD4040.ES	137	805.RAS1612.SN	132	805.RE16.S	140	805.RG50.Y	141	805.RN1620.SS	136
805.EX5550.K	125	805.EX5950	127	805.RAD4040.SN	131	805.RAS1616.EN	132	805.RE20.N	133	805.RG63.S	134	805.RN2016.EN	128
805.EX5550.KR	125	805.EX5963	127	805.RAD4040.SS	138	805.RAS1616.SN	132	805.RE20.S	140	805.RG63.S	141	805.RN2016.ES	135
805.EX5563.B	125	805.RAD1612.EN	130	805.RAD5040.EN	130	805.RAS1620.EN	132	805.RE25.N	133	805.RG63.Y	134	805.RN2016.SN	129
805.EX5563.BR	125	805.RAD1612.ES	137	805.RAD5040.ES	137	805.RAS1620.SN	132	805.RE25.S	140	805.RG63.Y	141	805.RN2016.SS	136
805.EX5563.K	125	805.RAD1612.SN	131	805.RAD5040.SN	131	805.RAS2016.EN	132	805.RE32.N	133	805.RG75.S	134	805.RN2020.EN	128
805.EX5563.KR	125	805.RAD1612.SS	138	805.RAD5040.SS	138	805.RAS2016.SN	132	805.RE32.S	140	805.RG75.S	141	805.RN2020.ES	135
805.EX5712	126	805.RAD1616.EN	130	805.RAD5050.EN	130	805.RAS2020.EN	132	805.RE40.N	133	805.RG75.Y	134	805.RN2020.SN	129
805.EX5712.K	126	805.RAD1616.ES	137	805.RAD5050.ES	137	805.RAS2020.SN	132	805.RE40.S	140	805.RG75.Y	141	805.RN2020.SS	136
805.EX5716	126	805.RAD1616.SN	131	805.RAD5050.SN	131	805.RAS2025.EN	132	805.RE50.N	133	805.RG90.S	134	805.RN2025.EN	128
805.EX5716.K	126	805.RAD1616.SS	138	805.RAD5050.SS	138	805.RAS2025.SN	132	805.RE50.S	140	805.RG90.S	141	805.RN2025.ES	135
805.EX5720	126	805.RAD1620.EN	130	805.RAD6350.EN	130	805.RAS2520.EN	132	805.RE63.N	133	805.RG90.Y	134	805.RN2025.SN	129
805.EX5720.K	126	805.RAD1620.ES	137	805.RAD6350.ES	137	805.RAS2520.SN	132	805.RE63.S	140	805.RG90.Y	141	805.RN2025.SS	136
805.EX5725	126	805.RAD1620.SN	131	805.RAD6350.SN	131	805.RAS2525.EN	132	805.RE75.N	133	805.RL12.N	133	805.RN2520.EN	128
805.EX5725.K	126	805.RAD1620.SS	138	805.RAD6350.SS	138	805.RAS2525.SN	132	805.RE75.S	140	805.RL12.S	140	805.RN2520.ES	135
805.EX5732	126	805.RAD2016.EN	130	805.RAD6363.EN	130	805.RAS3225.EN	132	805.RE90.N	133	805.RL16.N	133	805.RN2520.SN	129
805.EX5732.K	126	805.RAD2016.ES	137	805.RAD6363.ES	137	805.RAS3225.SN	132	805.RE90.S	140	805.RL16.S	140	805.RN2520.SS	136
805.EX5740	126	805.RAD2016.SN	131	805.RAD6363.SN	131	805.RAS3232.EN	132	805.RG12.S	134	805.RL20.N	133	805.RN2525.EN	128
805.EX5740.K	126	805.RAD2016.SS	138	805.RAD6363.SS	138	805.RAS3232.SN	132	805.RG12.S	141	805.RL20.S	140	805.RN2525.ES	135
805.EX5750	126	805.RAD2020.EN	130	805.RAD7563.EN	130	805.RAS4040.EN	132	805.RG12.Y	134	805.RL25.N	133	805.RN2525.SN	129
805.EX5750.K	126	805.RAD2020.ES	137	805.RAD7563.ES	137	805.RAS4040.SN	132	805.RG12.Y	141	805.RL25.S	140	805.RN2525.SS	136
805.EX5763	126	805.RAD2020.SN	131	805.RAD7563.SN	131	805.RAS5040.EN	132	805.RG16.S	134	805.RL32.N	133	805.RN3225.EN	128
805.EX5763.K	126	805.RAD2020.SS	138	805.RAD7563.SS	138	805.RAS5040.SN	132	805.RG16.S	141	805.RL32.S	140	805.RN3225.ES	135
805.EX5812	127	805.RAD2025.EN	130	805.RAD7575.EN	130	805.RAS5050.EN	132	805.RG16.Y	134	805.RL40.N	133	805.RN3225.SN	129

Catalogue Number	Pg.	Catalogue Number	Pg.
805.RN3225.SS	136	805.RN9175.SS	136
805.RN3232.EN	128	805.RN9190.EN	128
805.RN3232.ES	135	805.RN9190.ES	135
805.RN3232.SN	129	805.RN9190.SN	129
805.RN3232.SS	136	805.RN9190.SS	136
805.RN4040.EN	128	805.RS16	134
805.RN4040.ES	135	805.RS16	141
805.RN4040.SN	129	805.RS20	134
805.RN4040.SS	136	805.RS20	141
805.RN5040.EN	128	805.RS25	134
805.RN5040.ES	135	805.RS25	141
805.RN5040.SN	129	805.RS32	134
805.RN5040.SS	136	805.RS32	141
805.RN5050.EN	128	805.RS40	134
805.RN5050.ES	135	805.RS40	141
805.RN5050.SN	129	805.RS50	134
805.RN5050.SS	136	805.RS50	141
805.RN6350.EN	128	805.RS63	134
805.RN6350.ES	135	805.RS63	141
805.RN6350.SN	129	805.RS75.EP	134
805.RN6350.SS	136	805.RS75.EP	141
805.RN6363.EN	128	805.RS90.EP	134
805.RN6363.ES	135	805.RS90.EP	141
805.RN6363.SN	129	805.RT12.N	133
805.RN6363.SS	136	805.RT12.S	140
805.RN7563.EN	128	805.RT16.N	133
805.RN7563.ES	135	805.RT16.S	140
805.RN7563.SN	129	805.RT20.N	133
805.RN7563.SS	136	805.RT20.S	140
805.RN7575.EN	128	805.RT25.N	133
805.RN7575.ES	135	805.RT25.S	140
805.RN7575.SN	129	805.RT32.N	133
805.RN7575.SS	136	805.RT32.S	140
805.RN9075.EN	128	805.RT40.N	133
805.RN9075.ES	135	805.RT40.S	140
805.RN9075.SN	129	805.RT50.N	133
805.RN9075.SS	136	805.RT50.S	140
805.RN9090.EN	128	805.RT63.N	133
805.RN9090.ES	135	805.RT63.S	140
805.RN9090.SN	129	805.RT75.N	133
805.RN9090.SS	136	805.RT75.S	140
805.RN9175.EN	128	805.RT90.N	133
805.RN9175.ES	135	805.RT90.S	140
805.RN9175.SN	129		

[illegible]

[illegible]

[illegible]

[illegible]

SCAME: A COMPLETE OFFER

General catalogue is not limited to this volume, but also includes:



INDUSTRY-INSTALLATION-DOMESTIC CATALOGUE

SCAME offers a very complete range of highly performing systems and components for the distribution of energy in the tertiary, building construction and industrial sectors, even heavy-duty ones. It is accompanied by a rich range of accessories for the creation of a state-of-the-art electrical system. The whole is completed by products for domestics, among which the watertight modular series for fixed installation should be highlighted.



E-MOBILITY CATALOGUE

SCAME was the first manufacturer to present, in 1999, a specific connector for charging electric vehicles. Since then, the offer for the E-Mobility sector has developed to include today a complete range of charging stations for private and public sectors, cord sets and components, all based on highly innovative solutions in terms of usability and safety.



WIRING DEVICES CATALOGUE

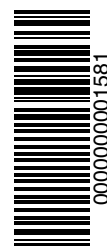
SCAME offers a complete range of wiring device British or Italian standard, characterized by a wide choice in terms of design, materials and finishes. The offer also includes solutions for home automation and weatherproof series for outdoor installation.

SCAME PARRE S.p.A member of:



SCAME PARRE S.p.A. reserves the right to modify products illustrated in this catalogue without prior notice as part of its policy of constant product improvement and development.

ZP01310-EN-1



SCAME PARRE S.p.A.
Via Costa Erta, 15 - 24020 Parre (BG) Italy
Tel. +39 035 705000



www.scame.com
export@scame.com

