

On-Off Cam Switches, Type R, Door or Thru Panel Mounting

COMPLY WITH RULES

IEC 947-3, EN 60947-3, UL508



| SERIES | | | PO12-PO16-PO20 PX12-PX16-PX20 | | | CO25-CO32-CO40 CX25-CX32-CX40 | | | CO63-CO80 | | G125 | G200 | |
|--|----------------------------------|-------------------------------------|---|------|------|--|------|------|---|--|--|--|---|
| Protection class | control | EN 60529 (UL50) NEMA 4X | IP65 (Type 1 - 4 -4X) IP40 | | | IP65 (Type 1 - 4 -4X) IP40 | | | IP65 IP40 | IP65 - | IP65 - | IP65 - | |
| | control with knob only terminals | | IP20 (PO) - IP10 (PX) | | | IP20 (PO) - IP10 (PX) | | | IP00 | IP00 | IP00 | IP00 | |
| Material group | | EN 60947-1 | II | | | II | | | II | IIIA | IIIA | IIIA | |
| Pollution grade | | EN 60947-1 | 3 | | | 3 | | | 3 | 3 | 3 | 3 | |
| Flammability | | UL94 | V0 (Live Electrical parts) | | | V0 (Live Electrical parts) | | | V0 (Live Electrical parts) | V0 (Live Electrical parts) | V0 (Live Electrical parts) | V0 (Live Electrical parts) | |
| Ambient temperature | | °C | Operating: -40 +85 Storage: -40 +70 | | | Operating: -40 +85 Storage: -40 +70 | | | Operating: -40 +70 Storage: -40 +70 | Operating: -15 +55 Storage: -25 +70 | Operating: -15 +55 Storage: -25 +70 | Operating: -15 +55 Storage: -25 +70 | |
| | | °C | Hot damp Unsettled hot damp | | | Hot damp Unsettled hot damp | | | Hot damp Unsettled hot damp | - | - | - | - |
| Climate Withstand | | IEC 68 part 2-3 IEC 68 part 2-30 | EN50013 | | | EN50013 | | | EN50013 | - | - | - | |
| Terminal screw identification | | | A3 | | | A5 | | | A7 | - | - | - | |
| Connections | Terminal block caliber | EN60947-1 | M3,5 | | | M4 | | | 2xM4 | Hex. screw M8 for bars and cable lugs | | Hex. screw M10 for bars and cable lugs | |
| | Terminal screw | | 0,8 Nm (7,2 lb. in.) 7,5 lb. in. (0,85 Nm) | | | 1,2 Nm (10,6 lb. in.) 12 lb. in. (1,4 Nm) | | | 1,2 Nm (10,6 lb. in.) 10,62 lb. in. (1,2 Nm) | - | - | - | |
| | Screwing torque | EN60947-1 | 1x0,75/4 - 2x0,75/2,5 | | | 2x2,5/10 | | | 2,5/35 | - | - | - | |
| Connectable section | Flexible conductors min/max | mm ² | 10 - 18 | | | 14 - 6 | | | 14 - 3 | - | - | - | |
| | | AWG | 1x0,75/4 - 2x0,75/2,5 | | | 2x2,5/10 | | | 2,5/35 | - | - | - | |
| | Solid conductors min/max | mm ² | 10 - 18 | | | 14 - 6 | | | 14 - 3 | - | - | - | |
| | | AWG | Double breaking | | | Double breaking | | | Double breaking | Double breaking | Double breaking | Double breaking | |
| Contacts | | | 30° - 45° - 60° - 90° | | | 30° - 45° - 60° - 90° | | | 45° - 60° - 90° | 60° - 90° | 60° - 90° | 60° - 90° | |
| Opening angles | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0,1 | 0,1 | |
| Mechanical lifetime at 120 operations for hour | mil./cl | | 1 | 0,75 | 0,75 | 1 | 0,75 | 0,75 | 0,5 | 0,25 | 0,01 | 0,01 | |
| Electrical lifetime at 120 operations for hour | mil./cl | | | | | | | | | | | | |

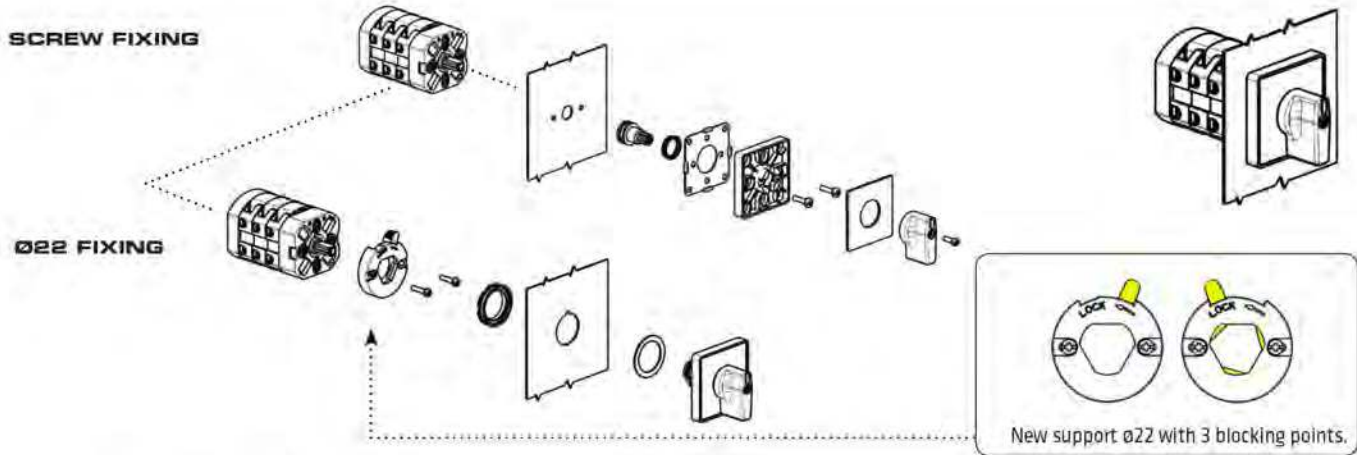
| CERTIFICATIONS | | PO12 PX12 | PO16 PX16 | PO20 PX20 | CO25 CX25 | CO32 CX32 | CO40 CX40 | CO63 | CO80 | G125 | G200 |
|----------------|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------|------|------|------|
| CE | CE mark - Europe | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| cUL | cUL Listed - USA and Canada | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| IMQ | IMQ Istituto Marchio Qualità - Italy | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CCC | CCC Cina | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| EAC | EAC Russia | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

■ Comply to the requirements by passed test. ● Approved.

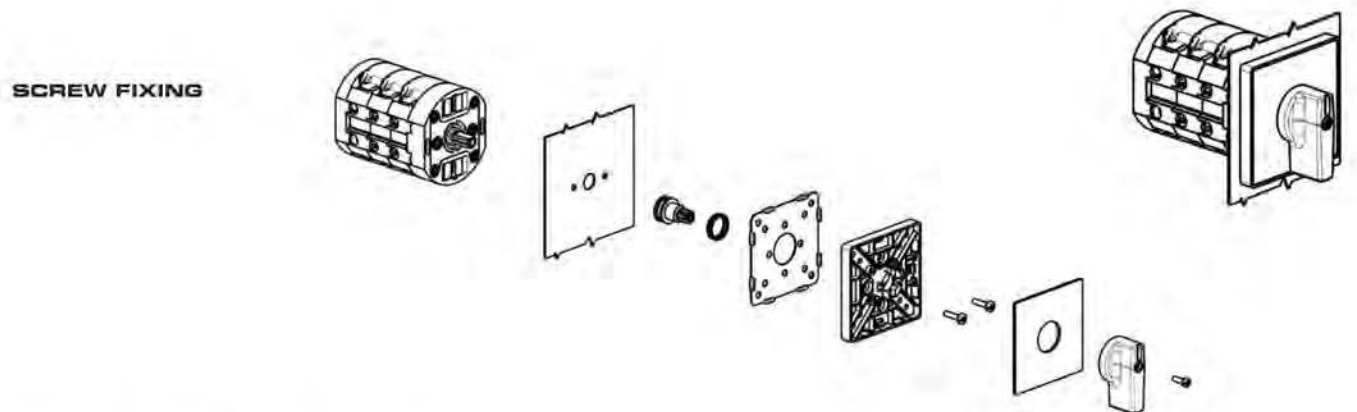
| EN 60947-3 CHARACTERISTICS | | | PO12 - PX12 | PO16 - PX16 | PO20 - PX20 | CO25 - CX25 | CO32 - CX32 | CO40 - CX40 | CO63 | CO80 | G125 | G200 |
|---|------------------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|---------|--------------|--------------|
| Rated operating voltage Ue | V | | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 |
| Rated insulation voltage Ui | V | | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 |
| Rated impulse withstand voltage Uimp (sectionable) | kV | | 4 | 4 | 4 | 5 | 5 | 6 | 8 | 8 | 6 | 6 |
| Rated thermal current Ith | A | | 16 | 20 | 25 | 32 | 40 | 50 | 85 | 100 | 150 | 225 |
| Rated thermal current in enclosed Ithe | A | | 12 | 16 | 20 | 25 | 32 | 40 | 85 | 100 | 150 | 225 |
| Frequency | Hz | | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 |
| RATED OPERATING CURRENT Ie: alternate current | | | PO12 - PX12 | PO16 - PX16 | PO20 - PX20 | CO25 - CX25 | CO32 - CX32 | CO40 - CX40 | CO63 | CO80 | G125 | G200 |
| AC-21A Switching resistive loads with light overloads | 690V | A | 12 | 16 | 20 | 25 | 32 | 40 | 63 | 80 | 125 | 200 |
| AC-22A Switching mixed resistive and inductive loads at light overloads | 690V | A | 12 | 16 | 20 | 25 | 32 | 40 | 63 | 80 | 125 | 200 |
| AC-23A Periodic switching of motors | single phase - 1 pole | 110V A/kW | 12/1,1 | 14/1,5 | 18/2 | 25/1,5 | 30/2,2 | 35/3 | 45/4 | 63/5,5 | - | - |
| | | 230V A/kW | 12/2,2 | 14/3 | 18/4 | 25/4 | 30/5,5 | 35/6,5 | 45/7,5 | 63/11 | - | - |
| | | 230V A/kW | 10/3 | 14/4 | 16/5 | 25/7,5 | 30/9 | 35/11 | 50/15 | 58/18,5 | 140/45 | 169/55 |
| | | 400V A/kW | 10/5,5 | 14/7,5 | 16/9 | 22/11 | 24/15 | 32/18,5 | 40/22 | 54/30 | 78/45 (415V) | 95/55 (415V) |
| | | 500V A/kW | 10/7,5 | 14/10 | 16/11 | 22/11 | 27/18,5 | 32/22 | 40/30 | 54/37 | 65/45 | 79/55 |
| AC3 Starting of cage motors (interruption hile running) | single phase - 2 poles | 110V A/kW | 10/0,75 | 12/1,1 | 16/1,5 | 22/1,1 | 25/1,5 | 30/2,5 | 36/3,7 | 45/4 | - | - |
| | | 230V A/kW | 10/2 | 12/2,2 | 16/3,5 | 22/3,7 | 25/4 | 30/5,5 | 36/6,5 | 45/7,5 | - | - |
| | | 230V A/kW | 8/2,2 | 10/3 | 12/4 | 18/5,5 | 23/7,5 | 27/9 | 37/11 | 47/15 | 115/37 | 140/45 |
| | | 400V A/kW | 8/4 | 10/5 | 12/6 | 18/7,5 | 23/11 | 27/15 | 35/18,5 | 44/22 | 64/37 (415V) | 78/45 (415V) |
| | | 500V A/kW | 8/5,5 | 10/7,5 | 12/8 | 18/11 | 23/15 | 27/18,5 | 35/22 | 44/30 | 53/37 | 64/45 |
| Nominal Interruption power AC-23A (cosφ 0,45) | 3 phases - 3 poles | 690V A/kW | 6/5,5 | 8/7,5 | 10/9 | 14/11 | 18/15 | 20/18,5 | 25/22 | 32/30 | 39/37 | 47/45 |
| | | 230V A | 80 | 104 | 128 | 200 | 240 | 280 | 400 | 464 | - | - |
| | | 400V A | 80 | 104 | 128 | 176 | 216 | 256 | 320 | 432 | - | - |
| | | 500V A | 80 | 112 | 128 | 176 | 216 | 256 | 320 | 432 | - | - |
| 690V A | 80 | 112 | 128 | 160 | 176 | 200 | 256 | 320 | - | - | | |
| Power dissipation for each pole | W | | 0,3* | 0,35* | 0,4* | - | - | - | - | - | - | - |
| RATED OPERATING CURRENT Ie: direct current | | | PO12 - PX12 | PO16 - PX16 | PO20 - PX20 | CO25 - CX25 | CO32 - CX32 | CO40 - CX40 | CO63 | CO80 | G125 | G200 |
| DC-21A Switching resistive loads with light overloads | 50V (1 phase) | A | 10 | 12 | 16 | 20 ▼ | 25 ▼ | 32 ▼ | - | - | - | - |
| DC-22A Switching mixed resistive and inductive loads at light overloads | 30V (1 phase) | A | 8 | 10 | 12 | 16 ▼ | 20 ▼ | 25 ▼ | - | - | - | - |
| SHORT CIRCUIT CHARACTERISTICS | | | PO12 - PX12 | PO16 - PX16 | PO20 - PX20 | CO25 - CX25 | CO32 - CX32 | CO40 - CX40 | CO63 | CO80 | G125 | G200 |
| Rated short-time short circuit withstand current Icw (1 s) | A | | 300 | 300 | 300 | 500 | 500 | 500 | 1200 | 1200 | - | - |
| Rated short circuit making capacity Icm | A | | 1200 | 1200 | 1200 | 2840 | 2840 | 2840 | 2000 | 2000 | - | - |
| Conditional rated short circuit withstand current | kA | | 5 | 5 | 5 | 10 | 10 | 10 | 10 | 10 | 20 | 20 |
| Fuse rating gG | 690V | A | 20 | 20 | 20 | 40 ■ | 40 ■ | 40 ■ | 100 | 100 | 125 ▲ | 200 ▲ |
| UL 508 CHARACTERISTICS | | | PO12 - PX12 | PO16 - PX16 | PO20 - PX20 | CO25 - CX25 | CO32 - CX32 | CO40 - CX40 | CO63 | CO80 | G125 | G200 |
| General Use | 600V AC | A | 12 | 16 | 20 | 25 | 32 | 40 | 63 | 85 | 125 | 175 |
| Standard motor load | single phase - 2 poles | 120V AC HP (FLA) | 0,5 (9,8) | 1 (16) | 1,5 (20) | 1,5 (20) | 2 (24) | 3 (34) | 5 (56) | 5 (56) | - | - |
| | | 240V AC HP (FLA) | 1 (8) | 1,5 (10) | 2 (12) | 3 (17) | 5 (28) | 5 (28) | 7,5 (40) | 10 (50) | - | - |
| 3 phases - 3 poles | 200V AC HP (FLA) | 1,5 (6,9) | 3 (11,04) | 5 (17,5) | 7,5 (25,3) | 7,5 (25,3) | 10 (32,2) | - | - | - | 10 (56) | 15 (84) |
| | 240V AC HP (FLA) | 3 (9,6) | 5 (15,2) | 5 (15,2) | 7,5 (22) | 7,5 (22) | 10 (28) | 15 (42) | 20 (54) | 20 (54) | 25 (68) | - |
| | 480V AC HP (FLA) | 5 (7,6) | 7,5 (11) | 10 (14) | 15 (21) | 20 (27) | 20 (27) | 30 (40) | 40 (52) | 40 (52) | 50 (65) | - |
| | 600V AC HP (FLA) | 5 (6,1) | 7,5 (9) | 10 (11) | 15 (17) | 20 (22) | 20 (22) | 40 (41) | 50 (52) | 50 (52) | 50 (52) | - |

▼ Values not reported on the IMQ files. ■ Fuses type gG 40a 500V ▲ Fuses type gG/Gm

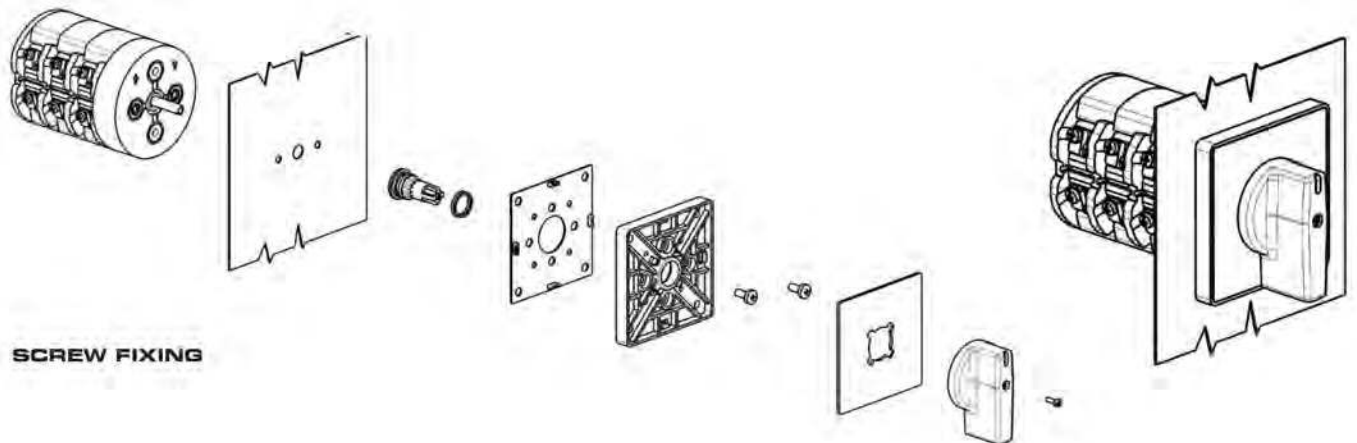
| RANGE AC21A | 12A - 16A - 20A |



| RANGE AC21A | 25A - 32A - 40A |



| RANGE AC21A | 63A - 80A |





Your Source for Automation Components

On-Off Cam Switches, Type R, Door or Thru Panel Mounting

| SERIES | AC21A | MOUNTING TYPE | | | | | | |
|--------|-------|---------------|-----------|-----------|-----------|-----------|-----------|------------------------------------|
| | | 1 POLE | 2 POLES | 3 POLES | 4 POLES | 5 POLES | 6 POLES | 3 POLES WITH SPRING RETURN TO ZERO |
| P012 | 12A | P0120001R | P0120002R | P0120003R | P0120004R | P0120005R | P0120006R | P0120007R |
| P016 | 16A | P0160001R | P0160002R | P0160003R | P0160004R | P0160005R | P0160006R | P0160007R |
| P020 | 20A | P0200001R | P0200002R | P0200003R | P0200004R | P0200005R | P0200006R | P0200007R |
| C025 | 25A | C0250001R | C0250002R | C0250003R | C0250004R | C0250005R | C0250006R | C0250007R |
| C032 | 32A | C0320001R | C0320002R | C0320003R | C0320004R | C0320005R | C0320006R | C0320007R |
| C040 | 40A | C0400001R | C0400002R | C0400003R | C0400004R | C0400005R | C0400006R | C0400007R |
| C063 | 63A | C0630001R | C0630002R | C0630003R | C0630004R | C0630005R | C0630006R | - |
| C080 | 80A | C0800001R | C0800002R | C0800003R | C0800004R | C0800005R | C0800006R | - |
| G125 | 125A | - | G1250002R | G1250003R | G1250004R | - | G1250006R | - |
| G200 | 200A | - | G2000002R | G2000003R | G2000004R | - | G2000006R | - |

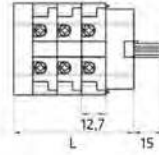
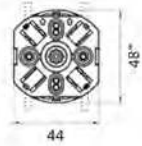
| ACTUATOR | FIXING | P012 - P016 - P020 | | | | C025 - C032 - C040 | | | C063 - C080 | | G125 | G200 |
|----------|--------|--------------------|-------------|-----------|------|--------------------|------------|----------|-------------|------------|----------|----------|
| | | | | | | | | | | | | |
| | | 90° | 90° | 45° | NO | 90° | 90° | 45° | 90° | 90° | 90° | 90° |
| | screw | 001/0001 | 001/0001-1 | 001/0007 | - | 007/0001 | 007/0001-1 | 007/0007 | 201/0001 | 201/0001-1 | 441/0001 | 461/0001 |
| | ø22 | 056X/0001 | 056X/0001-1 | 056X/0007 | - | - | - | - | - | - | - | - |
| | screw | 002/0001 | 002/0001-1 | 002/0007 | - | 008/0001 | 008/0001-1 | 008/0007 | - | - | - | - |
| | ø22 | 058X/0001 | 058X/0001-1 | 058X/0007 | - | - | - | - | - | - | - | - |
| | screw | 003/0001 | 003/0001-1 | 003/0007 | - | 003/0001 | 003/0001-1 | 003/0007 | - | - | - | - |
| | ø22 | 059X/0001 | 059X/0001-1 | - | - | - | - | - | - | - | - | - |
| | screw | 004/0001 | 004/0001-1 | 004/0007 | - | 004/0001 | 004/0001-1 | 004/0007 | - | - | - | - |
| | ø22 | 060X/0001 | 060X/0001-1 | - | - | - | - | - | - | - | - | - |
| | screw | 009/0001 | 009/0001-1 | 009/0007 | - | 009/0001 | 009/0001-1 | 009/0007 | 209/0001 | 209/0001-1 | 449/0001 | 449/0001 |
| | ø22 | 061X/0001 | 061X/0001-1 | 061X/0007 | - | - | - | - | - | - | - | - |
| | screw | 010/0001 | 010/0001-1 | 010/0007 | - | 010/0001 | 010/0001-1 | 010/0007 | 210/0001 | 210/0001-1 | 450/0001 | 450/0001 |
| | ø22 | 062X/0001 | 062X/0001-1 | 062/0007 | - | - | - | - | - | - | - | - |
| | ø22 | 057X/0001 | 057X/0001-1 | 057X/0007 | - | - | - | - | - | - | - | - |
| | ø22 | - | - | - | 028X | - | - | - | - | - | - | - |
| | ø22 | - | - | - | 029X | - | - | - | - | - | - | - |

UL50 NEMA Type 1-4-4X Key removable at "0" position
 Body mounting rotated by 90° Key removable at 0° and 180°

On-Off Cam Switches, Type R, Door or Thru Panel Mounting



1B-1B-20A

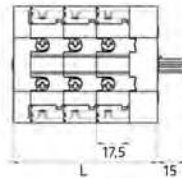
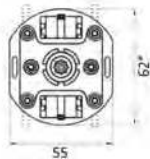


| WAFER GAP | L x WAFER N° | | | | | |
|-----------|--------------|------|------|------|------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.7 | 37.4 | 50.1 | 62.8 | 75.5 | 88.2 | 100.9 |

* If cam switch is provided of external bridge (wafer to wafer) the height will be increased of ~ 2 mm for the lower and upper sides.



25-32-40A

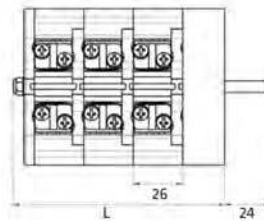
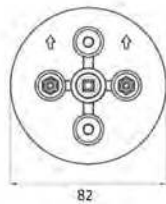


| WAFER GAP | L x WAFER N° | | | | | |
|-----------|--------------|------|------|------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 17.5 | 42.2 | 59.7 | 77.2 | 94.7 | 112.2 | 129.7 |

* If cam switch is provided of external bridge (wafer to wafer) the height will be increased of ~ 1 mm for the lower and upper sides.



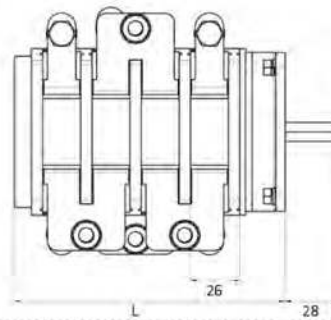
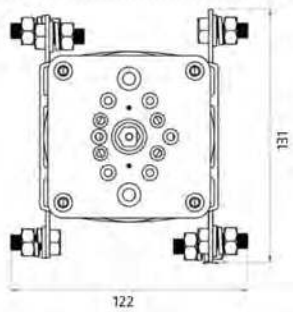
88-80A



| WAFER GAP | L x WAFER N° | | | | | |
|-----------|--------------|------|-------|-------|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 26 | 59.1 | 85.1 | 111.1 | 137.1 | 163 | 189.1 |



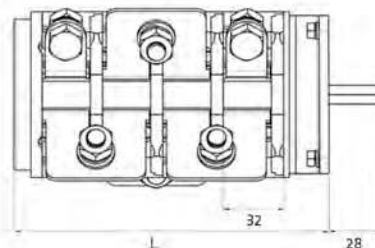
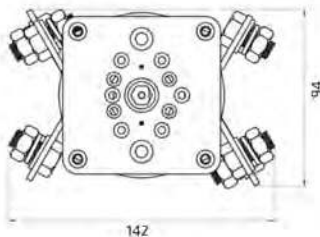
125A



| WAFER GAP | L x WAFER N° | | | | | |
|-----------|--------------|----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 26 | 66 | 92 | 118 | 144 | 170 | 196 |

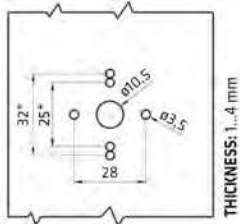


200A



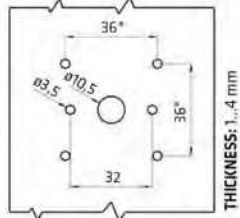
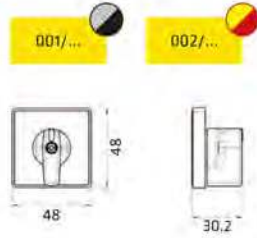
| WAFER GAP | L x WAFER N° | | | | | |
|-----------|--------------|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 32 | 72 | 104 | 136 | 168 | 200 | 232 |

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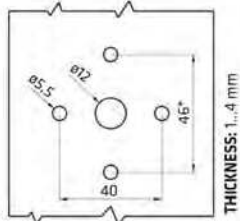
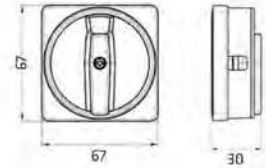
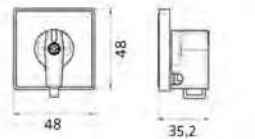
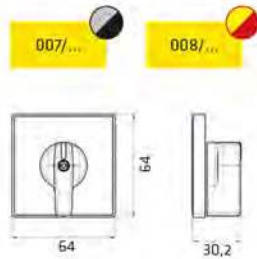
THICKNESS: 1...4 mm

FIXING:
Captive M3 bolt - 28 mm
* ALTERNATIVE FIXING
Screwplast 25 or 32 mm



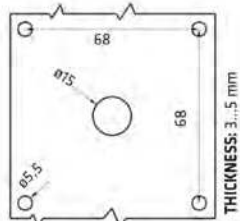
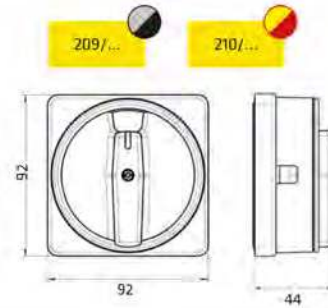
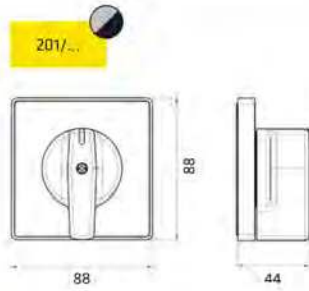
THICKNESS: 1...4 mm

FIXING:
Captive M3 bolt - 32 mm
* ALTERNATIVE FIXING
Screwplast □36 mm



THICKNESS: 1...4 mm

FIXING:
Captive M5 bolt - 40 mm
* ALTERNATIVE FIXING
M5 - 46 mm



THICKNESS: 3...5 mm

FISSAGGIO:
M5 bolt □68 mm

