

IP66/IP67



GW 62 231 H

LOW VOLTAGE SCREW WIRING 10° ANGLED FLUSH-MOUNTING SOCKET-OUTLETS - HIGH PERFORMANCE



| Code | No. of poles | Rated voltage | Colour | Frequency | Reference h | Flange dimensions (mm) | Pack Carton |
|------------------------------|--------------|---------------|--------|---------------|-------------|------------------------|-------------|
| Rated current (A): 16 | | | | | | | |
| GW 62 224 H | 2P+E | 100 - 130 V | ■ | 50/60 Hz | 4 | 85x75 | 25 |
| GW 62 225 H | 3P+E | 100 - 130 V | ■ | 50/60 Hz | 4 | 85x75 | 15 |
| GW 62 226 H | 3P+N+E | 100 - 130 V | ■ | 50/60 Hz | 4 | 85x75 | 15 |
| GW 62 227 H | 2P+E | 200 - 250 V | ■ | 50/60 Hz | 6 | 85x75 | 100 |
| GW 62 228 H | 3P+E | 200 - 250 V | ■ | 50/60 Hz | 9 | 85x75 | 15 |
| GW 62 229 H | 3P+N+E | 200 - 250 V | ■ | 50/60 Hz | 9 | 85x75 | 15 |
| GW 62 230 H | 2P+E | 380 - 415 V | ■ | 50/60 Hz | 9 | 85x75 | 15 |
| GW 62 231 H | 3P+E | 380 - 415 V | ■ | 50/60 Hz | 6 | 85x75 | 25 |
| GW 62 232 H | 3P+N+E | 380 - 415 V | ■ | 50/60 Hz | 6 | 85x75 | 25 |
| GW 62 835 H | 2P+E | 480 - 500 V | ■ | 50/60 Hz | 7 | 85x75 | 15 |
| GW 62 233 H | 3P+E | 480 - 500 V | ■ | 50/60 Hz | 7 | 85x75 | 15 |
| GW 62 234 H | 3P+N+E | 480 - 500 V | ■ | 50/60 Hz | 7 | 85x75 | 15 |
| GW 62 836 H | 3P+E | 600 - 690 V | ■ | 50/60 Hz | 5 | 85x75 | 15 |
| GW 62 837 H | 3P+N+E | 600 - 690 V | ■ | 50/60 Hz | 5 | 85x75 | 15 |
| GW 62 838 H | 2P+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 838 H | 2P+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 839 H | 3P+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 839 H | 3P+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 840 H | 3P+N+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 840 H | 3P+N+E | >50 V | ■ | 100 - 300 Hz | 10 | 85x75 | 15 |
| GW 62 841 H | 2P+E | >50 V | ■ | >300 - 500 Hz | 2 | 85x75 | 15 |
| GW 62 842 H | 3P+E | >50 V | ■ | >300 - 500 Hz | 2 | 85x75 | 15 |
| GW 62 843 H | 3P+N+E | >50 V | ■ | >300 - 500 Hz | 2 | 85x75 | 15 |
| GW 62 844 H | 3P+E | 440 - 460 V | ■ | 60 Hz | 11 | 85x75 | 15 |
| GW 62 845 H | 3P+N+E | 440 - 460 V | ■ | 60 Hz | 11 | 85x75 | 15 |
| GW 62 846 H | 3P+E | 380 - 440 V | ■ | 50/60 Hz | 3 | 85x75 | 15 |
| GW 62 846 H | 3P+E | 380 - 440 V | ■ | 50/60 Hz | 3 | 85x75 | 15 |
| GW 62 847 H | 3P+N+E | 380 - 440 V | ■ | 50/60 Hz | 3 | 85x75 | 15 |
| GW 62 847 H | 3P+N+E | 380 - 440 V | ■ | 50/60 Hz | 3 | 85x75 | 15 |
| GW 62 848 H | 2P+E | transf. | ■ | 50/60 Hz | 12 | 85x75 | 15 |
| GW 62 848 H | 2P+E | transf. | ■ | 50/60 Hz | 12 | 85x75 | 15 |
| GW 62 849 H | 3P+E | transf. | ■ | 50/60 Hz | 12 | 85x75 | 15 |
| GW 62 849 H | 3P+E | transf. | ■ | 50/60 Hz | 12 | 85x75 | 15 |
| GW 62 850 H | 2P+E | >50 - 250 V | ■ | d.c. | 3 | 85x75 | 15 |
| GW 62 851 H | 2P+E | >250 V | ■ | d.c. | 8 | 85x75 | 15 |

to be continued on next page

IEC 309 HP



4 IP DEGREES FOR TOTAL PROTECTION



The HP straight plugs and socket-outlets are the first and only on the electrotechnical field with IP68 and IP69 degrees of protection. Nickel plating of pins and sleeves also offers the best protection against corrosion, oxidation and abrasion, even in critical environmental conditions.

EXCELLENT RESISTANCE TO STRESS



The use of high-performance technopolymers and the inness of rubberised surfaces to protect the areas most at risk of knocks (in all 63-125 A versions) offer excellent resistance to mechanical stress (IK09, equivalent to 10 J), also at low temperatures (down to -25 °C).

SAFE AND INTUITIVE ASSEMBLY



The 16-32 A versions are distinguished by their patented closure with ¼ turn SAFE-LOCK system, whereas the 63-125 A versions have captive screws on brass inserts with a wider contrast flange "embedded" in the straight connectors/plugs body.

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 EN 60309 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 (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 |

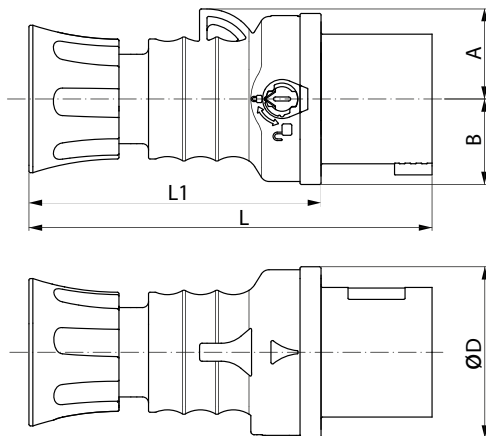
| TIGHTENING CAPACITY OF THE CABLE FASTENER CLAMP * (mm) | | | |
|--|---|------|------|
| Rated current (In) (A) | No. poles | MIN. | MAX. |
| 16 | 2P + $\underline{\underline{\text{N}}}$ | 7.5 | 13.8 |
| | 3P + $\underline{\underline{\text{N}}}$ | 7.5 | 13.8 |
| | 3P + N + $\underline{\underline{\text{N}}}$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

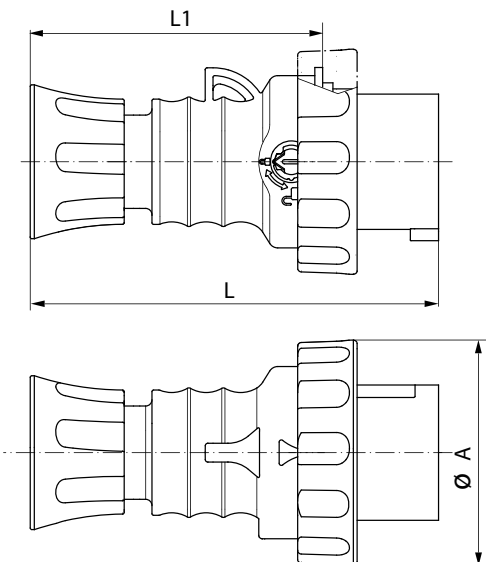
Dimension tables - Plugs and sockets IEC 309 HP 16-32A

STRAIGHT PLUGS - IP44/IP54



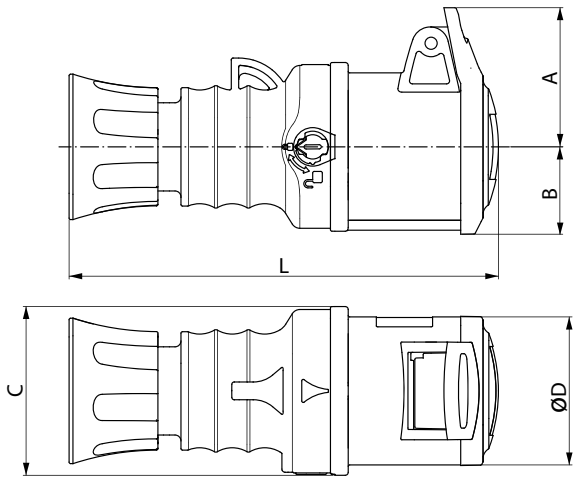
| TYPE | | A | B | D | L | L1 |
|------|--|----|------|----|-----|-----|
| 16A | 2P + $\underline{\underline{\text{N}}}$ | 30 | 28.5 | 57 | 134 | 97 |
| | 3P + $\underline{\underline{\text{N}}}$ | 34 | 32 | 62 | 134 | 97 |
| | 3P+N+ $\underline{\underline{\text{N}}}$ | 38 | 36 | 68 | 153 | 115 |
| 32A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

STRAIGHT PLUGS - IP66 / IP67 / IP68 / IP69



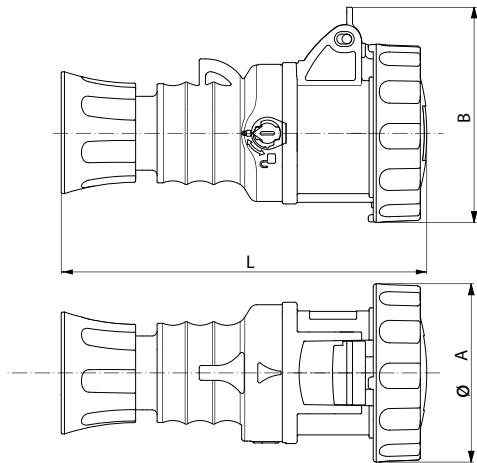
| TYPE | | A | L | L1 |
|------|--|-----|-------|------|
| 16A | 2P + $\underline{\underline{\text{N}}}$ | 72 | 130 | 96 |
| | 3P + $\underline{\underline{\text{N}}}$ | 81 | 130.5 | 96.5 |
| | 3P+N+ $\underline{\underline{\text{N}}}$ | 88 | 150 | 116 |
| 32A | 2P + $\underline{\underline{\text{N}}}$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

STRAIGHT CONNECTORS - IP44/IP54



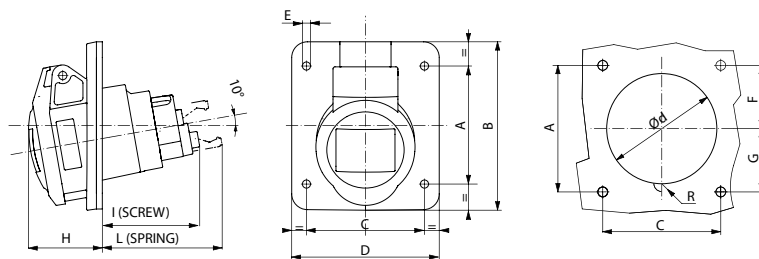
| TYPE | | A | B | C | D | L |
|------|---------|------|------|----|------|-----|
| 16A | 2P+ ± | 47 | 29.5 | 57 | 50 | 148 |
| | 3P+ ± | 50 | 32 | 62 | 55.5 | 148 |
| | 3P+N+ ± | 56.5 | 35.5 | 68 | 62.5 | 165 |
| 32A | 2P+ ± | 59 | 39 | 71 | 64.5 | 176 |
| | 3P+ ± | 59 | 39 | 71 | 64.5 | 176 |
| | 3P+N+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

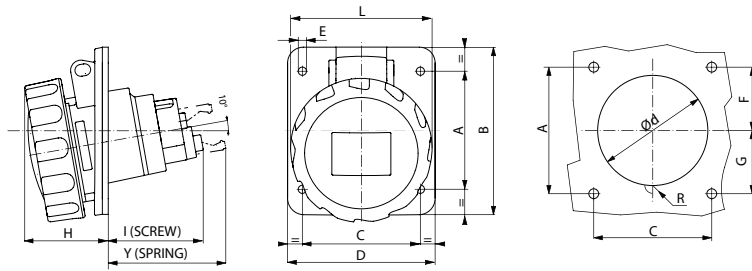
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP44/IP54



| 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 |

IEC 309 HP

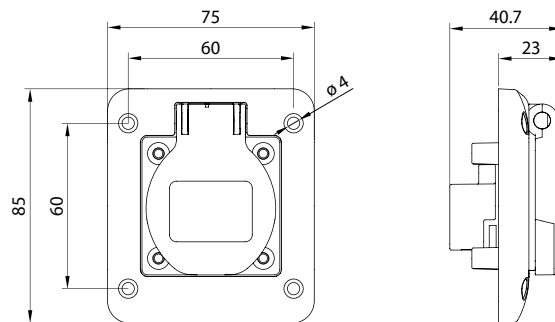
10° FLUSH-MOUNTING SOCKET-OUTLETS - IP66 / IP67



| 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 |

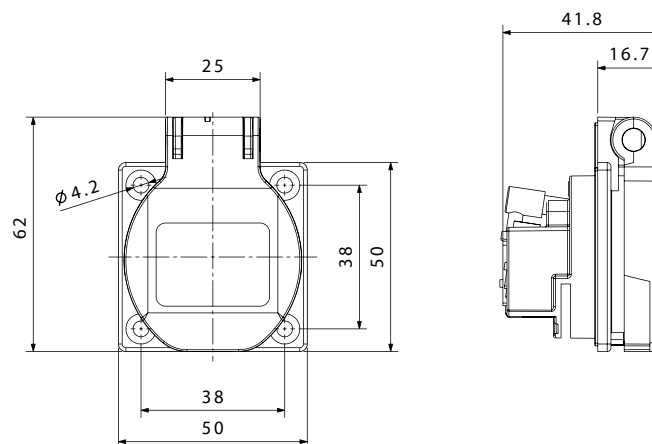
Dimension tables - Flush-mounting domestic socket-outlets

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



GW62392

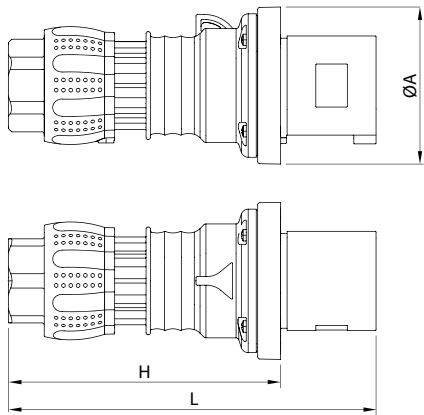
FLUSH-MOUNTING SOCKET-OUTLETS GERMAN OR FRENCH STD 50X50 MM - IP54



GW62393 and GW62394

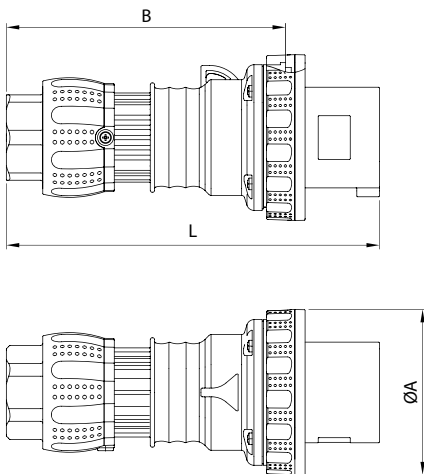
Dimension tables - Plugs and sockets IEC 309 HP 63-125A

STRAIGHT PLUGS - IP44/IP54



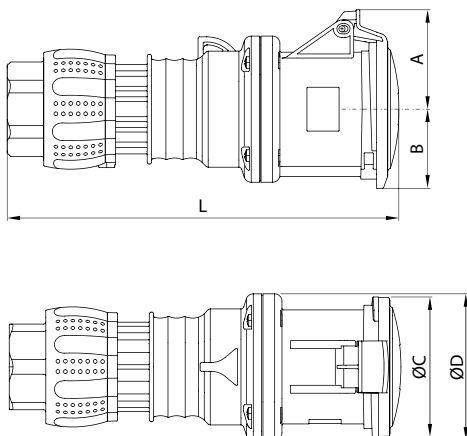
| TYPE | | A | L | H |
|------|-------------|-----|-----|-----|
| 63A | 2P+ \pm | 109 | 256 | 190 |
| | 3P+ \pm | | | |
| | 3P+N+ \pm | | | |

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 | | | |

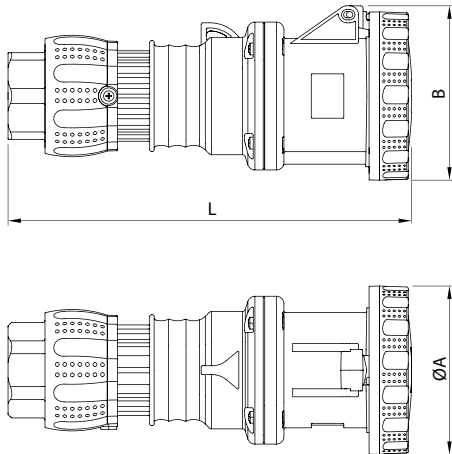
STRAIGHT CONNECTORS - IP44/IP54



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

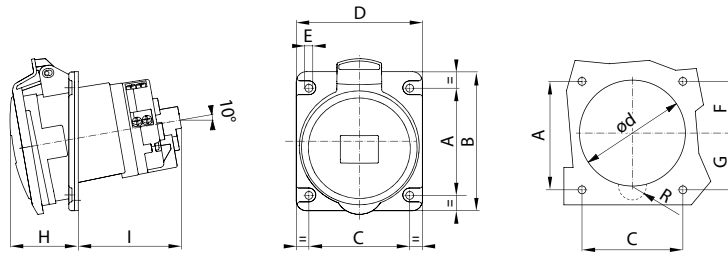
IEC 309 HP

STRAIGHT CONNECTORS - IP66 / IP67 / IP68 / IP69



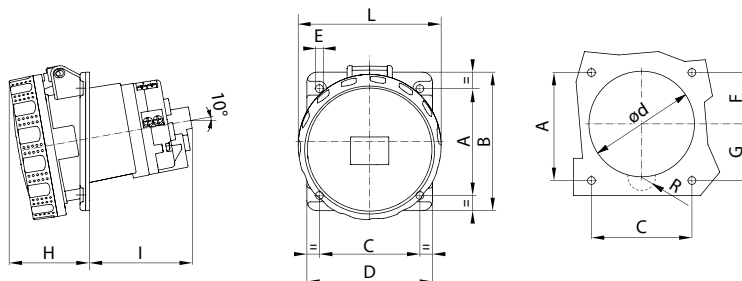
| TYPE | | A | B | L |
|------|-------------|-----|-----|-----|
| 63A | 2P+ \pm | 114 | 118 | 273 |
| | 3P+ \pm | | | |
| | 3P+N+ \pm | | | |
| 125A | 2P+ \pm | 130 | 131 | 335 |
| | 3P+ \pm | | | |
| | 3P+N+ \pm | | | |

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 | | | | | | | | | | | | |