

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 | 50/60 100 ÷ 300 > 300 ÷ 500 direct current | > 50 ÷ 690 transformer | 22 | > 5000 | 20 | > 10 |
| 32 | | | 42 | > 2000 | 40 | |
| 63 | 50/60 100 ÷ 300 > 300 ÷ 500 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) 80 (passive parts) | 850 (active parts) 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 |

Wiring information - Plugs and sockets IEC 309 HP

| TIGHTENING CAPACITY OF THE TERMINALS (mm ²) | | | | |
|---|-----------------|------|--------------------------|------|
| Rated current (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 |

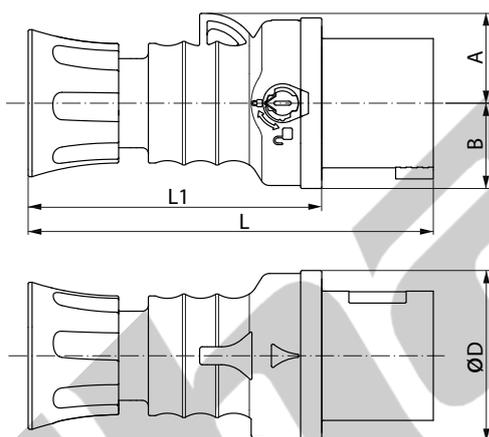
| TIGHTENING CAPACITY OF THE CABLE FASTENER CLAMP * (mm) | | | |
|--|------------------|------|------|
| Rated current (In) (A) | No. poles | MIN. | MAX. |
| 16 | 2P + \perp | 7.5 | 13.8 |
| | 3P + \perp | 7.5 | 13.8 |
| | 3P + N + \perp | 9.2 | 19.9 |
| 32 | 2P + \perp | 9.2 | 19.9 |
| | 3P + \perp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

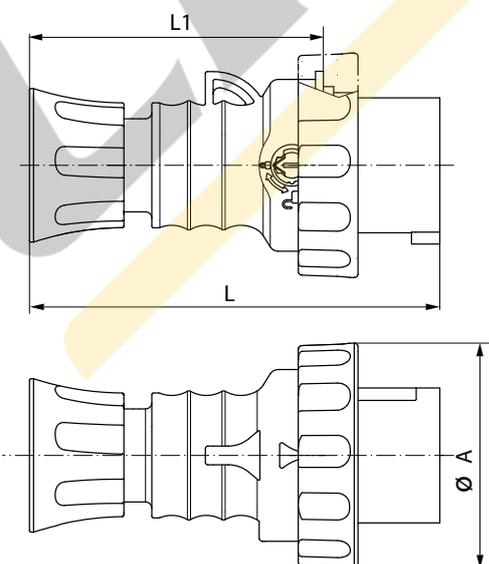
Dimension tables - Plugs and sockets IEC 309 HP 16-32A

STRAIGHT PLUGS - IP44/IP54



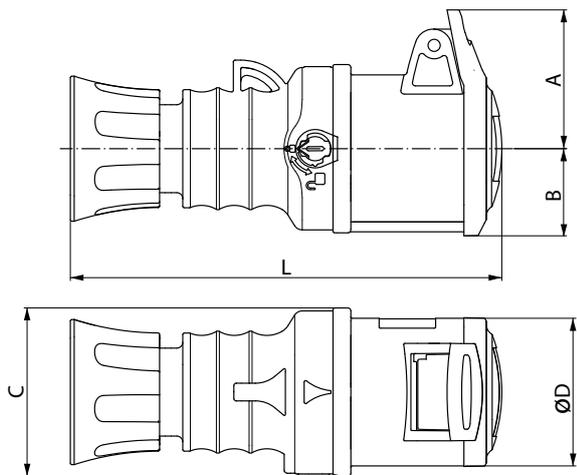
| | TYPE | A | B | D | L | L1 |
|-----|---------------|----|------|----|-----|-----|
| 16A | 2P+ \perp | 30 | 28.5 | 57 | 134 | 97 |
| | 3P+ \perp | 34 | 32 | 62 | 134 | 97 |
| | 3P+N+ \perp | 38 | 36 | 68 | 153 | 115 |
| 32A | 2P+ \perp | 40 | 41.5 | 71 | 162 | 115 |
| | 3P+ \perp | 40 | 41.5 | 71 |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

STRAIGHT PLUGS - IP66 / IP67 / IP68 / IP69



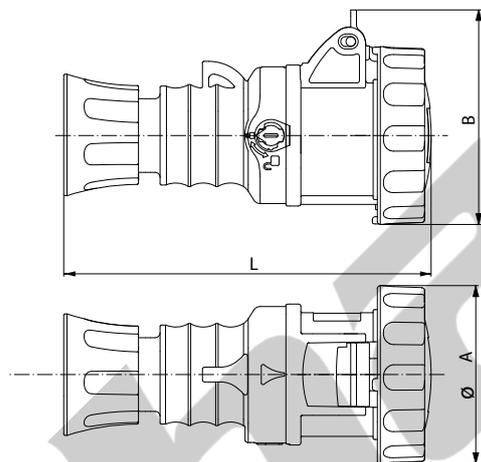
| | TYPE | A | L | L1 |
|-----|---------------|-----|-------|------|
| 16A | 2P+ \perp | 72 | 130 | 96 |
| | 3P+ \perp | 81 | 130.5 | 96.5 |
| | 3P+N+ \perp | 88 | 150 | 116 |
| 32A | 2P+ \perp | 93 | 158 | 114 |
| | 3P+ \perp | 93 | 158 | 114 |
| | 3P+N+ \perp | 101 | 170 | 127 |

STRAIGHT CONNECTORS - IP44/IP54



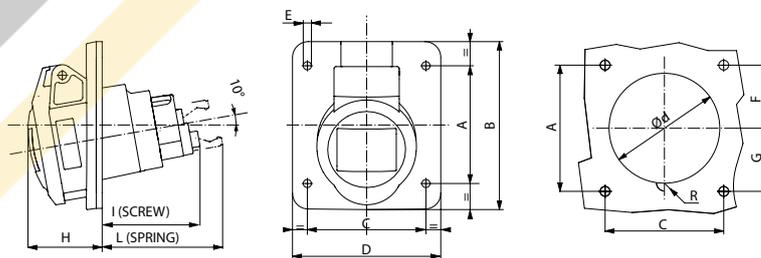
| TYPE | | A | B | C | D | L |
|------|---------|------|------|----|------|-----|
| 16A | 2P+ ± | 47 | 29.5 | 57 | 50 | 148 |
| | 3P+ ± | 50 | 32 | 62 | 55.5 | 148 |
| | 3P+N+ ± | 56.5 | 35.5 | 68 | 62.5 | 165 |
| 32A | 2P+ ± | 59 | 39 | 71 | 64.5 | 176 |
| | 3P+ ± | 59 | 39 | 71 | 64.5 | 176 |
| | 3P+N+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

STRAIGHT CONNECTORS - IP66 / IP67 / IP68 / IP69



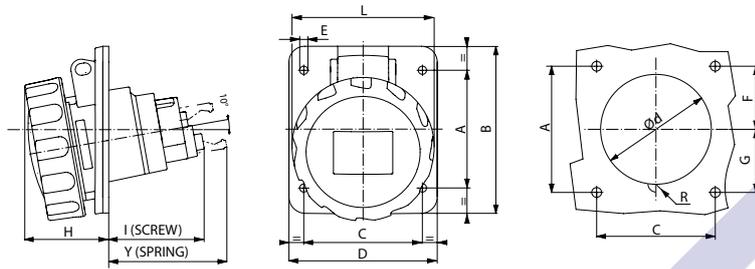
| TYPE | | A | B | L |
|------|---------|-----|-------|-----|
| 16A | 2P+ ± | 72 | 87 | 148 |
| | 3P+ ± | 81 | 95 | 148 |
| | 3P+N+ ± | 88 | 102.5 | 167 |
| 32A | 2P+ ± | 93 | 108 | 178 |
| | 3P+ ± | 93 | 108 | 178 |
| | 3P+N+ ± | 101 | 116 | 189 |

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



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

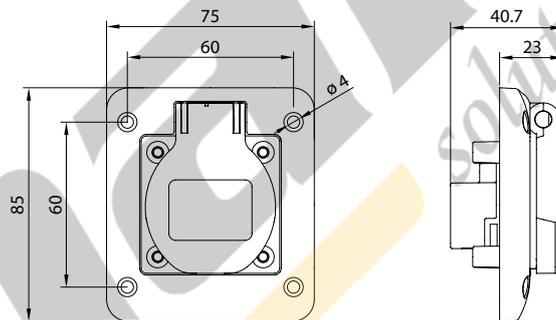
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP66 / IP67



| TYPE | A | B | C | D | E | F | G | H | I | L | Y | ød | R | |
|------|---------------------|----|----|----|----|-----|------|------|------|------|-----|------|----|---|
| 16A | 2P+ $\frac{1}{2}$ | 60 | 85 | 60 | 75 | 4.2 | 38 | 22 | 42.5 | 48 | 72 | 60 | 56 | - |
| | 3P+ $\frac{1}{2}$ | 60 | 85 | 60 | 75 | 4.2 | 35 | 25 | 43 | 50.5 | 81 | 60 | 62 | - |
| | 3P+N+ $\frac{1}{2}$ | 60 | 85 | 60 | 75 | 4.2 | 29 | 31 | 44.5 | 48.5 | 88 | 60 | 66 | 5 |
| 32A | 2P+ $\frac{1}{2}$ | 70 | 95 | 60 | 80 | 4.2 | 32 | 38 | 51 | 60.5 | 93 | 68.5 | 68 | 7 |
| | 3P+ $\frac{1}{2}$ | 70 | 95 | 60 | 80 | 4.2 | 32 | 38 | 51 | 60.5 | 93 | 68.5 | 68 | 7 |
| | 3P+N+ $\frac{1}{2}$ | 70 | 95 | 60 | 80 | 4.2 | 29.5 | 40.5 | 53 | 60.5 | 101 | 68.5 | 74 | 7 |

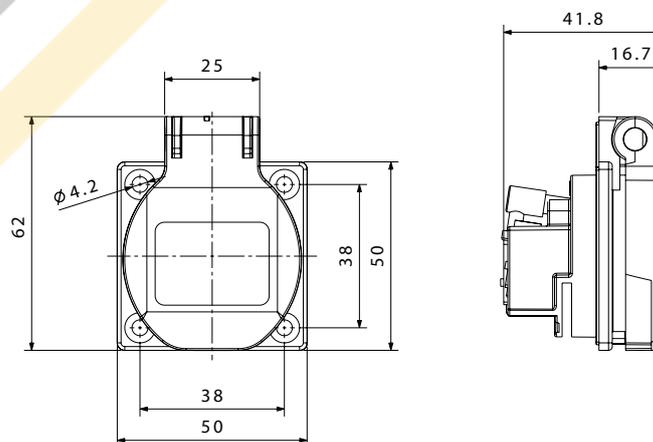
Dimension tables - Flush-mounting domestic socket-outlets

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



GW62392

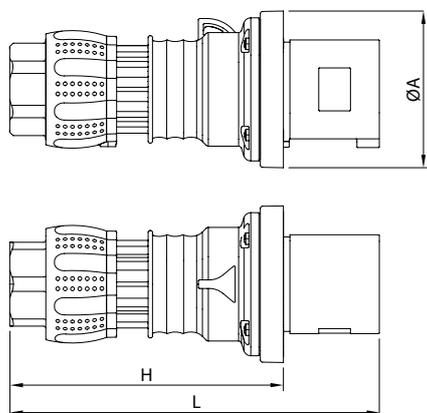
FLUSH-MOUNTING SOCKET-OUTLETS GERMAN OR FRENCH STD 50X50 MM - IP54



GW62393 and GW62394

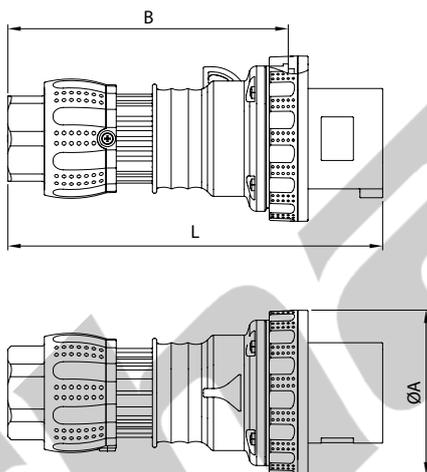
Dimension tables - Plugs and sockets IEC 309 HP 63-125A

STRAIGHT PLUGS - IP44/IP54



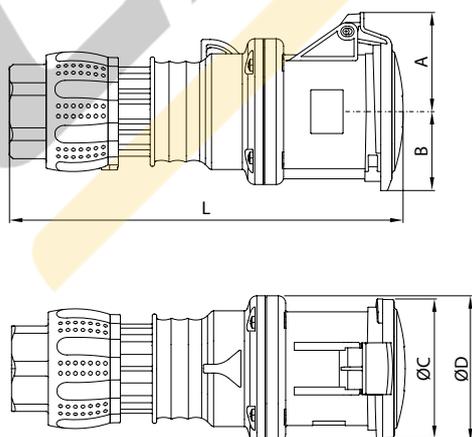
| TYPE | | A | L | H |
|------|---------------------|-----|-----|-----|
| 63A | 2P+ $\frac{1}{2}$ | 109 | 256 | 190 |
| | 3P+ $\frac{1}{2}$ | | | |
| | 3P+N+ $\frac{1}{2}$ | | | |

STRAIGHT PLUGS - IP66 / IP67 / IP68 / IP69



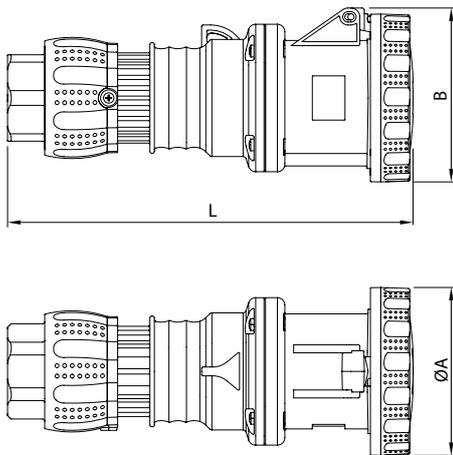
| TYPE | | A | B | L |
|------|---------------------|-----|-----|-----|
| 63A | 2P+ $\frac{1}{2}$ | 114 | 192 | 256 |
| | 3P+ $\frac{1}{2}$ | | | |
| | 3P+N+ $\frac{1}{2}$ | | | |
| 125A | 2P+ $\frac{1}{2}$ | 131 | 241 | 313 |
| | 3P+ $\frac{1}{2}$ | | | |
| | 3P+N+ $\frac{1}{2}$ | | | |

STRAIGHT CONNECTORS - IP44/IP54



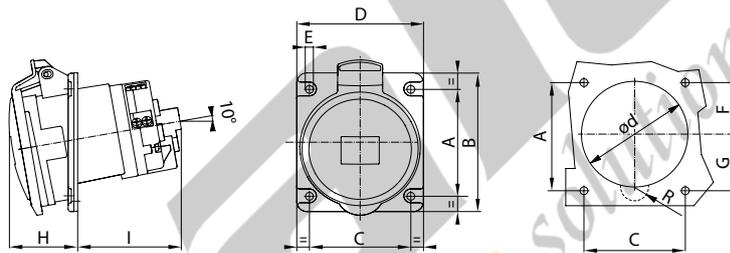
| TYPE | | A | B | C | D | L |
|------|---------------------|----|----|----|-----|-----|
| 63A | 2P+ $\frac{1}{2}$ | 68 | 54 | 96 | 100 | 268 |
| | 3P+ $\frac{1}{2}$ | | | | | |
| | 3P+N+ $\frac{1}{2}$ | | | | | |

STRAIGHT CONNECTORS - IP66 / IP67 / IP68 / IP69



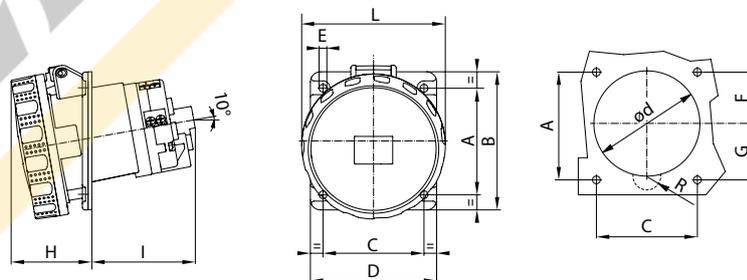
| TYPE | | A | B | L |
|------|---------------------|-----|-----|-----|
| 63A | 2P+ $\frac{1}{2}$ | 114 | 118 | 273 |
| | 3P+ $\frac{1}{2}$ | | | |
| | 3P+N+ $\frac{1}{2}$ | | | |
| 125A | 2P+ $\frac{1}{2}$ | 130 | 131 | 335 |
| | 3P+ $\frac{1}{2}$ | | | |
| | 3P+N+ $\frac{1}{2}$ | | | |

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



| TYPE | | A | B | C | D | E | F | G | H | I | ød | R |
|------|---------------------|----|-----|----|-----|---|----|----|----|----|----|----|
| 63A | 2P+ $\frac{1}{2}$ | 85 | 110 | 80 | 100 | 6 | 41 | 44 | 54 | 82 | 84 | 11 |
| | 3P+ $\frac{1}{2}$ | | | | | | | | | | | |
| | 3P+N+ $\frac{1}{2}$ | | | | | | | | | | | |

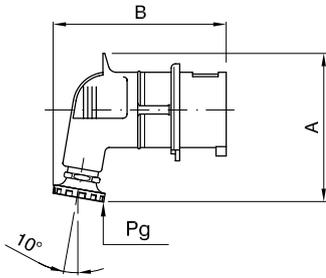
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP66 / IP67



| TYPE | | A | B | C | D | E | F | G | H | I | L | ød | R |
|------|---------------------|----|-----|----|-----|---|----|----|----|-----|-----|----|----|
| 63A | 2P+ $\frac{1}{2}$ | 85 | 110 | 80 | 100 | 6 | 41 | 44 | 64 | 82 | 114 | 84 | 11 |
| | 3P+ $\frac{1}{2}$ | | | | | | | | | | | | |
| | 3P+N+ $\frac{1}{2}$ | | | | | | | | | | | | |
| 125A | 2P+ $\frac{1}{2}$ | 90 | 114 | 90 | 114 | 6 | 43 | 47 | 76 | 108 | 131 | 95 | 13 |
| | 3P+ $\frac{1}{2}$ | | | | | | | | | | | | |
| | 3P+N+ $\frac{1}{2}$ | | | | | | | | | | | | |

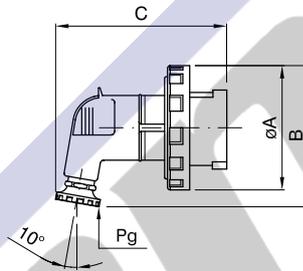
Dimension tables - Plugs and sockets IEC 309

PROTECTED 90° MOBILE PLUGS - IP 44



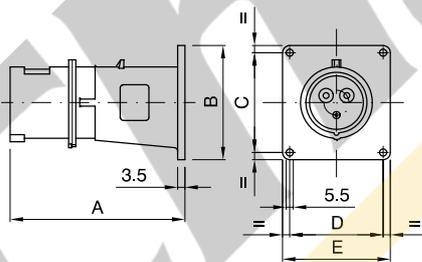
| | TYPE | A | B | Pg |
|------|------------------------|-----|-----|----|
| 16 A | 2P + $\frac{1}{2}$ | 88 | 105 | 16 |
| | 3P + $\frac{1}{2}$ | 94 | 108 | 16 |
| | 3P + N + $\frac{1}{2}$ | 101 | 119 | 16 |
| 32 A | 2P + $\frac{1}{2}$ | 113 | 129 | 21 |
| | 3P + $\frac{1}{2}$ | 113 | 129 | 21 |
| | 3P + N + $\frac{1}{2}$ | 121 | 140 | 21 |

WATERTIGHT 90° MOBILE PLUGS - IP 67



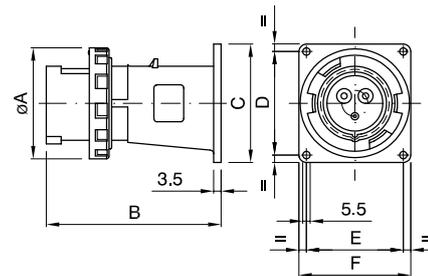
| | TYPE | A | B | C | Pg |
|------|------------------------|-----|-----|-----|----|
| 16 A | 2P + $\frac{1}{2}$ | 73 | 95 | 105 | 16 |
| | 3P + $\frac{1}{2}$ | 80 | 100 | 108 | 16 |
| | 3P + N + $\frac{1}{2}$ | 88 | 107 | 119 | 16 |
| 32 A | 2P + $\frac{1}{2}$ | 95 | 121 | 129 | 21 |
| | 3P + $\frac{1}{2}$ | 95 | 121 | 129 | 21 |
| | 3P + N + $\frac{1}{2}$ | 102 | 127 | 140 | 21 |

FLUSH-MOUNTING PROTECTED FIXED PLUGS - IP 44



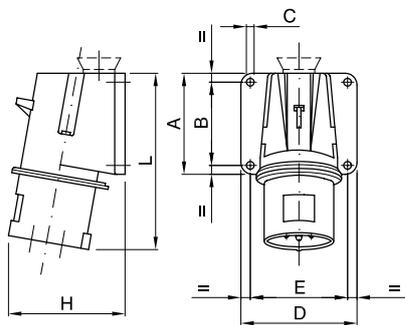
| | TYPE | A | B | C | D | E |
|------|------------------------|-----|----|----|----|----|
| 16 A | 2P + $\frac{1}{2}$ | 116 | 85 | 60 | 60 | 75 |
| | 3P + $\frac{1}{2}$ | 121 | 85 | 60 | 60 | 75 |
| | 3P + N + $\frac{1}{2}$ | 131 | 85 | 60 | 60 | 75 |
| 32 A | 2P + $\frac{1}{2}$ | 140 | 95 | 70 | 60 | 80 |
| | 3P + $\frac{1}{2}$ | 140 | 95 | 70 | 60 | 80 |
| | 3P + N + $\frac{1}{2}$ | 152 | 95 | 70 | 60 | 80 |

FLUSH-MOUNTING WATERTIGHT FIXED PLUGS - IP 67



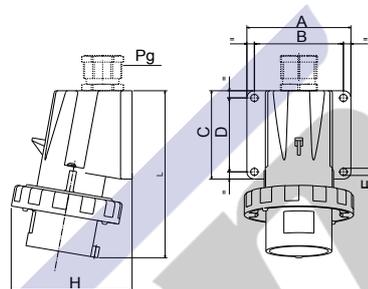
| | TYPE | A | B | C | D | E | F |
|------|------------------------|-----|-----|----|----|----|----|
| 16 A | 2P + $\frac{1}{2}$ | 73 | 116 | 85 | 60 | 60 | 75 |
| | 3P + $\frac{1}{2}$ | 81 | 121 | 85 | 60 | 60 | 75 |
| | 3P + N + $\frac{1}{2}$ | 89 | 131 | 85 | 60 | 60 | 75 |
| 32 A | 2P + $\frac{1}{2}$ | 95 | 140 | 95 | 70 | 60 | 80 |
| | 3P + $\frac{1}{2}$ | 95 | 140 | 95 | 70 | 60 | 80 |
| | 3P + N + $\frac{1}{2}$ | 102 | 152 | 95 | 70 | 60 | 80 |

SURFACE-MOUNTING PROTECTED 90° FIXED PLUGS - IP 44



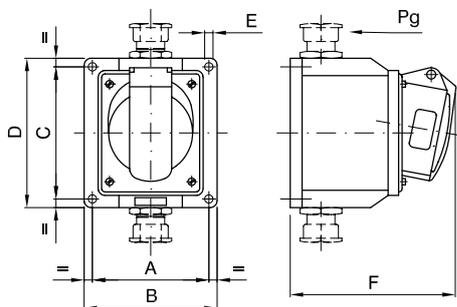
| TYPE | A | B | C | D | E | H | L |
|-------------|----------------|----|----|-----|----|----|-----|
| 16 A | 2P + \pm | 60 | 47 | 6.5 | 75 | 62 | 78 |
| | 3P + \pm | 65 | 52 | 6.5 | 80 | 67 | 86 |
| | 3P + N + \pm | 75 | 62 | 6.5 | 85 | 72 | 90 |
| 32 A | 2P + \pm | 80 | 67 | 6.5 | 90 | 77 | 93 |
| | 3P + \pm | 80 | 67 | 6.5 | 90 | 77 | 93 |
| | 3P + N + \pm | 80 | 67 | 6.5 | 90 | 77 | 103 |

SURFACE-MOUNTING WATERTIGHT 90° FIXED PLUGS - IP 67



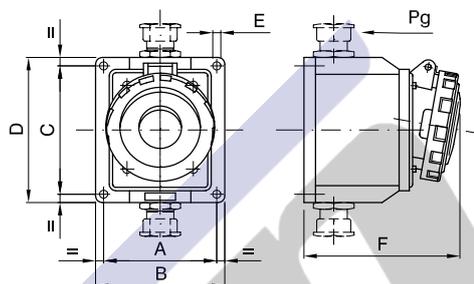
| TYPE | A | B | C | D | E | H | L | Pg |
|--------------|----------------|-----|-----|-----|-----|-----|-----|-----|
| 16 A | 2P + \pm | 75 | 62 | 60 | 47 | 6.5 | 85 | 120 |
| | 3P + \pm | 82 | 67 | 65 | 52 | 6.5 | 90 | 125 |
| | 3P + N + \pm | 90 | 72 | 75 | 62 | 6.5 | 98 | 135 |
| 32 A | 2P + \pm | 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



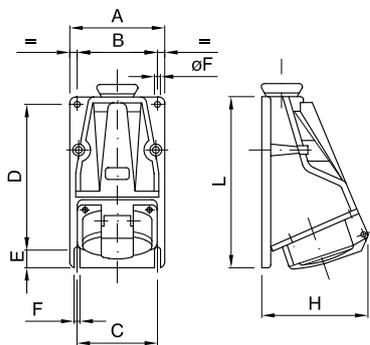
| TYPE | A | B | C | D | E | F | Pg |
|------|------------------------|----|-----|-----|-----|-----|--------|
| 16 A | 2P + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 105 21 |
| | 3P + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 107 21 |
| | 3P + N + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 109 21 |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



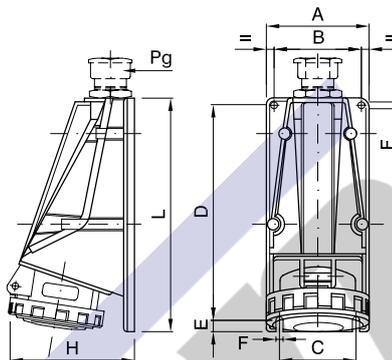
| TYPE | A | B | C | D | E | F | Pg |
|------|------------------------|-----|-----|-----|-----|-----|--------|
| 16 A | 2P + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 113 21 |
| | 3P + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 115 21 |
| | 3P + N + $\frac{1}{2}$ | 75 | 90 | 95 | 110 | 6.2 | 115 21 |
| 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 + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 93 | 160 |
| | 3P + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 98 | 160 |
| | 3P + N + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 103 | 160 |
| 32 A | 2P + \pm | 105 | 85 | 85 | 148 | 15 | 6 | 110 | 170 |
| | 3P + \pm | 105 | 85 | 85 | 148 | 15 | 6 | 110 | 170 |
| | 3P + N + \pm | 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 + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 95 | 21 |
| | 3P + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 100 | 21 |
| | 3P + N + \pm | 90 | 70 | 70 | 138 | 15 | 6 | 105 | 21 |
| 32 A | 2P + \pm | 105 | 85 | 85 | 148 | 15 | 6 | 113 | 21 |
| | 3P + \pm | 105 | 85 | 85 | 148 | 15 | 6 | 113 | 21 |
| | 3P + N + \pm | 105 | 85 | 85 | 148 | 15 | 6 | 118 | 21 |
| 63 A | 2P + \pm | 115 | 95 | 80 | 230 | 15 | 6 | 140 | 36 |
| | 3P + \pm | 115 | 95 | 80 | 230 | 15 | 6 | 140 | 36 |
| | 3P + N + \pm | 115 | 95 | 80 | 230 | 15 | 6 | 140 | 36 |
| 125 A | 2P + \pm | 132 | 110 | 90 | 275 | 15 | 6 | 160 | 48 |
| | 3P + \pm | 132 | 110 | 90 | 275 | 15 | 6 | 160 | 48 |