

New range of plugs and socket-outlets meeting the dimensional, construction/performance and safety requisites defined by the international Standards IEC 60309-1 and IEC 60309-2, subsequently assimilated at European level as EN 60309-1 and EN 60309-2.

## Technical data and compliance with Standards

| ELECTRICAL CHARACTERISTICS |                                                     |                           |                          |                               |                                 |                            |
|----------------------------|-----------------------------------------------------|---------------------------|--------------------------|-------------------------------|---------------------------------|----------------------------|
| Rated current (In) (A)     | Rated frequency (Hz)                                | Rated voltage Un (V)      | Permissible overload (A) | No. of operations carried out | Breaking capacity at 1.1 Un (A) | Insulation resistance (MΩ) |
| 16                         | 50/60<br>100 ÷ 300<br>> 300 ÷ 500<br>direct current | > 50 ÷ 690<br>transformer | 22                       | > 5000                        | 20                              | > 10                       |
| 32                         |                                                     |                           | 42                       | > 2000                        | 40                              |                            |
| 63                         | 50/60<br>100 ÷ 300<br>> 300 ÷ 500<br>direct current | > 50 ÷ 690                | -                        | > 2000                        | 79                              | > 10                       |
| 125                        |                                                     |                           |                          | > 500                         | 156                             |                            |

| MECHANICAL AND PHYSICAL CHARACTERISTICS |                                                                 |                                      |                                          |                                           |
|-----------------------------------------|-----------------------------------------------------------------|--------------------------------------|------------------------------------------|-------------------------------------------|
| Operating temperature (°C)              | Degree of protection (IP)                                       | Impact resistance (IK)               | Heat resistance                          | Resistance to abnormal heat and fire      |
|                                         |                                                                 |                                      | Thermo-pressure with ball (°C)           | Glow wire test (°C)                       |
| -25 ÷ +55                               | Straight plugs and sockets HP*: IP44/IP54 e IP66/IP67/IP68/IP69 | Straight plugs and sockets HP: IK 09 | 125 (active parts)<br>80 (passive parts) | 850 (active parts)<br>650 (passive parts) |
|                                         | 10° flush-mounting sockets HP: IP44/IP54 e IP66/IP67            | 10° flush-mounting sockets HP: IK 09 |                                          |                                           |
|                                         | Other: IP44 e IP67                                              | Other: IK 08                         |                                          |                                           |

(\*) Although the international product standard IEC 60 309 does not currently require it, these products have been voluntarily subjected to tests with degrees of protection higher than IP66/IP67.

IP68: 2 bar/6 h according to EN 60529 standard after aging test in conformity with EN 60309 standards.

IP69: according to IEC 60529 standard after aging test in conformity with EN 60309 standards.

| BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS |               |                    |                    |           |           |           |           |           |             |           |
|------------------------------------------------|---------------|--------------------|--------------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|
| Saline solution                                | Acids         |                    | Bases              |           | Solvents  |           |           |           | Mineral oil | UV rays   |
|                                                | Concentrated  | Diluted            | Concentrated       | Diluted   | Hexane    | Benzol    | Acetone   | Alcohol   |             |           |
| Resistant                                      | Not resistant | Limited resistance | Limited resistance | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant   | Resistant |

# IEC 309 HP

## Wiring information - Plugs and sockets IEC 309 HP

| TIGHTENING CAPACITY OF THE TERMINALS (mm²) |                 |      |                          |      |
|--------------------------------------------|-----------------|------|--------------------------|------|
| Rated current<br>(In) (A)                  | Flexible cables |      | Rigid or stranded cables |      |
|                                            | MIN.            | MAX. | MIN.                     | MAX. |
| 16                                         | 1               | 2.5  | 1.5                      | 4    |
| 32                                         | 2.5             | 6    | 2.5                      | 10   |
| 63                                         | 6               | 16   | 6                        | 25   |
| 125                                        | 16              | 50   | 25                       | 70   |

| TIGHTENING CAPACITY OF THE CABLE FASTENER CLAMP * (mm) |                                |      |      |
|--------------------------------------------------------|--------------------------------|------|------|
| Rated current<br>(In) (A)                              | No. poles                      | MIN. | MAX. |
| 16                                                     | 2P + $\frac{\perp}{\perp}$     | 7.5  | 13.8 |
|                                                        | 3P + $\frac{\perp}{\perp}$     | 7.5  | 13.8 |
|                                                        | 3P + N + $\frac{\perp}{\perp}$ | 9.2  | 19.9 |
| 32                                                     | 2P + $\frac{\perp}{\perp}$     | 9.2  | 19.9 |
|                                                        | 3P + $\frac{\perp}{\perp}$     | 9.2  | 19.9 |
|                                                        | 3P + N + $\frac{\perp}{\perp}$ | 9.2  | 19.9 |
| 63**                                                   | 2P + $\frac{\perp}{\perp}$     | 16.1 | 37   |
|                                                        | 3P + $\frac{\perp}{\perp}$     | 17.9 | 37   |
|                                                        | 3P + N + $\frac{\perp}{\perp}$ | 19.9 | 37   |
| 125**                                                  | 2P + $\frac{\perp}{\perp}$     | 24.7 | 38.5 |
|                                                        | 3P + $\frac{\perp}{\perp}$     | 27   | 49   |
|                                                        | 3P + N + $\frac{\perp}{\perp}$ | 29.9 | 49   |

(\*) NB: these values refer to flexible, rigid and stranded cables.  
(\*\*) Contact SAT customer service for indications of the cable size to be used in order to maintain the IPX8 degree

## Dimension tables - Plugs and sockets IEC 309 HP 16-32A

STRAIGHT PLUGS - IP44/IP54

Technical drawing of a straight plug showing two views: a side view and a front view. The side view shows dimensions L1 (length of the main body), L (total length), A (height of the main body), and B (height of the base). The front view shows the diameter ØD of the base.

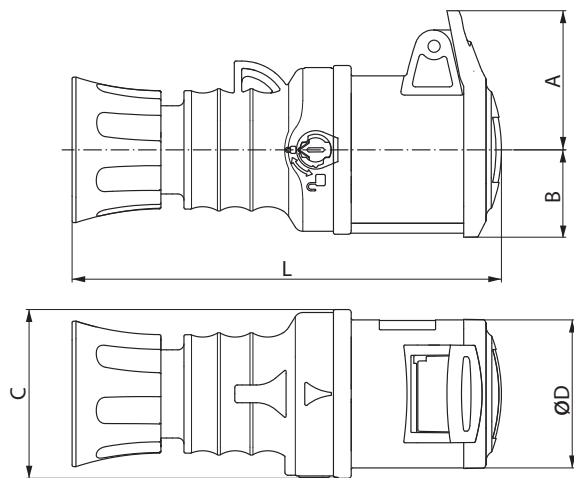
| TYPE |                             | A  | B    | D  | L   | L1  |
|------|-----------------------------|----|------|----|-----|-----|
| 16A  | 2P+ $\frac{\perp}{\perp}$   | 30 | 28.5 | 57 | 134 | 97  |
|      | 3P+ $\frac{\perp}{\perp}$   | 34 | 32   | 62 | 134 | 97  |
|      | 3P+N+ $\frac{\perp}{\perp}$ | 38 | 36   | 68 | 153 | 115 |
| 32A  | 2P+ $\frac{\perp}{\perp}$   | 40 | 41.5 | 71 | 162 | 115 |
|      | 3P+ $\frac{\perp}{\perp}$   | 40 | 41.5 | 71 | 162 | 115 |
|      | 3P+N+ $\frac{\perp}{\perp}$ | 45 | 42   | 75 | 176 | 130 |

STRAIGHT PLUGS - IP66 / IP67 / IP68 / IP69

Technical drawing of a straight plug showing two views: a side view and a front view. The side view shows the plug's profile with dimensions L1 (total length) and L (length to the start of the locking mechanism). The front view shows the plug's face with dimension Ø A (diameter of the locking mechanism).

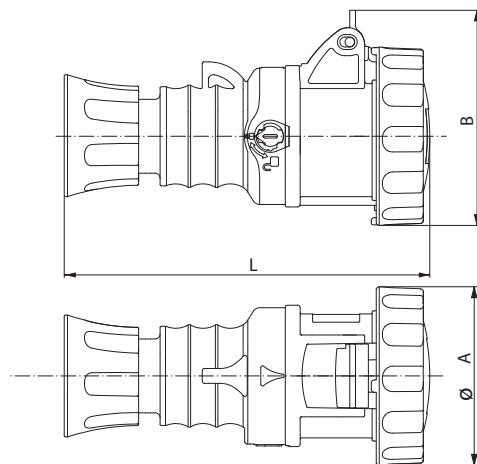
| TYPE |                             | A   | L     | L1   |
|------|-----------------------------|-----|-------|------|
| 16A  | 2P+ $\frac{\perp}{\perp}$   | 72  | 130   | 96   |
|      | 3P+ $\frac{\perp}{\perp}$   | 81  | 130.5 | 96.5 |
|      | 3P+N+ $\frac{\perp}{\perp}$ | 88  | 150   | 116  |
| 32A  | 2P+ $\frac{\perp}{\perp}$   | 93  | 158   | 114  |
|      | 3P+ $\frac{\perp}{\perp}$   | 93  | 158   | 114  |
|      | 3P+N+ $\frac{\perp}{\perp}$ | 101 | 170   | 127  |

STRAIGHT CONNECTORS - IP44/IP54



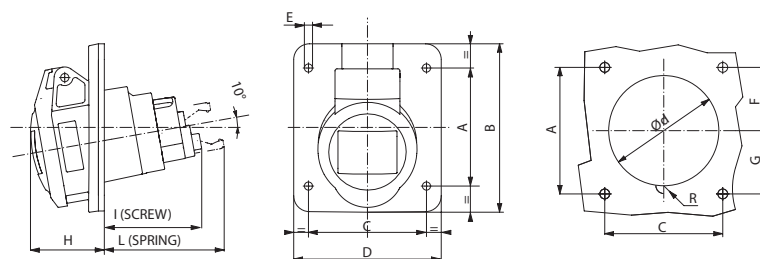
| TYPE |             | A    | B    | C  | D    | L   |
|------|-------------|------|------|----|------|-----|
| 16A  | 2P+ $\pm$   | 47   | 29.5 | 57 | 50   | 148 |
|      | 3P+ $\pm$   | 50   | 32   | 62 | 55.5 | 148 |
|      | 3P+N+ $\pm$ | 56.5 | 35.5 | 68 | 62.5 | 165 |
| 32A  | 2P+ $\pm$   | 59   | 39   | 71 | 64.5 | 176 |
|      | 3P+ $\pm$   | 59   | 39   | 71 | 64.5 | 176 |
|      | 3P+N+ $\pm$ | 62   | 42   | 75 | 70.5 | 190 |

STRAIGHT CONNECTORS - IP66 / IP67 / IP68 / IP69



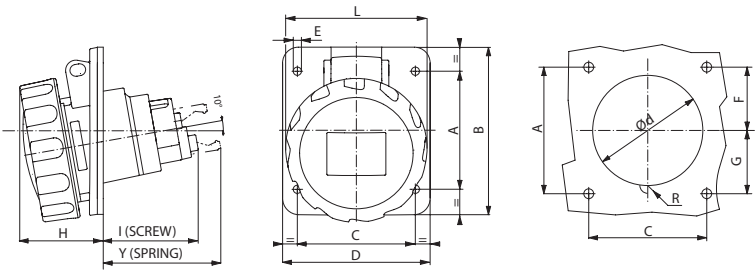
| TYPE |             | A   | B     | L   |
|------|-------------|-----|-------|-----|
| 16A  | 2P+ $\pm$   | 72  | 87    | 148 |
|      | 3P+ $\pm$   | 81  | 95    | 148 |
|      | 3P+N+ $\pm$ | 88  | 102.5 | 167 |
| 32A  | 2P+ $\pm$   | 93  | 108   | 178 |
|      | 3P+ $\pm$   | 93  | 108   | 178 |
|      | 3P+N+ $\pm$ | 101 | 116   | 189 |

10° FLUSH-MOUNTING SOCKET-OUTLETS - IP44/IP54



| TYPE |             | A  | B  | C  | D  | E   | F    | G    | H    | I    | L  | Ød | R |
|------|-------------|----|----|----|----|-----|------|------|------|------|----|----|---|
| 16A  | 2P+ $\pm$   | 60 | 85 | 60 | 75 | 4.2 | 38   | 22   | 37.5 | 49.5 | 61 | 56 | - |
|      | 3P+ $\pm$   | 60 | 85 | 60 | 75 | 4.2 | 35   | 25   | 37   | 51.5 | 61 | 62 | - |
|      | 3P+N+ $\pm$ | 60 | 85 | 60 | 75 | 4.2 | 29   | 31   | 39.5 | 49   | 60 | 65 | 8 |
| 32A  | 2P+ $\pm$   | 70 | 95 | 60 | 80 | 4.2 | 32   | 38   | 46.5 | 60   | 68 | 68 | 8 |
|      | 3P+ $\pm$   | 70 | 95 | 60 | 80 | 4.2 | 32   | 38   | 46.5 | 60   | 68 | 68 | 8 |
|      | 3P+N+ $\pm$ | 70 | 95 | 60 | 80 | 4.2 | 29.5 | 40.5 | 48.5 | 60   | 68 | 74 | 8 |

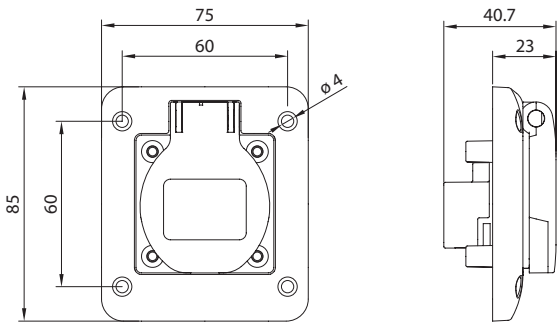
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP66 / IP67



|     | TYPE    | A  | B  | C  | D  | E   | F    | G    | H    | I    | L   | Y    | ød | R |
|-----|---------|----|----|----|----|-----|------|------|------|------|-----|------|----|---|
| 16A | 2P+ ½   | 60 | 85 | 60 | 75 | 4.2 | 38   | 22   | 42.5 | 48   | 72  | 60   | 56 | - |
|     | 3P+ ½   | 60 | 85 | 60 | 75 | 4.2 | 35   | 25   | 43   | 50.5 | 81  | 60   | 62 | - |
|     | 3P+N+ ½ | 60 | 85 | 60 | 75 | 4.2 | 29   | 31   | 44.5 | 48.5 | 88  | 60   | 66 | 5 |
| 32A | 2P+ ½   | 70 | 95 | 60 | 80 | 4.2 | 32   | 38   | 51   | 60.5 | 93  | 68.5 | 68 | 7 |
|     | 3P+ ½   | 70 | 95 | 60 | 80 | 4.2 | 32   | 38   | 51   | 60.5 | 93  | 68.5 | 68 | 7 |
|     | 3P+N+ ½ | 70 | 95 | 60 | 80 | 4.2 | 29.5 | 40.5 | 53   | 60.5 | 101 | 68.5 | 74 | 7 |

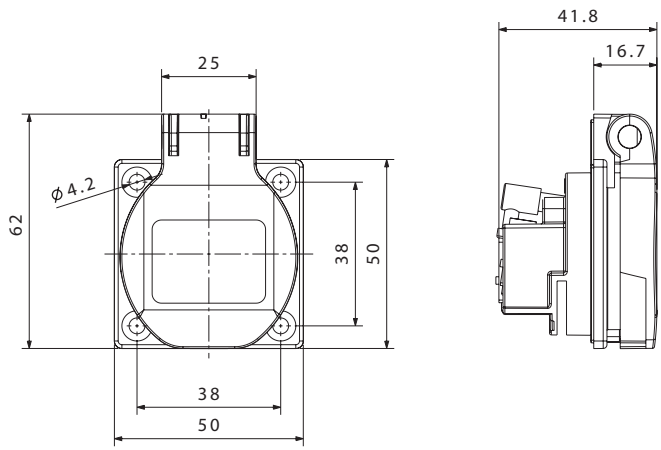
Dimension tables - Flush-mounting domestic socket-outlets

FLUSH-MOUNTING SOCKET-OUTLETS GERMAN STD 85X75 MM - IP54



GW62392

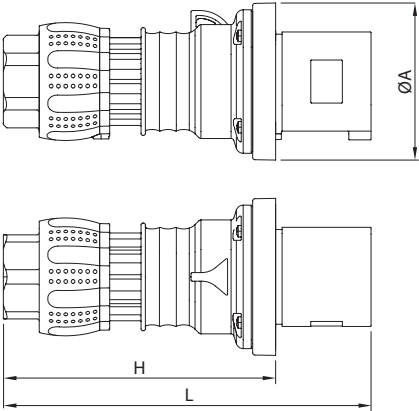
FLUSH-MOUNTING SOCKET-OUTLETS GERMAN OR FRENCH STD 50X50 MM - IP54



GW62393 and GW62394

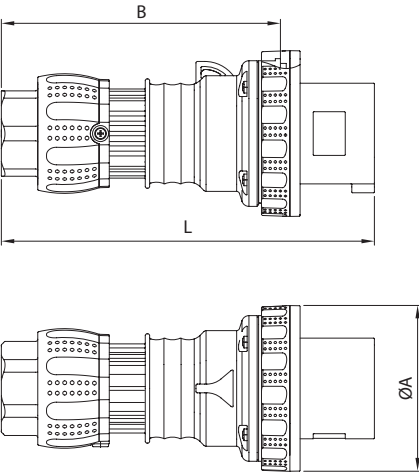
Dimension tables - Plugs and sockets IEC 309 HP 63-125A

STRAIGHT PLUGS - IP44/IP54



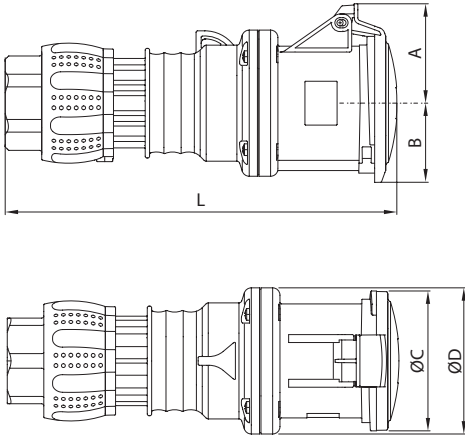
| TYPE |             | A   | L   | H   |
|------|-------------|-----|-----|-----|
| 63A  | 2P+ $\pm$   | 109 | 256 | 190 |
|      | 3P+ $\pm$   |     |     |     |
|      | 3P+N+ $\pm$ |     |     |     |

STRAIGHT PLUGS - IP66 / IP67 / IP68 / IP69



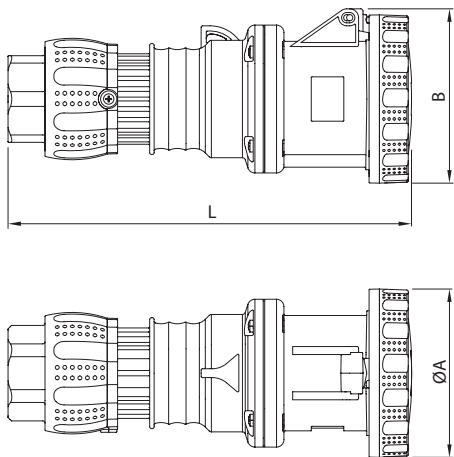
| TYPE |             | A   | B   | L   |
|------|-------------|-----|-----|-----|
| 63A  | 2P+ $\pm$   | 114 | 192 | 256 |
|      | 3P+ $\pm$   |     |     |     |
|      | 3P+N+ $\pm$ |     |     |     |
| 125A | 2P+ $\pm$   | 131 | 241 | 313 |
|      | 3P+ $\pm$   |     |     |     |
|      | 3P+N+ $\pm$ |     |     |     |

STRAIGHT CONNECTORS - IP44/IP54



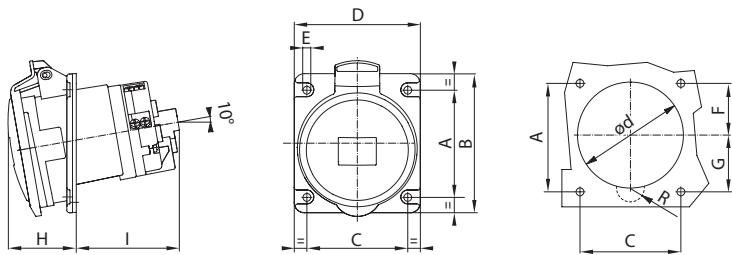
| TYPE |             | A  | B  | C  | D   | L   |
|------|-------------|----|----|----|-----|-----|
| 63A  | 2P+ $\pm$   | 68 | 54 | 96 | 100 | 268 |
|      | 3P+ $\pm$   |    |    |    |     |     |
|      | 3P+N+ $\pm$ |    |    |    |     |     |

STRAIGHT CONNECTORS - IP66 / IP67 / IP68 / IP69



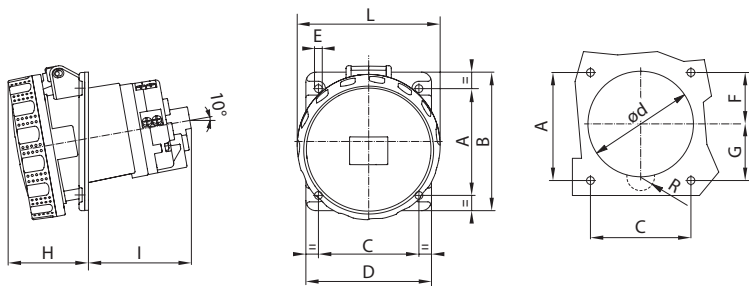
| TYPE |             | A   | B   | L   |
|------|-------------|-----|-----|-----|
| 63A  | 2P+ $\pm$   | 114 | 118 | 273 |
|      | 3P+ $\pm$   |     |     |     |
|      | 3P+N+ $\pm$ |     |     |     |
| 125A | 2P+ $\pm$   | 130 | 131 | 335 |
|      | 3P+ $\pm$   |     |     |     |
|      | 3P+N+ $\pm$ |     |     |     |

10° FLUSH-MOUNTING SOCKET-OUTLETS - IP44/IP54



| TYPE |             | A  | B   | C  | D   | E | F  | G  | H  | I  | Ød | R  |
|------|-------------|----|-----|----|-----|---|----|----|----|----|----|----|
| 63A  | 2P+ $\pm$   | 85 | 110 | 80 | 100 | 6 | 41 | 44 | 54 | 82 | 84 | 11 |
|      | 3P+ $\pm$   |    |     |    |     |   |    |    |    |    |    |    |
|      | 3P+N+ $\pm$ |    |     |    |     |   |    |    |    |    |    |    |

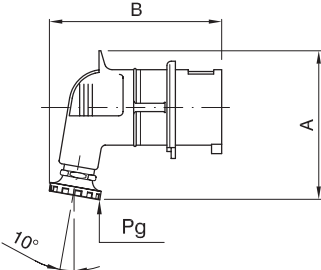
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP66 / IP67



| TYPE |             | A  | B   | C  | D   | E | F  | G  | H  | I   | L   | Ød | R  |
|------|-------------|----|-----|----|-----|---|----|----|----|-----|-----|----|----|
| 63A  | 2P+ $\pm$   | 85 | 110 | 80 | 100 | 6 | 41 | 44 | 64 | 82  | 114 | 84 | 11 |
|      | 3P+ $\pm$   |    |     |    |     |   |    |    |    |     |     |    |    |
|      | 3P+N+ $\pm$ |    |     |    |     |   |    |    |    |     |     |    |    |
| 125A | 2P+ $\pm$   | 90 | 114 | 90 | 114 | 6 | 43 | 47 | 76 | 108 | 131 | 95 | 13 |
|      | 3P+ $\pm$   |    |     |    |     |   |    |    |    |     |     |    |    |
|      | 3P+N+ $\pm$ |    |     |    |     |   |    |    |    |     |     |    |    |

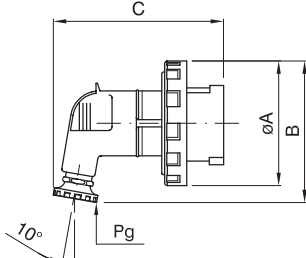
Dimension tables - Plugs and sockets IEC 309

PROTECTED 90° MOBILE PLUGS - IP 44



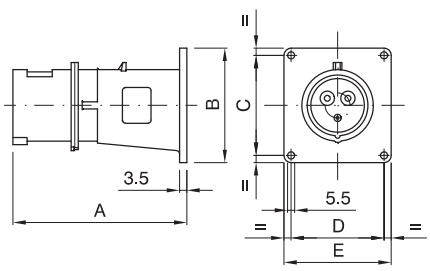
| TYPE | A              | B   | Pg  |
|------|----------------|-----|-----|
| 16 A | 2P + $\pm$     | 88  | 105 |
|      | 3P + $\pm$     | 94  | 108 |
|      | 3P + N + $\pm$ | 101 | 119 |
| 32 A | 2P + $\pm$     | 113 | 129 |
|      | 3P + $\pm$     | 113 | 129 |
|      | 3P + N + $\pm$ | 121 | 140 |

WATERTIGHT 90° MOBILE PLUGS - IP 67



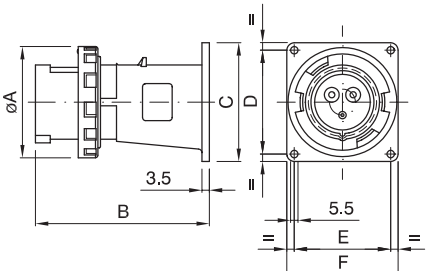
| TYPE | A              | B   | C   | Pg  |
|------|----------------|-----|-----|-----|
| 16 A | 2P + $\pm$     | 73  | 95  | 105 |
|      | 3P + $\pm$     | 80  | 100 | 108 |
|      | 3P + N + $\pm$ | 88  | 107 | 119 |
| 32 A | 2P + $\pm$     | 95  | 121 | 129 |
|      | 3P + $\pm$     | 95  | 121 | 129 |
|      | 3P + N + $\pm$ | 102 | 127 | 140 |

FLUSH-MOUNTING PROTECTED FIXED PLUGS - IP 44



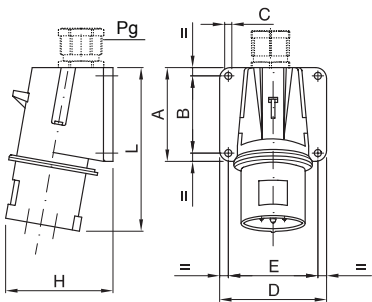
| TYPE | A              | B   | C  | D  | E  |
|------|----------------|-----|----|----|----|
| 16 A | 2P + $\pm$     | 116 | 85 | 60 | 75 |
|      | 3P + $\pm$     | 121 | 85 | 60 | 75 |
|      | 3P + N + $\pm$ | 131 | 85 | 60 | 75 |
| 32 A | 2P + $\pm$     | 140 | 95 | 70 | 80 |
|      | 3P + $\pm$     | 140 | 95 | 70 | 80 |
|      | 3P + N + $\pm$ | 152 | 95 | 70 | 80 |

FLUSH-MOUNTING WATERTIGHT FIXED PLUGS - IP 67



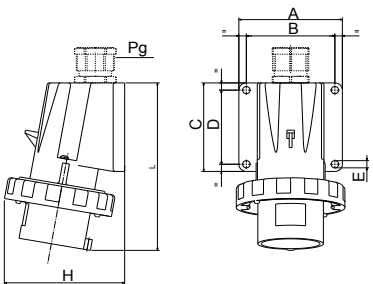
| TYPE | A              | B   | C   | D  | E  | F  |
|------|----------------|-----|-----|----|----|----|
| 16 A | 2P + $\pm$     | 73  | 116 | 85 | 60 | 75 |
|      | 3P + $\pm$     | 81  | 121 | 85 | 60 | 75 |
|      | 3P + N + $\pm$ | 89  | 131 | 85 | 60 | 75 |
| 32 A | 2P + $\pm$     | 95  | 140 | 95 | 70 | 80 |
|      | 3P + $\pm$     | 95  | 140 | 95 | 70 | 80 |
|      | 3P + N + $\pm$ | 102 | 152 | 95 | 70 | 80 |

SURFACE-MOUNTING PROTECTED 90° FIXED PLUGS - IP 44



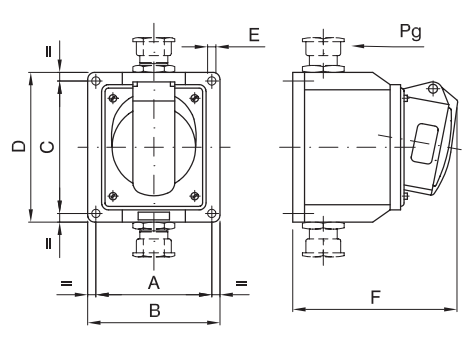
| TYPE | A              | B  | C  | D   | E  | H  | L  | Pg  |
|------|----------------|----|----|-----|----|----|----|-----|
| 16 A | 2P + $\pm$     | 60 | 47 | 6,5 | 75 | 62 | 75 | 122 |
|      | 3P + $\pm$     | 65 | 52 | 6,5 | 82 | 67 | 80 | 130 |
|      | 3P + N + $\pm$ | 75 | 62 | 6,5 | 90 | 72 | 86 | 140 |
| 32 A | 2P + $\pm$     | 80 | 67 | 6,5 | 90 | 77 | 92 | 155 |
|      | 3P + $\pm$     | 80 | 67 | 6,5 | 90 | 77 | 92 | 155 |
|      | 3P + N + $\pm$ | 80 | 67 | 6,5 | 90 | 77 | 95 | 155 |

SURFACE-MOUNTING WATERTIGHT 90° FIXED PLUGS - IP 67



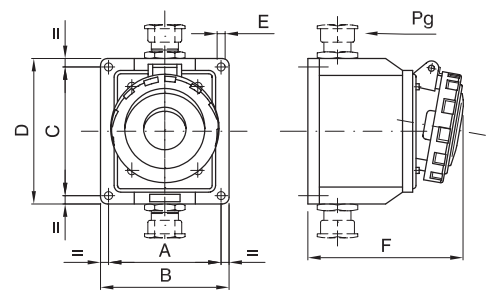
| TYPE  | A              | B   | C   | D   | E   | H   | L   | Pg  |
|-------|----------------|-----|-----|-----|-----|-----|-----|-----|
| 16 A  | 2P + $\pm$     | 75  | 62  | 60  | 47  | 6,5 | 85  | 120 |
|       | 3P + $\pm$     | 82  | 67  | 65  | 52  | 6,5 | 90  | 125 |
|       | 3P + N + $\pm$ | 90  | 72  | 75  | 62  | 6,5 | 98  | 135 |
| 32 A  | 2P + $\pm$     | 90  | 77  | 80  | 67  | 6,5 | 105 | 150 |
|       | 3P + $\pm$     | 90  | 77  | 80  | 67  | 6,5 | 105 | 150 |
|       | 3P + N + $\pm$ | 90  | 77  | 80  | 67  | 6,5 | 110 | 150 |
| 63 A  | 2P + $\pm$     | 115 | 95  | 90  | 70  | 6,5 | 135 | 200 |
|       | 3P + $\pm$     | 115 | 95  | 90  | 70  | 6,5 | 135 | 200 |
|       | 3P + N + $\pm$ | 115 | 95  | 90  | 70  | 6,5 | 135 | 200 |
| 125 A | 3P + $\pm$     | 140 | 120 | 140 | 120 | 6,5 | 150 | 280 |
|       | 3P + N + $\pm$ | 140 | 120 | 140 | 120 | 6,5 | 150 | 280 |

SURFACE-MOUNTING PROTECTED 10° FIXED SOCKET-OUTLETS - IP44



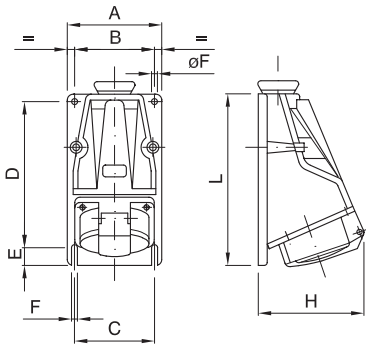
| TYPE | A                      | B  | C   | D   | E   | F   | Pg     |
|------|------------------------|----|-----|-----|-----|-----|--------|
| 16 A | 2P + $\frac{1}{2}$     | 75 | 90  | 95  | 110 | 6.2 | 105 21 |
|      | 3P + $\frac{1}{2}$     | 75 | 90  | 95  | 110 | 6.2 | 107 21 |
|      | 3P + N + $\frac{1}{2}$ | 75 | 90  | 95  | 110 | 6.2 | 109 21 |
| 32 A | 2P + $\frac{1}{2}$     | 90 | 105 | 105 | 120 | 6.2 | 125 21 |
|      | 3P + $\frac{1}{2}$     | 90 | 105 | 105 | 120 | 6.2 | 125 21 |
|      | 3P + N + $\frac{1}{2}$ | 90 | 105 | 105 | 120 | 6.2 | 125 21 |

SURFACE-MOUNTING WATERTIGHT 10° FIXED SOCKET-OUTLETS - IP67



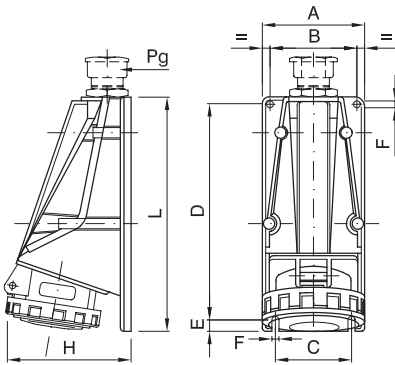
| TYPE | A                      | B   | C   | D   | E   | F   | Pg     |
|------|------------------------|-----|-----|-----|-----|-----|--------|
| 16 A | 2P + $\frac{1}{2}$     | 75  | 90  | 95  | 110 | 6.2 | 113 21 |
|      | 3P + $\frac{1}{2}$     | 75  | 90  | 95  | 110 | 6.2 | 115 21 |
|      | 3P + N + $\frac{1}{2}$ | 75  | 90  | 95  | 110 | 6.2 | 115 21 |
| 32 A | 2P + $\frac{1}{2}$     | 90  | 105 | 105 | 120 | 6.2 | 130 21 |
|      | 3P + $\frac{1}{2}$     | 90  | 105 | 105 | 120 | 6.2 | 130 21 |
|      | 3P + N + $\frac{1}{2}$ | 90  | 105 | 105 | 120 | 6.2 | 130 21 |
| 63 A | 2P + $\frac{1}{2}$     | 100 | 115 | 125 | 140 | 6.2 | 173 36 |
|      | 3P + $\frac{1}{2}$     | 100 | 115 | 125 | 140 | 6.2 | 173 36 |
|      | 3P + N + $\frac{1}{2}$ | 100 | 115 | 125 | 140 | 6.2 | 173 36 |

SURFACE-MOUNTING PROTECTED 90° FIXED SOCKET-OUTLETS -IP44



| TYPE |                        | A   | B  | C  | D   | E  | F | H   | L   |
|------|------------------------|-----|----|----|-----|----|---|-----|-----|
| 16 A | 2P + $\frac{1}{2}$     | 90  | 70 | 70 | 138 | 15 | 6 | 93  | 160 |
|      | 3P + $\frac{1}{2}$     | 90  | 70 | 70 | 138 | 15 | 6 | 98  | 160 |
|      | 3P + N + $\frac{1}{2}$ | 90  | 70 | 70 | 138 | 15 | 6 | 103 | 160 |
| 32 A | 2P + $\frac{1}{2}$     | 105 | 85 | 85 | 148 | 15 | 6 | 110 | 170 |
|      | 3P + $\frac{1}{2}$     | 105 | 85 | 85 | 148 | 15 | 6 | 110 | 170 |
|      | 3P + N + $\frac{1}{2}$ | 105 | 85 | 85 | 148 | 15 | 6 | 115 | 170 |

SURFACE-MOUNTING WATERTIGHT 90° FIXED SOCKET-OUTLETS - IP67



| TYPE  |                        | A   | B   | C  | D   | E  | F | H   | L   | Pg |
|-------|------------------------|-----|-----|----|-----|----|---|-----|-----|----|
| 16 A  | 2P + $\frac{1}{2}$     | 90  | 70  | 70 | 138 | 15 | 6 | 95  | 160 | 21 |
|       | 3P + $\frac{1}{2}$     | 90  | 70  | 70 | 138 | 15 | 6 | 100 | 160 | 21 |
|       | 3P + N + $\frac{1}{2}$ | 90  | 70  | 70 | 138 | 15 | 6 | 105 | 160 | 21 |
| 32 A  | 2P + $\frac{1}{2}$     | 105 | 85  | 85 | 148 | 15 | 6 | 113 | 170 | 21 |
|       | 3P + $\frac{1}{2}$     | 105 | 85  | 85 | 148 | 15 | 6 | 113 | 170 | 21 |
|       | 3P + N + $\frac{1}{2}$ | 105 | 85  | 85 | 148 | 15 | 6 | 118 | 170 | 21 |
| 63 A  | 2P + $\frac{1}{2}$     | 115 | 95  | 80 | 230 | 15 | 6 | 140 | 255 | 36 |
|       | 3P + $\frac{1}{2}$     | 115 | 95  | 80 | 230 | 15 | 6 | 140 | 255 | 36 |
|       | 3P + N + $\frac{1}{2}$ | 115 | 95  | 80 | 230 | 15 | 6 | 140 | 255 | 36 |
| 125 A | 2P + $\frac{1}{2}$     | 132 | 110 | 90 | 275 | 15 | 6 | 160 | 300 | 48 |
|       | 3P + $\frac{1}{2}$     | 132 | 110 | 90 | 275 | 15 | 6 | 160 | 300 | 48 |