

INDUSTRIAL PLUGS AND SOCKETS



REFERENCE STANDARDS

EN 60309-1
Plugs, socket outlets and couples for industrial purposes.
Part 1: general requirements.

EN 60309-2
Plugs, socket outlets and couples for industrial purposes.
Part 2: dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

QUALITY MARKS



TECHNICAL CHARACTERISTICS

Rated current:	16A-32A
Rated voltage:	100÷690V~
Frequency:	c.c. - 50÷500Hz
Insulating voltage:	500/690V~
Protection degree:	IP44-IP66/IP67
Operating temperature according to the reference standard:	-25°C +40°C
Max. operating temperature:	60°C
Glow Wire test:	650°C/850°C
Material:	Engineering plastic
IK degree at 20°C:	IK07 - IK09
Cable inlets:	Cable sleeve IP44 Cable gland IP66/IP67

NO. OF CYCLES

Rated current (A)	Under load	Without load
16A	5.000	-
32A	1.000	1.000

VERSIONS

	Plugs and connectors
	Plugs and connectors 90° angled
	Panel mounting socket outlets 90° angled outlet
	Panel mounting socket outlets Angled (normal flange)
	Panel mounting socket outlets Straight (reduced flange)
	Surface mounting socket outlets (straight box)
	Surface mounting socket outlets (angled box)

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

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

WIRING AND INSTALLATION

Wiring capacity of the terminals

Cross-section of connectable conductors (mm²)

Rated voltage	Rated current (A)	Plugs, connectors and appliance inlets		Socket outlets	
		Min	Max	Min	Max
>50V	16A	1,5	2,5	1,5	4
	32A	2,5	6	2,5	10

Max. cable size accepted by the cable clamp

Rated current (A)	Outside Ø mm	
	Min	Max
16A	8	15
32A	11,5	21

APPLICATION EXAMPLES



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.

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.

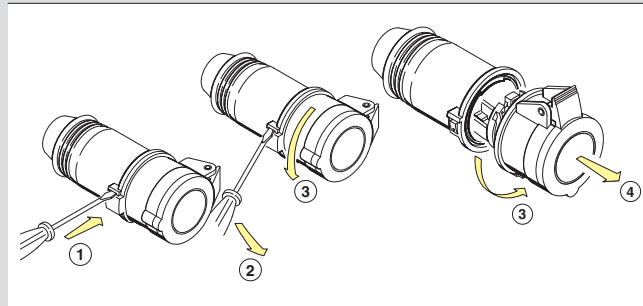
The ergonomic shape of the grip has been designed to ensure a perfect grip to prevent the hand from slipping when carrying out insertion or extraction.

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
- ② ③ Twist the insert
- ④ Pull out

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.

Terminals



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

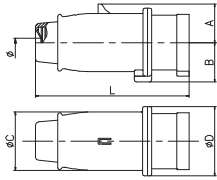
Cable clamp



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.

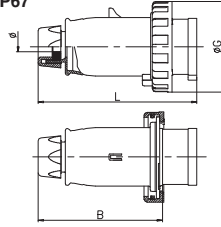
DIMENSIONS

PLUGS - IP44



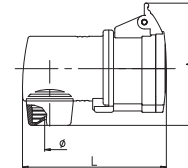
		A	B	C	D	L	ØMin.
16A	2P+E	30	31	44	53	128	7
	3P+E	34	35	50	59	135	7
	3P+N+E	38	38	57	68	150	9
32A	2P+E	40	38	57	68	159	9
	3P+E	40	38	57	68	159	9
	3P+N+E	45	42	62	75	166	10

PLUGS - IP66/IP67



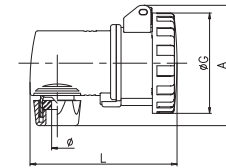
		ØG	B	L	ØMin.
16A	2P+E	73	98	132	8
	3P+E	81	105	139	8
	3P+N+E	88	121	155	10
32A	2P+E	93	121	164	10
	3P+E	93	121	164	10
	3P+N+E	101	130	173	14

CONNECTORS - ANGLED - IP44



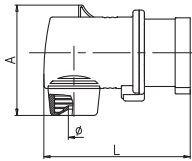
		A	L	ØMin.
16A	2P+E	89	117	7
	3P+E	95	122	7
	3P+N+E	108	127	9
32A	2P+E	110	146	9
	3P+E	110	146	9
	3P+N+E	120	152	10

CONNECTORS - ANGLED - IP66/IP67



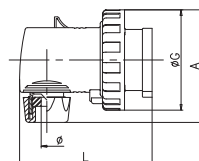
		A	L	ØG	ØMin.
16A	2P+E	78	120	73	8
	3P+E	86	125	81	8
	3P+N+E	106	130	88	10
32A	2P+E	106	150	93	10
	3P+E	106	150	93	10
	3P+N+E	107	155	101	14

PLUGS - ANGLED - IP44



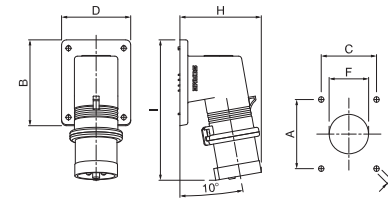
		A	L	ØMin.
16A	2P+E	70	109	7
	3P+E	77	113	7
	3P+N+E	88	117	9
32A	2P+E	90	135	9
	3P+E	90	135	9
	3P+N+E	100	135	10

PLUGS - ANGLED - IP66/IP67



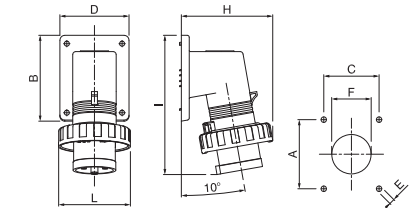
		A	L	ØG	ØMin.
16A	2P+E	80	109	73	8
	3P+E	88	113	81	8
	3P+N+E	100	117	88	10
32A	2P+E	100	135	93	10
	3P+E	100	135	93	10
	3P+N+E	108	140	101	14

APPLIANCE INLETS - 90° ANGLED - IP44



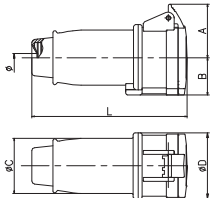
		A	B	C	D	E	F	H	I
16A	2P+E	70	87	56	70	5.2	40	83	142
	3P+E	70	87	56	70	5.2	40	91	143
	3P+N+E	70	87	56	70	5.2	40	97	144
32A	2P+E	70	87	56	70	5.2	40	99	153
	3P+E	70	87	56	70	5.2	40	99	153
	3P+N+E	70	87	56	70	5.2	40	107	154

APPLIANCE INLETS - 90° ANGLED - IP66/IP67



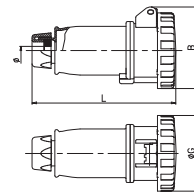
		A	B	C	D	E	F	H	I	L
16A	2P+E	70	87	56	70	5.2	40	93	142	73
	3P+E	70	87	56	70	5.2	40	102	143	81
	3P+N+E	70	87	56	70	5.2	40	109	144	88
32A	2P+E	70	87	56	70	5.2	40	111	153	93
	3P+E	70	87	56	70	5.2	40	111	153	93
	3P+N+E	70	87	56	70	5.2	40	120	154	101

CONNECTORS - IP44



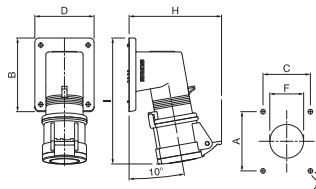
		A	B	C	D	L	ØMin.
16A	2P+E	46	31	44	53	137	7
	3P+E	49	34	50	60	144	7
	3P+N+E	55	39	57	68	160	9
32A	2P+E	55	39	57	68	170	9
	3P+E	55	39	57	68	170	9
	3P+N+E	61	43	63	75	178	10

CONNECTORS - IP66/IP67



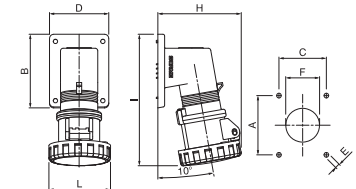
		ØG	B	L	ØMin.
16A	2P+E	73	75	144	8
	3P+E	81	83	150	8
	3P+N+E	88	95	168	10
32A	2P+E	93	102	178	10
	3P+E	93	102	178	10
	3P+N+E	101	102	187	14

SOCKETS OUTLET - 90° ANGLED - IP44



		A	B	C	D	E	F	H	I
16A	2P+E	70	87	56	70	5.2	40	109	149
	3P+E	70	87	56	70	5.2	40	116	150
	3P+N+E	70	87	56	70	5.2	40	125	151
32A	2P+E	70	87	56	70	5.2	40	127	161
	3P+E	70	87	56	70	5.2	40	127	161
	3P+N+E	70	87	56	70	5.2	40	137	163

SOCKETS OUTLET - 90° ANGLED - IP66/IP67



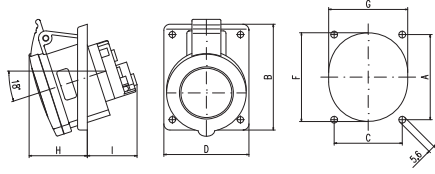
		A	B	C	D	E	F	H	I	L
16A	2P+E	70	87	56	70	5.2	40	98	155	73
	3P+E	70	87	56	70	5.2	40	107	156	81
	3P+N+E	70	87	56	70	5.2	40	117	157	88
32A	2P+E	70	87	56	70	5.2	40	123	168	93
	3P+E	70	87	56	70	5.2	40	123	168	93
	3P+N+E	70	87	56	70	5.2	40	127	169	101

DIMENSIONS

CATALOGUE SECTION: 1.1

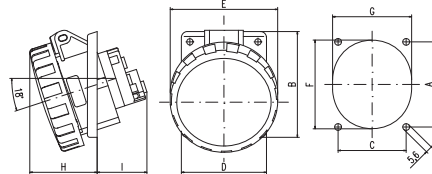
EUREKA Series

PANEL MOUNTING SOCKET OUTLETS ANGLED IP44



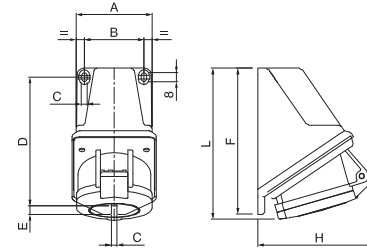
	A	B	C	D	F	G	H	I
16A	2P+E	70	87	56	70	73	65	45
	3P+E	70	87	56	70	73	65	46
	3P+N+E	70	87	56	70	73	65	48
32A	2P+E	90	106	68	84	87	76	52
	3P+E	90	106	68	84	87	76	52
	3P+N+E	90	106	68	84	87	76	54

PANEL MOUNTING SOCKET OUTLETS - ANGLED IP66/IP67



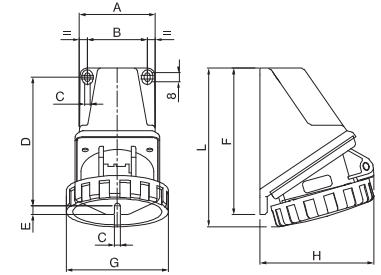
	A	B	C	D	E	F	G	H	I
16A	2P+E	70	87	56	70	73	65	52	40
	3P+E	70	87	56	70	81	73	65	54
	3P+N+E	70	87	56	70	88	73	65	55
32A	2P+E	90	106	68	84	93	87	76	61
	3P+E	90	106	68	84	93	87	76	61
	3P+N+E	90	106	68	84	101	87	76	63

SURFACE MOUNTING SOCKET OUTLETS ANGLED BOX >50V - IP44



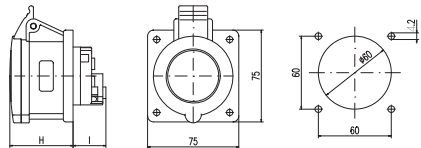
	A	B	C	D	E	F	H	L
16A	2P+E	65	52	5	112	7.5	127	99
	3P+E	65	52	5	112	7.5	127	102
	3P+N+E	65	52	5	112	7.5	127	107
32A	2P+E	80	66	5	121	7.5	137	116
	3P+E	80	66	5	121	7.5	137	116
	3P+N+E	80	66	5	121	7.5	137	120

SURFACE MOUNTING SOCKET OUTLETS ANGLED BOX >50V - IP66/IP67



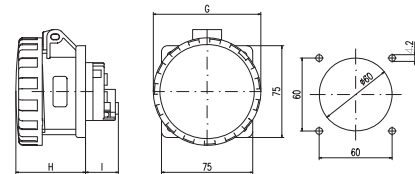
	A	B	C	D	E	F	G	H	I
16A	2P+E	65	52	5	112	7.5	127	73	91
	3P+E	65	52	5	112	7.5	127	81	95
	3P+N+E	65	52	5	112	7.5	127	88	98
32A	2P+E	80	66	5	121	7.5	137	93	112
	3P+E	80	66	5	121	7.5	137	93	112
	3P+N+E	80	66	5	121	7.5	137	101	113

PANEL MOUNTING SOCKET OUTLETS - STRAIGHT REDUCED FLANGE - IP44



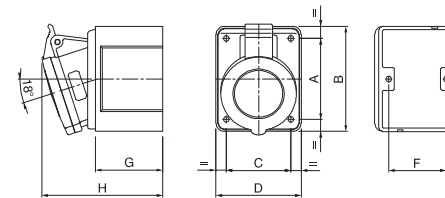
	I	H	
16A	2P+E	27	51
	3P+E	27	51
	3P+N+E	27	52
32A	2P+E	42	62
	3P+E	42	62
	3P+N+E	42	63

PANEL MOUNTING SOCKET OUTLETS - STRAIGHT REDUCED FLANGE - IP66/IP67



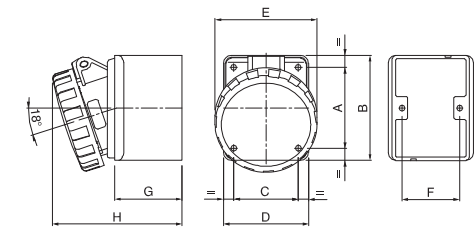
	G	H	I	
16A	2P+E	73	56	27
	3P+E	81	57	27
	3P+N+E	88	58	27
32A	2P+E	93	68	42
	3P+E	93	68	42
	3P+N+E	101	69	42

SURFACE MOUNTING SOCKET OUTLETS - STRAIGHT BOX >50V - IP44



	A	B	C	D	F	G	H
16A	2P+E	70	91	56	74	50	59
	3P+E	70	91	56	74	50	59
	3P+N+E	70	91	56	74	50	59
32A	2P+E	90	111	68	89	62	72
	3P+E	90	111	68	89	62	72
	3P+N+E	90	111	68	89	62	72

SURFACE MOUNTING SOCKET OUTLETS - STRAIGHT BOX >50V - IP66/IP67



	A	B	C	D	E	F	G	H
16A	2P+E	70	91	56	74	73	50	59
	3P+E	70	91	56	74	81	50	59
	3P+N+E	70	91	56	74	88	50	59
32A	2P+E	90	111	68	89	93	62	72
	3P+E	90	111	68	89	93	62	72
	3P+N+E	90	111	68	89	101	62	72