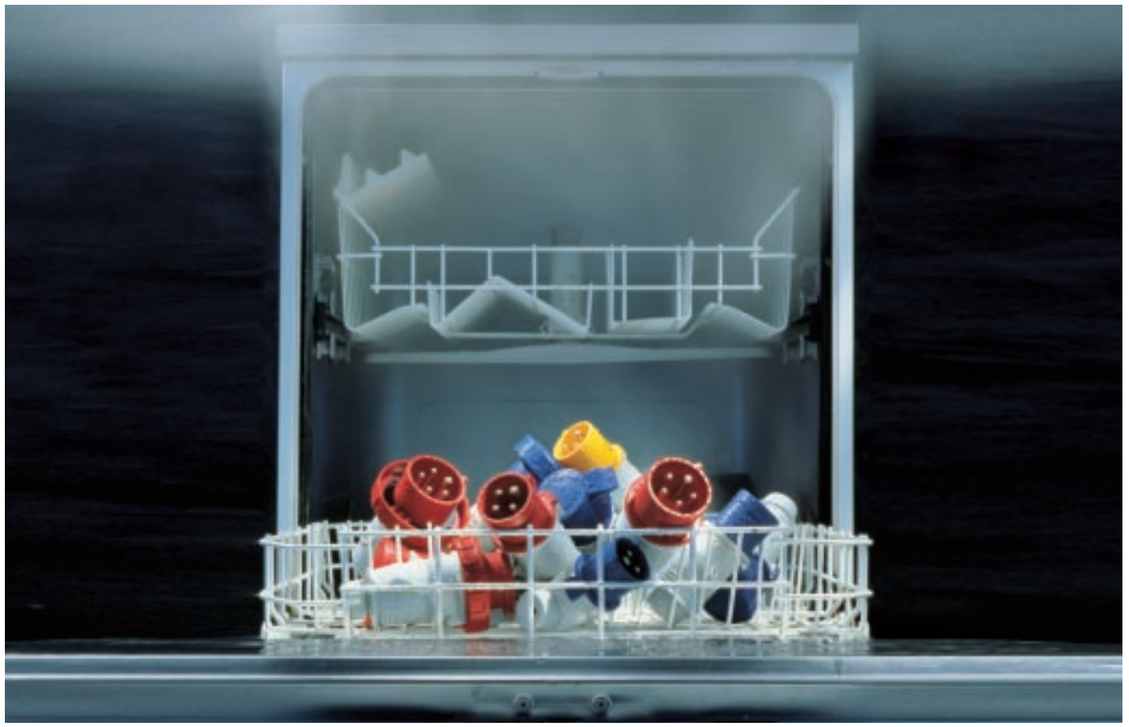
The quality control system

Conformity to ISO 9000 standards in all phases of production.

SCAME

PLUGS AND SOCKETS FOR INDUSTRIAL APPLICATIONS



LIBERA Series
EUREKA Series
EUREKA-HD Series
IEC309 Series
Accessories for plugs and sockets

INDUSTRIAL PLUGS AND SOCKETS

GENERAL DESCRIPTION

For years SCAME has been offering a wide range of high-quality industrial plugs and sockets complying with EN 60309-1 and EN 60309-2 European standards, gaining a leading position in the domestic and foreign markets.
SCAME's industrial plugs and sockets are reliable, robust, easy to wire and provide outstanding resistance to weathering and to chemicals. All of which assures safe operation, even in the most adverse environmental conditions.

The plugs and sockets for industrial applications comply with European standards EN 60309-1 (Part 1: General requirements) and EN 60309-2 (Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations), which are equivalent to international standards IEC 60309-1 and IEC 60309-2.
These standards govern appliances with rated operating voltage not exceeding 690 V, 500 Hz and rated current not exceeding 125 A, and are mainly designed for application in the manufacturing and service industry, on building sites and similar uses.

The main purpose of the standards is to prevent accidental or deliberate mismating of plugs and connections which are not compatible in terms of voltage, current, frequency, polarity and type of use, which might therefore cause personal harm as well as damage to the electric appliances which they connect.

REFERENCE STANDARDS

European standard EN 60309-1
International standard IEC 60309-1
Plugs, socket-outlets and couplers for industrial purposes
Part 1: General requirements

European standard EN 60309-2
International standard IEC 60309-2
Plugs, socket-outlets and couplers for industrial purposes
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

AVAILABLE TYPES

This range is provided with many types of movable and fixed sockets and plugs. They consists of four complementary series:

LIBERA Series (page 172)
it includes connectors for 16A and 32A electric carriers in compliance with the updated regulations promoted by CIVES.

EUREKA Series (page 178)
it includes 16A and 32A sockets IP44 & IP67 and is characterised by some technical and innovative solutions that make cabling times shorter.

EUREKA-HD Series (page 196)
it includes Heavy Duty, 16A to 125A plugs and sockets IP44 and IP66 and IP67 for the American and EU markets.

IEC309 Series (page 212)
it includes 16A to 125A plugs and sockets IP44 and IP67 and so many versions suitable for matching any installation requirement.

DEFINITIONS

Plug and socket outlet
a device for the frequent coupling between a flexible cable and an electric circuit; it consists of a socket-outlet and a plug.

Socket-outlet
the part designed to be connected to the electric circuit.

Plug
the part fixed or designed to be fixed to the end of a flexible cable, which is attached to an appliance or to a connector.

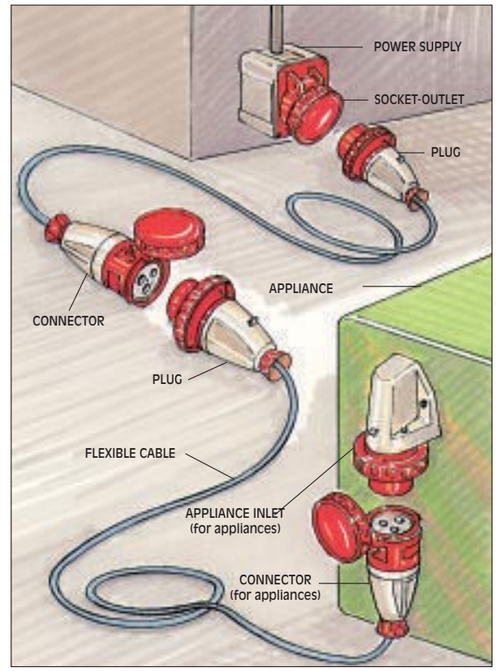
Cable coupler
a device for the frequent coupling between two flexible cables; it consists of a connector and a plug.

Connector
the part fixed or designed to be fixed to the end of a flexible supply cable.

Appliance coupler
A device for the frequent coupling between a flexible cable and the appliance, it consists of a connector and an appliance inlet.

Appliance inlet
the part built into or fastened to the appliance, or designed to be fastened to it.

Flexible cable extension
a flexible cable with a connector at one end and a plug at the other.



Contact pin: *a component which establishes electric contact in plugs; it is manufactured from a solid brass bar and is nickel-plated to ensure it withstands corrosion and abrasion.*

Contact tube: *a component which establishes electrical contact in sockets; a special elastic spring ensures perfect contact even after repeated plugging-in.*

PRACTICAL ADVICE

Installation must comply with regulations in force governing electric circuits:

- *The cable ends to be fitted into the terminals of the plugs and sockets must be carefully prepared to ensure that the requisite clearance is observed.*
- *Tighten the screws of the terminals to avoid overheating. Loose screws might cause fire hazards or damage to the cables.*
- *Inspection and replacement of plugs and sockets should be carried out only by suitably qualified personnel.*
- *Replace any plugs or sockets that show signs of damage (eg. burn marks). Plugs and sockets should be checked regularly, especially at the cable connection points.*
- *Plugs or sockets which have suffered impact or shock of any kind should be checked carefully, even if there are no visible signs of damage.*

MAIN STANDARD REQUIREMENTS

The standards which govern the use of industrial plugs and sockets both for alternating current (frequency up to 500 Hz) and for direct current, distinguish the two categories by operating voltage:
- **Extra-Low Voltage** plugs and sockets with operating voltage up to 50 V
- **Low Voltage** plugs and sockets with operating voltage above 50 V and up to 690 V

Executions with 2-3-4-5 contacts and rated current carrying capacities of 16-32-63-125 A are considered.
Each application requires a specific execution which differs from all others and built-in obstacles so as to make it impossible to insert a plug into any other socket than its matching one in terms of current carrying capacity, voltage, frequency, number of contacts and type of application.

Low voltage >50V

In low voltage > 50 V versions, the obstacle is provided by two elements:
- a keyway (on the socket) with a matching key (on the plug)
- a larger earth contact than the other contacts, situated in different clock-face positions depending on the characteristics of use.

When the socket is viewed from the front, the clock-face position (h) of the earth contact is found by taking as a reference the keyway, which is always situated at 6 o'clock.

Extra-Low voltage <50V

In extra-low voltage < 50 V versions without earth contact, the obstacle is provided by two references:
- the major consists of a keyway on the plug, matching a key on the socket, which is always situated at 6 o'clock;
- the minor also consists of a keyway (plug) and key (socket), but situated in different positions around the clock-face depending on the characteristics of use.

Viewing the socket from the front, the clock-face position (h) of the minor keyway is found by taking as a reference the major keyway, which is always situated at 6 o'clock.

The 63 A and 125 A sockets must be fitted with a pilot contact to activate an electrical interlock if required.

COLOUR CODE

The operating voltages are identified by conventional colours as shown in the table:

Rated operating voltage V	Colour [1]
from 20 to 25	Violet
from 40 to 50	White
from 100 to 130	Yellow
from 200 to 250	Blue
from 380 to 480	Red
from 500 to 690	Black

1) Combinations of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz inclusive.

Yellow: *rated operating voltage between 100 and 130 V~.*

Blue: *rated operating voltage between 200 and 250 V~.*

Slot: *facilitates opening of the lid and prevents the basket from moving when closing.*

STANDARD IEC 60309

REFERENCE STANDARDS

European standard EN 60309-1
International standard IEC 309-1
Plugs, socket-outlets and couplers for industrial purposes
Part 1: General requirements

European standard EN 60309-2
International standard IEC 309-2
Plugs, socket-outlets and couplers for industrial purposes
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

The standards EN 60309-1 and EN 60309-2 (equivalent to IEC 309-1 and IEC 309-2) have been adopted by all the European members of CENELEC (Comité Européen de la Normalisation ELECtrotechnique): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Norway, The Netherlands, Portugal, United Kingdom, Spain, Sweden and Switzerland.Many other countries, although not CENELEC members, have adopted the standards, acknowledging the need to standardise both out of safety considerations and with the object of improving performance and sales.Plugs and sockets manufactured according to these standards are in use today across Europe, in the Middle East, Africa, the Pacific Rim, the Far East, North and South America.A further extension of the international standardisation of plugs and sockets for industrial applications will doubtless lead to simplification in the exchange of goods and services. For instance, manufacturing machines will be fitted with plugs that can match the sockets installed in any country, refrigerated containers will always find ports equipped for connection of compressors. Campers, caravans, leisure boats, electric cars will have no problems plugging into power supply posts when travelling abroad.

PROTECTION DEGREE

The standards set a rating for appliances which is based on their degree of protection against the ingress of solid and liquid matter:
- **IP44** - Plugs and sockets protected against splashing of water; the sockets are provided with a spring lid.
- **IP67** - Plugs and sockets protected against the effects of immersion, fitted with a locking ring with bayonet coupling.

The protection degree is tested:
- on sockets, with lid closed or plug fully inserted;
- on plugs, when fully inserted into the socket.

All series of SCAME plugs and sockets for industrial applications have been designed and constructed to standards IEC 309-1 and IEC 309-2 (EN 60309-1 and EN 60309-2).

SYNOPTIC TABLES

The synoptic tables (on the following pages) of standard plugs and sockets for industrial applications complying with the international standard IEC 309-2 refer both to > 50 V and < 50 V rated operating voltages.
With regard to these plugs and sockets, the tables show the clock face position (h) of the earth contact or of the minor reference point with respect to the major reference point, as well as the colour code when the number of poles, frequency, operating voltage, rated current (AC or DC) and type of application (eg. on ship) are known.

The clock diagram summarises the synoptic tables for quick reference.

Plug and socket with spring lid: *protection degree IP44*

Plug and socket with locking ring and bayonet coupling: *protection degree IP67*

INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309 RATED OPERATING VOLTAGE >50 V

Clock face position
Viewing the socket from the front, the clock face position h is established by observing the position of the earth contact with respect to the major keyway, which is always situated at 6 o'clock.
The different voltages are identified by conventional colour codes.

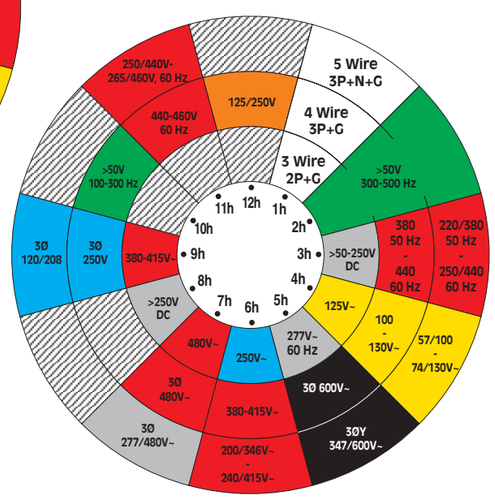
Clock reference:
All the versions required by the IEC 60309 standard are available, including the more specific:

Examples:

- standard use		**6** o'clock
- refrigerated container		**3** o'clock
- marine, port or ship installation		**11** o'clock
- continuous current (2P + E)		**3 and 8** o'clock
- supply by isolation transformer (TST)		**12** o'clock
- high frequency, from 100 to 300 Hz		**10** o'clock
- high frequency, from 300 to 500 Hz		**2** o'clock
- specific voltages	100 - 130V	**4** o'clock
	480 - 500V	**7** o'clock
	600 - 690V	**5** o'clock

I Series

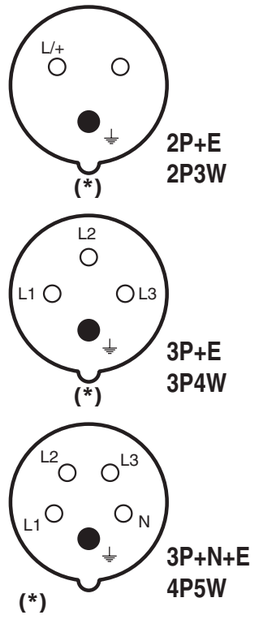
II Series



CLOCK DIAGRAM
Clock face position (h) of the earth pole of low voltage (>50 V) industrial plugs and sockets to IEC 60309-2 for different applications (polarity, voltage, frequency, current).

= Supply from isolation transformer

SOCKET (front view)



(*) *Major keyway*

SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

Rated operating voltage > 50 V (LV)

Number of contact	Poles	Frequency Hz	Rated operating voltage V	Clock face pos. (h) Earth contact (1) 16/20A 32/30A	Clock face pos. (h) Earth contact (1) 63/60A 125/100A	Colour code
3 Contact 2P3W	1P+N+E II Series	50 e 60	100÷130	4	4	
		60	277	5	5	
	2P+E I and II Series	50 e 60	100÷130	4	4	
			200÷250	6	6	
			380÷415	9	9	
			480÷500	7	7	- (6)
			suppl. by isol. transf.	12	12	- (6)
		100÷300	> 50	-	-	(5)
		>300÷500	> 50	2	-	(5)
		d.c.	>50÷250	3	3	- (6)
			> 250	8	8	- (6)
4 Contact 3P4W	2P+N+E II Series	50 e 60	125/250 single-phase	12	12	-
	3P+E I and II Series	50 e 60	100÷130	4	4	
			200÷250	9	9	
			380÷415	6	6	
		60	440÷460 (4)	11	11	
		50 e 60	480÷500	7	7	- (6)
			600÷690	5	5	(2)
		50 60	380 440 (3)	3	-	
		100÷300	> 50	10	-	(5)
		>300÷500	> 50	2	-	(5)
5 Contact 4P5W	3P+N+E I and II Series	50 e 60	57/100÷75/130	4	4	
			120/208÷144/250	9	9	
			200/346÷240/415	6	6	
			277/480÷288/500	7	7	- (6)
			347/600÷400/690	5	5	(2)
		60	250/440÷265/460 (4)	11	11	
		50 60	220/380 250/440 (3)	3	-	
		100÷300	> 50	-	-	(5)
		>300÷500	> 50	2	-	(5)
ALL TYPES		All types of voltage and/or frequency not within these standardised configurations		1	1	-

(1) The positions shown by a dash (-) are not standardised
(2) For ISO standard refrigerated containers
(3) mainly for shipboard installations
(4) Combinations of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz inclusive.
(5) plugs and sockets for which the IEC 309-2 standard sets only the clock face position (h) of the earth contact and not the colour, are supplied by SCAME in RAL 7035 grey

SERIES I AND SERIES II

Series I and Series II have more or less the same dimensions, but are classified according to different rated currents. For Series I, currents are 16A, 32A, 63A, and 125A and for Series II, rated currents are 20A, 30A, 60A and 100A.

Series I products are used in all European countries and some countries in South America, Asia, Australia and Africa. On the contrary, Series II products are mainly marketed in North America (USA, Mexico and Canada) and some countries in South America.

NOTE

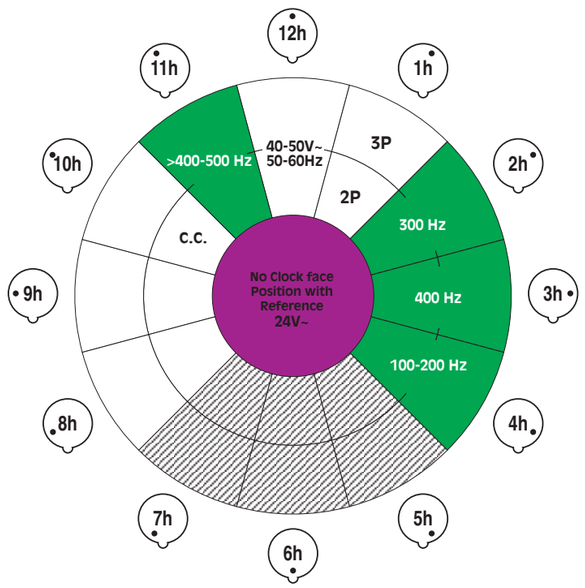
❖ *SCAME plugs and sockets for specific uses other than 4 - 6 - 9 h are available only on demand and are therefore not kept in stock. Minimum order quantities: 50 pieces.*

SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

Rated operating voltage <50V~ (ELV)

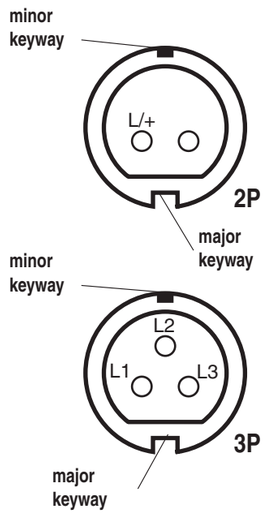
Poles	Frequency Hz	Rated operating voltage V	Minor keyway (1) clock face position (h) 16A and 32A without reference	Colour code
2P	50 e 60	20÷25	without ref.	
	50 e 60	40÷50	12	
	100÷200	20÷25 e 40÷50	4	(2)
	300		2	(2)
	400		3	(2)
	>400÷500		11	(2)
	c.c.		10	
3P	50 e 60	20÷25	without ref.	
	50 e 60	40÷50	12	
	100÷200	20÷25 e 40÷50	4	(2)
	300		2	(2)
	400		3	(2)
	>400÷500		11	(2)

(1) 1, 8 and 9 h positions are reserved for future standards; 5, 6 and 7 h positions cannot be used for reasons connected with the design.
(2) If necessary, a combination of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz.



CLOCK DIAGRAM
Clock face position (h) of the minor keyway of extra-low voltage (<50 V) industrial plugs and sockets to IEC 309-2 for different applications (polarity, voltage, frequency, current).

SOCKET (front view)



Clock face position
Viewing the socket from the front, the clock face position h is established by observing the position of the minor keyway with respect to the major keyway, which is always situated at 6 o'clock.
The different voltages are identified by conventional colour codes.

APPLICATIONS OF INDUSTRIAL PLUGS AND SOCKETS

	IP44	IP67
Agriculture	Mobile or portable equipment or appliances used or stored on sheltered premises.	Outdoor installation of pumping, ventilation, drying equipment.
Chemical industry	Indoors on premises for storage and maintenance purposes where connections are not exposed to the risk of immersion or chemicals.	On premises without risk of explosions but where the connections are exposed to chemicals and subject to possible immersion.
Construction sites and shipyards	On covered construction sites sheltered against weathering but exposed to splashing with water.	On outdoor construction sites where the connections are left on damp ground exposed to freezing, dust and weathering.
Sports complexes and other places of public entertainment, TV and film studios	On sheltered premises protected against the weather, though exposed to splashing, without high connected loads.	Outdoor connections exposed to rain, snow, mud, freezing and other critical weather conditions. Where mated safety is required. Where high voltage for lighting installations, T.V. and audio are foreseen.
Food industry	In sheltered locations, on indoor premises used for storage and maintenance.	In locations subject to washing by hosing down and where connections are subject to heavy duty.
Heavy industry	In sheltered warehouses, maintenance workshops, assembly and moulding areas.	In rolling mills, foundries, blast furnaces, etc., where the connections are exposed to dust, metallic shavings, coolants and are subject to vibrations and impact.
Light industry	Locations without high humidity or ambient pollution serving for assembly, moulding, maintenance and storage	On premises subject to cleaning by means of chemical solvents. Also where heavy loads require high safety in connections.
Installations for IT centres	For electrical connections executed above floor level.	For electrical connections under raised floors with risk of immersion. Where heavy loads require high safety in connections.
Ports	In sheltered locations such as docks, repair shops, offices, etc.	Quays, docks, piers, etc. where there is risk of high waves and partial flooding.
Airports	In sheltered locations, hangars, repair shops, warehouses.	Outdoors for connection between mobile or portable appliances and aircraft.
Water treatment plants	Indoor use in repair shops, etc.	In all locations with risk of flooding and for outdoor use with pumps, aeration and ventilation systems.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

Insulating voltage:
690V, 50-60Hz
- minimum insulating clearance between surfaces: 10 mm
- minimum clearance in air: 8 mm
(for rated voltages exceeding 500 V)

Operating voltage:
up to 690V, 50-60Hz

Breaking capacity:
1.25 times the rated current
(test carried out at a voltage 1.1 times the rated operating voltage)

Electrical and mechanical endurance
- designed to withstand the following operations at rated voltage and current (electrical endurance) or loadless (mechanical endurance)

Rated current A		No. of cycles	
I Series	II Series	under load	without load
16A	20A	5.000	-
32A	30A	1.000	1.000
63A	60A	1.000	1.000
125A	100A	250	250

Impact resistance:
to IEC 60309-1 section 24

Protection degree: IP44, IP67
Operating temperature: -25°C +80°C

Certifications: most of the EUREKA Series and IEC309 Series plugs and sockets are certified by Istituto Italiano del Marchio di Qualità IMQ and many are also certified by VDE, SEMKO, FI, NEMKO as shown in the index by product number at the back of the catalogue

MATERIALS

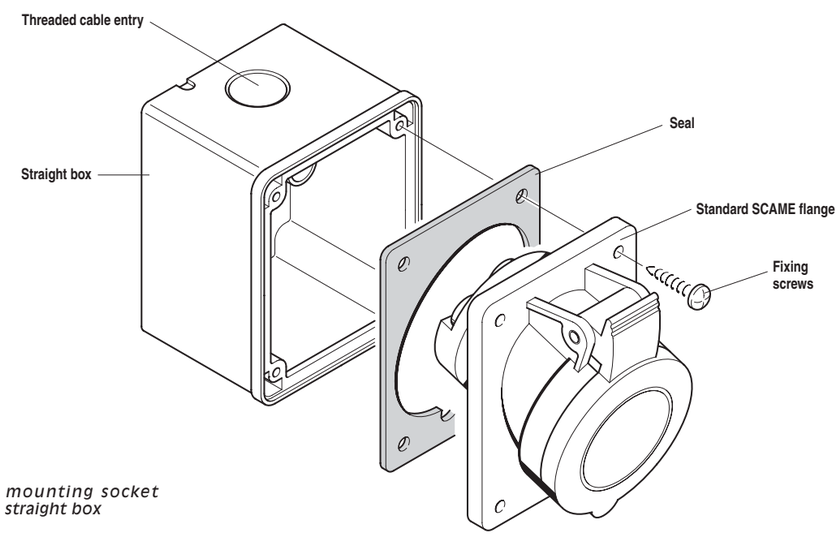
- Casing and insert made of engineering plastic with high thermal stability and mechanical strength.
- Self-extinguishing to IEC 60695-2-1: casing 650 °C (glow-wire) and insert 850 °C (glow-wire).
- Seal made of non-ageing EPDM elastomer or rubber.
- Pins of nickel-plated brass for a perfect, lasting electric contact.
- Nickel-plated brass contact tubes with flexible spring for a constant and even contact pressure.
- Nickel-plated steel terminal screws.
- Contact tube springs and external screws of zinc-plated steel.
- Grip and lid spring of stainless steel.
- Resistance to rusting: 10 min in 10% aqueous solution of ammonium chloride.

Galvanic anti-rusting treatment according to:

UNI 3666-65
General standards relating to
testing corrosion of metallic materials

UNI 5687-73
Corrosion of metallic materials
Endurance tests
Corrosion in salty mist

Protection degree: *when installing make sure that the separate components, especially seals, cables and cable glands, have been fitted correctly. Any draining knock-out holes in socket outlets with IP44 should be opened and positioned in the lower part of the casing.The protection degree of the sockets is assured either when the matching plugs are inserted or when the lids are closed; that of the plugs is assured when they are inserted in the matching sockets.*



Surface mounting socket outlets - straight box

CABLING OPERATIONS

Cabling capacity of the terminals:
Cross-section of connectable conductors (mm²)

Rated Voltage	Rated current		Plugs, connectors and appliance inlets min	Plugs, connectors and appliance inlets max	Socket outlets min	Socket outlets max
Over 50V	16A	20A	1/16	2,5/12	1,5/16	4/12
	32A	30A	2,5/14	6/10	2,5/14	10/8
	63A	60A	6/10	16/6	6/10	25/4
	125A	100A	16/6	50/2	25/4	70/0
50V or less	16A	-	4	10	4	10
	32A	-	4	10	4	10

The terminals for pilot contacts provide connection for conductors with the same nominal cross-section as the internal terminals of 16 A plugs and connectors with rated operating voltage over 50 V.

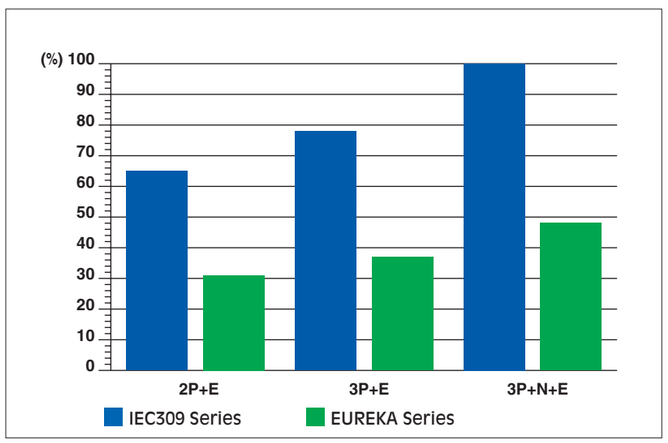
Max. cable size accepted by the cable clamp:

Rated current		Outside ø mm min	Outside ø mm max
16A	20A	8	15
32A	30A	11,5	21
63A	60A	7	31
125A	100A	26	48

IEC309 AND EUREKA SERIES FAST AND EASY CABLING

SCAME's plugs and sockets have a very special design. Their terminals are easy to get to and are already open and aligned, the cable clamp swivels and has its screw already unscrewed, the casings are semi-screwed and the cable glands are not completely closed. All this to help you save time when cabling.

When cabling, make sure that the conductors are connected correctly.The pilot contact (if required) is identified by the wording "pilot".Each terminal is identified by its symbols L1, L2, L3, N, earth; for single-phase options, L/+ and earth are indicated.Viewed from the front, the plug pins are in reverse order to the connector tubes.



The advantages of the EUREKA Series. The technical solutions offered by the Eureka series cut down on cabling time, which means a saving in labour costs.
The chart shows the amount of time saved with the EUREKA Series compared to the IEC309 Series.

Cabling time in relative terms,
Taking the IEC309 Series 3P+N+E plug or connector cabling time as equal to 100%.

LIBERA SERIES
CONNECTORS FOR ELECTRIC VEHICLES

GENERAL
Electric vehicles mean end of air pollution and improvement of quality of life.
Tomorrow's vehicles - electrically powered cars, motorcycles, bicycles with aided pedal stroke - are becoming an increasing reality, also thanks to Scame, a company that always believed that dreams could become true.
Facing this challenge, Scame designed new connectors for vehicles and supply stations, enabling supply from specific columns or from the home garage.
The outcome is the LIBERA Series of adapters, plugs, movable and flush sockets, complying with the evolution of the standards promoted by CIVES - the Italian Commission for Electric Road Vehicles -, which are becoming actual reference standards.

Reference standard

Italian Standard IEC ENV 50275-1
IEC 69-2
endorsing European Standard ENV 50275-1
Conductive recharge of electric vehicles
Part 1 : General
November 1999

Italian Standard IEC ENV 50275-2-1
IEC 69-3
endorsing European Standard ENV 50275-2-1
Conductive recharge of electric vehicles
Part 2-1 : Connection of electric vehicles
November 1999

Italian Standard IEC ENV 50275-22
IEC 69-4
endorsing European Standard ENV 50275-2-2
Conductive recharge of electric vehicles
Part 2-2 : a.c Recharge stations
November 1999

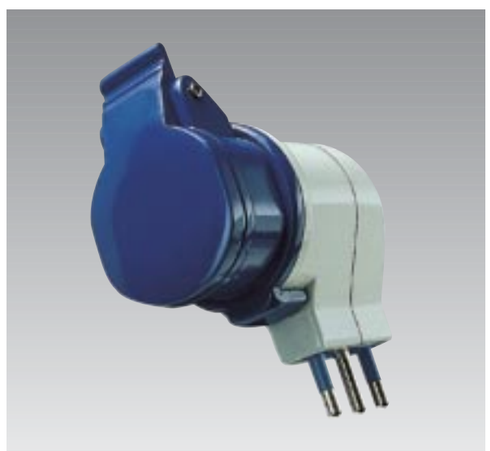
Italian Standard IEC ENV 50275-2-3
IEC 69-5
endorsing European Standard ENV 50275-2-3
Conductive recharge of electric vehicles
Part 2-3 : d.c. Recharge stations
November 1999

CEI CIVES Commissione Italiana Veicoli Elettrici Stradali

CIVES - Italian Commission for electric road vehicles
Itaslian section of AVERE
European Electric Road Vehicles Association
promoted by EEC.

http://www.ceiuni.it/CIVES/home.htm

Adapter for domestic use.



Socket.

RECHARGE OF ELECTRIC ROAD VEHICLES
During the nineties, the development of electric vehicles remained at experimental level; however, the increasing environmental pollution and the funds provided both by the European Union and the various Governments aimed at reducing harmful emissions in the environment, will increasingly spread the use of this means of transportation.
The introduction of electric vehicles involves the availability of places and sources of power supply, where the vehicle can be connected to the power distribution plant. Depending upon the place where recharge columns will be installed, be they private places with access allowed only to authorized staff, or public places where access is allowed to everybody, the supply of electric power could be or not subject to payment. This could be made for instance by charging the amount of the power withdrawn to the credit card, as it happens with normal vehicles at fuel stations.

According to draft European Standard ENV 50275, there are four different method to recharge electric vehicles, depending upon the type of connection chosen:

Recharge method no. 1:
Connection of the electric vehicle to the a.c. mains - mains side - by means of single-or three-phase standard plugs and using the phase/s, the neutral and the protection conductor. Standard plugs, mains side, are those complying with the requirements of national and international standards.

Recharge method no. 2:
Connection of the electric vehicle to the a.c. mains - mains side - by means of single-or three-phase standard plugs using the phase/s, the neutral and the protection conductor. with the addition of control functions between the electric vehicle and the plug or the control box as specified at item 6.4. The control box shall be mounted on the cable at a distance of no more than 0.3 mt from the plug or from the EAVE.

Recharge method no. 3:
Direct connection of the electric vehicle to the a.c. mains by means of dedicated supply equipment, where the control functions specified at item 6.4 are extended to the portion of equipment permanently connected to the a.c. mains.

Recharge method no. 4:
Indirect connection of the electric vehicle to the a.c. mains by means of an outboard battery charger, where the control functions specified at item 6.4 are extended to the portion of equipment permanently connected to the a.c. mains.

The above mentioned standard indicates specific requirements, which may be either compulsory or optional, for each of the above recharge method. Italian manufacturers of electric vehicles decided not to use recharge method no. 1, because it does not provide any control on the soundness of the protection circuit before supplying power to the vehicles, which might result into safety problems for the user. In view of this concern, the IEC has requested a special condition of use; as a consequence, ENV 50275 specifies that recharge method no. 1 should not be used in Italy.

Plug.

Flush sockets.

TECHNICAL FEATURES

Complying with the above indications, SCAME has realized, in collaboration with the manufacturers of electric vehicles, a connection system consisting of a stationary socket, a movable plug and a movable socket, with the following features:

- rated current: 16A
- rated voltage: 230V
- number of poles 2 + ground +1 back-up terminal
- protection degree: IP44
- high mechanical strength
- protection against direct contact by means of protection guards (same as for domestic plugs).

The decision to design a connector which is not compatible with existing plugs is based on the following safety considerations:

a) electric vehicles, in general, have the battery charger on board, to enable recharge from different sources, without any dedicated equipment. Battery chargers include semiconductor devices to rectify the electric current; in case of failure, these may generate fault currents whose wave shape is influenced by direct current elements. Such d.c. elements are detected in a different way by the various types of differential devices used in the electric systems, namely:

- AC differentials, which are used the most in domestic applications, are not able to detect unidirectional currents and currents influenced by the d.c. elements of the fault current.;
- type A differentials are able to detect sinusoidal fault currents, unidirectional fault currents and currents influenced by d.c. elements of the fault current up to 6 mA;
- type B differentials are able to detect sinusoidal fault currents, unidirectional fault currents, and fault currents influenced by d.c. elements with no value limit.

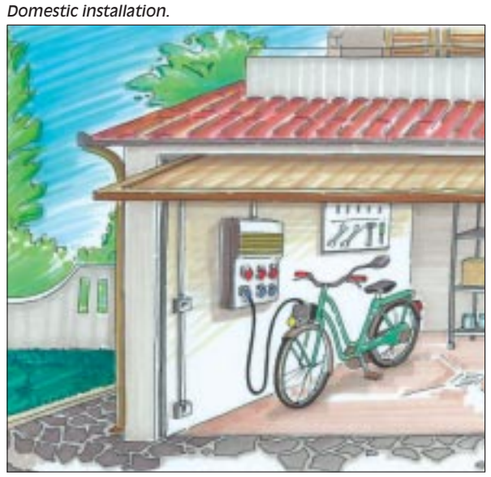
The use of a connector which is not compatible with any existing system involves the installation of the new part; it is therefore assumed that the user adopting the new stationary socket takes care also of the proper protection against indirect contacts.

b) the protection of the active pits of the socket by means of guards able to meet IpxxD protection degree is essential , especially when these sockets are installed in rooms for domestic use; actually in this case the control on the continuity of the grounding system may be neglected and consequently pits could remain always active. The protection of active pits with proper guards not only provides the control on the continuity of the grounding system where required, but assures that no solid foreign matter is introduced into the seat of active pits.

These new connectors will be used first in some public areas for the recharge of motorcycles, which have been arranged in Rome on the occasion of the Jubilee.

The manufacturers, installers and users of electric vehicles will find the new product at electric wholesalers distributing SCAME materials.

Domestic installation.



Public recharge area.

MANUFACTURING SPECIFICATIONS

- Grey handgrip - color specification RAL 7035
- Guiding slit fitting different cable diameters (there is no need to cut or match the guiding slit)
- Sockets with spring cover and holding device when plug is connected
- Quick connection and disconnection between the handgrip and the fruit by means of patented SNAP-ON device
- All the screws of the terminal and of the cable-holder are oriented in the same direction
- The cable-holder is balancing and provided with lock
- Ergonomic handgrip to favor easy grip and use
- High protection from indirect contacts, since the ground contact is the first to be established and the last to separate
- Standardized color, depending upon the voltage used.

SNAP-ON DEVICE

Quick release opening and closure

A proper patented SNAP-ON device assures the quick release connection and disconnection of the EUREKA series sockets and plugs.
The SNAP-ON device reduces remarkably wiring times: in fact opening is obtained by releasing the spring with a tool and closure by a simple rotation of the handgrip or of the fruit.

OPENING

The product is supplied in the open position; opening is obtained by a simple rotation of the handgrip or of the fruit.

CLOSURE

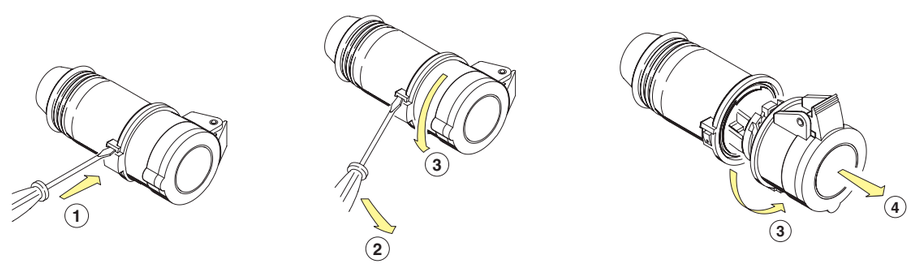
The spring located on the side of the handgrip locks the same on the contact-holding fruit.
The assembly is locked through a simple rotation, engaging the spring into its seat.

INSPECTION

Opening is possible by means of a tool (screw driver) to be used following the ideographs marked on the handgrip.

Besides reducing remarkably wiring times, the device enables to rapidly inspect the terminals and relevant cables on the occasion of the periodic checks of the electric system..

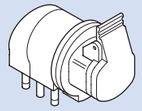
① *Press deeply.* ②③ *Rotate the fruit.* ④ *Draw out.*



IP44 Connectors for electric vehicles

Reference standards: IEC ENV 50275-1, IEC ENV 50275-2-1, IEC ENV 50275-2-2, IEC ENV 50275-2-3

DESCRIPTION	TYPE	FLANGE	PACK QTY.	CATALOGUE NUMBER
Adapter for domestic use	16A-230V~ 2P+E - IP20		10/100	**200.01623**
Plug	16A-230V~ 2P+E+pilot - IP44		10/100	**200.01633**
	32A-230V~ 2P+E+pilot - IP44		10/100	**200.03233**
Socket	16A-230V~ 2P+E+pilot - IP44		10/100	**200.01643**
	32A-230V~ 2P+E+pilot - IP44		10/100	**200.03243**
Flush	16A-230V~ 2P+E+pilot - IP44	70x87 mm	10/100	**200.01663**
	32A-230V~ 2P+E+pilot - IP44	70x87 mm	10/100	**200.03263**
Flush	16A-230V~ 2P+E+pilot - IP44	70x87 mm	10/100	**200.01693**
	32A-230V~ 2P+E+pilot - IP44	70x87 mm	10/100	**200.03293**



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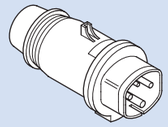

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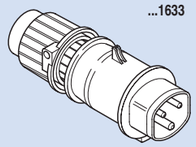

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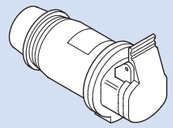

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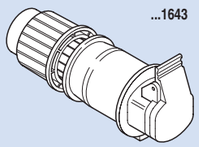

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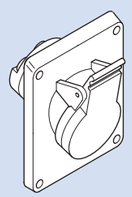

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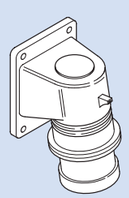

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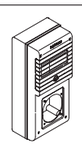
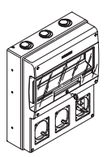
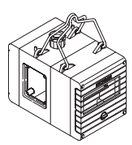
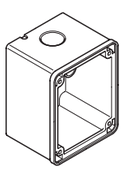
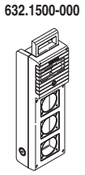
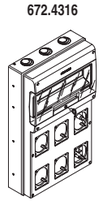
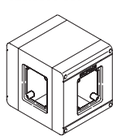
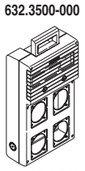
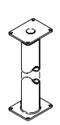
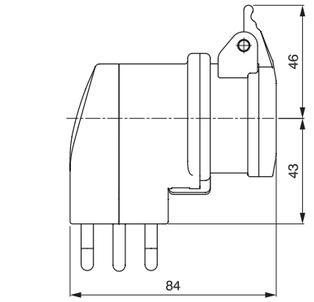
Completion of the offer:

PANELS BLOCK SERIES 1,3,4	PANELS DOMINO SERIES IP55	ADAPTERS AND TURRETS	WALL BOXES
 632.1500-000	 672.4316	 623.3500-000	 570.0016
 632.3500-000	 672.5616	 625.4500-000	 570.0116
 632.4500-000		 692.4340	

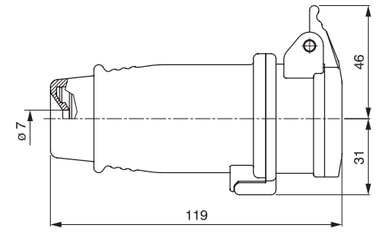
ADAPTERS FOR DOMESTIC USE

16A



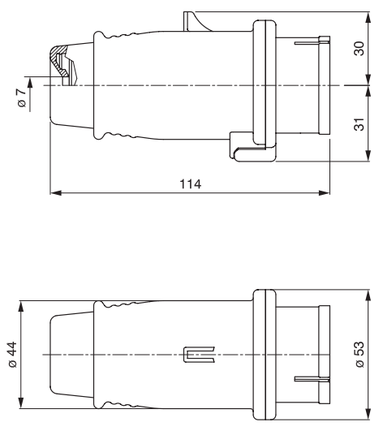
SOCKET

16A



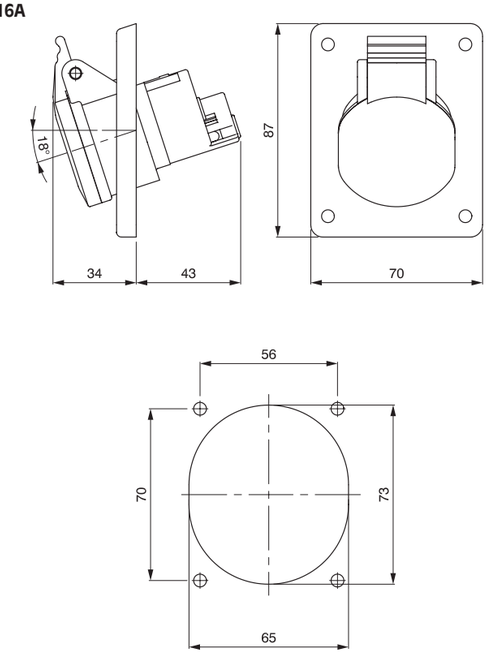
PLUG

16A



FLUSH SOCKET

16A



(Dimension in mm)

EUREKA SERIES
INDUSTRIAL PLUGS AND SOCKETS

GENERAL DESCRIPTION

This latest generation of industrial plugs, connectors and socket outlets extends and completes the comprehensive range of SCAME's plugs and sockets of the IEC309 Series.
Completely new and internationally patented technical and constructional features have been added to the EUREKA Series.
These features, illustrated in the following pages, are of course joined to high quality functional characteristics, reliability, safety and a long life in even the most exacting operating conditions.
An outstanding advantage of the EUREKA Series plugs and sockets - and one which distinguishes it from all other plugs and sockets manufactured up to this time - is the extraordinary **ease and speed** with which the contacts can be cabled and inspected.
Using EUREKA Series plugs and sockets is therefore highly recommended wherever the electrical contractor considers quick and easy cabling and frequent inspection of the contacts to be **important factors in the management of the installation work.**

SNAP-ON. *The picture above shows the snap-action opening and closing device: a feature of the EUREKA Series.*

VERSIONS
Available versions for rated operating voltages over 50 V are:

Versions	Rated current	Protection degree
Plugs and connectors	16A - 32A	IP44 - IP67
Plugs and connectors angled	16A - 32A	IP44 - IP67
Plugs and sockets panel mounting 90 ° angled	16A - 32A	IP44 - IP67
Panel mounting socket outlets angled	16A - 32A	IP44 - IP67
Panel mounting socket outlets straight (reduced flange)	16A - 32A	IP44 - IP67
Surface mounting socket outlets straight box	16A - 32A	IP44 - IP67
Surface mounting socket outlets angled box	16A - 32A	IP44 - IP67

THE SNAP-ON DEVICE
Snap-action opening and closing

A patented "**SNAP-ON**" device provides snap-action opening and closing of EUREKA Series plugs and sockets.
The "**SNAP-ON**" device significantly cuts down on wiring time: it opens by pressing down on the spring with a tool and closes simply by twisting the grip or the insert.

OPENING

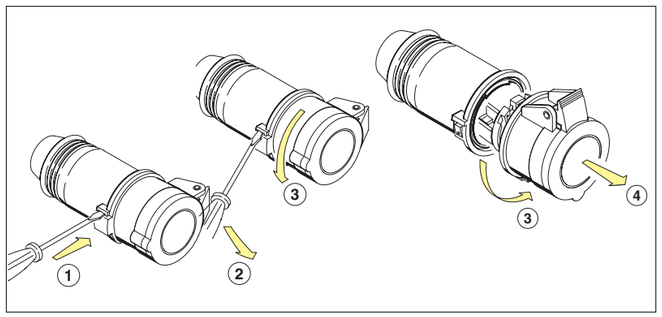
The device is supplied in the open position: simply twist the insert to open.

CLOSING

The spring on the side of the grip holds it fast against the insert.
By twisting the assembly, the spring snaps into its housing.

INSPECTION

A tool (eg. a screwdriver) is needed to open the assembly, as shown by the pictorial symbols on the grip.

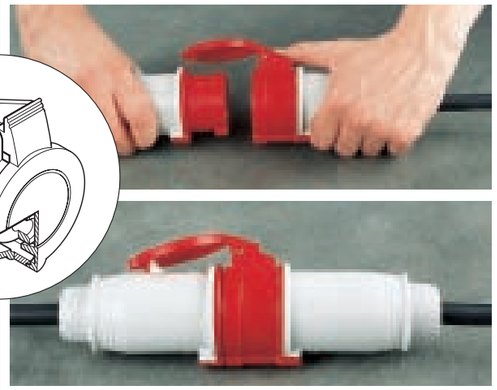


The SNAP-ON locking device, besides speeding up wiring, allows fast inspection of the terminals and cable during routine checking of the electrical system.

① *Push in deeply*
②③ *Twist the insert*
④ *Pull out*

LID

A wing on the lid assists one-handed opening.Splash-proof protection (IP44) is assured by the two inclined surfaces on the lid and on the insert. These surfaces also assist self-centring of the lid.

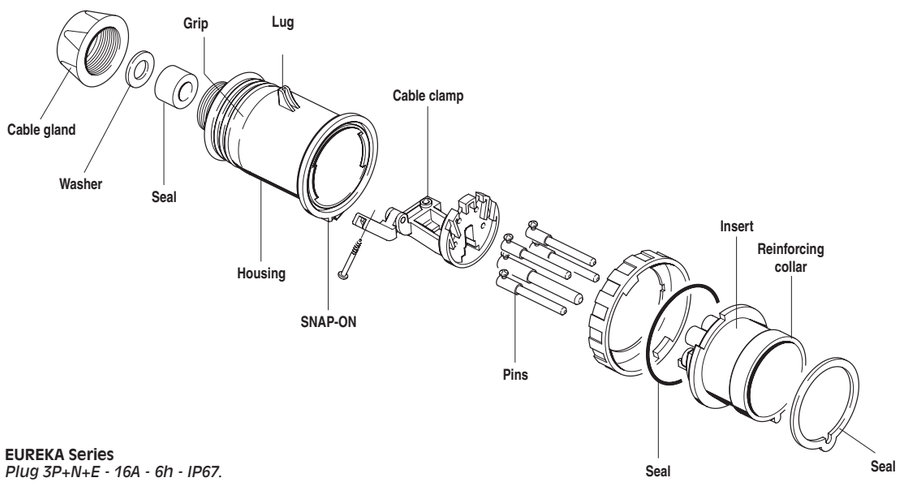


The ergonomic shape of the grip has been designed to ensure a perfect grip to prevent the hand from slipping when carrying out insertion or extraction.

CABLE INLET

The cable is inserted into the cable sleeve on IP44 versions and into the cable gland on IP67 versions.
There is no need to adjust the cable sleeve to the cable size.

The collar serves as a reinforcement for the part most exposed to impact.



EUREKA Series
Plug 3P+N+E - 16A - 6h - IP67.

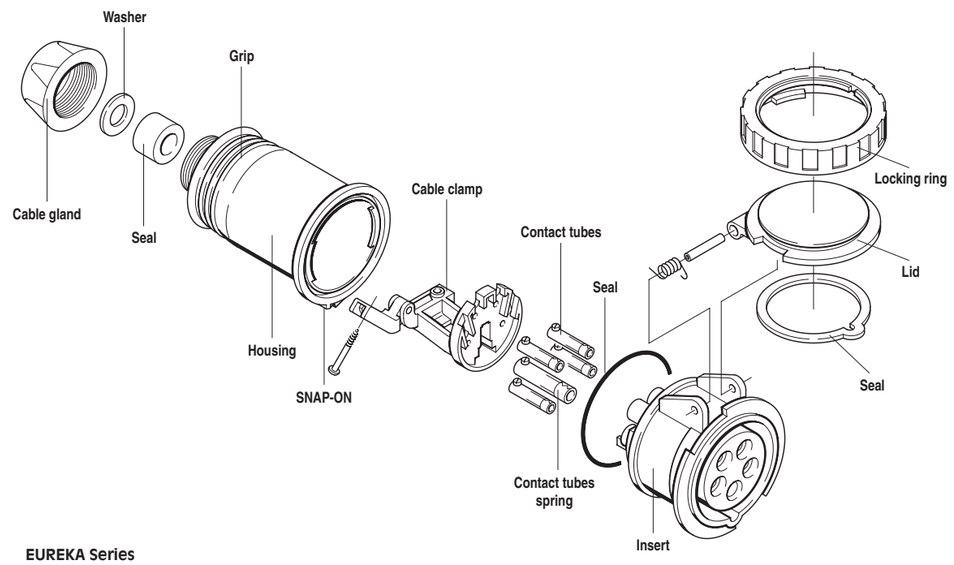
TERMINALS

A well-placed eye in the contacts' retainer guides the screwdriver into the slot in the screw head.

CABLE CLAMP

The cable clamp is located inside the housing to protect it from damage. The cable is clamped by tightening one single screw using a screwdriver for either single-slotted or cross-slotted screws. To assist wiring operations, the cable clamp is equipped with a "catch" to keep it open and to leave room for the hands when installing.

All terminal and cable clamp screws face in the same direction to avoid having to turn the insert while wiring. A screwdriver for either single-slotted or cross-slotted screw heads can be used for tightening the screws. All the screws are left loose and captive for faster cabling.



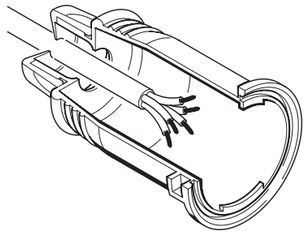
EUREKA Series
Connector 3P+N+E - 16A - 6h - IP67.

STRUCTURAL CHARACTERISTICS

- Standard contact and housing sizes.
- RAL 7035 grey grip.
- Cable sleeve for IP44 types suitable for different cable sizes (no need to cut or adjust the cable sleeves).
- Cable gland for types IP67.
- Plug with lug and socket with guide for perfect coupling.
- Sockets with spring-locking cover and retaining catch when the plug is inserted (types IP44 and IP67)
- Sockets with two-ramp system and plugs with bayonet ring for bayonet coupling (type IP67).
- Fast coupling and decoupling of grip and insert (by means of patented SNAP-ON device).
- All terminal and cable clamp screws facing the same way.
- Swivelling cable clamp fitted with catch.
- Ergonomic grip for easier holding and use.
- Only factory-preset earthing contact position depending on final use.
- High degree of protection against indirect contacts because the earthing contact is the first to be established and the last to be broken.
- Colour-coded for fast identification of the rated voltage.
- Perfectly interchangeable with plugs and sockets of the IEC309 Series and of other manufacturers.

THE CABLE SLEEVE

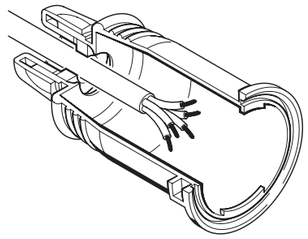
IP44



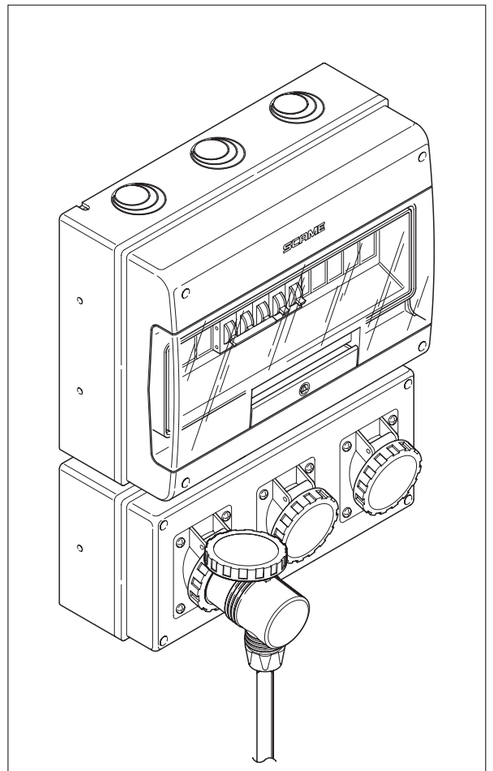
The particular shape of the cable sleeve (IP44) has been designed to allow the insertion of cables of a wide range of sizes without any need for adjustments or cutting.

THE CABLE GLAND

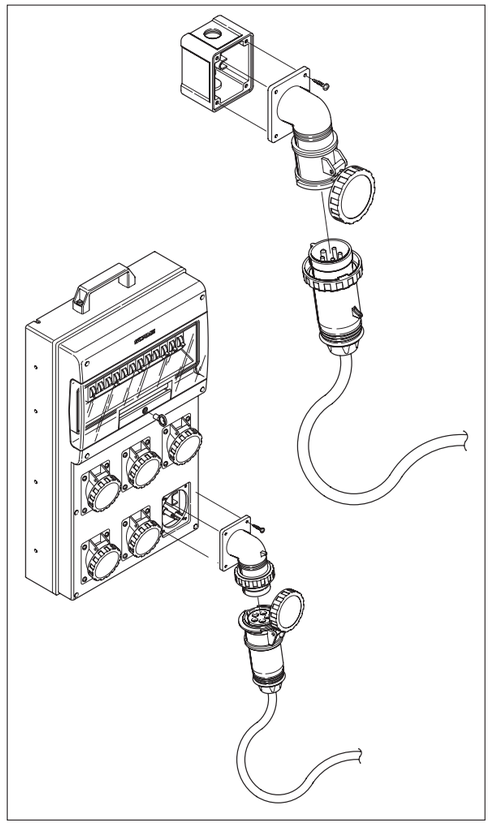
IP67



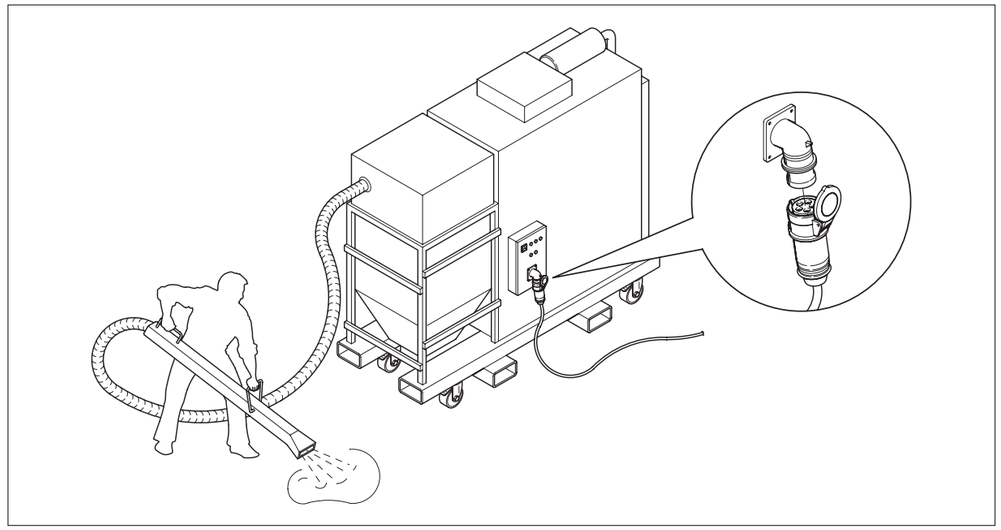
The cable gland assures IP67 protection with an appropriate closing ring which seals off the cable when the gland is tightened.



EUREKA Series angled plugs: *the angled plugs and sockets reduce protrusion.*



EUREKA Series 90° angled panel mounting plugs and sockets: *Both 16 A and 32 A use the same standardised SCAME flange (70 X 87 mm) for fixing.*



EUREKA Series 90° angled panel mounting plugs: *particularly suitable for supplying mobile or transportable machines.*

PLUGS

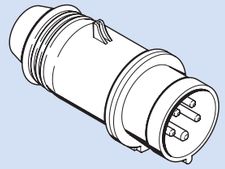
Rated operating voltage > 50 V

Reference standards:

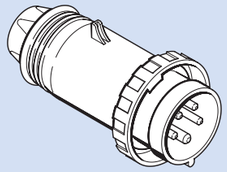
IEC 60309-1 and -2, EN 60309-1 and 2

- Approvals: from page 535
- Dimensions: from page 192
- Plugs cover 570.0316: page 228

STRAIGHT OUTLET



IP44

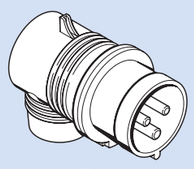


IP67

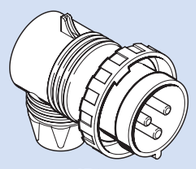
Poles	Hz	Volt	Colour	Pack qty.: h	16 A cable sleeve 10/100	32 A cable sleeve 10/50	16 A cable gland 10/100[1]	32 A cable gland 10/40
2P+E	50/60	100-130		4	211.1630	211.3230	216.1630	216.3230
	50/60	200-250		6	211.1633	211.3233	216.1633	216.3233
	50/60	380-415		9	211.1638	211.3238	216.1638	216.3238
	60	277		5	211.16337	211.32337	216.16337	216.32337
	50/60	480-500		7	211.16336	211.32336	216.16336	216.32336
	50/60	is. transf.		12	211.16333	211.32333	216.16333	216.32333
	>300-500	>50		2	211.16332	211.32332	216.16332	216.32332
	c.c.	>50-250		3	211.16334	211.32334	216.16334	216.32334
	c.c.	>250		8	211.16338	211.32338	216.16338	216.32338
3P+E	50/60	100-130		4	211.1631	211.3231	216.1631	216.3231
	50/60	200-250		9	211.1634	211.3234	216.1634	216.3234
	50/60	380-415		6	211.1636	211.3236	216.1636	216.3236
	60	440-460		11	211.16365	211.32365	216.16365	216.32365
	50/60	480-500		7	211.16366	211.32366	216.16366	216.32366
	50/60	600-690		5	211.16367	211.32367	216.16367	216.32367
	50/60	is. transf.		12	211.16363	211.32363	216.16363	216.32363
	50 60	380 440		3	211.16364	211.32364	216.16364	216.32364
	100-300	>50		10	211.16361	211.32361	216.16361	216.32361
	>300-500	>50		2	211.16362	211.32362	216.16362	216.32362
3P+N+E	50/60	100-130		4	211.1632	211.3232	216.1632	216.3232
	50/60	208-250		9	211.1635	211.3235	216.1635	216.3235
	50/60	346-415		6	211.1637	211.3237	216.1637	216.3237
	50/60	480-500		7	211.16376	211.32376	216.16376	216.32376
	50/60	600-690		5	211.16377	211.32377	216.16377	216.32377
	60	440-460		11	211.16375	211.32375	216.16375	216.32375
	50 60	380 440		3	211.16374	211.32374	216.16374	216.32374
	>300-500	>50		2	211.16372	211.32372	216.16372	216.32372

[1]3P+N+E=Pack qty. 10/40

ANGLED OUTLET



IP44

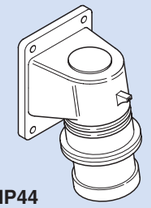


IP67

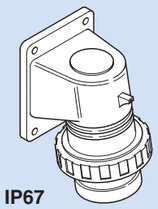
16 A cable sleeve 10/100	32 A cable sleeve 10/60[1]	16 A cable gland 10/100[1]	32 A cable gland 10/40
221.1630	221.3230	226.1630	226.3230
221.1633	221.3233	226.1633	226.3233
221.1638	221.3238	226.1638	226.3238
221.16337	221.32337	226.16337	226.32337
221.16336	221.32336	226.16336	226.32336
221.16333	221.32333	226.16333	226.32333
221.16332	221.32332	226.16332	226.32332
221.16334	221.32334	226.16334	226.32334
221.16338	221.32338	226.16338	226.32338
221.1631	221.3231	226.1631	226.3231
221.1634	221.3234	226.1634	226.3234
221.1636	221.3236	226.1636	226.3236
221.16365	221.32365	226.16365	226.32365
221.16366	221.32366	226.16366	226.32366
221.16367	221.32367	226.16367	226.32367
221.16363	221.32363	226.16363	226.32363
221.16364	221.32364	226.16364	226.32364
221.16361	221.32361	226.16361	226.32361
221.16362	221.32362	226.16362	226.32362
221.1632	221.3232	226.1632	226.3232
221.1635	221.3235	226.1635	226.3235
221.1637	221.3237	226.1637	226.3237
221.16376	221.32376	226.16376	226.32376
221.16377	221.32377	226.16377	226.32377
221.16375	221.32375	226.16375	226.32375
221.16374	221.32374	226.16374	226.32374
221.16372	221.32372	226.16372	226.32372

[1]3P+N+E=Pack qty. 10/50

90° ANGLED - NORMAL FLANGE 70X87 (•)



IP44



IP67

16 A – 10/100[2]	32 A – 10/60	16 A – 10/100[1/3]	32 A – 10/40
242.1690	242.3290	247.1690	247.3290
242.1693	242.3293	247.1693	247.3293
242.1698	242.3298	247.1698	247.3298
242.16937	242.32937	247.16937	247.32937
242.16936	242.32936	247.16936	247.32936
242.16933	242.32933	247.16933	247.32933
242.16932	242.32932	247.16932	247.32932
242.16934	242.32934	247.16934	247.32934
242.16938	242.32938	247.16938	247.32938
242.1691	242.3291	247.1691	247.3291
242.1694	242.3294	247.1694	247.3294
242.1696	242.3296	247.1696	247.3296
242.16965	242.32965	247.16965	247.32965
242.16966	242.32966	247.16966	247.32966
242.16967	242.32967	247.16967	247.32967
242.16963	242.32963	247.16963	247.32963
242.16964	242.32964	247.16964	247.32964
242.16961	242.32961	247.16961	247.32961
242.16962	242.32962	247.16962	247.32962
242.1692	242.3292	247.1692	247.3292
242.1695	242.3295	247.1695	247.3295
242.1697	242.3297	247.1697	247.3297
242.16976	242.32976	247.16976	247.32976
242.16977	242.32977	247.16977	247.32977
242.16975	242.32975	247.16975	247.32975
242.16974	242.32974	247.16974	247.32974
242.16972	242.32972	247.16972	247.32972

[1]3P+N+E=Pack qty. 10/50 - [2]3P+N+E=Pack qty. 10/60 - [3]3P+E=Pack qty. 10/60
(•) The rubber seal also acts as a drilling template
Suitable for DOMINO Series consumer units (page 126).

CONNECTORS

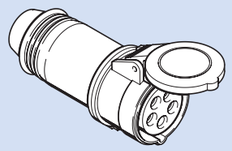
Rated operating voltage > 50 V

Reference standards:

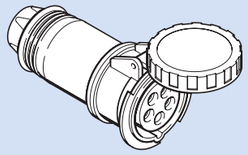
IEC 60309-1 and -2, EN 60309-1 and 2

- Approvals : from page 535
- Dimensions : from page 192

STRAIGHT OUTLET



IP44

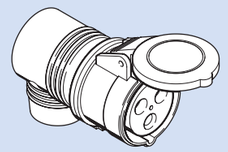


IP67

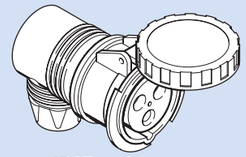
Poles	Hz	Volt	Colour	Pack qty.: h	16 A cable sleeve 10/100	32 A cable sleeve 10/50	16 A cable gland 10/100[1]	32 A cable gland 10/40
2P+E	50/60	100-130		4	311.1640	311.3240	316.1640	316.3240
	50/60	200-250		6	311.1643	311.3243	316.1643	316.3243
	50/60	380-415		9	311.1648	311.3248	316.1648	316.3248
	60	277		5	311.16437	311.32437	316.16437	316.32437
	50/60	480-500		7	311.16436	311.32436	316.16436	316.32436
	50/60	is. transf.		12	311.16433	311.32433	316.16433	316.32433
	>300-500	>50		2	311.16432	311.32432	316.16432	316.32432
	c.c.	>50-250		3	311.16434	311.32434	316.16434	316.32434
	c.c.	>250		8	311.16438	311.32438	316.16438	316.32438
3P+E	50/60	100-130		4	311.1641	311.3241	316.1641	316.3241
	50/60	200-250		9	311.1644	311.3244	316.1644	316.3244
	50/60	380-415		6	311.1646	311.3246	316.1646	316.3246
	60	440-460		11	311.16465	311.32465	316.16465	316.32465
	50/60	480-500		7	311.16466	311.32466	316.16466	316.32466
	50/60	600-690		5	311.16467	311.32467	316.16467	316.32467
	50/60	trasf.		12	311.16463	311.32463	316.16463	316.32463
	50 60	380 440		3	311.16464	311.32464	316.16464	316.32464
	100-300	>50		10	311.16461	311.32461	316.16461	316.32461
	>300-500	>50		2	311.16462	311.32462	316.16462	316.32462
3P+N+E	50/60	100-130		4	311.1642	311.3242	316.1642	316.3242
	50/60	208-250		9	311.1645	311.3245	316.1645	316.3245
	50/60	346-415		6	311.1647	311.3247	316.1647	316.3247
	50/60	480-500		7	311.16476	311.32476	316.16476	316.32476
	50/60	600-690		5	311.16477	311.32477	316.16477	316.32477
	60	440-460		11	311.16475	311.32475	316.16475	316.32475
	50 60	380 440		3	311.16474	311.32474	316.16474	316.32474
	>300-500	>50		2	311.16472	311.32472	316.16472	316.32472

[1]3P+N+E=Pack qty. 10/40

ANGLED OUTLET



IP44

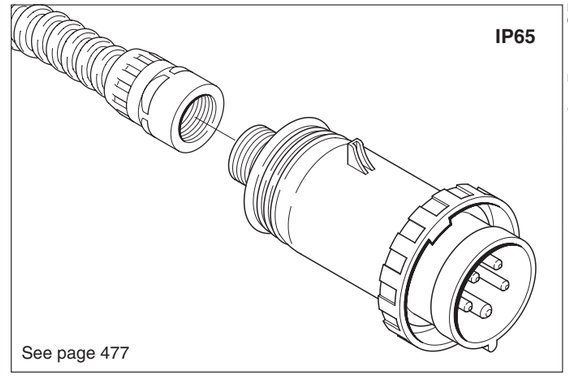


IP67

16 A cable sleeve 10/100	32 A cable sleeve 10/50	16 A cable gland 10/100[1]	32 A cable gland 10/40
321.1640	321.3240	326.1640	326.3240
321.1643	321.3243	326.1643	326.3243
321.1648	321.3248	326.1648	326.3248
321.16437	321.32437	326.16437	326.32437
321.16436	321.32436	326.16436	326.32436
321.16433	321.32433	326.16433	326.32433
321.16432	321.32432	326.16432	326.32432
321.16434	321.32434	326.16434	326.32434
321.16438	321.32438	326.16438	326.32438
321.1641	321.3241	326.1641	326.3241
321.1644	321.3244	326.1644	326.3244
321.1646	321.3246	326.1646	326.3246
321.16465	321.32465	326.16465	326.32465
321.16466	321.32466	326.16466	326.32466
321.16467	321.32467	326.16467	326.32467
321.16463	321.32463	326.16463	326.32463
321.16464	321.32464	326.16464	326.32464
321.16461	321.32461	326.16461	326.32461
321.16462	321.32462	326.16462	326.32462
321.1642	321.3242	326.1642	326.3242
321.1645	321.3245	326.1645	326.3245
321.1647	321.3247	326.1647	326.3247
321.16476	321.32476	326.16476	326.32476
321.16477	321.32477	326.16477	326.32477
321.16475	321.32475	326.16475	326.32475
321.16474	321.32474	326.16474	326.32474
321.16472	321.32472	326.16472	326.32472

[1]3P+N+E=Pack qty. 10/50

COUPLING FOR EUREKA TO FLEXIBLE CONDUIT

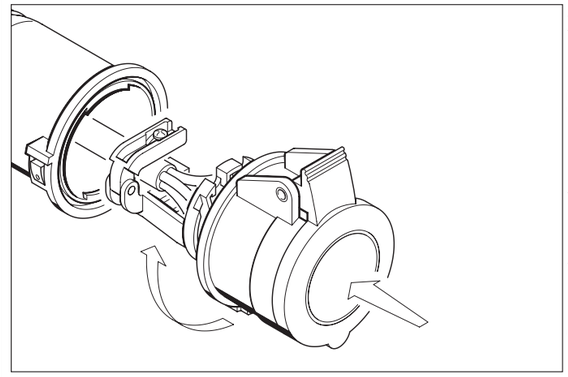


IP65

See page 477

For connecting flexible conduit and EUREKA Series plugs and connectors different size couplings are available.

CABLING



The technical solutions offered by the EUREKA Series cut down on cabling time, which in turn means lower costs for the electrical contractor.

PANEL MOUNTING SOCKET OUTLETS

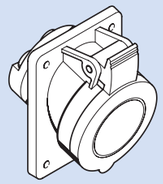
Reference standards:

IEC 60309-1 and -2, EN 60309-1 and 2

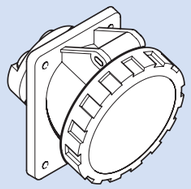
- Approvals : from page 535
- Dimensions : from page 192

- The rubber seal also acts as a drilling template

ANGLED OUTLET - NORMAL FLANGE



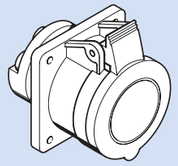
IP44



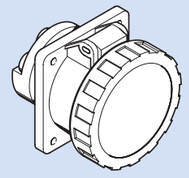
IP67

Poles	Hz	Volt	Colour	h	16 A 70x87 10/100	32 A 84x106 10/50	16 A 70x87 10/100	32 A 84x106 10/50
				Flange:				
				Pack qty.:				
2P+E	50/60	100-130		4	412.1660	412.3260	417.1660	417.3260
	50/60	200-250		6	412.1663	412.3263	417.1663	417.3263
	50/60	380-415		9	412.1668	412.3268	417.1668	417.3268
	60	277		5	412.16637	412.32637	417.16637	417.32637
	50/60	480-500		7	412.16636	412.32636	417.16636	417.32636
	50/60	is. transf.		12	412.16633	412.32633	417.16633	417.32633
	>300-500	>50		2	412.16632	412.32632	417.16632	417.32632
	c.c.	>50-250		3	412.16634	412.32634	417.16634	417.32634
	c.c.	>250		8	412.16638	412.32638	417.16638	417.32638
3P+E	50/60	100-130		4	412.1661	412.3261	417.1661	417.3261
	50/60	200-250		9	412.1664	412.3264	417.1664	417.3264
	50/60	380-415		6	412.1666	412.3266	417.1666	417.3266
	60	440-460		11	412.16665	412.32665	417.16665	417.32665
	50/60	480-500		7	412.16666	412.32666	417.16666	417.32666
	50/60	600-690		5	412.16667	412.32667	417.16667	417.32667
	50/60	is. transf.		12	412.16663	412.32663	417.16663	417.32663
	50 60	380 440		3	412.16664	412.32664	417.16664	417.32664
	100-300	>50		10	412.16661	412.32661	417.16661	417.32661
	>300-500	>50		2	412.16662	412.32662	417.16662	417.32662
3P+N+E	50/60	100-130		4	412.1662	412.3262	417.1662	417.3262
	50/60	208-250		9	412.1665	412.3265	417.1665	417.3265
	50/60	346-415		6	412.1667	412.3267	417.1667	417.3267
	50/60	480-500		7	412.16676	412.32676	417.16676	417.32676
	50/60	600-690		5	412.16677	412.32677	417.16677	417.32677
	60	440-460		11	412.16675	412.32675	417.16675	417.32675
	50 60	380 440		3	412.16674	412.32674	417.16674	417.32674
	>300-500	>50		2	412.16672	412.32672	417.16672	417.32672

STRAIGHT OUTLET - REDUCED FLANGE 75X75 mm



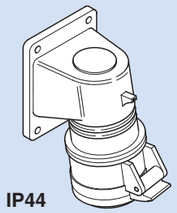
IP44



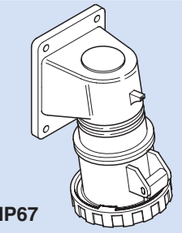
IP67

16 A 75x75 10/100	32 A 75x75 10/50	16 A 75x75 10/100	32 A 75x75 10/50
422.1660 422.1660/R*	422.3260	427.1660	427.3260
422.1663 422.1663/R*	422.3263	427.1663	427.3263
422.1668 422.1668/R*	422.3268	427.1668	427.3268
422.16637	422.32637	427.16637	427.32637
422.16636	422.32636	427.16636	427.32636
422.16633	422.32633	427.16633	427.32633
422.16632	422.32632	427.16632	427.32632
422.16634	422.32634	427.16634	427.32634
422.16638	422.32638	427.16638	427.32638
422.1661	422.3261	427.1661	427.3261
422.1664	422.3264	427.1664	427.3264
422.1666	422.3266	427.1666	427.3266
422.16665	422.32665	427.16665	427.32665
422.16666	422.32666	427.16666	427.32666
422.16667	422.32667	427.16667	427.32667
422.16663	422.32663	427.16663	427.32663
422.16664	422.32664	427.16664	427.32664
422.16661	422.32661	427.16661	427.32661
422.16662	422.32662	427.16662	427.32662
422.1662	422.3262	427.1662	427.3262
422.1665	422.3265	427.1665	427.3265
422.1667	422.3267	427.1667	427.3267
422.16676	422.32676	427.16676	427.32676
422.16677	422.32677	427.16677	427.32677
422.16675	422.32675	427.16675	427.32675
422.16674	422.32674	427.16674	427.32674
422.16672	422.32672	427.16672	427.32672

90° ANGLED - NORMAL FLANGE 70X87



IP44



IP67

16 A 70x87 10/60[1]	32 A 70x87 10/40	16 A 70x87 10/50[2]	32 A 70x87 10/40
452.1660	452.3260	457.1660	457.3260
452.1663	452.3263	457.1663	457.3263
452.1668	452.3268	457.1668	457.3268
452.16637	452.32637	457.16637	457.32637
452.16636	452.32636	457.16636	457.32636
452.16633	452.32633	457.16633	457.32633
452.16632	452.32632	457.16632	457.32632
452.16634	452.32634	457.16634	457.32634
452.16638	452.32638	457.16638	457.32638
452.1661	452.3261	457.1661	457.3261
452.1664	452.3264	457.1664	457.3264
452.1666	452.3266	457.1666	457.3266
452.16665	452.32665	457.16665	457.32665
452.16666	452.32666	457.16666	457.32666
452.16667	452.32667	457.16667	457.32667
452.16663	452.32663	457.16663	457.32663
452.16664	452.32664	457.16664	457.32664
452.16661	452.32661	457.16661	457.32661
452.16662	452.32662	457.16662	457.32662
452.1662	452.3262	457.1662	457.3262
452.1665	452.3265	457.1665	457.3265
452.1667	452.3267	457.1667	457.3267
452.16676	452.32676	457.16676	457.32676
452.16677	452.32677	457.16677	457.32677
452.16675	452.32675	457.16675	457.32675
452.16674	452.32674	457.16674	457.32674
452.16672	452.32672	457.16672	457.32672

* Flange 62x62 mm

[1]2P+E=Pack qty. 10/100

[2]2P+E=Pack qty. 10/60

SURFACE MOUNTING SOCKET OUTLETS
Rated operating voltage > 50 V

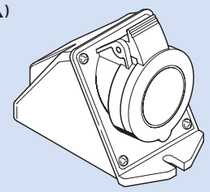
Reference standards:
IEC 60309-1 and -2, EN 60309-1 and 2

- Approvals : from page 535
- Dimensions : from page 192

(▲) The EUREKA Series surface mounting illustrated in the following two pages, are also available in a Metric cable inlet. Add M after the first three digits (ex. 512.M1650).

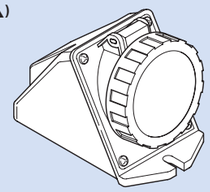
ANGLED BOX

(▲)



IP44

(▲)



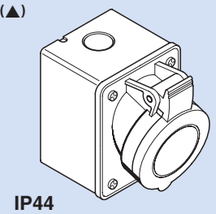
IP67

Poles	Hz	Volt	Colour	h	16 A PG16/M20 10/50 IP44	32 A PG21/M25 10/40 IP44	16 A PG16/M20 10/50[1] IP67	32 A PG21/M25 10/40 IP67
			Cable inlet:					
			Pack qty.:					
2P+E	50/60	100-130		4	512.1650	512.3250	517.1650	517.3250
	50/60	200-250		6	512.1653	512.3253	517.1653	517.3253
	50/60	380-415		9	512.1658	512.3258	517.1658	517.3258
	60	277		5	512.16537	512.32537	517.16537	517.32537
	50/60	480-500		7	512.16536	512.32536	517.16536	517.32536
	50/60	is. transf.		12	512.16533	512.32533	517.16533	517.32533
	>300-500	>50		2	512.16532	512.32532	517.16532	517.32532
	c.c.	>50-250		3	512.16534	512.32534	517.16534	517.32534
	c.c.	>250		8	512.16538	512.32538	517.16538	517.32538
3P+E	50/60	100-130		4	512.1651	512.3251	517.1651	517.3251
	50/60	200-250		9	512.1654	512.3254	517.1654	517.3254
	50/60	380-415		6	512.1656	512.3256	517.1656	517.3256
	60	440-460		11	512.16565	512.32565	517.16565	517.32565
	50/60	480-500		7	512.16566	512.32566	517.16566	517.32566
	50/60	600-690		5	512.16567	512.32567	517.16567	517.32567
	50/60	is. transf.		12	512.16563	512.32563	517.16563	517.32563
	50 60	380 440		3	512.16564	512.32564	517.16564	517.32564
	100-300	>50		10	512.16561	512.32561	517.16561	517.32561
	>300-500	>50		2	512.16562	512.32562	517.16562	517.32562
3P+N+E	50/60	100-130		4	512.1652	512.3252	517.1652	517.3252
	50/60	208-250		9	512.1655	512.3255	517.1655	517.3255
	50/60	346-415		6	512.1657	512.3257	517.1657	517.3257
	50/60	480-500		7	512.16576	512.32576	517.16576	517.32576
	50/60	600-690		5	512.16577	512.32577	517.16577	517.32577
	60	440-460		11	512.16575	512.32575	517.16575	517.32575
	50 60	380 440		3	512.16574	512.32574	517.16574	517.32574
	>300-500	>50		2	512.16572	512.32572	517.16572	517.32572

[1]3P+N+E=Pack qty. 10/40
With gasket, 4 screws kit, enclosure with threaded hole inlets

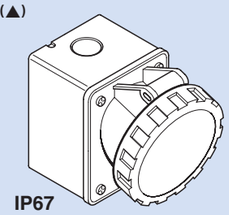
STRAIGHT BOX (old enclosure)

(▲)



IP44

(▲)



IP67

16 A PG16 10/50 IP44	32 A PG21 10/40 IP44	16 A PG16 10/50 IP67	32 A PG21 10/40 IP67
522.1650	522.3250	527.1650	527.3250
522.1653	522.3253	527.1653	527.3253
522.1658	522.3258	527.1658	527.3258
522.16537	522.32537	527.16537	527.32537
522.16536	522.32536	527.16536	527.32536
522.16533	522.32533	527.16533	527.32533
522.16532	522.32532	527.16532	527.32532
522.16534	522.32534	527.16534	527.32534
522.16538	522.32538	527.16538	527.32538
522.1651	522.3251	527.1651	527.3251
522.1654	522.3254	527.1654	527.3254
522.1656	522.3256	527.1656	527.3256
522.16565	522.32565	527.16565	527.32565
522.16566	522.32566	527.16566	527.32566
522.16567	522.32567	527.16567	527.32567
522.16563	522.32563	527.16563	527.32563
522.16564	522.32564	527.16564	527.32564
522.16561	522.32561	527.16561	527.32561
522.16562	522.32562	527.16562	527.32562
522.1652	522.3252	527.1652	527.3252
522.1655	522.3255	527.1655	527.3255
522.1657	522.3257	527.1657	527.3257
522.16576	522.32576	527.16576	527.32576
522.16577	522.32577	527.16577	527.32577
522.16575	422.32575	527.16575	527.32575
522.16574	522.32574	527.16574	527.32574
522.16572	522.32572	527.16572	527.32572

THE KNOCKOUT HOLE INLETS OF THE NEW ENCLOSURES

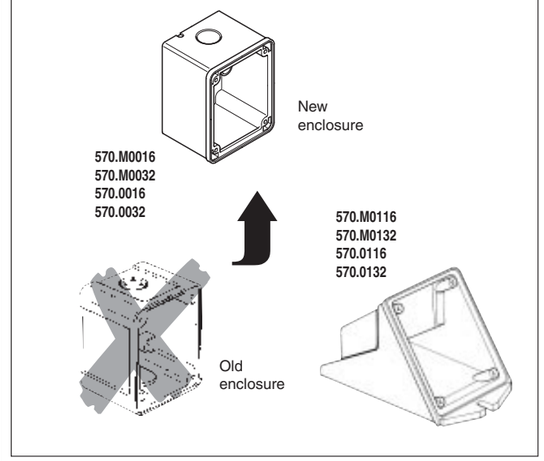
Metric Versions

16A	Upper	1xM20/M25
	Lower	2xM20
32A	Upper	1xM25/M32
	Lower	2xM25

Versioni PG

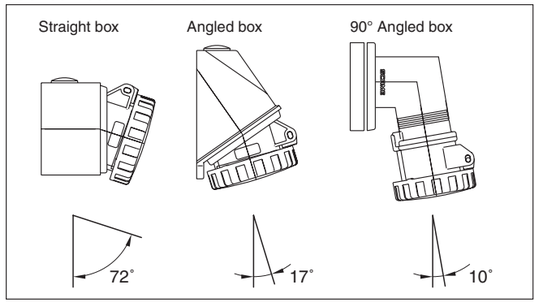
16A	Upper	1xPG16/PG21
	Lower	2xPG13,5
32A	Upper	1xPG21
	Lower	2xPG16/PG21

The IP44 version is complete with cable sleeve

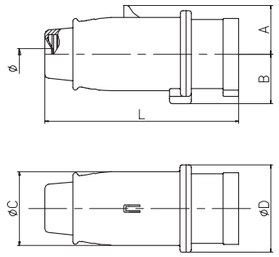


Accessories:
empty surface mounting boxes (page 185):

Socket installation axis



PLUGS

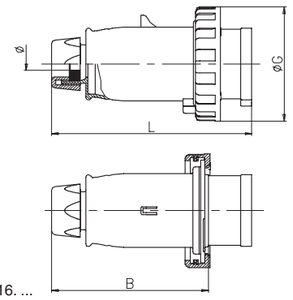


IP44

CAT. NUMBER 211. ...

	IP44	A	B	C	D	L	Ø Min.
16A	2P+E	30	31	44	53	128	7
	3P+E	34	35	50	59	135	7
	3P+N+E	38	38	57	68	150	9
32A	2P+E	40	38	57	68	159	9
	3P+E	40	38	57	68	159	9
	3P+N+E	45	42	62	75	166	10

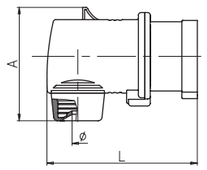
	IP67	ØG	B	L	Ø Min.
16A	2P+E	73	98	132	8
	3P+E	81	105	139	8
	3P+N+E	88	121	155	10
32A	2P+E	93	121	164	10
	3P+E	93	121	164	10
	3P+N+E	101	130	173	14



IP67

CAT. NUMBER 216. ...

PLUGS - ANGLED

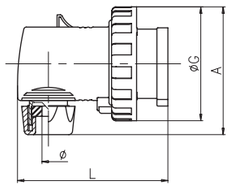


IP44

CAT. NUMBER 221. ...

	IP44	A	L	Ø Min.
16A	2P+E	70	109	7
	3P+E	77	113	7
	3P+N+E	88	117	9
32A	2P+E	90	135	9
	3P+E	90	135	9
	3P+N+E	100	135	10

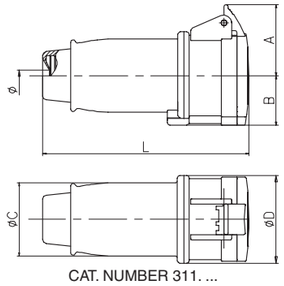
	IP67	A	L	ØG	Ø Min.
16A	2P+E	80	109	73	8
	3P+E	88	113	81	8
	3P+N+E	100	117	88	10
32A	2P+E	100	135	93	10
	3P+E	100	135	93	10
	3P+N+E	108	140	101	14



IP67

CAT. NUMBER 226. ...

CONNECTORS

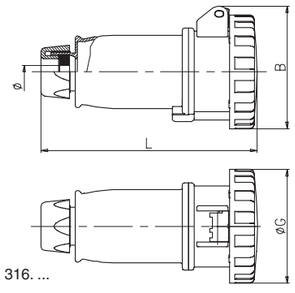


IP44

CAT. NUMBER 311. ...

	IP44	A	B	C	D	L	Ø Min.
16A	2P+E	46	31	44	53	137	7
	3P+E	49	34	50	60	144	7
	3P+N+E	55	39	57	68	160	9
32A	2P+E	55	39	57	68	170	9
	3P+E	55	39	57	68	170	9
	3P+N+E	61	43	63	75	178	10

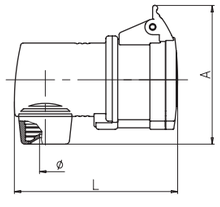
	IP67	ØG	B	L	Ø Min.
16A	2P+E	73	75	144	8
	3P+E	81	83	150	8
	3P+N+E	88	95	168	10
32A	2P+E	93	102	178	10
	3P+E	93	102	178	10
	3P+N+E	101	102	187	14



IP67

CAT. NUMBER 316. ...

CONNECTORS - ANGLED

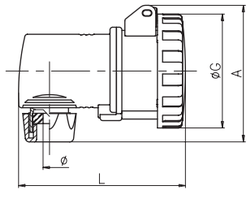


IP44

CAT. NUMBER 321. ...

	IP44	A	L	Ø Min.
16A	2P+E	89	117	7
	3P+E	95	122	7
	3P+N+E	108	127	9
32A	2P+E	110	146	9
	3P+E	110	146	9
	3P+N+E	120	152	10

	IP67	A	L	ØG	Ø Min.
16A	2P+E	78	120	73	8
	3P+E	86	125	81	8
	3P+N+E	106	130	88	10
32A	2P+E	106	150	93	10
	3P+E	106	150	93	10
	3P+N+E	107	155	101	14



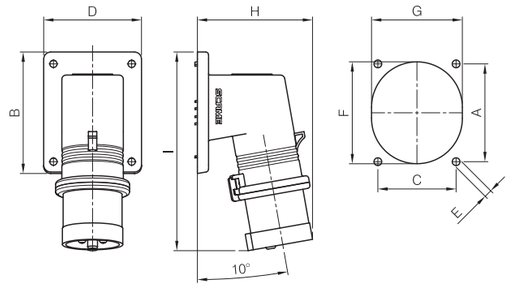
IP67

CAT. NUMBER 326. ...

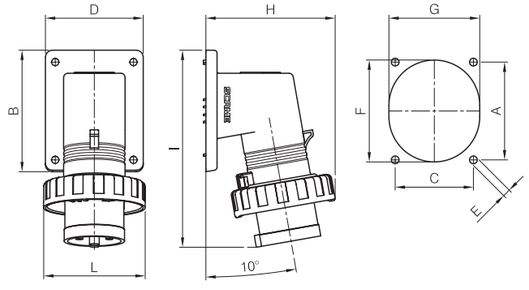
(Dimensions in mm)

APPLIANCE INLETS - 90° ANGLED

IP44



IP67

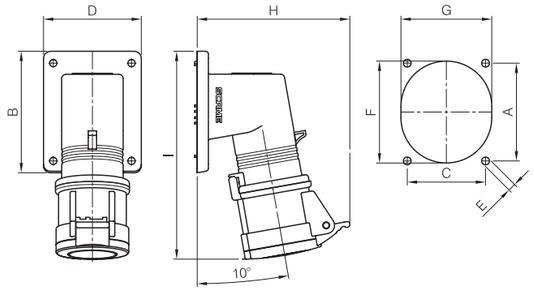


		A	B	C	D	E	F	G	H	I
16A	2P+E	70	87	56	70	5,2	73	65	83	142
	3P+E	70	87	56	70	5,2	73	65	91	143
	3P+N+E	70	87	56	70	5,2	73	65	97	144
32A	2P+E	70	87	56	70	5,2	87	76	99	153
	3P+E	70	87	56	70	5,2	87	76	99	153
	3P+N+E	70	87	56	70	5,2	87	76	107	154

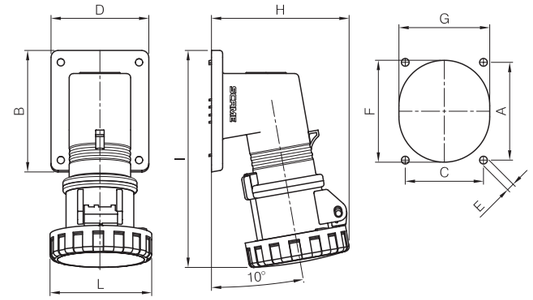
		A	B	C	D	E	F	G	H	I	L
16A	2P+E	70	87	56	70	5,2	73	65	93	142	73
	3P+E	70	87	56	70	5,2	73	65	102	143	81
	3P+N+E	70	87	56	70	5,2	73	65	109	144	88
32A	2P+E	70	87	56	70	5,2	87	76	111	153	93
	3P+E	70	87	56	70	5,2	87	76	111	153	93
	3P+N+E	70	87	56	70	5,2	87	76	120	154	101

APPLIANCE INLETS - 90° ANGLED

IP44



IP67

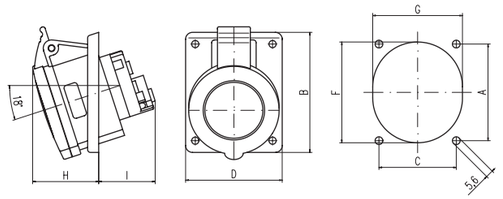


		A	B	C	D	E	F	G	H	I	L
16A	2P+E	70	87	56	70	5,2	73	65	98	155	73
	3P+E	70	87	56	70	5,2	73	65	107	156	81
	3P+N+E	70	87	56	70	5,2	73	65	117	157	88
32A	2P+E	70	87	56	70	5,2	87	76	123	168	93
	3P+E	70	87	56	70	5,2	87	76	123	168	93
	3P+N+E	70	87	56	70	5,2	87	76	127	169	101

(Dimensions in mm)

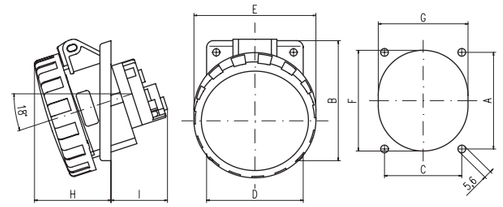
PANEL MOUNTING SOCKET OUTLETS - ANGLED

IP44



		A	B	C	D	F	G	H	I
16A	2P+E	70	87	56	70	73	65	45	40
	3P+E	70	87	56	70	73	65	46	40
	3P+N+E	70	87	56	70	73	65	48	41
32A	2P+E	90	106	68	84	87	76	52	60
	3P+E	90	106	68	84	87	76	52	60
	3P+N+E	90	106	68	84	87	76	54	61

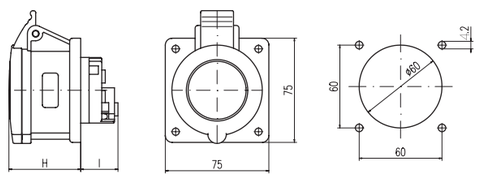
IP67



		A	B	C	D	E	F	G	H	I
16A	2P+E	70	87	56	70	73	73	65	52	40
	3P+E	70	87	56	70	81	73	65	54	40
	3P+N+E	70	87	56	70	88	73	65	55	41
32A	2P+E	90	106	68	84	93	87	76	61	60
	3P+E	90	106	68	84	93	87	76	61	60
	3P+N+E	90	106	68	84	101	87	76	63	61

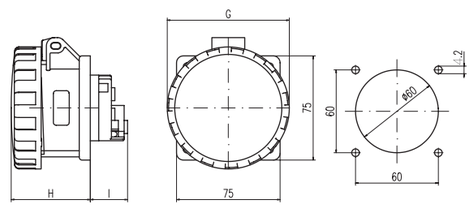
PANEL MOUNTING SOCKET OUTLETS - STRAIGHT - REDUCED FLANGE

IP44



		I	H
16A	2P+E	27	51
	3P+E	27	51
	3P+N+E	27	52
32A	2P+E	42	62
	3P+E	42	62
	3P+N+E	42	63

IP67

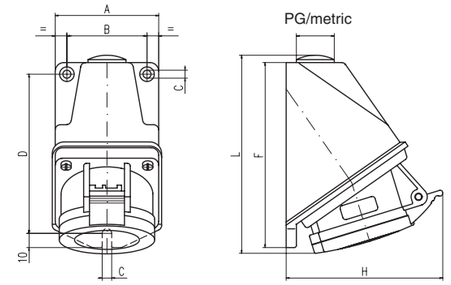


		G	H	I
16A	2P+E	73	56	27
	3P+E	81	57	27
	3P+N+E	88	58	27
32A	2P+E	93	68	42
	3P+E	93	68	42
	3P+N+E	101	69	42

(Dimensions in mm)

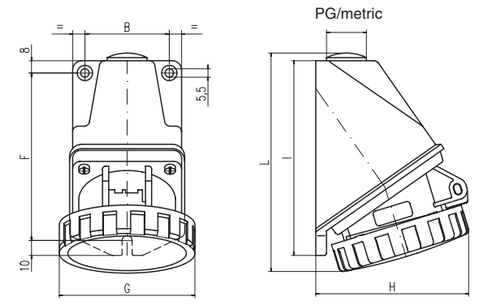
SURFACE MOUNTING SOCKET OUTLETS - ANGLED BOX

IP44



		A	B	C	D	F	H	L
16A	2P+E	71	56	5	109	127	100	133
	3P+E	71	56	5	109	127	103	134
	3P+N+E	71	56	5	109	127	107	136
32A	2P+E	85	69	6	119	137	116	146
	3P+E	85	69	6	119	137	116	146
	3P+N+E	85	69	6	119	137	120	148

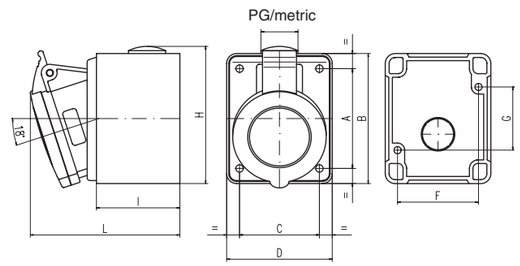
IP67



		A	B	C	F	G	H	I	L
16A	2P+E	75	55	5	109	73	92	127	139
	3P+E	75	55	5	109	81	97	127	141
	3P+N+E	75	55	5	109	88	100	127	143
32A	2P+E	89	69	6	120	93	111	137	153
	3P+E	89	69	6	120	93	111	137	153
	3P+N+E	89	69	6	120	101	118	137	154

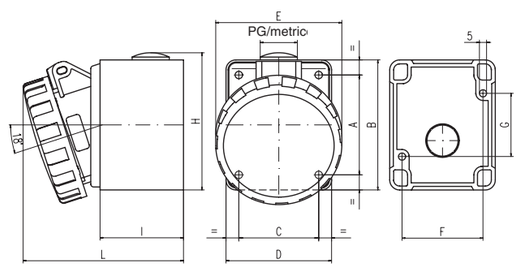
SURFACE MOUNTING SOCKET OUTLETS - STRAIGHT BOX

IP44



		A	B	C	D	F	G	H	I	L
16A	2P+E	70	91	56	74	54	48	94	59	102
	3P+E	70	91	56	74	54	48	94	59	103
	3P+N+E	70	91	56	74	54	48	94	59	105
32A	2P+E	90	111	68	89	68	62	114	72	123
	3P+E	90	111	68	89	68	62	114	72	123
	3P+N+E	90	111	68	89	68	62	114	72	125

IP67



		A	B	C	D	E	F	G	H	I	L
16A	2P+E	70	91	56	74	73	54	48	94	59	110
	3P+E	70	91	56	74	81	54	48	94	59	111
	3P+N+E	70	91	56	74	88	54	48	94	59	113
32A	2P+E	90	111	68	89	93	68	62	114	72	131
	3P+E	90	111	68	89	93	68	62	114	72	131
	3P+N+E	90	111	68	89	101	68	62	114	72	134

(Dimensions in mm)

EUREKA-HD SERIES
HEAVY DUTY INDUSTRIAL PLUGS AND SOCKETS

GENERAL DESCRIPTION

For years SCAME has been offering a wide range of high-quality industrial plugs and sockets complying with IEC 60309-1 and IEC 60309-2 International standards, gaining a leading position in the domestic and foreign markets.
SCAME's industrial plugs and sockets are reliable, robust, easy to wire and provide outstanding resistance to weathering and to chemicals. All of which assures safe operation, even in the most adverse environmental conditions.

This latest generation of industrial plugs, connectors and socket outlets extends and completes the comprehensive range of SCAME's plugs and sockets.
Completely new and internationally patented technical and constructional features have been added to the EUREKA-HD Series.
These features, illustrated in the following pages, are of course joined to high quality functional characteristics, reliability, safety and a long life in even the most exacting operating conditions.
An outstanding advantage of the EUREKA-HD Series plugs and sockets - and one which distinguishes it from all other plugs and sockets manufactured up to this time - is the extraordinary **ease and speed** with which the contacts can be cabled and inspected.
Using EUREKA-HD Series plugs and sockets is therefore highly recommended wherever the electrical contractor considers quick and easy cabling and frequent inspection of the contacts to be **important factors in the management of the installation work.**

REFERENCE STANDARDS

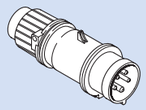
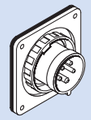
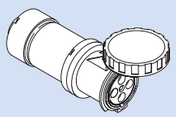
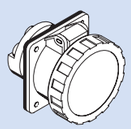
European standard EN 60309-1
International standard IEC 60309-1
Plugs, socket-outlets and couplers for industrial purposes
Part 1: General requirements

European standard EN 60309-2
International standard IEC 60309-2
Plugs, socket-outlets and couplers for industrial purposes
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

UL 1682
Plugs, receptacles and cable connectors of the pin and sleeve type.

UL 1686
Standard for pin and sleeve configuration

VERSIONS INDEX:
Rated operating voltage up to 50V

VERSIONS	RATED CURRENT		PROTECTION DEGREE page	IP44	page	IP66/67
Straight Plugs 	16A-32A	Series I	209		209	
	20A-30A	Series II	202-203		202-203	
	63A-125A	Series I			209	
	60A-100A	Series II			204-205	
Appliance inlets 	16A-32A	Series I	209		209	
	20A-30A	Series II	202-203		202-203	
	63A-125A	Series I			209	
	60A-100A	Series II			204-205	
Straight connectors 	16A-32A	Series I	209		209	
	20A-30A	Series II	202-203		202-203	
	63A-125A	Series I			209	
	60A-100A	Series II			204-205	
Panel mounting sockets outlets 	16A-32A	Series I	209		209	
	20A-30A	Series II	202-203		202-203	
	63A-125A	Series I			209	
	60A-100A	Series II			204-205	

SAFETY, PERFORMANCE AND DURABILITY...IN A SNAP!

Extensive Product Family:

- Safe and reliable, portable electrical connections
- Wide variety of Plugs, Connectors, Receptacles, Inlets and Mounting Boxes
- Watertight (IP67) and Splashproof (IP44) versions available
- 20, 30, 60, 100, 125, 250, 480 and 600 Amp ratings for small, medium or large current loads
- cULus Listed for North American ratings
- UL classified to IEC 60309-1 and IEC 60309-2 for North American and International ratings
- Complete interchangeability with all manufacturers' IEC 60309-1 and IEC 60309-2 devices
- Meets IEC60309 global configurations for safety in industrial applications

WATERTIGHT - IP67

Safe Connections Standard
- Ground contacts make first, break last for safe connections even under load

The Easy Way
- Snap-on locking feature on all 16/32A and 20/30A plugs and connectors

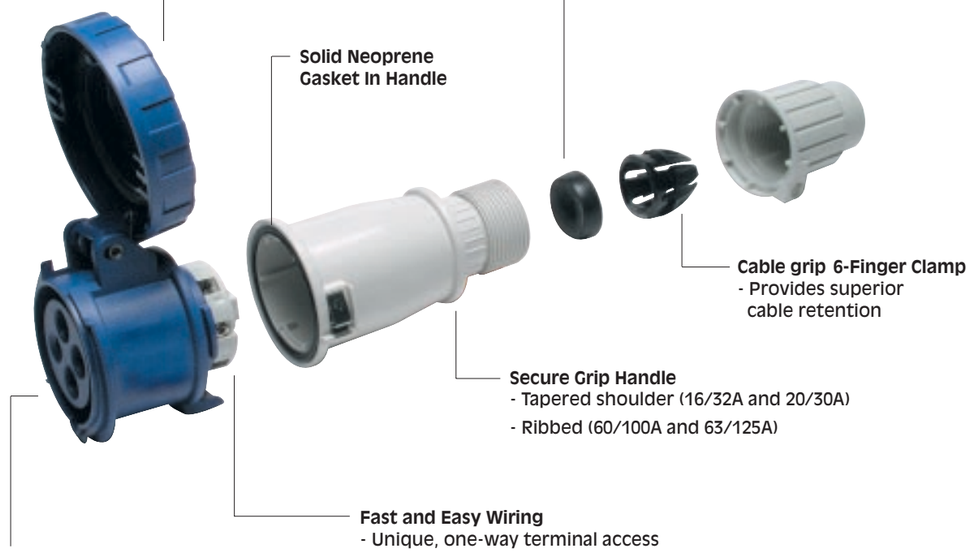
75% Faster Cable builds - Nylon lock screw System
- One-piece cable gland
- Nylon locking screw prevents loosening
- Hand assembly of cable gland, Cable grip 6-Finger Clamp and onion-ring bushing

Screw Collars Stay Put
- Turreted grip allows for easy handling

Combination Flap/Screw Cover
- Integral neoprene gasket for IP67 (Watertight protection)
- Unique flex hinge design

Neoprene Cable Bushing
- Onion ring design
- Universal fit capability

Solid Neoprene Gasket In Handle



Cable grip 6-Finger Clamp
- Provides superior cable retention

Secure Grip Handle
- Tapered shoulder (16/32A and 20/30A)
- Ribbed (60/100A and 63/125A)

Fast and Easy Wiring
- Unique, one-way terminal access
- Clearly marked terminal connections

Double Secure Wiring
- Dual, combination point terminal screw for failsafe connections

Safe Connections Standard
- Ground contacts make first, break last for safe connections even under load

Standard Interface / World Ready Full Internationa Compliances

EN 60309
UL Classification to IEC 60309-1 and IEC 60309-2.
cULus Listing: UL 1682/1686 and CSA C22.2 No. 182.1.
CE conforms to EC Low Voltage Directive.
North American and Global Voltage

Polarization "clock positions" available in all standard ratings.

Solid, Safe Voltage Selections -
One-Piece contact carriers with Full-Color IEC standard voltage-phasing Coding ensures correct product application every time.

WATERTIGHT

IP67

Watertight design and construction meet stringent IP67 internal protection standards.

Rugged thermoplastic housings resist impact or abuse and provide excellent corrosion resistance.

Unique SCAME strain relief grip and sealing system assure superior cable retention and watertight conductor termination.

Ideal for outdoor, wet marine and washdown applications.

Unique 75% faster assembly with SNAP-ON handle locking, and cable grip system.

SPLASHPROOF

IP44

Suitable for indoor use where splashing liquids and other contaminants may interfere with electrical connections.

Ideal for most heavy commercial applications and light industrial applications.

Available in 20 and 30 Amp ratings.

E238171
E238172

E238170

No Tools, No Screws Necessary

SNAP-ON locking handle saves 75% on assembly time.
Unique SNAP-ON assembly feature on 20 and 30 Amp plugs and connectors makes installation and inspection fast and reliable.
Captured gaskets in handles seal out water, chemicals and dust.

Easy Action Single-Wiring Point Access Saves Time Wiring

All terminal screws face in same direction allowing installer to make safe and secure conductor terminations in 30% less time than other devices. Rugged, corrosion free thermoplstic housings are color-coded for safe reliable connections to all other mating type /polarizations, with raised ground terminal standard.

Simple Cable Clamping

Threaded cable gland on 16/32A and 20/30A devices makes assembly fast and easy.
One-piece lock screw verifies clamp locking hold, with no external metal contact possible (16/32A and 20/30A devices).

Unique Fast

One-piece cable gland with locking screw loads to cable followed by cable grip 6-Finger cable clamp/grip piece.
Watertight onion ring bushing fits a wide variety of outside diameters.

Watertight and cable Grip Safety

Grip cable flexible 6-Finger clamp teeth holds well beyond all agency test pullout forces.
No internal clamps required.
Available in all amperages.

The Performance Connection

Watertight spring-loaded covers with high-strength flex-hinge screw covers on IP67 devices.
Flap covers on IP44 splashproof styles.
Safety, performance and durability for all IEC309 applications worldwide.

CONFIGURATION

It's impossible to mismate (non interchangiability) different voltages of the IEC 60309-2 Standard Devices.

Device size determines amperage.
Each voltage grouping is a different size so they are easily distinguishable for compatibility.

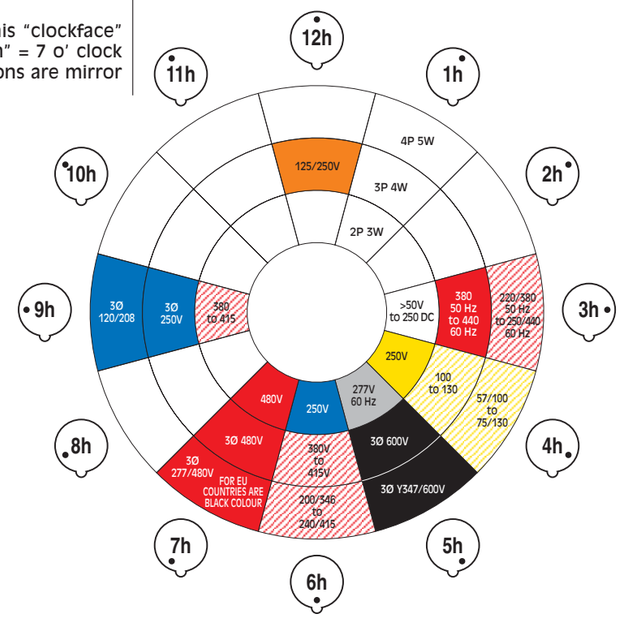
All IEC 60309 devices are color-coded.
Each voltage grouping has its own distinct color coding for mating compatibility.

Every IEC 60309-2 mating plug grounding pin is a mirror image of the female device.
Devices of differing voltages cannot be mated to one another.

The Female receptacles and connectors have a "clock face" voltage polarization.
A "keyway" female housing notch is always at 6 o' clock reference position.
Ground contact (sleeve) position on this "clockface" establishes voltage polarization. (ie. "7h" = 7 o' clock ground sleeve position) Male pin positions are mirror image.

Clock position - North American Ratings

Rated Voltage	Color	Usage (North American)
110-130V		North American
208-250V		North American
380-415V		Euro.
600V +		North American and Euro. (500V)
277/480V		North American
277V		North American
125/250V		North American
250/440V		Latin America



Catalog Numbering System

SCM 430P9W

- **Suffixes: Construction Options**
- **Internal Protection** — IP67 = Watertight = W / IP44 = Splashproof=S
- **Clock position / Voltage** — 9 = "9h" Clock Hour = 250 VAC, 3 phase
- **Plug, Connector, Receptacle, Inlet B**
- **Amperage:** 20, 30, 60, 100A or EURO 16, 32, 63, 125A
- **Wires:** 2p3w, 3p4w, 4p5w

20 Amp

Watertight and Splashproof Pin and Sleeve Devices IP67 and IP44

WATERTIGHT IP67

IP67 Shown




(1)

(1)

Poles & Wires	Configuration			Voltage/ Color Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet
	Receptable/ Connector	Plug/Inlet	Clock position		Cat. No.	Cat. No.		Cat. No.	Cat. No.
2P 3W			4h	125	SCM320P4W 216.72030	SCM320C4W 316.72040	.57-.71	SCM320R4W 427.72060	SCM320B4W 247.72090
2P 3W			6h	250	SCM320P6W 216.72033	SCM320C6W 316.72043	.57-.71	SCM320R6W 427.72063	SCM320B6W 24772093
2P 3W			5h	277	SCM320P5W 216.720337	SCM320C5W 316.720437	.57-.71	SCM320R5W 427.720637	SCM320B5W 247.720937
2P 3W			7h	480	SCM320P7W 216.720336	SCM320C7W 316.720436	.57-.71	SCM320R7W 427.720636	SCM320B7W 247.720936
3P 4W			12h	125/250	SCM420P12W 216.720363	SCM420C12W 316.720463	.57-.71	SCM420R12W 427.720663	SCM420B12W 247.720963
3P 4W			9h	3Ø250	SCM420P9W 216.72034	SCM420C9W 316.72044	.57-.71	SCM420R9W 427.72064	SCM420B9W 247.72094
3P 4W			7h	3Ø480	SCM420P7W 216.720366	SCM420C7W 316.720466	.57-.71	SCM420R7W 427.720666	SCM420B7W 247.720966
3P 4W			5h	3Ø600	SCM420P5W 216.720367	SCM420C5W 316.720467	.57-.71	SCM420R5W 427.720667	SCM420B5W 247.720967
4P 5W			9h	3ØY120/208	SCM520P9W 216.72035	SCM520C9W 316.72045	.57-.71	SCM520R9W 427.72065	SCM520B9W 247.72095
4P 5W			7h	3ØY277/480	SCM520P7W 216.720376	SCM520C7W 316.720476	.57-.71	SCM520R7W 427.720676	SCM520B7W 247.720976
4P 5W			5h	3ØY347/600	SCM520P5W 216.720377	SCM520C5W 316.720477	.57-.71	SCM520R5W 427.720677	SCM520B5W 247.720977

IP44 Construction: No locking collars on male devices; female devices have flap covers only

SPLASHPROOF IP44

2P 3W			4h	125	SCM320P4S 211.72030	SCM320C4S 311.72040	.57-.71	SCM320R4S 422.72060	SCM320B4S 242.72090
2P 3W			6h	250	SCM320P6S 211.72033	SCM320C6S 311.72043	.57-.71	SCM320R6S 422.72063	SCM320B6S 242.72093
2P 3W			5h	277	SCM320P5S 211.720337	SCM320C5S 311.720437	.57-.71	SCM320R5S 422.720637	SCM320B5S 242.720937
3P 4W			12h	125/250	SCM420P12S 211.720363	SCM420C12S 311.720463	.57-.71	SCM420R12S 422.720663	SCM420B12S 242.720963
3P 4W			9h	3ph.250	SCM420P9S 211.72034	SCM420C9S 311.72044	.57-.71	SCM420R9S 422.72064	SCM420B9S 242.72094
4P 5W*			9h	3ph.120/208	SCM520P9S 211.72035	SCM520C9S 311.72045	.57-.71	SCM520R9S 422.72065	SCM520B9S 242.72095

(1) Can be used with T&B Russellstoll JB series juncton boxes

UL Listing E238171, E238172
UL Classification E238170

30 Amp

Watertight and Splashproof Pin and Sleeve Devices IP67 and IP44

WATERTIGHT IP67

IP67 Shown




(1)

(1)

Poles & Wires	Configuration			Voltage/ Color Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet
	Receptable/ Connector	Plug/Inlet	Clock position		Cat. No.	Cat. No.		Cat. No.	Cat. No.
2P 3W			4h	125	SCM330P4W 216.73030	SCM330C4W 316.73040	.675-.91	SCM330R4W 427.73060	SCM330B4W 247.73090
2P 3W			6h	250	SCM330P6W 216.73033	SCM330C6W 316.73043	.675-.91	SCM330R6W 427.73063	SCM330B6W 247.73093
2P 3W			7h	480	SCM330P7W 216.730336	SCM330C7W 316.730436	.675-.91	SCM330R7W 427.730636	SCM330B7W 247.730936
3P 4W			12h	125/250	SCM430P12W 216.730363	SCM430C12W 316.730463	.675-.91	SCM430R12W 427.730663	SCM430B12W 247.730963
3P 4W			9h	3Ø250	SCM430P9W 216.73034	SCM430C9W 316.73044	.675-.91	SCM430R9W 427.73064	SCM430B9W 247.73094
3P 4W			7h	3Ø480	SCM430P7W 216.730366	SCM430C7W 316.730466	.675-.91	SCM430R7W 427.730666	SCM430B7W 247.730966
3P 4W			5h	3Ø600	SCM430P5W 216.730367	SCM430C5W 316.730467	.675-.91	SCM430R5W 427.730667	SCM430B5W 247.730967
4P 5W			9h	3ØY120/208	SCM530P9W 216.73035	SCM530C9W 316.73045	.675-.91	SCM530R9W 427.73065	SCM530B9W 247.73095
4P 5W			7h	3ØY277/480	SCM530P7W 216.730376	SCM530C7W 316.730476	.675-.91	SCM530R7W 427.730676	SCM530B7W 247.730976
4P 5W			5h	3ØY347/600	SCM530P5W 216.730377	SCM530C5W 316.730477	.675-.91	SCM530R5W 427.730677	SCM530B5W 247.730977

IP44 Construction: No locking collars on male devices; female devices have flap covers only

SPLASHPROOF IP44

2P 3W			4h	125	SCM330P4S 211.73030	SCM330C4S 311.73040	.675-.91	SCM330R4S 422.73060	SCM330B4S 24.273090
2P 3W			6h	250	SCM330P6S 211.73033	SCM330C6S 311.73043	.675-.91	SCM330R6S 422.73063	SCM330B6S 242.73093
2P 3W			5h	277	SCM330P5S 211.730337	SCM330C5S 311.730437	.675-.91	SCM330R5S 422.730637	SCM330B5S 242.730937
3P 4W			12h	125/250	SCM430P12S 211.730363	SCM430C12S 311.730463	.675-.91	SCM430R12S 422.730663	SCM430B12S 242.730963
3P 4W			9h	3ph.250	SCM430P9S 211.73034	SCM430C9S 311.73044	.675-.91	SCM430R9S 422.73064	SCM430B9S 242.73094
4P 5W			9h	3ph.120/208	SCM530P9S 211.73035	SCM530C9S 311.73045	.675-.91	SCM530R9S 422.73065	SCM530B9S 242.73095

(1) Can be used with T&B Russellstoll JB series juncton boxes

UL Listing E238171, E238172
UL Classification E238170

60 Amp
Watertight Pin and Sleeve Devices IP67




(1)

(1)

WATERTIGHT IP67

Poles & Wires	Configuration			Voltage/ Color Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet
	Receptable/ Connector	Plug/Inlet	Clock position		Cat. No.	Cat. No.		Cat. No.	Cat. No.
2P 3W			4h	125	SCM360P4W 215.76030	SCM360C4W 315.76040	.937-1.375	SCM360R4W 427.76060	SCM360B4W 247.76090
2P 3W			6h	250	SCM360P6W 215.76033	SCM360C6W 315.76043	.937-1.375	SCM360R6W 427.76063	SCM360B6W 247.76093
2P 3W			5h	277	SCM360P5W 211.760337	SCM360C5W 315.760437	.937-1.375	SCM360R5W 427.760637	SCM360B5W 247.760937
2P 3W			7h	480	SCM360P7W 215.760336	SCM360C7W 315.760436	.937-1.375	SCM360R7W 427.760636	SCM360B7W 247.760936
2P 3W			3h	250DC	SCM360P3W 215.760334	SCM360C3W 315.760434	.937-1.375	SCM360R3W 427.760634	SCM360B3W 247.760934
3P 4W			12h	125/250	SCM460P12W 215.760363	SCM460C12W 315.760463	.937-1.375	SCM460R12W 427.760663	SCM460B12W 247.760963
3P 4W			9h	3Ø250	SCM460P9W 215.76034	SCM460C9W 315.76044	.937-1.375	SCM460R9W 427.76064	SCM460B9W 247.76094
3P 4W			7h	3Ø480	SCM460P7W 215.760366	SCM460C7W 315.760466	.937-1.375	SCM460R7W 427.760666	SCM460B7W 247.760966
3P 4W			5h	3Ø600	SCM460P5W 215.760367	SCM460C5W 315.760467	.937-1.375	SCM460R5W 427.760667	SCM460B5W 247.760967
4P 5W			9h	3ØY120/208	SCM560P9W 215.76035	SCM560C9W 315.76045	.937-1.375	SCM560R9W 427.76065	SCM560B9W 247.76095
4P 5W			7h	3ØY277/480	SCM560P7W 215.760376	SCM560C7W 315.760476	.937-1.375	SCM560R7W 427.760676	SCM560B7W 247.760976
4P 5W			5h	3ØY347/600	SCM560P5W 215.760377	SCM560C5W 315.760477	.937-1.375	SCM560R5W 427.760677	SCM560B5W 247.760977

(1) Can be used with T&B Russellstoll JB series juncton boxes

UL Listing E238171, E238172
UL Classification E238170

100 Amp
Watertight Pin and Sleeve Devices IP67




(1)

(1)

WATERTIGHT IP67

Poles & Wires	Configuration			Voltage/ Color Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet
	Receptable/ Connector	Plug/Inlet	Clock position		Cat. No.	Cat. No.		Cat. No.	Cat. No.
2P 3W			6h	250	* *	* *	1.2650-1.790	* *	* *
2P 3W			7h	480	* *	* *	1.2650-1.790	* *	* *
3P 4W			12h	125/250	SCM4100P12W 215.7100363	SCM4100C12W 315.7100463	1.2650-1.790	SCM4100R12W 427.7100663	SCM4100B12W 247.7100963
3P 4W			9h	3Ø250	SCM4100P9W 215.710034	SCM4100C9W 315.710044	1.2650-1.790	SCM4100R9W 427.710064	SCM4100B9W 247.710094
3P 4W			7h	3Ø480	SCM4100P7W 215.7100366	SCM4100C7W 315.7100466	1.2650-1.790	SCM4100R7W 427.7100666	SCM4100B7W 247.7100966
3P 4W			5h	3Ø600	SCM4100P5W 215.7100367	SCM4100C5W 315.7100467	1.2650-1.790	SCM4100R5W 427.7100667	SCM4100B5W 247.7100967
4P 5W			9h	3ØY120/208	SCM5100P9W 215.710035	SCM5100C9W 315.710045	1.2650-1.790	SCM5100R9W 427.710065	SCM5100B9W 247.710095
4P 5W			7h	3ØY277/480	SCM5100P7W 215.7100376	SCM5100C7W 315.7100476	1.2650-1.790	SCM5100R7W 427.7100676	SCM5100B7W 247.7100976
4P 5W			5h	3ØY347/600	SCM5100P5W 215.7100377	SCM5100C5W 315.7100477	1.2650-1.790	SCM5100R5W 427.7100677	SCM5100B5W 247.7100977

(1) Can be used with T&B Russellstoll JB series juncton boxes

Performance - Electrical

Dielectric Voltage Withstand	3000 Volts for 1 minute (fixed devices) 2200 Volts for 1 minute (portable devices)
Maximum Working Voltage	600VAC/250 VDC (minimum creepage and clearances per UL 840)
Current Interrupting/Load Breaking	Tested to 150% of full rated current for circuit interrupting
Temperature Rise	Maximum 30°C rise at full rated current after 50 cycles overload at 150% rated load at 0.75-pf
Horsepower Ratings	Per Nec 430-151b reference for non-interrupting ratings
Endurance with Load	20 Amp: 5000 cycles; Load only
Per IEC 60309-1 Clause 21	30 Amp: 1000 cycles - Alternating load 60 Amp: 1000 cycles - Alternating load 100 Amp: 250 cycles - Alternating load

Performance - Mechanical

Cold (-25°C) Impact Resistance	Per UL 1682 Section 34 and IEC 60309-1 Clause 24
Cable O.D. Accommodation	Round portable service cord from 0.57" O.D. through 1.79" O.D.
Terminal Identification	In accordance with UL 1682 standards and IEC 60390-1: as L1-L2-L3-N-G
Cable Pull-Out Force	Per UL 1682 Section 33 and IEC 60309-1 Clause 23
Product Identification	molded-in product trademark(s) and UL approved product label

Performance - Environmental

Moisture Resistance	Per IEC 60309-1; Watertight flap/screw cover on IP67 devices or splashproof flap cover on IP44 devices
Flammability	All components V1 or better per UL94, V0 product ratings available
Operating Temperatures	Maximum Continuous 90°C/194°F, Minimum -25°C/-13°F
Chemical Resistance	Resists standard industrial hydrocarbons, acids, bases and solvents
Corrosion Resistance	All metallic components stainless steel or nickel plated brass Sleeve pressure rings of zinc plated steel

Materials

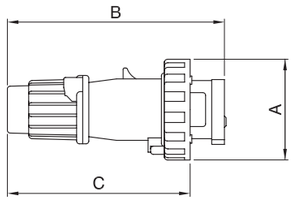
Housing	Valox®(GE plastics)
Contact Carriers	Valox®(GE plastics)
Cable Gland Nut	Valox®(GE plastics)
Cable Bushing	Solid neoprene, onion ring type
O-Ring, Seals & Gaskets	Solid neoprene
Pins & Sleeves	Nickel plated brass
Sleeve Force Ring	Zinc plated steel
Terminal Screws	Nickel plated steel
Flap/Screw Cover Springs	Stainless steel
SNAP-ON Spring	Stainless steel
Mounting Flanges	Valox®(GE plastics)
Cast Enclosures/Adapters	2 Layer electrostatic epoxy coated, copper-free aluminum enclosures (Valox Euro style NM also available)

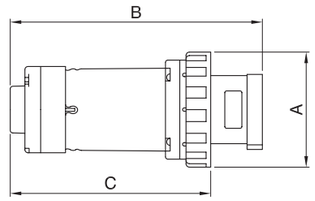
c UL us E238171
E238172

CLASSIFIED UL E238170

CE

SERIES IP67 DIMENSIONS



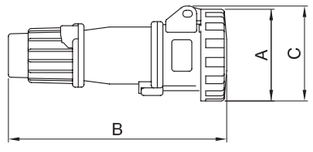


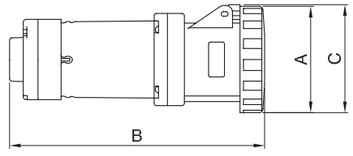
Plug IP67 16/20A and 30/32A

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
16/20A 2P3W	2.87	73	6.20	157	5.23	133	.570-.710	14-18
16/20A 3P4W	3.17	81	6.47	164	5.51	140	.570-.710	14-18
16/20A 4P5W	3.48	88	7.02	178	6.06	154	.570-.710	14-18
30/32A 2P3W	3.66	93	7.37	187	6.13	156	.675-.910	17-23
30/32A 3P4W	3.66	93	7.37	187	6.13	156	.675-.910	17-23
30/32A 4P5W	3.96	101	8.15	207	6.91	176	.675-.910	17-23

Plug IP67 60/63A and 100/125A

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
60/63A 2P3W	4.41	112	9.68	246	7.67	195	.937-1.375	24-35
60/63A 3P4W	4.41	112	9.68	246	7.67	195	.937-1.375	24-35
60/63A 4P5W	4.41	112	9.68	246	7.67	195	.937-1.375	24-35
100/125A 3P4W	5.06	129	12.16	309	9.83	250	.1265-1.790	32-45
100/125A 4P5W	5.06	129	12.16	309	9.83	250	.1265-1.790	32-45





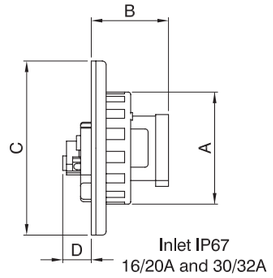
Connector IP67 16/20A and 30/32A

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
16/20A 2P3W	2.87	73	6.75	171	2.97	75	.570-.710	14-18
16/20A 3P4W	3.17	81	7.04	179	3.28	83	.570-.710	14-18
16/20A 4P5W	3.48	88	7.62	194	3.75	95	.570-.710	14-18
30/32A 2P3W	3.66	93	8.04	204	4.04	103	.675-.910	17-23
30/32A 3P4W	3.66	93	8.04	204	4.04	103	.675-.910	17-23
30/32A 4P5W	3.96	101	8.83	224	4.03	102	.675-.910	17-23

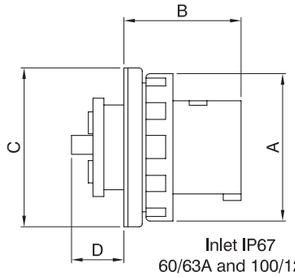
Connector IP67 60/63A and 100/125A

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
60/63A 2P3W	4.41	112	10.52	267	4.47	114	.937-1.375	24-35
60/63A 3P4W	4.41	112	10.52	267	4.47	114	.937-1.375	24-35
60/63A 4P5W	4.41	112	10.52	267	4.47	114	.937-1.375	24-35
100/125A 3P4W	5.06	129	12.80	325	5.06	129	.1265-1.790	32-45
100/125A 4P5W	5.06	129	12.80	325	5.06	129	.1265-1.790	32-45

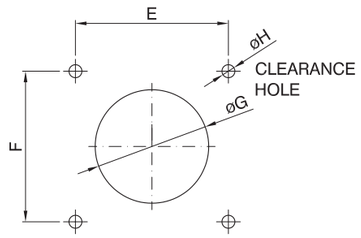
SERIES IP67 DIMENSIONS



Inlet IP67
16/20A and 30/32A



Inlet IP67
60/63A and 100/125A

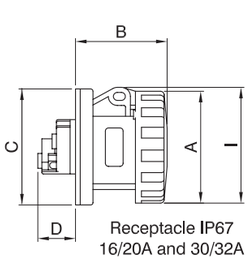


Inlet IP67 16/20A and 30/32A

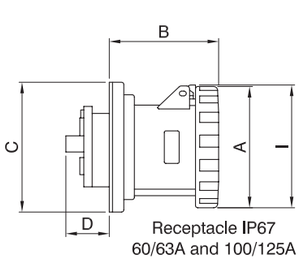
Cat. No.	A		B		C		D		E		F		G		H	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
16/20A 2P3W	2.87	73	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 3P4W	3.17	81	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 4P5W	3.48	88	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 2P3W	3.66	93	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 3P4W	3.66	93	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 4P5W	3.96	101	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2

Inlet IP67 60/63A and 100/125A

Cat. No.	A		B		C		D		E		F		G		H	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
60/63A 2P3W	4.41	112	3.44	87	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2
60/63A 3P4W	4.41	112	3.44	87	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2
60/63A 4P5W	4.41	112	3.44	87	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2
100/125A 3P4W	5.06	129	3.88	99	5.50	140	1.94	49	4.87	124	4.87	124	3.75	95	.282	7.2
100/125A 4P5W	5.06	129	3.88	99	5.50	140	1.94	49	4.87	124	4.87	124	3.75	95	.282	7.2



Receptacle IP67
16/20A and 30/32A



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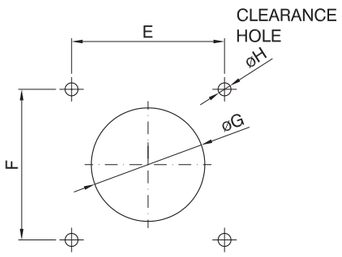
60/63A and 100/125A



Receptacle IP67 16/20A and 30/32A

Cat. No.	A		B		C		D		E		F		G		H		I	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
16/20A 2P3W	2.87	73	2.32	59	2.97	.76	.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	2.97	75
16/20A 3P4W	3.17	81	2.34	60	2.97	.76	.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.28	83
16/20A 4P5W	3.48	88	2.37	60	2.97	.76	.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.75	95
30/32A 2P3W	3.66	93	2.79	71	2.97	.76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	4.04	103
30/32A 3P4W	3.66	93	2.79	71	2.97	.76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	4.04	103
30/32A 4P5W	3.96	101	2.81	71	2.97	.76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	4.03	102

Receptacle IP67 60/63A and 100/125A

Cat. No.	A		B		C		D		E		F		G		H		I	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
60/63A 2P3W	4.41	112	4.16	106	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2	4.47	114
60/63A 3P4W	4.41	112	4.16	106	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2	4.47	114
60/63A 4P5W	4.41	112	4.16	106	4.50	114	1.68	43	3.87	98	3.87	98	3.25	83	.282	7.2	4.47	114
100/125A 3P4W	5.06	129	4.52	115	5.50	140	1.94	49	4.87	124	4.87	124	3.75	95	.282	7.2	5.06	129
100/125A 4P5W	5.06	129	4.52	115	5.50	140	1.94	49	4.87	124	4.87	124	3.75	95	.282	7.2	5.06	129

INTERNATIONAL RATINGS

IP44

IP67

(1)

(1)

16 Amp IP44

Poles & Wires	Configuration			Voltage/ Color Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet
	Receptable/ Connector	Plug/Inlet	Clock position		Cat. No.	Cat. No.		Cat. No.	Cat. No.
2P 3W			4h	110V	**SCM316P4S** 211.71630	**SCM316C4S** 211.71640	.57-.71	**SCM316R4S** 422.71660	**SCM316B4S** 247.71690
2P 3W			6h	250V	**SCM316P6S** 211.71633	**SCM316C6S** 311.71643	.57-.71	**SCM316R6S** 422.71663	**SCM316B6S** 247.71693
3P 4W			6h	380-415V	**SCM416P6S** 211.71636	**SCM416C6S** 311.71646	.57-.71	**SCM416R6S** 422.71666	**SCM416B6S** 247.71696
4P 5W			6h	220-240/ 380-415V	**SCM516P6S** 211.71637	**SCM516C6S** 311.71647	.57-.71	**SCM516R6S** 422.71667	**SCM516B6S** 247.71697

32 Amp IP44

2P 3W			4h	110V	**SCM332P4S** 211.73230	**SCM332C4S** 211.73240	.675-.91	**SCM332R4S** 422.73260	**SCM332B4S** 247.73290
2P 3W			6h	250V	**SCM332P6S** 211.73233	**SCM332C6S** 211.73243	.675-.91	**SCM332R6S** 422.73263	**SCM332B6S** 247.73293
3P 4W			6h	380-415V	**SCM432P6S** 211.73236	**SCM432C6S** 311.73246	.675-.91	**SCM432R6S** 422.73266	**SCM432B6S** 247.73296
3P 4W			3h	380-440V	**Special Application - Contact Tech Support**				
4P 5W			6h	220-240/ 380-415V	**SCM532P6S** 211.73237	**SCM532C6S** 311.73247	.675-.91	**SCM532R6S** 422.73267	**SCM532B6S** 247.73297

63 Amp IP67

2P 3W			6h	250V	**SCM363P6W** 215.76333	**SCM363C6W** 315.76343	.937-1.375	**SCM363R6W** 427.76363	**SCM363B6W** 247.76393
3P 4W			6h	380-415V	**SCM463P6W** 215.76336	**SCM463C6W** 315.76346	.937-1.375	**SCM463R6W** 427.76366	**SCM463B6W** 247.76396
4P 5W			6h	220-240/ 380-415V	**SCM563P6W** 215.76337	**SCM563C6W** 315.76347	.937-1.375	**SCM563R6W** 427.76367	**SCM563B6W** 247.76397

125 Amp IP67

2P 3W**			6h	250V	**SCM3125P6W** 215.712533	**SCM3125C6W** 315.712543	1.265-1.790	**SCM3125R6W** 427.712563	**SCM3125B6W** 247.712593
3P 4W			6h	380-415V	**SCM4125P6W** 215.712536	**SCM4125C6W** 315.712546	1.265-1.790	**SCM4125R6W** 427.712566	**SCM4125B6W** 247.712596
4P 5W			6h	220-240/ 380-415V	**SCM5125P6W** 215.712537	**SCM5125C6W** 315.712547	1.265-1.790	**SCM5125R6W** 427.712567	**SCM5125B6W** 247.712597

(1) Can be used with T&B Russellstoll JB series juncton boxes

UI Classification E238170

Performance - Electrical

Dielectric Voltage Withstand	3000 Volts for 1 minute per IEC 60309-1, Clause 19
Maximum Working Voltage	690VAC/250 VDC (minimum creepage and clearances per IEC)
Current Interrupting/Load Breaking	Tested to 125% rated current at 110% rated voltage per IEC309-1 clause 20
Temperature Rise	Maximum 50°C rise at rated current per IEC309-1 Clause 22, Table 8
Endurance with Load Per IEC 60309-1 Clause 21	16 Amp: 5000 cycles; Load only 32 Amp: 1000 cycles - Alternating load 63 Amp: 1000 cycles - Alternating load 125 Amp: 250 cycles - Alternating load

Performance - Mechanical

Cold (-25°C) Impact Resistance	Per IEC 60309-1 Clause 24; (-25°C) with 75cm drop
Cable O.D. Accommodation	Round portable service cords from 14.5 mm O.D. through 50mm O.D.
Terminal Identification	In accordance with IEC 60309-1 standards; as L1-L2-L3-N-G
Cable Pull-Out Force	in accordance with IEC 60309-1, Clause 23
Product Identification	Molded-in product Trademark(s) and CE Mark on packaging

Performance - Environmental

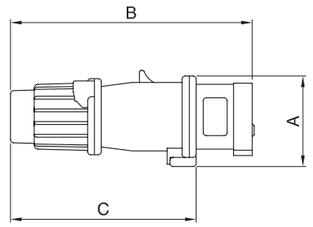
Moisture Resistance cover	Per 309-1; Watertight flap/screw cover IP67 devices or flap on IP44 devices
Flammability	Per IEC 60695-2-1; Housing glow wire tested to 650°C; Contact carrier insert tested to 850°C
Operating Temperatures	Maximum Continuous 90°C/194°F, Minimum -25°C/-13°F with impact
Chemical Resistance	Resists standard industrial hydrocarbons, acids, bases and solvents
Corrosion Resistance	All metallic components stainless steel or nickel plated brass Sleeve pressure rings of zinc plated steel
UV Resistance	External Thermoplastic components are UV stabilized IP67 Series 2 is suitable for outdoor use

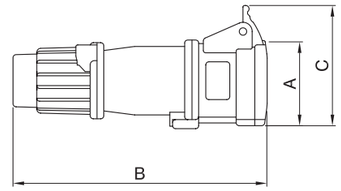
Material

Housing	Valox® (GE plastics)
Contact Carriers	Valox® (GE plastics)
Cable Gland Nut	Valox® (GE plastics)
Cable Bushing	Solid neoprene, onion ring type
O-Ring, Seals & Gaskets	Solid neoprene
Pins & Sleeves	Nickel plated brass
Sleeve Force Ring	Zinc plated steel
Terminal Screws	Nickel plated steel
Flap/Screw Cover Springs	Stainless steel
SNAP-ON Spring	Stainless steel
Mounting Flanges	Valox® (GE plastics)
Cast Enclosures/Adapters	2 Layer electrostatic epoxy coated, copper-free aluminum enclosures (Valox® Euro style NM available)

CLASSIFIED UL E238170

SERIES IP44 DIMENSIONS



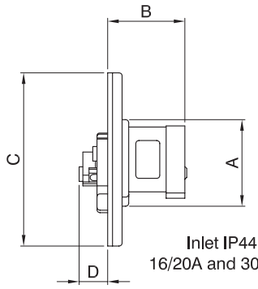


Plug IP44

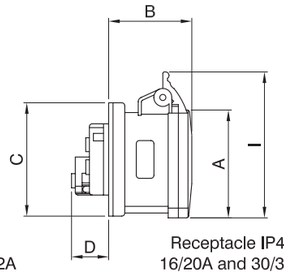
Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
16/20A 2P3W	2.26	58	6.20	157	4.76	121	.570-.710	14-18
16/20A 3P4W	2.52	64	6.47	164	5.04	128	.570-.710	14-18
16/20A 4P5W	2.85	73	7.02	178	5.58	142	.570-.710	14-18
30/32A 2P3W	2.85	73	7.37	187	5.58	142	.675-.910	17-23
30/32A 3P4W	2.85	73	7.37	187	5.58	142	.675-.910	17-23
30/32A 4P5W	3.13	80	8.15	207	6.36	162	.675-.910	17-23

Plug IP44

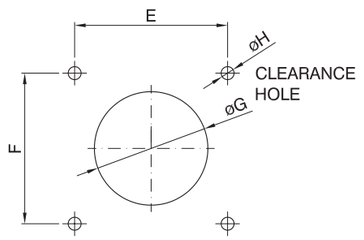
Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	Cord Grip Range inches	Cord Grip Range mm
16/20A 2P3W	2.18	55	6.53	166	3.07	78	.570-.710	14-18
16/20A 3P4W	2.43	62	6.83	173	3.33	85	.570-.710	14-18
16/20A 4P5W	2.81	71	7.41	188	3.79	96	.570-.710	14-18
30/32A 2P3W	2.81	71	781	198	3.79	96	.675-.910	17-23
30/32A 3P4W	2.81	71	781	188	3.79	96	.675-.910	17-23
30/32A 4P5W	3.09	79	8.62	219	4.17	106	.675-.910	17-23



Inlet IP44
16/20A and 30/32A



Receptacle IP44
16/20A and 30/32A



Inlet IP44

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	D inches	D mm	E inches	E mm	F inches	F mm	G inches	G mm	H inches	H mm
16/20A 2P3W	2.26	58	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 3P4W	2.52	64	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 4P5W	2.85	73	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 2P3W	2.85	73	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 3P4W	2.85	73	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 4P5W	3.13	80	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2

Receptacle IP44

Cat. No.	A inches	A mm	B inches	B mm	C inches	C mm	D inches	D mm	E inches	E mm	F inches	F mm	G inches	G mm	H inches	H mm	I inches	I mm
16/20A 2P3W	2.18	55	2.11	54	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.07	78
16/20A 3P4W	2.43	62	2.13	54	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.33	85
16/20A 4P5W	2.81	71	2.17	55	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 2P3W	2.81	71	2.56	65	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 3P4W	2.81	71	2.56	65	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 4P5W	3.09	79	2.60	66	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	4.17	106

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IEC309 SERIES
INDUSTRIAL PLUGS AND SOCKETS

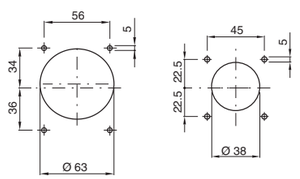
GENERAL DESCRIPTION

SCAME have further improved the performance and design of their wide range of industrial plugs and sockets that comply with the IEC 60309 standard. Special attention has been paid to the use of insulating materials and the treatment of metal components.
The outstanding mechanical characteristics of IEC309 Series plugs and sockets and their ability to withstand weathering and chemicals make them safe and reliable even in the most severe environmental conditions.

VERSIONS

IEC309 Series plugs and sockets come in several versions to meet the diverse installation requirements of modern-day equipment.
The tables show IEC 60309 Series plug and socket versions for operating voltages below 50 V (Extra-Low Voltage) and over 50 V (Low Voltage).

FIXING
SCAME sockets for voltage < 50V can be surface mounted or panel mounted on panel boards, or where the surface is set up with the following perforation.



Rated operating voltage up to 50 V (ELV)

Versions	Rated current	Protection degree
Plugs and connectors	16A - 32A	IP44 - IP67
Panel mounting socket outlets-angled or straight (with reduced flange)	16A - 32A	IP44 - IP67
Surface-mounting sockets with angled or straight box	16A - 32A	IP44 - IP67

Rated operating voltage above 50 V (ELV)

Versions	Rated current	Protection degree
Plugs	16A - 32A	IP44
	63A - 125A	IP67
Appliance inlets	16A - 32A	IP44
	16A - 32A 63A - 125A	IP67
Connectors	16A - 32A	IP44
	63A - 125A	IP67
Panel mounting socket outlets angled	63A - 125A	IP67
Panel mounting socket outlets straight with reduced flange	16A	IP44
Surface mounting socket outlets with angled box	63A - 125A	IP67

Extra low voltage, < 50V also in IP67 version.

CONSTRUCTION CHARACTERISTICS

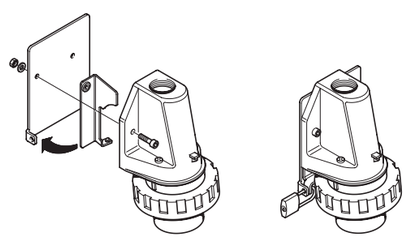
- Standard contact and housing dimensions
- RAL 7035 grey grip
- Cable sleeve for IP44
- Cable gland for IP67
- Plug with key and socket with keyway to ensure perfect coupling.
- Sockets with spring-locking cover and retaining catch when the plug is inserted, for both IP44 and IP67.
- Sockets with locking ring lids and plugs with inclined surfaces and bayonet fitting for IP67.
- Fold-back cable clamp for IP67 types.
- Only factory-set earth contact position depending on end use.
- High protection against indirect contacts since the earth contact is the first to be established and the last to be broken.
- Colour-coded to identify the different rated voltages.
- Perfect interchangeability with EUREKA Series plugs and sockets and with other makes.

63 A connector: *cable entry with cable gland.*

125 A plug: *the cable clamp.*

Accessories:
Mechanical locking device for appliance inlets.

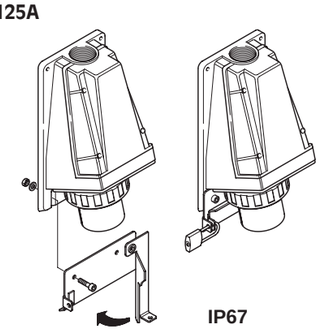
32A



Available until stocks are exhausted.

IP67

63A - 125A



IP67

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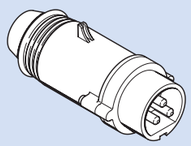
PLUGS AND SOCKETS - IP44

Rated Operating voltage < 50V (ELV)

Reference standards: IEC 60309-1 and -2

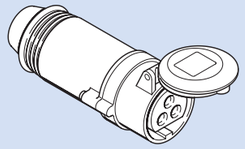
• Approvals : from page 535

PLUGS



IP44

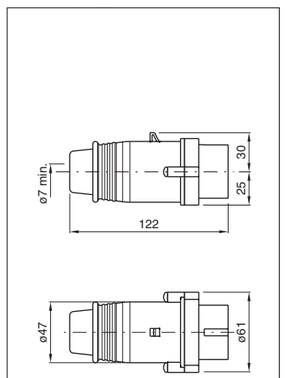
CONNECTORS



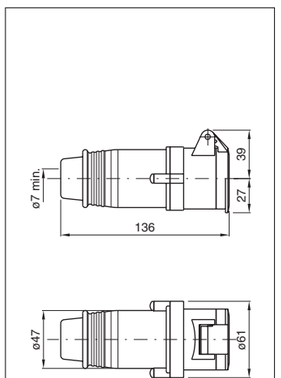
IP44

Poles	Hz	V	Colour	h.	16 A 10/100	32 A 10/100	16 A 10/100	32 A 10/100
			Inlet/Flange:					
			Pack qty.:					
2P	50/60	20-25		-	230.1600	230.3200	330.1605	330.3205
	50/60	40-50		12	230.1601	230.3201	330.1606	330.3206
	100-200	20-25 40-50		4	230.16010	230.32010	330.16060	330.32060
	300	20-25 40-50		2	230.16012	230.32012	330.16062	330.32062
	400	20-25 40-50		3	230.16014	230.32014	330.16064	330.32064
	>400-500	20-25 40-50		11	230.16015	230.32015	330.16065	330.32065
	c.c	20-25 40-50		10	230.1602	230.3202	330.1607	330.3207
3P	50/60	20-25		-	230.1604	230.3204	330.1609	330.3209
	50/60	40-50		12	230.1603	230.3203	330.1608	330.3208
	100-200	20-25 40-50		4	230.16030	230.32030	330.16080	330.32080
	300	20-25 40-50		2	230.16032	230.32032	330.16082	330.32082
	400	20-25 40-50		3	230.16034	230.32034	330.16084	330.32084
	>400-500	20-25 40-50		11	230.16035	230.32035	330.16085	330.32085

Mobile plugs - IP44 <50V



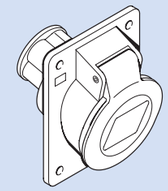
Mobile connectors - IP44 <50V



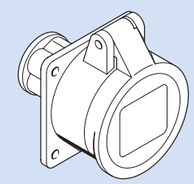
(▲) The surface mounting sockets outlets illustrated on page 215, are also available in a Metric cable inlet. Add .M after the first three digits (ex. 530.M01610)

(Dimensions in mm)

PANEL MOUNTING SOCKET OUTLETS



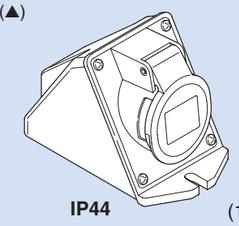
IP44



IP44

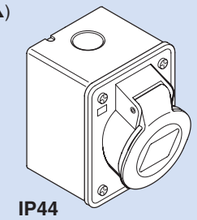
SURFACE MOUNTING SOCKET OUTLETS(1)

(▲)



IP44 (1)

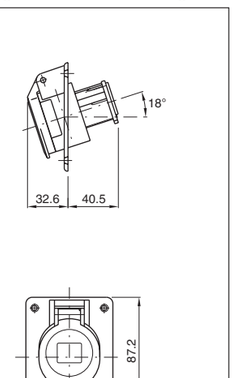
(▲)



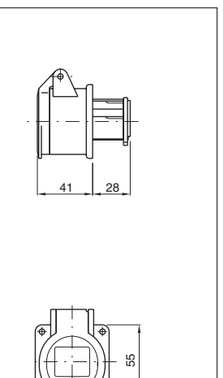
IP44 (2)

16 A 70x87* 10/100	32 A 70x87* 10/100	16 A 55x55• 10/100	32 A 55x55• 10/100	16 A PG16/M20 10/50	32 A PG16/M20 10/50	16 A PG16/M20 10/50	32 A PG16/M20 10/50
430.1615	430.3215	430.1615/R	430.3215/R	530.01610	530.03210	530.1610	530.3210
430.1616	430.3216	430.1616/R	430.3216/R	530.01611	530.03211	530.1611	530.3211
430.16160	430.32160	430.16160/R	430.32160/R	530.016110	530.032110	530.16110	530.32110
430.16162	430.32162	430.16162/R	430.32162/R	530.016112	530.032112	530.16112	530.32112
430.16164	430.32164	430.16164/R	430.32164/R	530.016114	530.032114	530.16114	530.32114
430.16165	430.32165	430.16165/R	430.32165/R	530.016115	530.032115	530.16115	530.32115
430.1617	430.3217	430.1617/R	430.3217/R	530.01612	530.03212	530.1612	530.3212
430.1619	430.3219	430.1619/R	430.3219/R	530.01614	530.03214	530.1614	530.3214
430.1618	430.3218	430.1618/R	430.3218/R	530.01613	530.03213	530.1613	530.3213
430.16180	430.32180	430.16180/R	430.32180/R	530.016130	530.032130	530.16130	530.32130
430.16182	430.32182	430.16182/R	430.32182/R	530.016132	530.032132	530.16132	530.32132
430.16184	430.32184	430.16184/R	430.32184/R	530.016134	530.032134	530.16134	530.32134
430.16185	430.32185	430.16185/R	430.32185/R	530.016135	530.032135	530.16135	530.32135

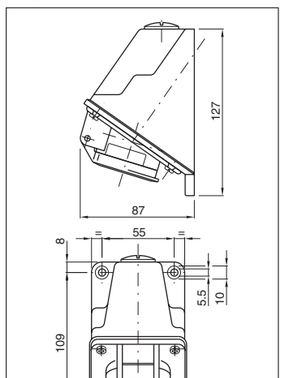
(*) Angled - Standard flange



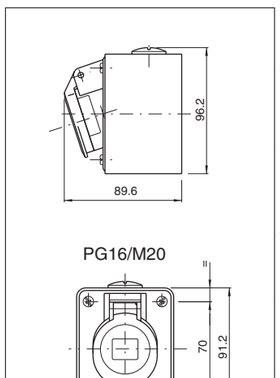
(•) Straight - Reduced flange



Angled box



Straight box



(1) With seal, 4 screws, PG16 screw cap, box with PG16 threaded hole.
(2) With gasket, 4 screws kit, enclosure with knockout hole inlets

(Dimensions in mm)

Fixing: see page 212

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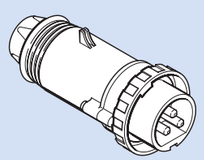
PLUGS AND SOCKETS - IP67

Rated operating voltage <50 V (ELV)

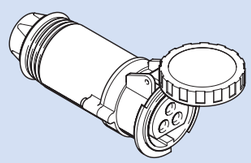
Reference standards: IEC 60309-1 and -2

• Approvals : from page 535

PLUGS **CONNECTORS**



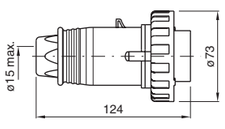
IP67



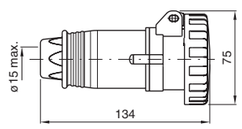
IP67

Poles	Hz	V	Colour	Inlet/Flange Pack qty.: h.	16 A 10/100	32 A 10/100	16 A 10/100	32 A 10/50
2P	50/60	20-25		-	235.1600	235.3200	335.1605	335.3205
	50/60	40-50		12	235.1601	235.3201	335.1606	335.3206
	100-200	20-25 40-50		4	235.16010	235.32010	335.16060	335.32060
	300	20-25 40-50		2	235.16012	235.32012	335.16062	335.32062
	400	20-25 40-50		3	235.16014	235.32014	335.16064	335.32064
	>400-500	20-25 40-50		11	235.16015	235.32015	335.16065	335.32065
	d.c	20-25 40-50		10	235.1602	235.3202	335.1607	335.3207
3P	50/60	20-25		-	235.1604	235.3204	335.1609	335.3209
	50/60	40-50		12	235.1603	235.3203	335.1608	335.3208
	100-200	20-25 40-50		4	235.16030	235.32030	335.16080	335.32080
	300	20-25 40-50		2	235.16032	235.32032	335.16082	335.32082
	400	20-25 40-50		3	235.16034	235.32034	335.16084	335.32084
	>400-500	20-25 40-50		11	235.16035	235.32035	335.16085	335.32085

Plugs - IP67 <50V



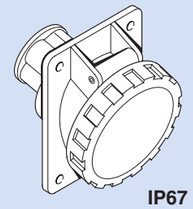
Connectors - IP67 <50V



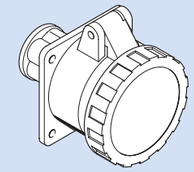
(Dimensions in mm)

(▲) The surface mounting sockets outlets illustrated on page 217, are also available in a Metric cable inlet. Add .M after the first three digits (ex. 535.M01610)

PANEL MOUNTING SOCKET OUTLETS



IP67

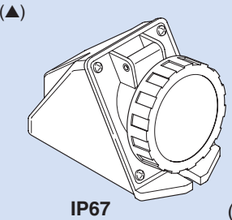


IP67

16 A 70x87* 10/100	32 A 70x87* 10/100	16 A 55x55• 10/100	32 A 55x55• 10/100
435.1615	435.3215	435.1615/R	435.3215/R
435.1616	435.3216	435.1616/R	435.3216/R
435.16160	435.32160	435.16160/R	435.32160/R
435.16162	435.32162	435.16162/R	435.32162/R
435.16164	435.32164	435.16164/R	435.32164/R
435.16165	435.32165	435.16165/R	435.32165/R
435.1617	435.3217	435.1617/R	435.3217/R
435.1619	435.3219	435.1619/R	435.3219/R
435.1618	435.3218	435.1618/R	435.3218/R
435.16180	435.32180	435.16180/R	435.32180/R
435.16182	435.32182	435.16182/R	435.32182/R
435.16184	435.32184	435.16184/R	435.32184/R
435.16185	435.32185	435.16185/R	435.32185/R

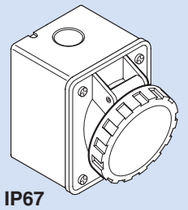
SURFACE MOUNTING SOCKET OUTLETS(1)

(▲)



IP67 (1)

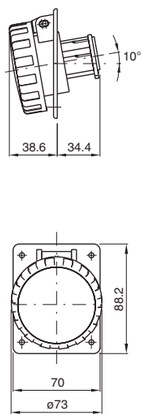
(▲)



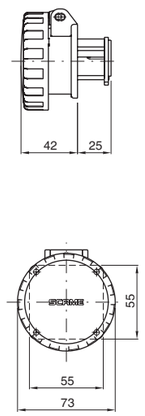
IP67 (2)

16 A PG16/M20 10/50	32 A PG16/M20 10/50	16 A PG16/M20 10/50	32 A PG16/M20 10/50
535.01610	535.03210	535.1610	535.3210
535.01611	535.03211	535.1611	535.3211
535.016110	535.032110	535.16110	535.32110
535.016112	535.032112	535.16112	535.32112
535.016114	535.032114	535.16114	535.32114
535.016115	535.032115	535.16115	535.32115
535.01612	535.03212	535.1612	535.3212
535.01614	535.03214	535.1614	535.3214
535.01613	535.03213	535.1613	535.3213
535.016130	535.032130	535.16130	535.32130
535.016132	535.032132	535.16132	535.32132
535.016134	535.032134	535.16134	535.32134
535.016135	535.032135	535.16135	535.32135

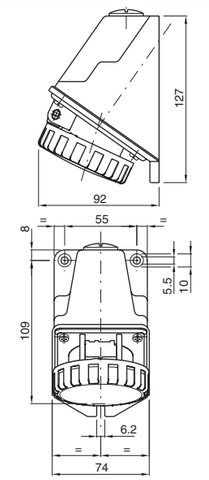
(*) Angled - Standard flange



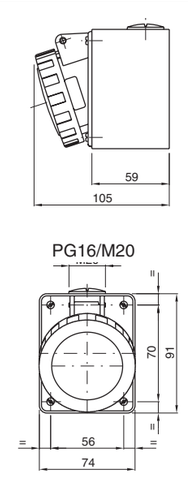
(•) Straight - Reduced flange



Angled box



Straight box



(Dimensions in mm)

(1) With seal, 4 screws, PG16 screw cap, box with PG16 threaded hole.
(2) With gasket, 4 screws kit, enclosure with knockout hole inlets

Fixing: see page 212

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PLUGS AND SOCKETS

Rated operating voltage >50 V (LV)

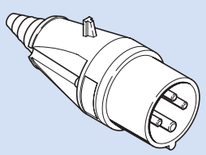
Reference standards: IEC 60309-1 and -2, EN 60309-1 and 2

- IP44 Cable sleeves
- IP67 Cable sleeves

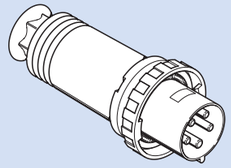
• Approvals: from page 535
• Dimensions: see page 224

• Plugs cover 570.0316: page 228

PLUGS



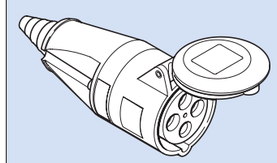
IP44



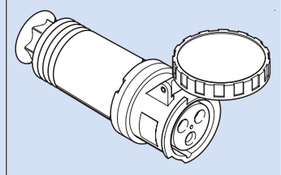
IP67

Poles	Hz	V	Colour	h	16 A cable sleeve 10/100 Cable inlet: Pack qty.:	32 A cable sleeve 10/100	63 A PG36 6/24	125 A PG48 1/8
2P+E	50/60	100-130		4	210.1630		215.6330	
	50/60	200-250		6	210.1633	210.3233	215.6333	215.12533
	50/60	380-415		9			215.6338	
	60	277		5			215.63337	
	50/60	480-500		7			215.63336	
	50/60	is. transf.		12			215.63333	
	>300-500	>50		2				
	c.c.	>50-250		3			215.63334	
	c.c.	>250		8			215.63338	
3P+E	50/60	100-130		4			215.6331	215.12531
	50/60	200-250		9	210.1634	210.3234	215.6334	215.12534
	50/60	380-415		6	210.1636	210.3236	215.6336	215.12536
	60	440-460		11			215.63365	215.125365
	50/60	480-500		7			215.63366	215.125366
	50/60	600-690		5			215.63367	215.125367
	50/60	is. transf.		12			215.63363	215.125363
	50 60	380 440		3				
	100-300	>50		10				
	>300-500	>50		2				
3P+N+E	50/60	100-130		4			215.6332	215.12532
	50/60	208-250		9			215.6335	215.12535
	50/60	346-415		6	210.1637	210.3237	215.6337	215.12537
	50/60	480-500		7			215.63376	215.125376
	50/60	600-690		5			215.63377	215.125377
	60	440-460		11			215.63375	215.125375
	50 60	380 440		3				
	>300-500	>50		2				

CONNECTORS



IP44



IP67

16 A cable sleeve 10/100	32 A cable sleeve 10/100	63 A PG36 6/24	125 A PG48 1/8
310.1640		315.6340	
310.1643	310.3243	315.6343	315.12543
		315.6348	
		315.63437	
		315.63436	
		315.63433	
		315.63434	
		315.63438	
		315.6341	315.12541
310.1644	310.3244	315.6344	315.12544
310.1646	310.3246	315.6346	315.12546
		315.63465	315.125465
		315.63466	315.125466
		315.63467	315.125467
		315.63463	315.125463
		315.6342	315.12542
		315.6345	315.12545
310.1647	310.3247	315.6347	315.12547
		315.63476	315.125476
		315.63477	315.125477
		315.63475	315.125475

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APPLIANCE INLETS

Rated operating voltage >50 V (LV)

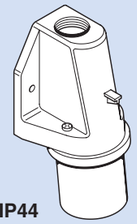
Reference standards: IEC 60309-1 and -2, EN 60309-1 and 2

- Supplied with screw cap

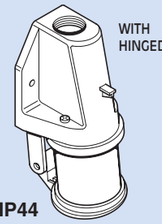
• Approvals : from page 535
• Dimensions : see page 224

 # Produts available until stocks are exhausted they have been substituted by EUREKA Series (page 185)

STANDARD



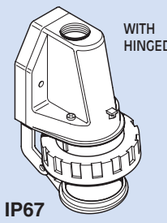
IP44 #



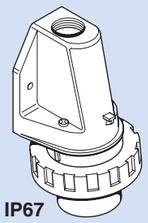
IP44 #

Poles	Hz	V	Colour	h	16 A PG16 10/100	32 A PG21 5/50	16 A PG16 10/100
			Cable inlet:				
			Pack qty.:				
2P+E	50/60	100-130		4	**240.1690**	**240.3290**	
	50/60	200-250		6	**240.1693**	**240.3293**	**240.1699**
	50/60	380-415		9	**240.1695**	**240.3294**	
	60	277		5			
	50/60	480-500		7			
	50/60	is. transf.		12			
	>300-500	>50		2			
	c.c.	>50-250		3			
	c.c.	>250		8			
3P+E	50/60	100-130		4	**240.1691**	**240.3291**	
	50/60	200-250		9	**240.1692**	**240.3292**	
	50/60	380-415		6	**240.1694**	**240.3296**	
	60	440-460		11			
	50/60	480-500		7			
	50/60	600-690		5			
	50/60	is. transf.		12			
	50 60	380 440		3			
	100-300	>50		10			
	>300-500	>50		2			
3P+N+E	50/60	100-130		4	**240.1696**	**240.3295**	
	50/60	208-250		9	**240.1697**	**240.3297**	
	50/60	346-415		6	**240.1698**	**240.3298**	
	50/60	480-500		7			
	50/60	600-690		5			
	60	440-460		11			
	50 60	380 440		3			
	>300-500	>50		2			

PANEL MOUNTING

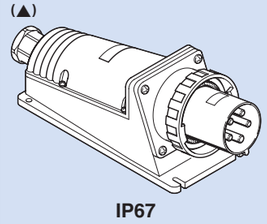


IP67 #

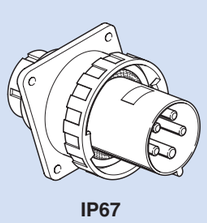


IP67 #

(▲)



IP67



IP67

16 A PG16 10/100	16 A PG16 10/100	32 A PG21 5/50	63 A PG29/M32 3/12	125 A PG48/M63 1/8	63 A Flange 10	125 A Flange 10
	245.1690/S	**245.3290/S**	**245.6390**		**246.6390**	
245.1699/S	**245.1693/S**	**245.3293/S**	**245.6393**	**245.12593**	**246.6393**	**2462.12593**
	245.1695/S	**245.3294/S**	**245.6394**		**246.6394**	
	245.16934/S	**245.32934/S**				
	245.1691/S	**245.3291/S**	**245.6391**	**245.12591**	**246.6391**	**246.12591**
	245.1692/S	**245.3292/S**	**245.6392**	**245.12592**	**246.6392**	**246.12592**
	245.1694/S	**245.3296/S**	**245.6396**	**245.12596**	**246.6396**	**246.12596**
		245.32966/S				
	245.16944/S	**245.32964/S**				
	245.1696/S	**245.3295/S**	**245.6395**	**245.12595**	**246.6395**	**246.12595**
	245.1697/S	**245.3297/S**	**245.6397**	**245.12598**	**246.6397**	**246.12598**
	245.1698/S	**245.3298/S**	**245.6398**	**245.12597**	**246.6398**	**246.12597**
	245.16984/S	**245.32984/S**				

Note:
The hinged lid protects the contact pins from water splashes and mud.

(▲) The Appliance inlets 63A and 125A are also available in a Metric cable inlet. Add .M after the first three digits (ex. 245.M6390)

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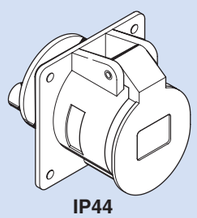
PANEL MOUNTING SOCKET OUTLETS

Rated operating voltage >50 V (LV)

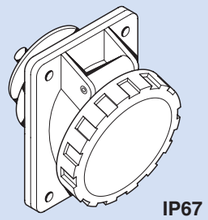
Reference standards: IEC 60309-1 and -2, EN 60309-1 and 2

- Approvals : from page 535
- Dimensions : see page 224

STRAIGHT (*) **ANGLED**



IP44

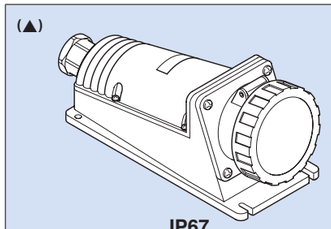


IP67

Poles	Hz	V	Colour	h	16 A 62x62* 10/100		63 A 100x110 6/30	125 A 114x114 1/10
			Flange dim. (mm):					
			Pack qty.:					
2P+E	50/60	100-130		4	420.1660/R		415.6360	
	50/60	200-250		6	420.1663/R		415.6363	415.12563
	50/60	380-415		9	420.1668/R		415.6368	
	60	277		5			415.63637	
	50/60	480-500		7			415.63636	
	50/60	is. transf.		12			415.63633	
	>300-500	>50		2				
	c.c.	>50-250		3			415.63634	
	c.c.	>250		8			415.63638	
3P+E	50/60	100-130		4			415.6361	415.12561
	50/60	200-250		9			415.6364	415.12564
	50/60	380-415		6			415.6366	415.12566
	60	440-460		11			415.63665	415.125665
	50/60	480-500		7			415.63666	415.125666
	50/60	600-690		5			415.63667	415.125667
	50/60	is. transf.		12			415.63663	415.125663
	50 60	380 440		3				
	100-300	>50		10				
	>300-500	>50		2				
3P+N+E	50/60	100-130		4			415.6362	415.12562
	50/60	208-250		9			415.6365	415.12565
	50/60	346-415		6			415.6367	415.12567
	50/60	480-500		7			415.63676	415.125676
	50/60	600-690		5			415.63677	415.125677
	60	440-460		11			415.63675	415.125675
	50 60	380 440		3				
	>300-500	>50		2				

(*) Not standard SCAME flange
(product no longer in production, it has been sobstituted by the EUREKA Series fam. 422, see page 189).

ANGLED BOX

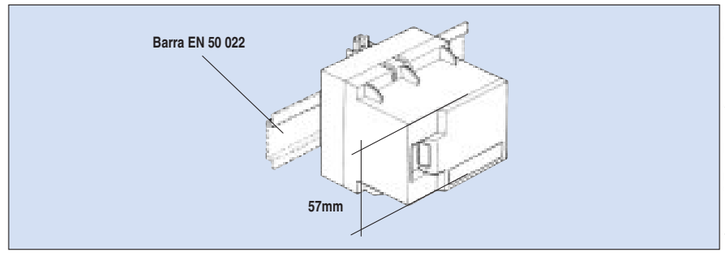


(▲)

IP67

63 A PG29/M32 6/12	125 A PG48/M63 1/8
515.6350	
515.6353	515.12553
515.6358	
515.63537	
515.63536	
515.63533	
515.63534	
515.63538	
515.6351	515.12551
515.6354	515.12554
515.6356	515.12556
515.63565	515.125565
515.63566	515.125566
515.63567	515.125567
515.63563	515.125563
515.6352	515.12552
515.6355	515.12555
515.6357	515.12557
515.63576	515.125576
515.63577	515.125577
515.63575	515.125575

SOCKETS FOR MOUNTING ON DIN RAILS - IP44



Front profile can not be inserted into standard DIN window, h 45mm.

DESCRPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 200/250V~ - 6h		10/50	410.1663/DIN #
3P+E - 16A - 380/415V~ - 6h		10/50	410.1666/DIN #

available until stocks are exhausted

(▲) The surface mounting sockets outlets 63A and 125A, are also available in a Metric cable inlet.
Add. M after the first three digits (ex. 515.M6350)

570.0163

ACCESSORIES:
Empty surface mounting boxes (page 213)

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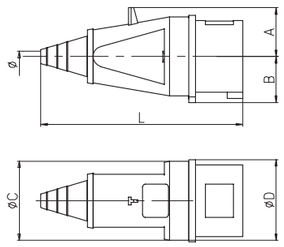
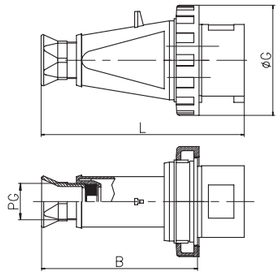
MOBILE PLUGS

IP44



		L	B	Ø
16A	2P+E	135	58	7
	3P+E	142	67	7
	3P+N+E	159	76	9
32A	2P+E	174	79	9
	3P+E	174	79	9
	3P+N+E	180	88	10

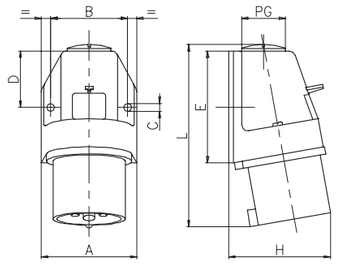
IP67



		øG	B	L	PG
63A	2P+E	106	175	247	36
	3P+E	106	175	247	36
	3P+N+E	106	175	247	36
125A	3P+E	128	235	308	48
	3P+N+E	128	235	308	48

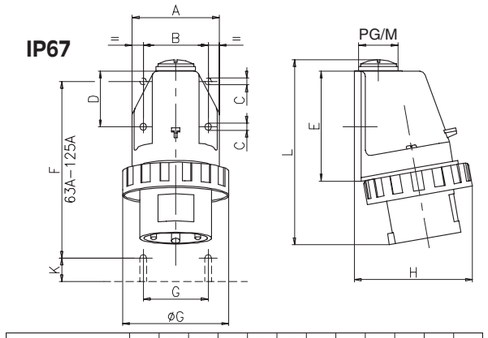
APPLIANCE INLETS

IP44



		A	B	C	D	E	H	L	PG
16A	2P+E	60	46	5	39	75	69	120	16
	3P+E	65	51	5	39	80	76	124	16
	3P+N+E	70	58	5	40	80	74	126	16
32A	2P+E	73	61	5	44	87	79	142	21
	3P+E	73	61	5	44	87	79	142	21
	3P+N+E	78	66	5	46	92	86	147	21

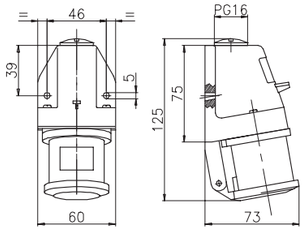
IP67



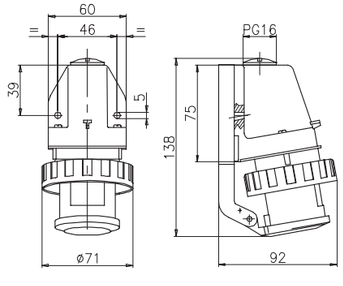
		A	B	C	D	E	F	G	H	K	L	PG/M	ØG
16A	2P+E	60	46	5	39	75	-	-	80	-	125	16	71
	3P+E	65	51	5	39	80	-	-	87	-	131	16	77
	3P+N+E	70	58	5	41	81	-	-	91	-	132	16	86
32A	2P+E	73	61	5	44	88	-	-	96	-	145	21	91
	3P+E	73	61	5	44	88	-	-	96	-	145	21	91
	3P+N+E	78	66	5	48	93	-	-	107	-	155	21	99
63A	2P+E	115	96	6	10	235	205	80	131	15	267	29/32	106
	3P+E	115	96	6	10	235	205	80	131	15	267	29/32	106
	3P+N+E	115	96	6	10	235	205	80	131	15	267	29/32	106
125A	3P+E	135	120	6	13	300	270	100	159	17	346	48/63	128
	3P+N+E	135	120	6	13	300	270	100	159	17	346	48/63	128

APPLIANCE INLETS WITH HINGED LID

IP44

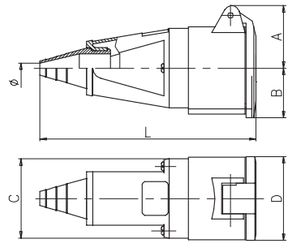


IP67



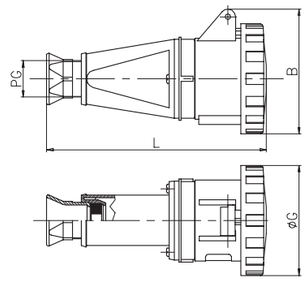
MOBILE CONNECTORS

IP44



		A	B	C	D	L	ø
16A	2P+E	38	29	50	50	146	7
	3P+E	41	32	55	57	155	7
	3P+N+E	49	39	62	65	168	9
32A	2P+E	47	39	56	65	182	9
	3P+E	47	39	56	65	182	9
	3P+N+E	51	42	69	71	193	13

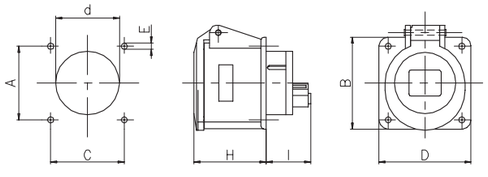
IP67



		øG	B	L	PG
63A	2P+E	106	111	257	36
	3P+E	106	111	257	36
	3P+N+E	106	111	257	36
125A	3P+E	128	128	324	48
	3P+N+E	128	128	324	48

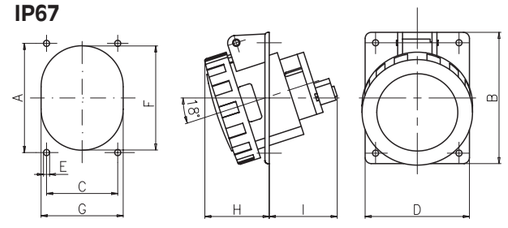
PANEL MOUNTING SOCKET OUTLETS

IP44



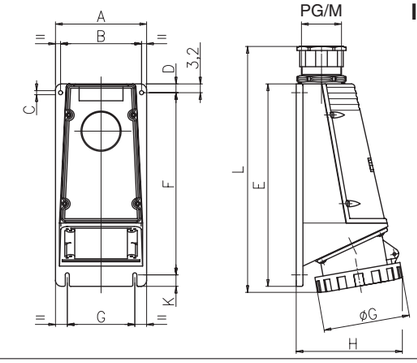
		A	B	C	D	E	H	I	d
16A	2P+E	47	62	47	62	5	48	29	64

IP67



		A	B	C	D	E	F	H	I	G
63A	2P+E	85	110	80	100	5	92	63	89	80
	3P+E	85	110	80	100	5	92	63	89	80
	3P+N+E	85	110	80	100	5	92	63	89	80
125A	3P+E	90	114	90	114	6	104	76	86	92
	3P+N+E	90	114	90	114	6	104	76	86	92

REDUCED FLANGE PANEL MOUNTING SOCKET OUTLETS



IP67 (63A - 125A)

		A	B	C	D	E	F	G	H	K	L	PG/M	øG
63A	2P+E	115	96	6	10	235	205	80	125	15	267	29/32	106
	3P+E	115	96	6	10	235	205	80	125	15	267	29/32	106
	3P+N+E	115	96	6	10	235	205	80	125	15	267	29/32	106
125A	3P+E	135	120	6	13	300	270	100	157	17	346	48/63	128
	3P+N+E	135	120	6	13	300	270	100	157	17	346	48/63	128

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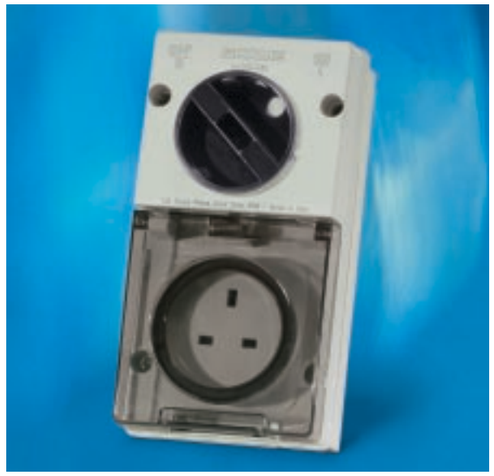
Switched socket-outlet



GENERAL DESCRIPTION

It is just characterized by combining the control disconnecting switch SCAME with a BS1363 (British Standard), socket-outlet which are both enclosed in the same panel. Tap BS perfectly integrates into System ADVANCE 2.

The high mechanical features and excellent resistance to the atmospheric and chemical agents make its use safe and reliable even in the most difficult environmental conditions.

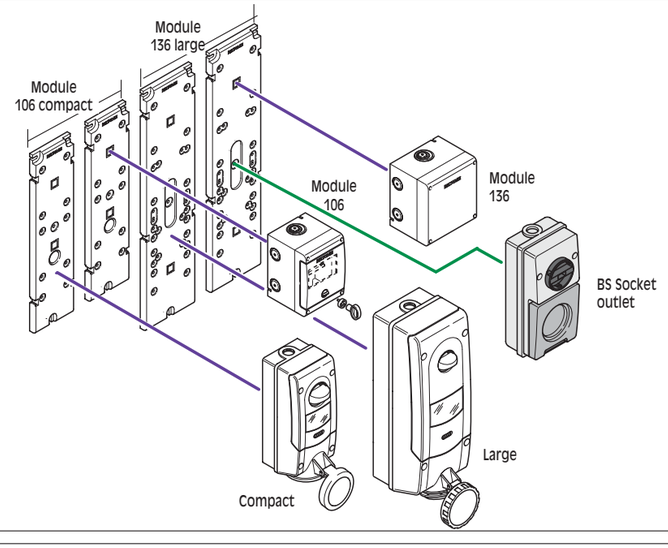
REFERENCE STANDARD

BS1363-2
13A Plugs, socket-outlets, adaptors and connection unit.
Part 2: specification for 13A switched and unswitched socket-outlets.

TECHNICAL CHARACTERISTICS

- 2P+E 13A 250V a.c. BS1363 socket-outlet
- Switch disconnector according to EN60947-3
- Protection degree IP66 (with closed cover or plug with ring inside)
- Padlockable in OFF position (3 padlock) and in ON position (1 padlock)
- Cable entry: 1xM25 threaded in the upper part, 2xM20 knocks out in the lower part, 2xM20/25 knocks out on bottom.
- Equipped with threaded tap 1xM25
- Compatibility with ADVANCE 2 System (see at the bottom of page)

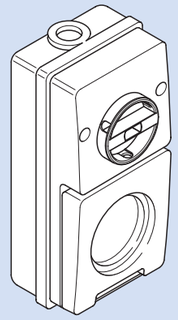
COMPATIBILITY WITH ADVANCE 2 SYSTEM



BS socket-outlet

- Pretection degree: IP66
- Colour: grey RAL 7035

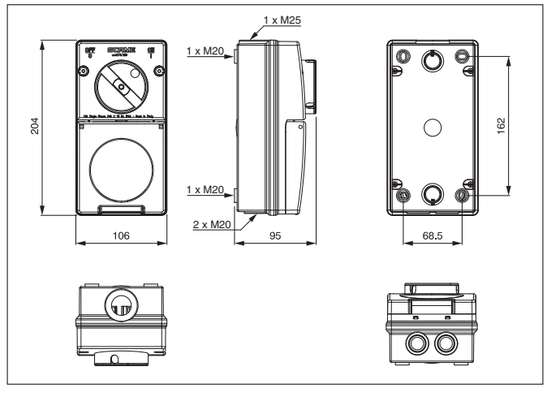
DESCRIPTION	SOCKET OUTLET	PACK QTY.	CATALOGUE NUMBER
Switched socket-outlet (20A)	British standard 2P+E 13A 250V~	1/12	**570.7180**



TECHNICAL DATA OF SWITCH-DISCONNECTORS

Reference standard: IEC 60947-3

					20A
Rated insulation voltage U_i				V_{AC} V_{DC}	690 400
Rated impulse withstand voltage U_{imp}				kV	4
Thermal current I_{th}				A	30
Thermal current I_{the}				A	30
Nominal current rating	**AC21A**	Resistive loads, including moderate overloads	690V	A	30
	AC22A	Mixed resitive and inductive loads, including moderate overloads	690V	A	20
	AC23A	Switching off motor loads or other highly inductive loads (3 phase / 3 pole)	400V 500V 690V	A	- - 16
	AC3	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V 690V	A	- 12
	DC21A	Resistive loads, including moderate overloads	300V	A	25
	DC22A	Mixed resitive and inductive loads, including moderate overloads	250V	A	20
Rated short-time withstand current Icw (1s)				A	400
Short-circuit protection:	Conditional short-circuit current			kAeff	10
	Associate fuse size for conditional short-circuit current - Type gG		500V	A	16
	Rated short-circuit making capacity. **Icm**			A	1500
Permissible wire gauge:	Flexible wire			mm^2 AWG	1.5 - 10 16 - 8
	Rigid wire			mm^2 AWG	1.5 - 16 16 - 6



(dimensions in mm)

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ACCESSORIES FOR THE IEC309 AND EUREKA SERIES

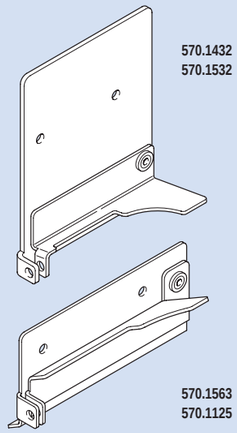
Reference standards: IEC 60309-1 and -2

MECHANICAL LOCKING DEVICES - IP67

Allows only authorised personnel to handle the appliance coupler.
- For Scame IP67 appliance inlets IEC309 Series (see pages 220-221)
- Made of zinc plated steel
- Can be padlocked

DESCRIPTION		PACK QTY.	CATALOGUE NUMBER
32A 2P+E/3P+E	#	1	**570.1432**
32A 3P+N+E	#	1	**570.1532**
63A 3P+N+E		1	**570.1563**
125A 3P+N+E		1	**570.1125**

 # Available until stocks are exhausted

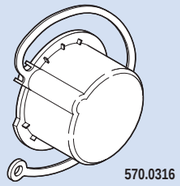


570.1432
570.1532

570.1563
570.1125

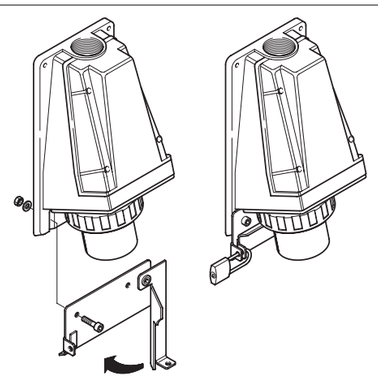
COVER FOR IP44 AND IP67 PLUGS

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Plugs cover 16/20A - 2P+E	10/100	**570.0316**



570.0316

Mechanical lock on 63A plug.



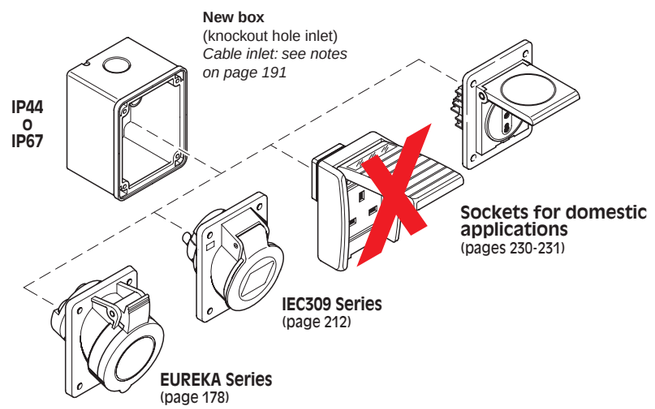
ACCESSORIES FOR THE IEC309 AND EUREKA SERIES

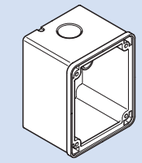
Reference standards: IEC 60309-1 and -2

EMPTY SURFACE MOUNTING BOXES - IP67

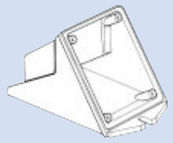
For the surface mounting of IEC309 and Eureka Series and domestic panel mounting socket outlets.
- Supplied with socket fastening screws
- 1 Threaded cable inlet
- Screw cap with seal
- Thermoplastic material
- RAL 7035 grey

OUTLET	CABLE INLET	SUITABLE FOR SOCKETS	FLANGE DIM. (mm)	CABLE INLET	PACK QTY.	CATALOGUE NUMBER
Straight box	Knockout hole	**16A** IP44/IP67	70x87	PG16	10	**570.0016**
				M20	10	**570.M0016**
		32A IP44/IP67	84x106	PG21	10	**570.0032**
				M25	10	**570.M0032**
Angled box	Threaded	**16A** IP44/IP67	70x87	PG16	10	**570.0116**
				M20	10	**570.M0116**
		32A IP44/IP67	84x106	PG21	10	**570.0132**
				M25	10	**570.M0132**
		63A IP67	100x110	PG29	6	**570.0163**
				M32	6	**570.M0163**
		125A IP67	114x114	PG48	6	**570.0125**
				M63	6	**570.M0125**

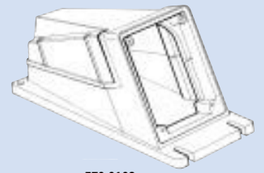




570.0016
570.0032



570.0116
570.0132



570.0163

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WATERTIGHT COVERS

Reference standards: CEI 23-48 (Italian standard)

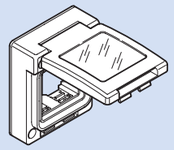
- Thermoplastic material RAL7035 grey
- The IP55 degree of protection is reduced to IP20 when the lid is open

WATERTIGHT COVERS-FLANGE 70X87 - IP55

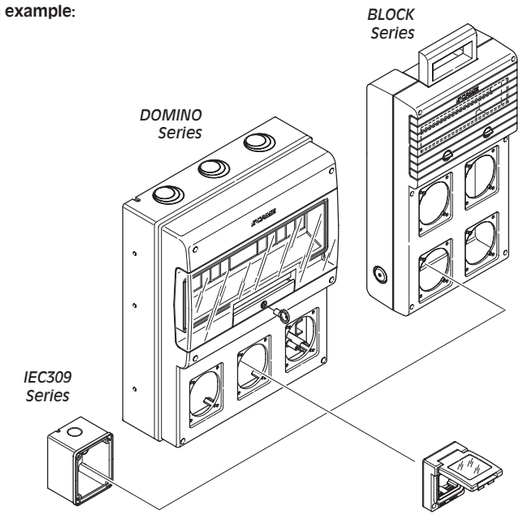
- Snap-in sockets
- With spring lid

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Insert "Living International", "Luna", "Light" and "Light Tech"*	10	**570.5012**
Insert "Evolution Series", "Basic Series"*	10	**570.5052**

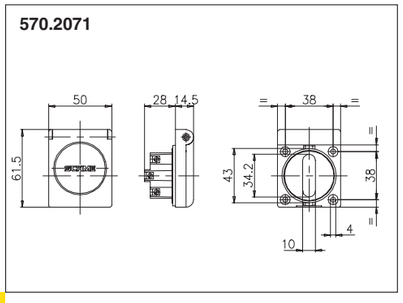
* This insert has been realized with the authority of *Bticino spa* and it is suitable for "Living International", "Luna", "Light" and "Light Tech" inserts, whose trademarks are registered with *Bticino*.



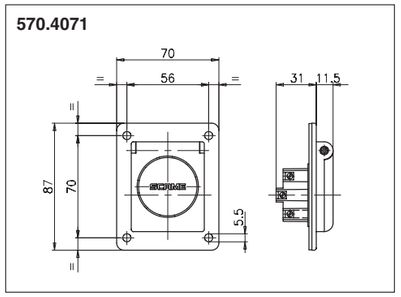
Installation example:



570.2071



570.4071



(Dimensions in mm)

SOCKETS FOR DOMESTIC APPLICATIONS

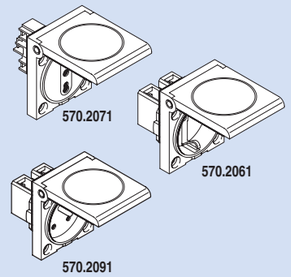
Reference standards: CEI 23-5 and CEI 23-16 (Italian standard)

- Thermoplastic material
- The IP44 degree of protection is reduced to IP20 when the lid is open

PANEL MOUNTING - FLANGE 50X60 mm -IP44

- With spring lid
- Supplied with gasket
- Blue colour

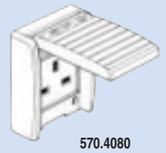
DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (Dual-use)	Italian (CEI 23-16)	10/100	**570.2071**
2P+E - 16A - 250V~ (Unel)	German (VDE)	10/100	**570.2061**
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	10/100	**570.2091**



PANEL MOUNTING - FLANGE 70X87 mm - IP44

- With spring lid
- Supplied with gasket
- Not suitable for product 570.0016 and 0116 (see page 229)

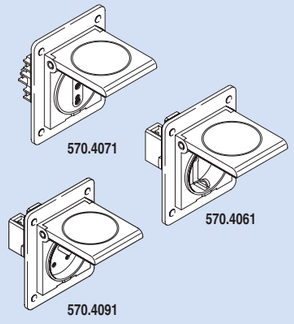
DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 13A - 250V~	English (BS 1363)	10/100	**570.4080**



PANEL MOUNTING - FLANGE 70X87 mm - IP44

- With spring lid
- Supplied with gasket
- Suitable for product 570.0016 and 0116 (see page 229)
- Blue colour

DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (Dual-use)	Italian (CEI 23-16)	10/100	**570.4071**
2P+E - 16A - 250V~ (Unel)	German (VDE)	10/100	**570.4061**
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	10/100	**570.4091**



SURFACE MOUNTING - FLANGE 70X87 mm - IP44

- With spring lid
- Supplied with gasket
- Box already mounted product 570.0016 (see page 229) RAL7035 grey
- Blue socket outlet

DESCRIPTION	STANDARD		PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (Dual-use)	Italian (CEI 23-16)	PG16	9/90	**570.4171**
		M20	9/90	**570.M4171**
2P+E - 16A - 250V~ (Unel)	German (VDE)	PG16	9/90	**570.4161**
		M20	9/90	**570.M4161**
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	PG16	9/90	**570.4191**
		M20	9/90	**570.M4191**

(*) New enclosure (see page 229)
See UNIBOX Series page 104.