

## 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	VO (Live Electrical parts)			VO (Live Electrical parts)			VO (Live Electrical parts)	VO (Live Electrical parts)	VO (Live Electrical parts)	VO (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 UL508	1x0,75/4 - 2x0,75/2,5 10 - 18			2x2,5/10 14 - 6			2,5/35 14 - 3	-	-	-
Connectable section	Flexible conductors min/max	mm <sup>2</sup>	1x0,75/4 - 2x0,75/2,5 10 - 18			2x2,5/10 14 - 6			2,5/35 14 - 3	-	-	-
		AWG	1x0,75/4 - 2x0,75/2,5 10 - 18			2x2,5/10 14 - 6			2,5/35 14 - 3	-	-	-
	Solid conductors min/max	mm <sup>2</sup>	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.

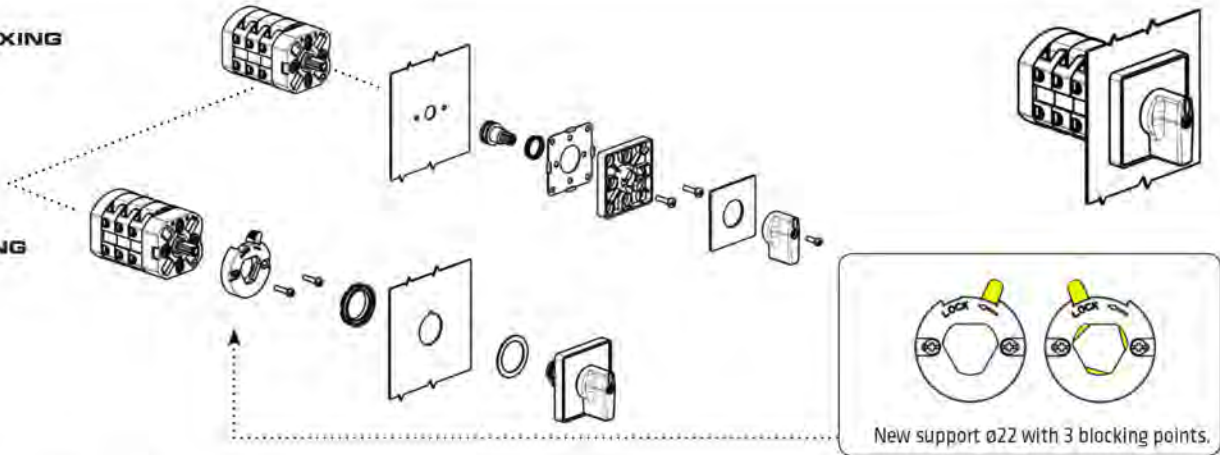
EN 60947-3 CHARACTERISTICS		PO12 - PX12	PO16 - PX16	PO20 - PX20	CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200	
Rated operating voltage Ue	V	690	690	690	690	690	690	690	690	690	690	
Rated insulation voltage Ui	V	690	690	690	690	690	690	690	690	690	690	
Rated impulse withstand voltage Uimp (sectionable)	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	
<b>RATED OPERATING CURRENT Ie: alternate current</b>		<b>PO12 - PX12</b>	<b>PO16 - PX16</b>	<b>PO20 - PX20</b>	<b>CO25 - CX25</b>	<b>CO32 - CX32</b>	<b>CO40 - CX40</b>	<b>CO63</b>	<b>CO80</b>	<b>G125</b>	<b>G200</b>	
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	-	-
	3 phases - 3 poles	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
		690V A/kW	10/7,5	14/10	16/12,5	20/15	22/18,5	25/22	32/30	40/37	47/45	57/55
AC3 Starting of cage motors (interruption hllc 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	-	-
	3 phases - 3 poles	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
		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
Nominal Interruption power AC-23A (cosφ 0,45)	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*	-	-	-	-	-	-	-	
<b>RATED OPERATING CURRENT Ie: direct current</b>		<b>PO12 - PX12</b>	<b>PO16 - PX16</b>	<b>PO20 - PX20</b>	<b>CO25 - CX25</b>	<b>CO32 - CX32</b>	<b>CO40 - CX40</b>	<b>CO63</b>	<b>CO80</b>	<b>G125</b>	<b>G200</b>	
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 ▼	-	-	-	-	
<b>SHORT CIRCUIT CHARACTERISTICS</b>		<b>PO12 - PX12</b>	<b>PO16 - PX16</b>	<b>PO20 - PX20</b>	<b>CO25 - CX25</b>	<b>CO32 - CX32</b>	<b>CO40 - CX40</b>	<b>CO63</b>	<b>CO80</b>	<b>G125</b>	<b>G200</b>	
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 ▲	
<b>UL 508 CHARACTERISTICS</b>		<b>PO12 - PX12</b>	<b>PO16 - PX16</b>	<b>PO20 - PX20</b>	<b>CO25 - CX25</b>	<b>CO32 - CX32</b>	<b>CO40 - CX40</b>	<b>CO63</b>	<b>CO80</b>	<b>G125</b>	<b>G200</b>	
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 |

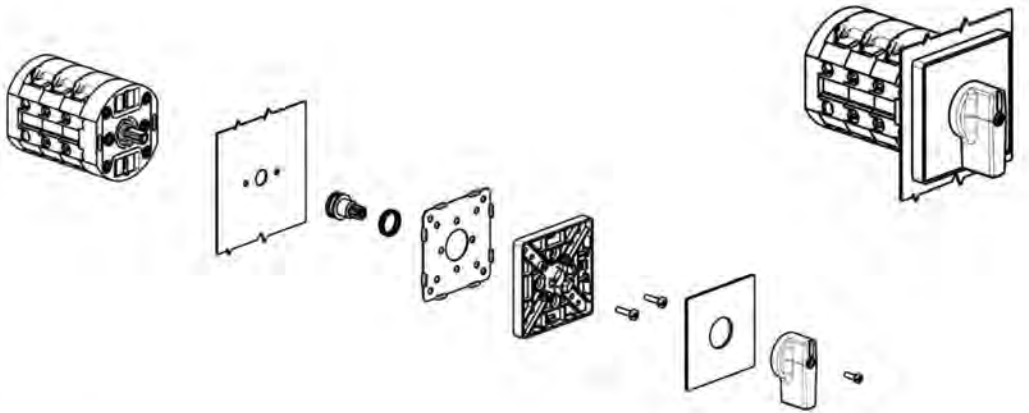
SCREW FIXING

Ø22 FIXING



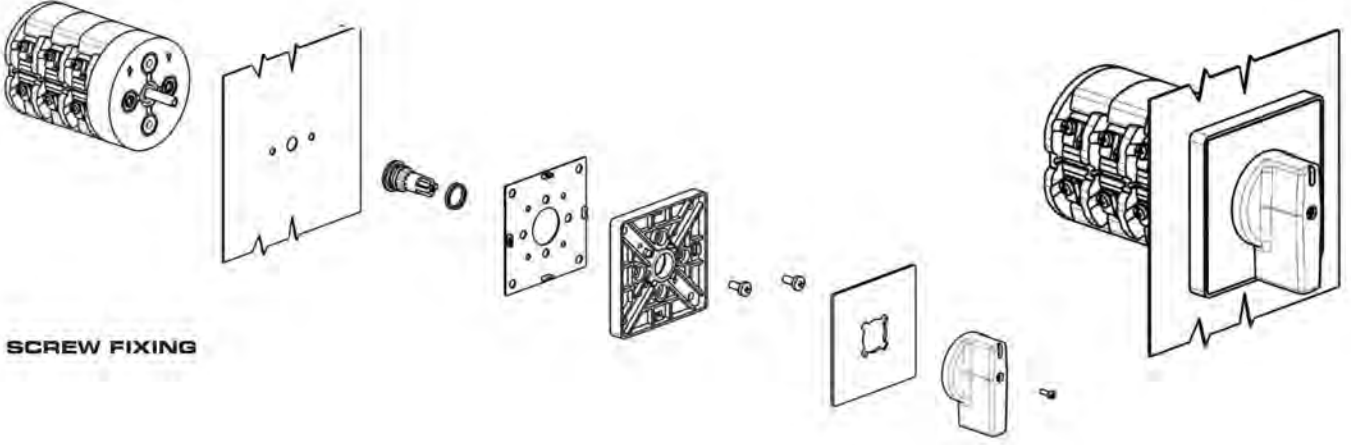
| RANGE AC21A | 25A - 32A - 40A |

SCREW FIXING



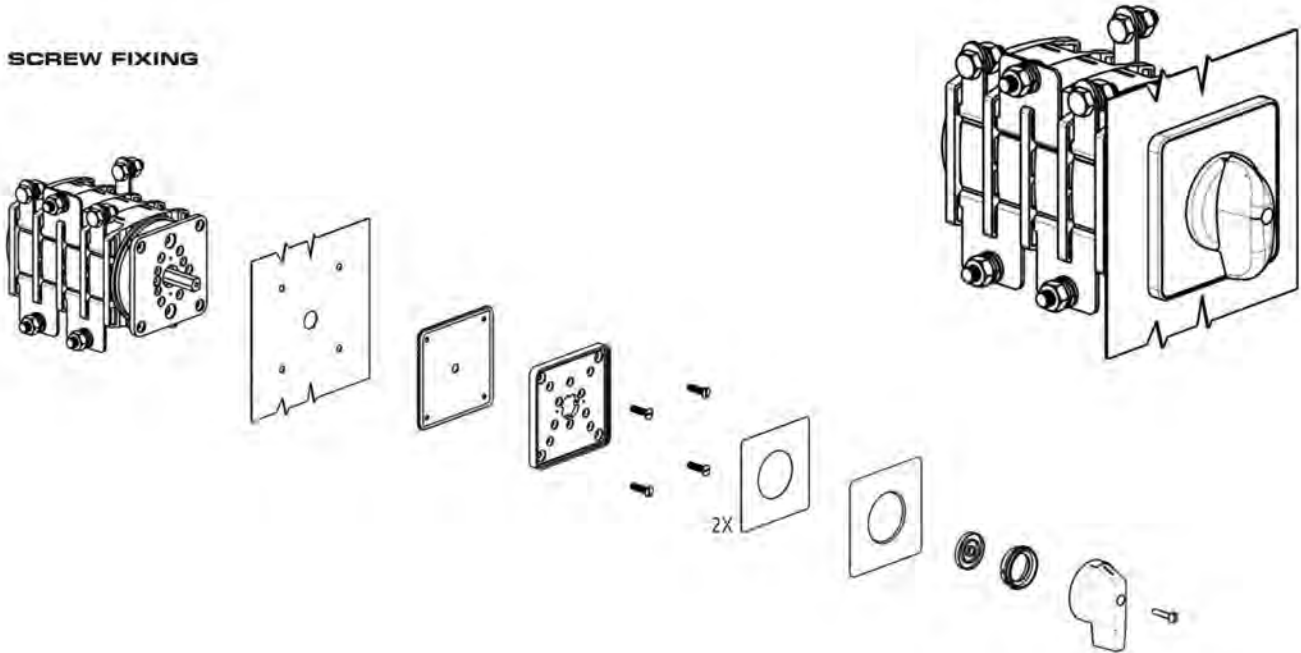
| RANGE AC21A | 63A - 80A |

SCREW FIXING



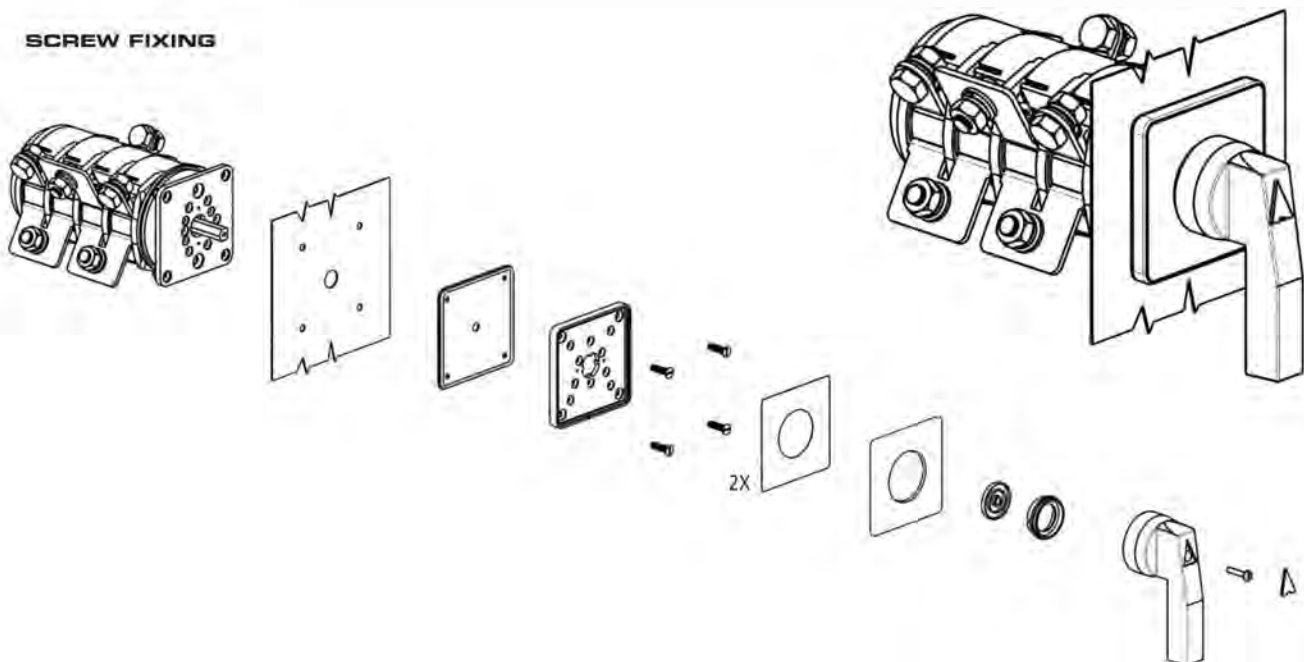
| RANGE AC21A | 125A |

SCREW FIXING



| RANGE AC21A | 200A |

SCREW FIXING





Your Source for Automation Components

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

SERIES	AC21A	CAM SWITCH CONFIGURATIONS						
		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	-

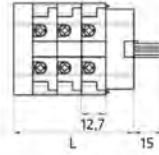
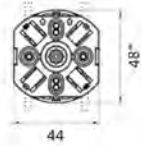
ACTUATOR	FIXING	P012 - P016 - P020				C025 - C032 - C040			C063 - C080		G125	G200
		90°	90°	45°	NO	90°	90°	45°	90°	90°	90°	90°
	screw	001/0001	001/0001-1	001/0007	-	007/0001	007/0001-1	007/0007	201/0001	201/0001-1	441/0001	461/0001
	ø22	056X/0001	056X/0001-1	056X/0007	-	-	-	-	-	-	-	-
	screw	002/0001	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°

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12-1B-20A

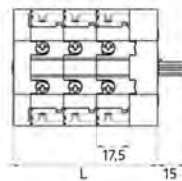
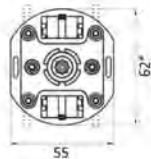


WAFER GAP	L x WAFER N°					
	1	2	3	4	5	6
12.7	37,4	50,1	62,8	75,5	88,2	100,9

\* 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.



25-3E-40A

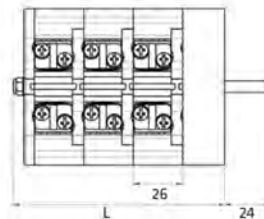
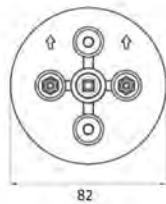


WAFER GAP	L x WAFER N°					
	1	2	3	4	5	6
17,5	42,2	59,7	77,2	94,7	112,2	129,7

\* 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.



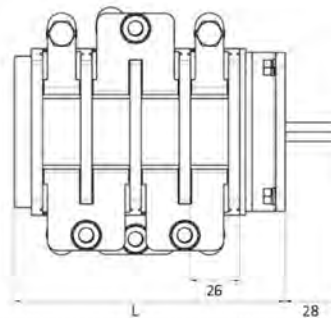
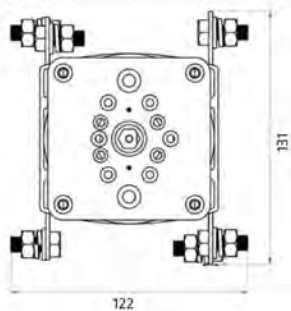
88-80A



WAFER GAP	L x WAFER N°					
	1	2	3	4	5	6
26	59,1	85,1	111,1	137,1	163	189,1



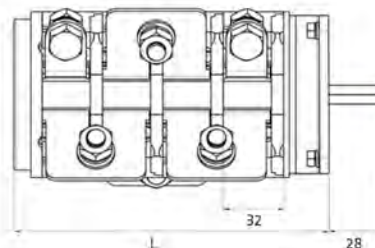
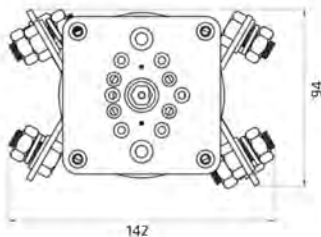
125A



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

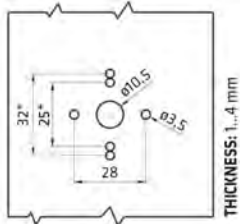


200A

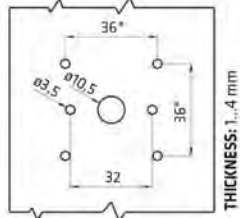
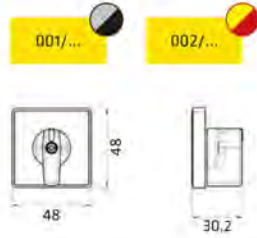


WAFER GAP	L x WAFER N°					
	1	2	3	4	5	6
32	72	104	136	168	200	232

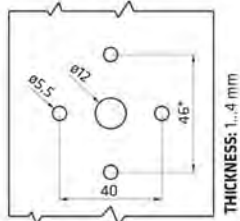
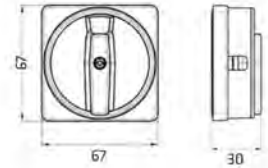
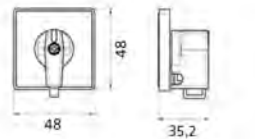
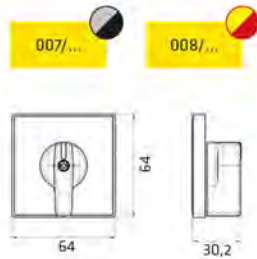
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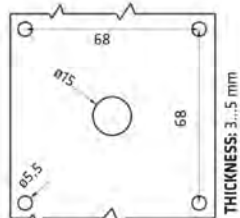
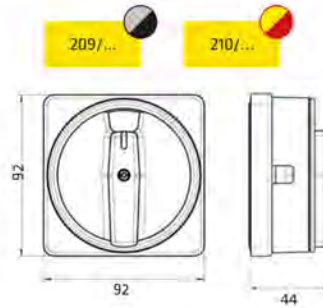
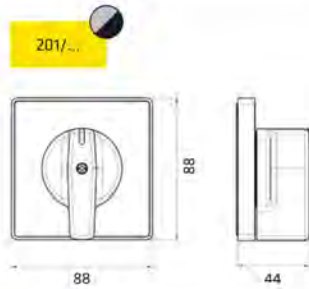
**FIXING:**  
Captive M3 bolt - 28 mm  
\* ALTERNATIVE FIXING  
Screwplast 25 or 32 mm



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



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



**FISSAGGIO:**  
M5 bolt 68 mm

