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AUTOMATION • PHOENIX CAM SWITCHES

GIOVENZANA INTERNATIONAL B.V.



PHOENIX CAM SWITCHES
PO • PX • CO • CX • G Series





AUTOMATION TECHNOLOGIES

AUTOMATION

The solutions offered by **Giovenzana** are the results of the detailed analysis of industrial electrical accessories requirements in conformity with all relevant international standards. The range includes:

- Cam Switches Phoenix series from 12A to 200A;
- Switch disconnectors Regolus series from 32A to 160A;
- Auxiliary Controls Pegasus, Orion and NEMA series;
- Limit switches with die cast or molded casing;
- Foot switches and micro switches.

QUALITY

Giovenzana, leader in the elevator and lifting equipment field, has gained a prominent position in the automation sector with the launch of industrial control devices into the market. For many years, all commercial and industrial operations have been integrated within the **UNI EN ISO 9001:2008** quality system.

CSQ certificate N 9105. GIOV.

Quality system is the end users guarantee that all production stages are closely followed under strict control and adhere to the requirements set by the company both in terms of customer expectations and compliance to the relevant international standards as proved by the various certificates **Giovenzana** holds for its products.

By the **UNI EN ISO 14001:2004**, **Giovenzana** keeps up with new technologies in order to reduce raw materials consumption, energy and natural resources and to minimize waste and emissions. This reduces the environmental impact.

The certification CSQ N 9191. GIBV.

COMPLIANCE

All **Giovenzana** products are manufactured according to the most relevant Cee directives. **Giovenzana** certifies this compliance with a declaration of conformity.

CERTIFICATIONS

In order to reach its high quality level **Giovenzana's** products are tested by multiple third parties. In order to obtain the UL mark, **Giovenzana** submits their products to Underwriter Laboratories Inc., one of the most eminent independent certification companies in the World.

CEE DIRECTIVES

From January 1st, 1997 it is compulsory to CE mark all electromechanical products: this has been outlined by an important regulation: 2006/95/CE Low Voltage Directives.

CE MARK

European directives, applied to all national regulations, set the minimum requirements in term of safety of all electrical material sold within the EU.

Compliance to these requirements is certified by the manufacturer by the CE mark placed on the products.

STANDARDS

Giovenzana's products comply with both the European EN and the American UL standards. These regulations, such as CEI EN 60204-1 (CEI 44-5) with regards to the safety requirements of the electrical circuits on board industrial machinery, define the characteristics, performance and use of the products.

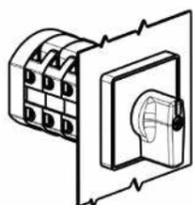
EN EUROPEAN STANDARDS

The EN European standards are originated from IEC International standards and are the result of the collaboration between CENELEC (European Committee for Electrotechnical Standardization) member countries.

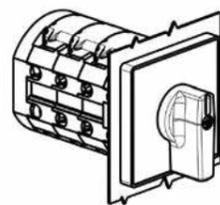
These standards cover and eliminate existing national standards that may be contradictory and non-compliant.



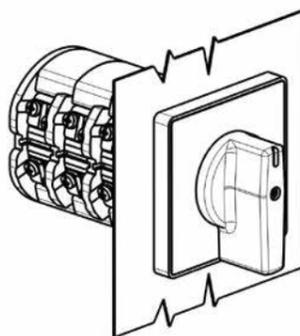
R REAR PANEL MOUNTING



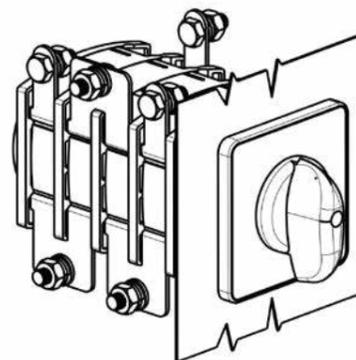
12A - 16A - 20A



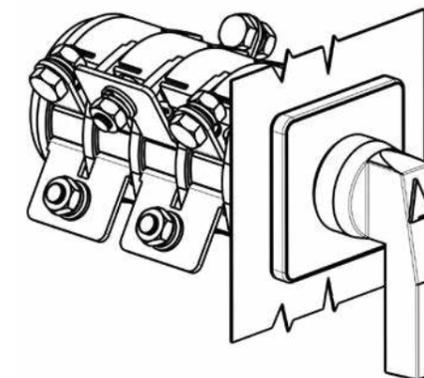
25A - 32A - 40A



63A - 80A

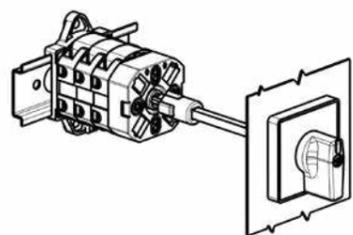


125A

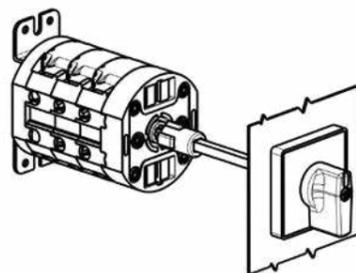


200A

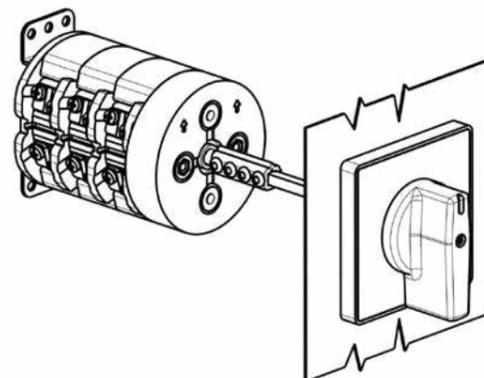
B BASE MOUNTING



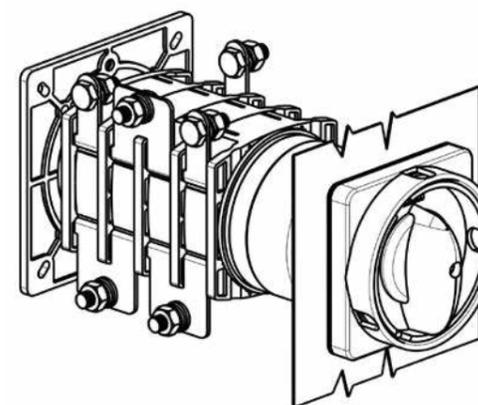
12A - 16A - 20A



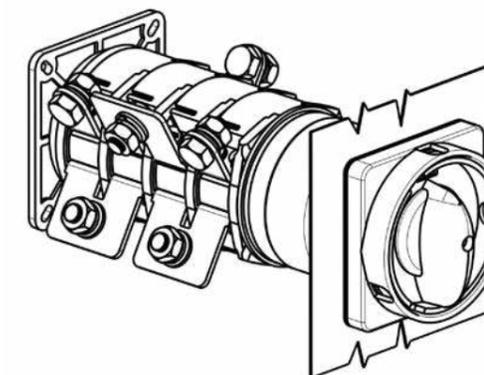
25A - 32A - 40A



63A - 80A

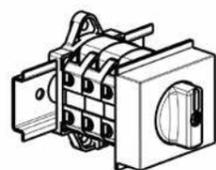


125A



200A

D DIN MOUNTING 46 mm
Only switches DIN RAIL mounting 46 mm standard boxes



12A - 16A - 20A

GENERAL CHARACTERISTICS

CAM SWITCHES - PHOENIX SERIES

The cam switches PHOENIX Series are manufactured in compliance with the strictest international and European standards (IEC/EN 60947-3, UL508) and thus satisfy all the strict safety needs. The long industrial experience, together with the use of the best materials, to knowledge and the most modern machinery and project devices allow us to produce a range of equipment with compact dimensions, and very high quality, by placing **Giovvenzana** as a benchmark for warranty, functioning safety and product durability.



TYPE OF MOUNTINGS



Rear Panel Mounting



Base Mounting



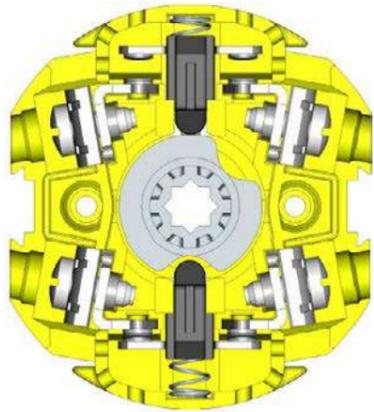
Din Mounting 46 mm
Only switches DIN RAIL mounting 46 mm standard boxes

RANGE (AC21A)

12-16-20-25-32-40-63-80-125-200A

INSULATION VOLTAGE

690V



MORE PERFORMANCES!

- Self cleaning pads
- Silver alloy plated pads
- Available gold plated pads
- UL94 Vo class self-extinguishing thermoplastic housing
- Metal shaft, metal rods
- Finger-proof terminal version available till to 40A
- Laser engraved body switch markings
- Laser engraved actuator's plate

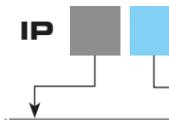
APPLICATIONS

ON-OFF SWITCHES 0-1	CHANGEOVER SWITCHES 1-0-2	STEP SWITCHES
STAR-DELTA MOTOR SWITCHES	REVERSING MOTOR SWITCHES	SPECIAL CUSTOMIZED SCHEME ON DEMAND
AMMETER SWITCHES	VOLTMETER SWITCHES	

UTILIZATION CATEGORIES for alternate and direct current

CATEGORY	APPLICATIONS
AC21A	Switching of resistive loads, including moderate overloads
AC22A	Switching of mixed resistive and inductive loads, including moderate overloads
AC23A	Switching of motor loads or other highly inductive loads
AC3	Squirrel-cage motors: starting, switches off motors during running time
DC21A	Switching of resistive loads, including moderate overloads
DC22A	Switching of mixed resistive and inductive loads, including moderate overloads

PROTECTION CLASS (IEC/EN 60529)



PARTS		WATER	
0	Non-protected.	0	Non-protected.
1	Protected against solid foreign objects of 50 mm ø and greater. The object probe, sphere of 50 mm ø shall not fully penetrate.	1	Protected against vertically falling water drops. Vertically falling drops shall have no harmful effects.
2	Protected against solid foreign objects of 12,5 mm ø and greater (ex. finger). The object probe, sphere of 12,5 mm ø shall not fully penetrate.	2	Protected against vertically falling water drops when enclosure tilted up to 15°. Vertically falling drops shall have no harmful effects when the enclosure is tilted at any angle up to 15° on either side of the vertical.
3	Protected against solid foreign objects of 2,5 mm ø and greater. The object probe, sphere of 2,5 mm ø shall not fully penetrate.	3	Protected against spraying water. Water sprayed at an angle up to 60° on either side of the vertical shall have no harmful effects.
4	Protected against solid foreign objects of 1,0 mm ø and greater. The object probe, sphere of 1,0 mm ø shall not fully penetrate.	4	Protected against splashing water. Water splashed against the enclosure from any direction shall have no harmful effects.
5	Dust-protected. Ingress of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the apparatus or to impair safety.	5	Protected against water jets. Water projected in jets against the enclosure from any directions shall have no harmful effects.
6	Dust-tights. No ingress of dust.	6	Protected against powerful water jets. Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.
		6K	Protected against powerful water jets with increased pressure. Water projected in powerful jets against the enclosure from any direction, under elevated pressure, shall have no harmful effects (DIN 40050 and not IEC 60529).
		7	Protected against the effects of temporary immersion in water. Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water under standardized conditions of pressure and time.
		8	Protected against the effects of continuous immersion in water. Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user but which are more severe than for numeral 7.

BODIES RANGE OVERVIEW

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

REAR PANEL MOUNTING	BASE MOUNTING	DIN MOUNTING	TERMINAL PROTECTION	
			IP	CODE
				PO
				PX

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

REAR PANEL MOUNTING	BASE MOUNTING	TERMINAL PROTECTION	
		IP	CODE
			CO
			CX

| RANGE AC21A | 63A - 80A |

REAR PANEL MOUNTING	BASE MOUNTING	TERMINAL PROTECTION	
		IP	CODE
			CO
			

| RANGE AC21A | 125A |

REAR PANEL MOUNTING	BASE MOUNTING	TERMINAL PROTECTION	
		IP	CODE
			G
			

| RANGE AC21A | 200A |

REAR PANEL MOUNTING	BASE MOUNTING	TERMINAL PROTECTION	
		IP	CODE
			G
			

PHOENIX CAM SWITCHES

PHOENIX CAM SWITCHES

BODIES CODIFICATION MAP

BODY SWITCH TYPE			SCHEME TYPE			MOUNTING TYPE		
CODE	AC21A	TERMINAL PROT.	CODE	FUNCTION	SWITCH WAFER	CODE	MOUNTING	
PO12 0008 R								
ON-OFF SWITCHES								
P012	12	IP20	0001	On-off switch 1 pole	1	R	REAR PANEL	
PX12	12	IP10	0002	On-off switch 2 poles	1	R	REAR PANEL	
P016	16	IP20	0003	On-off switch 3 poles	2	R	REAR PANEL	
PX16	16	IP10	0004	On-off switch 4 poles	2	R	REAR PANEL	
P020	20	IP20	0005	On-off switch 5 poles	3	B	BASE	
PX20	20	IP10	0006	On-off switch 6 poles	3	B	BASE	
C025	25	IP20	0007	On-off switch 3 poles with spring return to zero	2	B	BASE	
CX25	25	IP10	CHANGEOVER SWITCHES				D	DIN
C032	32	IP20	0008	Changeover switch 1 pole	1	D	Only switches DIN RAIL mounting 46 mm standard boxes.	
CX32	32	IP10	0009	Changeover switch 2 poles	2	D		
C040	40	IP20	0010	Changeover switch 3 poles	3	D		
CX40	40	IP10	0011	Changeover switch 4 poles	4	D		
C063	63	IP00	MOTOR SWITCHES				S	On request SPECIAL CAM SWITCHES according customers requirements or customizations.
C080	80	IP00	0012	Reversing switch 3 poles	3	S		
G125	125	IP00	0013	Reversing switch 3 poles with spring return to zero	3	S		
G200	200	IP00	0014	Dahlander pole changing two speed switch	4	S		
			0015	Star-delta starter switch	4	S		
			0016	Reversing switch single phase with centrifugal cut-out	3	S		
			0017	Starter switch single phase with auxiliary phase	2	S		
			0018	Reversing-starter switch single phase with auxiliary phase	3	S		
			0031	Reversing-dahlander pole changing two speed switch	6	S		
AMMETER AND VOLTMETER SWITCHES								
			0019	Ammeter selector switch 1 pole for 3 current transformers	3			
			0020	Voltmeter selector switch phase-neutral	2			
			0021	Voltmeter selector switch phase-phase	2			
			0022	Voltmeter selector switch phase-phase for two circuits	4			
			0023	Voltmeter selector switch phase-phase and phase-neutral	3			
			0024	Voltmeter selector switch phase-phase and 1 phase-neutral	3			
STEP SWITCHES								
			0025	Step switch 1-2 positions without zero 1 pole	1			
			0026	Step switch 1-2 positions without zero 2 poles	2			
			0027	Step switch 1-2 positions without zero 3 poles	3			
			0028	Step switch 0-1-2 positions with zero 1 pole	1			
			0029	Step switch 0-1-2-3 positions with zero 1 pole	2			
			0030	Step switch 0-1-2-3-4 positions with zero 1 pole	2			
			0032	Step switch 0-1-2 positions with zero 2 poles	2			
			0033	Step switch 0-1-2 positions with zero 3 poles	3			
			0034	Step switch 0-1-2-3 positions with zero 2 poles	3			
			0035	Step switch 0-1-2-3 positions with zero 3 poles	5			
			0036	Step switch 0-1-2-3-4 positions with zero 2 poles	4			
			0037	Step switch 0-1-2-3-4 positions with zero 3 poles	6			
			0038	Step switch 1-2-3 positions without zero 1 pole	2			
			0039	Step switch 1-2-3 positions without zero 2 poles	3			
			0040	Step switch 1-2-3 positions without zero 3 poles	5			
			0041	Step switch 1-2-3-4 positions without zero 1 pole	2			
			0042	Step switch 1-2-3-4 positions without zero 2 poles	4			
			0043	Step switch 1-2-3-4 positions without zero 3 poles	6			

ELECTRICAL SCHEMES

ON-OFF SWITCHES 0-1																																																																																																																																		
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ELECTRICAL SCHEMES

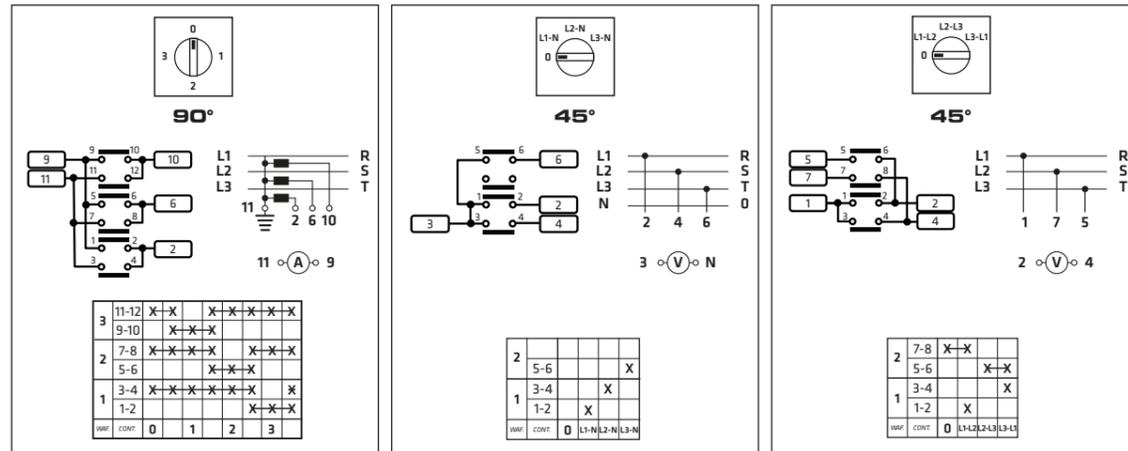
ELECTRICAL SCHEMES

AMMETER AND VOLTMETER SWITCHES

STEP SWITCHES

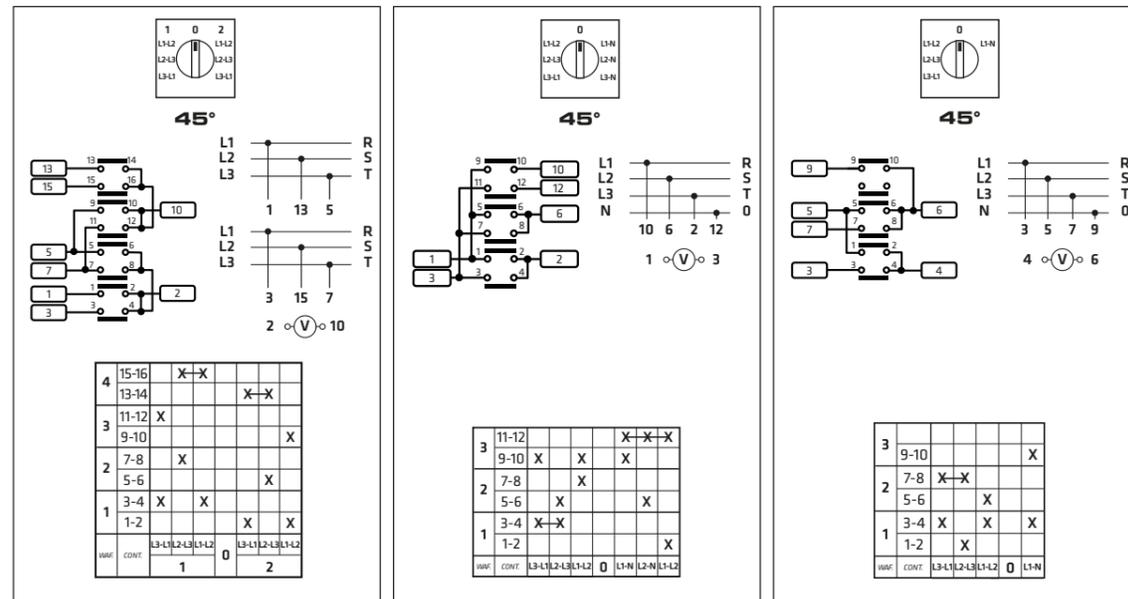
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AMMETER SELECTOR SWITCH 1 POLE FOR 3 CURRENT TRANSFORMERS	VOLTMETER SELECTOR SWITCH PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE
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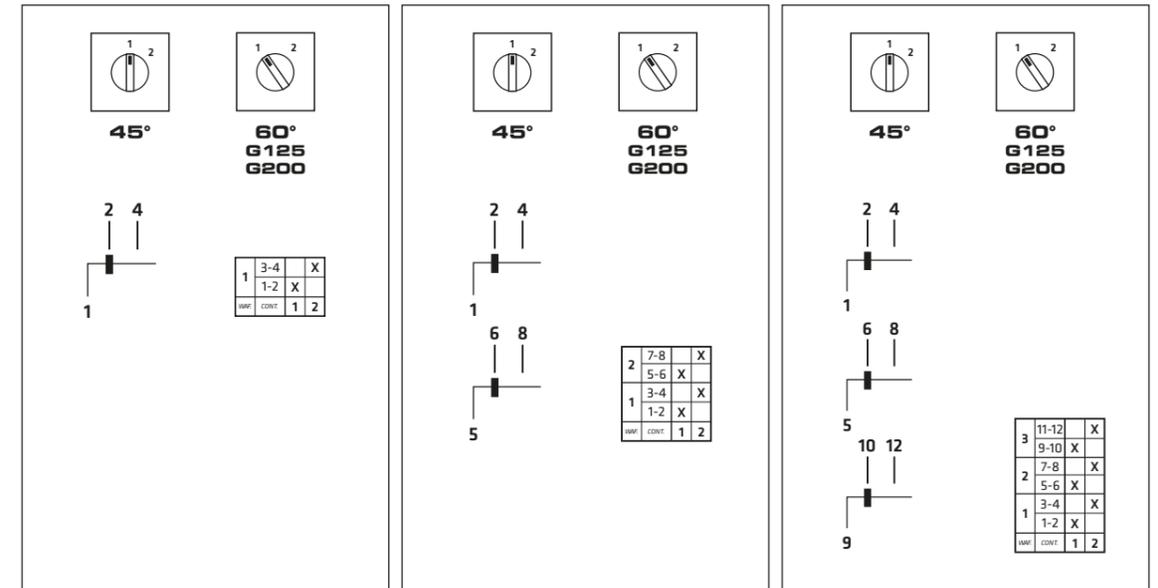
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VOLTMETER SELECTOR SWITCH PHASE-PHASE FOR TWO CIRCUITS	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND 1 PHASE-NEUTRAL
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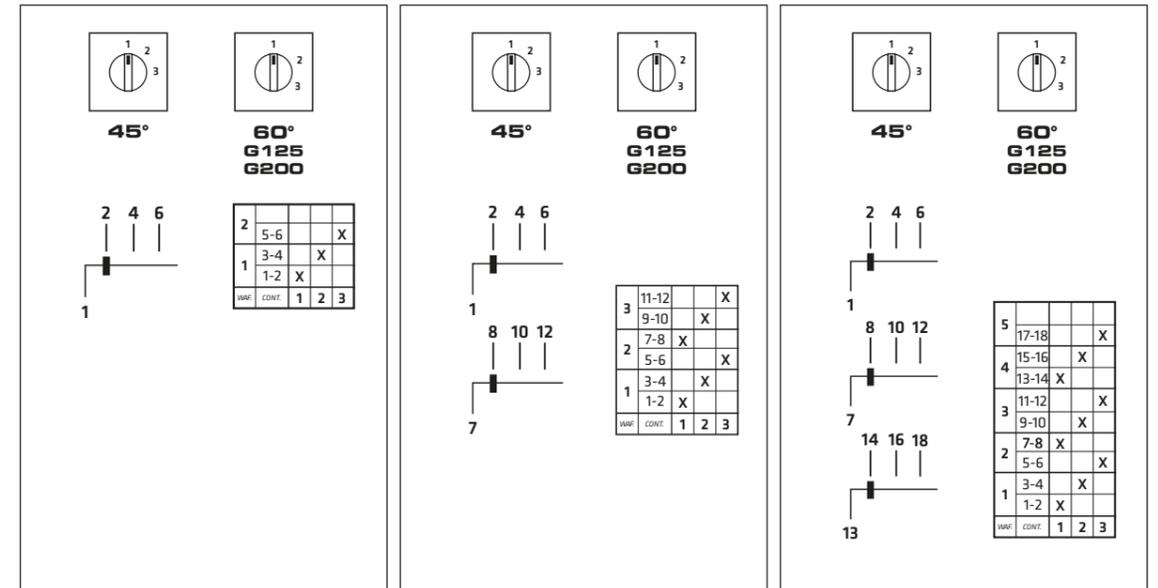
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STEP SWITCH 1-2 POSITIONS WITHOUT ZERO 1 POLE	STEP SWITCH 1-2 POSITIONS WITHOUT ZERO 2 POLES	STEP SWITCH 1-2 POSITIONS WITHOUT ZERO 3 POLES
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0038	0039	0040
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STEP SWITCH 1-2-3 POSITIONS WITHOUT ZERO 1 POLE	STEP SWITCH 1-2-3 POSITIONS WITHOUT ZERO 2 POLES	STEP SWITCH 1-2-3 POSITIONS WITHOUT ZERO 3 POLES
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ELECTRICAL SCHEMES

ELECTRICAL SCHEMES

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ACTUATORS RANGE OVERVIEW

AC21A	<ul style="list-style-type: none"> Grey plate Black knob 	<ul style="list-style-type: none"> Yellow plate Red knob 	<ul style="list-style-type: none"> Grey plate Black knob Padlockable (Max 1) Padlockable in 0 	<ul style="list-style-type: none"> Yellow plate Red knob Padlockable (Max 1) Padlockable in 0 	<ul style="list-style-type: none"> Grey plate Black knob Padlockable (Max 3) Padlockable in 0 	<ul style="list-style-type: none"> Yellow plate Red knob Padlockable (Max 3) Padlockable in 0 	<ul style="list-style-type: none"> Grey plate Key operated 	<ul style="list-style-type: none"> Without plate Knob operated 	<ul style="list-style-type: none"> Without plate Key operated 	<ul style="list-style-type: none"> DIN 45x52,3 46 mm standard boxes
12A 16A 20A										
25A 32A 40A										
63A 80A										
125A										
200A										

ACTUATORS CODIFICATION MAP

001 / 0001-1

FAMILY TYPE

ACTUATOR	LINE	□	MOUNTING	CODE	PROT. CLASS.
	12-16-20	48	 R screw	001/...	IP65
	12-16-20	48	 R ø22	056X/...	IP65
	25-32-40	64	 R screw	007/...	IP65
	63-80	88	 R screw	201/...	IP65
	125	88	 R screw	441/...	IP65
	200	88	 R screw	461/...	IP65
	12-16-20	48	 B screw	020/...	IP65
	25-32-40	64	 B screw	021/...	IP65
	12...40	48	 B ø22	095/...	IP65
	63-80	88	 B screw	220/...	IP65

☉ Grey plate ☉ Black knob

	12-16-20	48	 R screw	002/...	IP65
	12-16-20	48	 R ø22	058X/...	IP65
	25-32-40	64	 R screw	008/...	IP65
	12-16-20	48	 B screw	030/...	IP65
	12...40	48	 B ø22	070/...	IP65

☉ Yellow plate ☉ Red knob

	12...40	48	 R screw	003/...	IP65 4-4X
	12-16-20	48	 R ø22	059X/...	IP65
	12...40	48	 B screw	005/...	IP65 4-4X
	12...40	48	 B ø22	077/...	IP65 4-4X

☉ Grey plate ☉ Black knob ☉ Padlockable (Max 1)
☉ Padlockable in 0

	12...40	48	 R screw	004/...	IP65 4-4X
	12-16-20	48	 R ø22	060X/...	IP65
	12...40	48	 B screw	006/...	IP65 4-4X
	12...40	48	 B ø22	069/...	IP65 4-4X

☉ Yellow plate ☉ Red knob ☉ Padlockable (Max 1)
☉ Padlockable in 0

ACTUATOR	LINE	□	MOUNTING	CODE	PROT. CLASS.
	12...40	67	 R screw	009/...	IP65 4-4X
	12-16-20	67	 R ø22	061X/...	IP65
	63-80	92	 R screw	209/...	IP65
	125-200	95	 R screw	449/...	IP65
	12...40	67	 B screw	011/...	IP65 4-4X
	12...40	67	 B ø22	063/...	IP65 4-4X
	63-80	92	 B screw	211/...	IP65
	125-200	95	 B screw	451/...	IP65

☉ Grey plate ☉ Black knob ☉ Padlockable (Max 3)
☉ Padlockable in 0

	12...40	67	 R screw	010/...	IP65 4-4X
	12-16-20	67	 R ø22	062X/...	IP65
	63-80	92	 R screw	210/...	IP65
	125-200	95	 R screw	450/...	IP65
	12...40	67	 B screw	012/...	IP65 4-4X
	12...40	67	 B ø22	064/...	IP65 4-4X
	63-80	92	 B screw	212/...	IP65
	125-200	95	 B screw	452/...	IP65

☉ Yellow plate ☉ Red knob ☉ Padlockable (Max 3)
☉ Padlockable in 0

	12-16-20	48	 R ø22	057X/...	IP65
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☉ Grey plate ☉ Key operated
☉ Key removable at "0" position

	12-16-20	-	 R ø22	028X	IP65
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☉ Without plate ☉ Knob operated

	12-16-20	-	 R ø22	029X	IP65
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☉ Without plate ☉ Key operated
☉ Key removable at 0° and 180° position

	12-16-20	45x52	 D screw	027/...	-
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☉ Grey plate ☉ Black knob
☉ 46 mm standard boxes

SCHEME/INSCRIPTION TYPE - version or key extraction position

ON-OFF SWITCHES 0-1	CHANGEOVER SWITCHES 1-0-2 MOTOR SWITCHES	STEP SWITCHES	AMMETER SWITCHES	VOLTMETER SWITCHES
 90°  90°  45°	 45°  45°  45°  60° G125 G200	 45°  45°  60° G125 G200	 90° 001/0019 027/0019 056X/0019	 45° 001/0020 027/0020 056X/0020  45° 001/0021 027/0021 056X/0021  45° 001/0022 056X/0022  45° 001/0023 027/0023 056X/0023  45° 001/0024 027/0024 056X/0024
001/0001 002/0001 003/0001 004/0001 005/0001 006/0001 007/0001 008/0001 009/0001 010/0001 011/0001 012/0001 020/0001 021/0001 030/0001 056X/0001 057X/0001 058X/0001 059X/0001 060X/0001 061X/0001 062X/0001 063/0001 064/0001 069/0001 070/0001 077/0001 095/0001 201/0001 209/0001 210/0001 211/0001 212/0001 220/0001 441/0001 449/0001 450/0001 451/0001 452/0001 461/0001	001/0001-1 002/0001-1 003/0001-1 004/0001-1 007/0007 008/0001-1 009/0001-1 010/0001-1 011/0001-A 012/0001-2 027/0001 056X/0001-1 057X/0001-1 058X/0001-1 059X/0001-1 060X/0001-1 061X/0001-1 062X/0001-1 063/0001-1 064/0001-1 201/0001-1 209/0001-1 210/0001-1 211/0001-1 212/0001-1	001/0007 002/0007 003/0007 004/0017 007/0017 009/0017 010/0017 056X/0017 057X/0013-CA 058X/0013 059X/0013 060X/0013 061X/0013 062X/0013 001/0015 002/0015 003/0015 004/0015 007/0015 008/0015 009/0015 010/0015 056X/0015 441/0015 461/0015	001/0018 002/0018 003/0018 004/0018 009/0018 010/0018 056X/0018 001/0038 007/0038 056X/0038 201/0038 441/0038 461/0038 001/0029 007/0029 056X/0029 057X/0029-CA 441/0029 461/0029	001/0041 007/0041 056X/0041 441/0041 461/0041 001/0030 007/0030 056X/0030 441/0030 461/0030

Some combinations of actuator family/inscription couldn't be available as standard. Other combinations with special inscription are available on request.



GIOVENZANA
INTERNATIONAL B.V.



GIOVENZANA
INTERNATIONAL B.V.



PHOENIX CAM SWITCHES
REAR PANEL MOUNTING - R

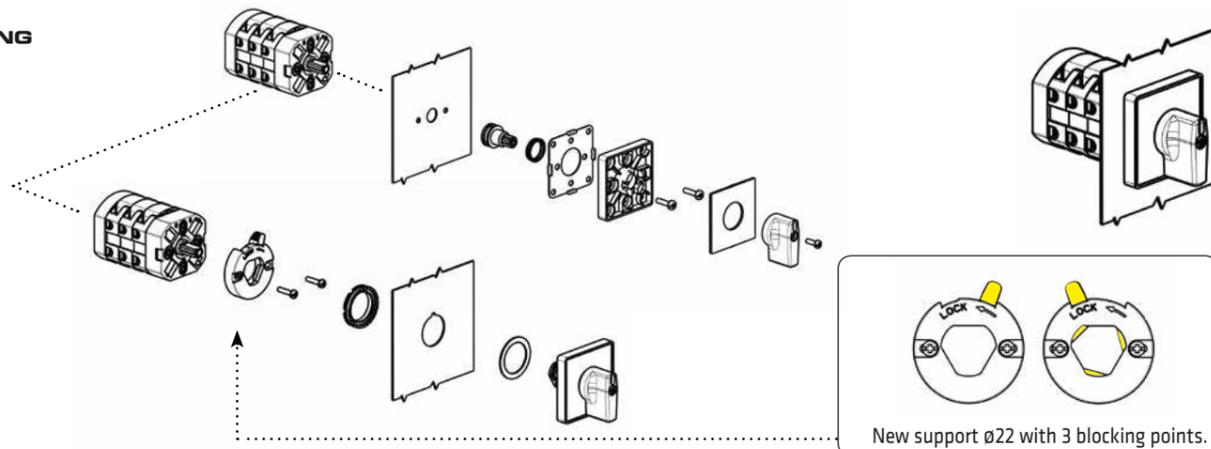


REAR PANEL MOUNTING

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

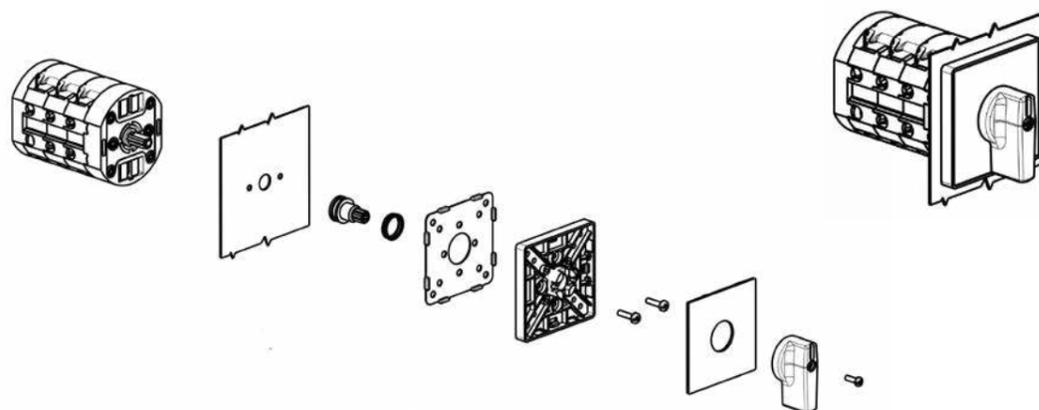
SCREW FIXING

Ø22 FIXING



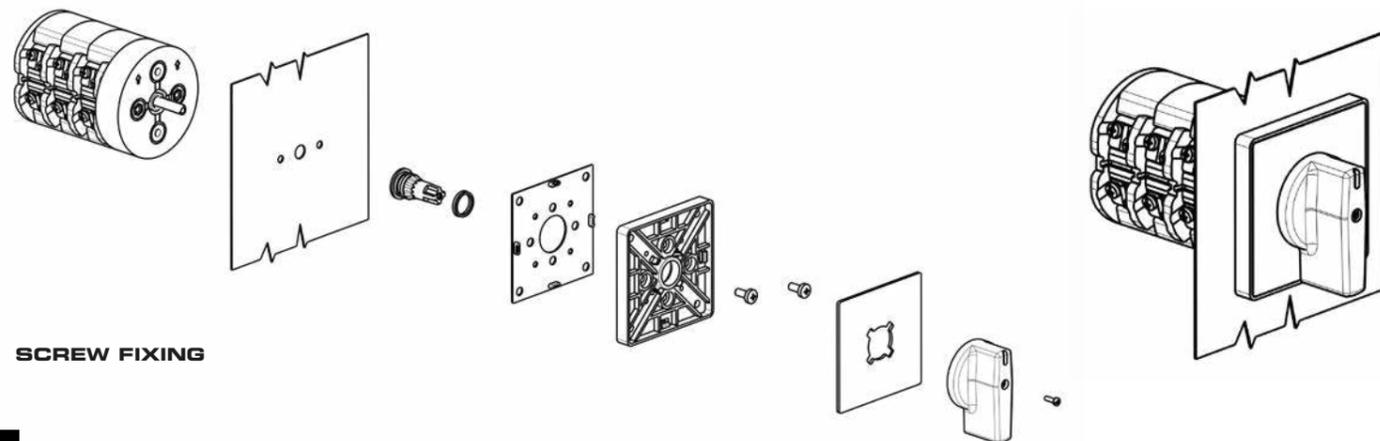
| RANGE AC21A | 25A - 32A - 40A |

SCREW FIXING



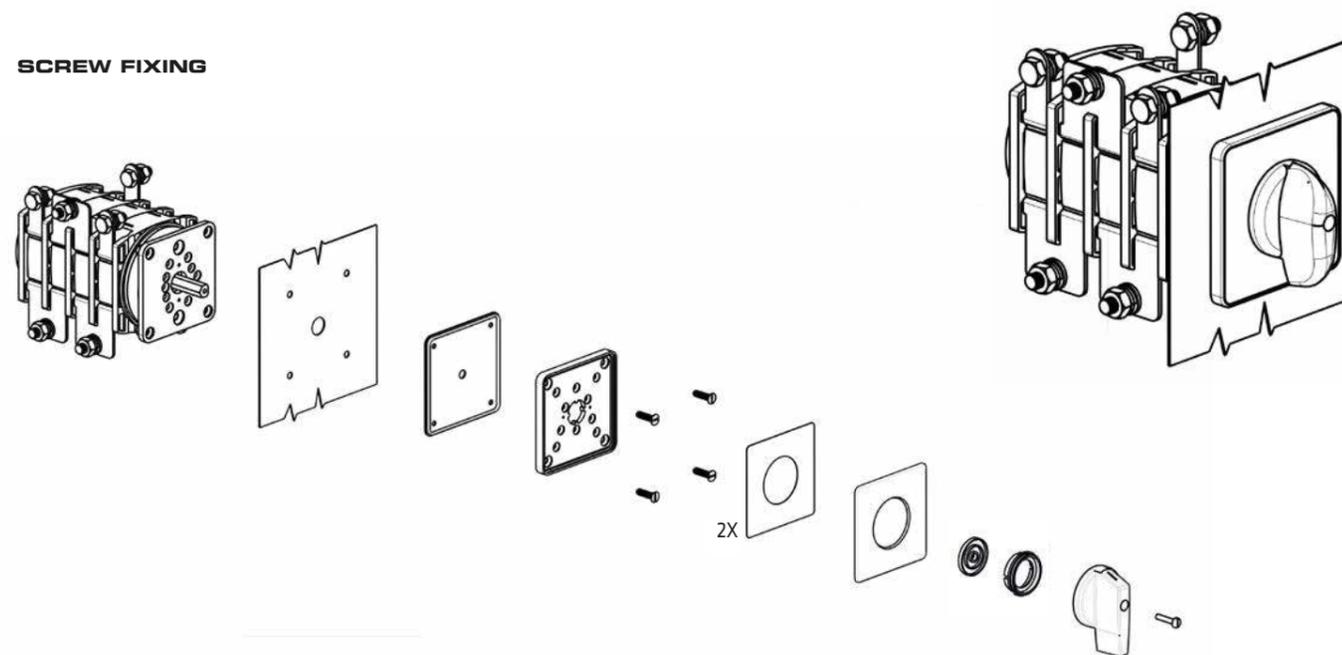
| RANGE AC21A | 63A - 80A |

SCREW FIXING



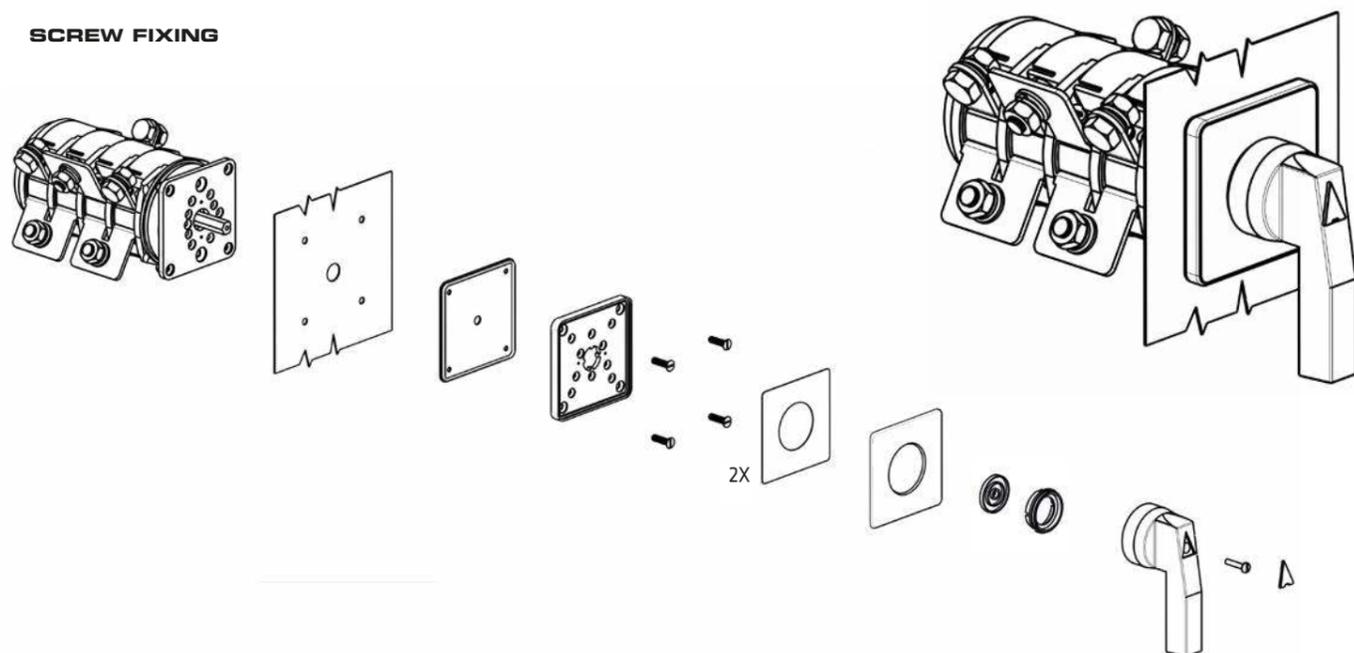
| RANGE AC21A | 125A |

SCREW FIXING



| RANGE AC21A | 200A |

SCREW FIXING





REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12

	12-16-20A		90°
	25-32-40A		90°
	63-80A		1 2
	125A		1 3 2 4
	200A		1 3 5 2 4 6
	200A		1 3 5 7 2 4 6 8
	200A		1 3 5 7 9 2 4 6 8 10
	200A		1 3 5 7 9 11 2 4 6 8 10 12
	200A		1 3 5 2 4 6

SERIES	AC21A	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°



REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12

12-16-20A	
25-32-40A	
63-80A	
125A	
200A	

SERIEs	AC21A	1 POLE	2 POLES	3 POLES	4 POLES
P012	12A	P0120008R	P0120009R	P0120010R	P0120011R
P016	16A	P0160008R	P0160009R	P0160010R	P0160011R
P020	20A	P0200008R	P0200009R	P0200010R	P0200011R
C025	25A	C0250008R	C0250009R	C0250010R	C0250011R
C032	32A	C0320008R	C0320009R	C0320010R	C0320011R
C040	40A	C0400008R	C0400009R	C0400010R	C0400011R
C063	63A	C0630008R	C0630009R	C0630010R	C0630011R
C080	80A	C0800008R	C0800009R	C0800010R	C0800011R
G125	125A	G1250008R	G1250009R	G1250010R	G1250011R
G200	200A	G2000008R	G2000009R	G2000010R	G2000011R

ACTUATOR	FIXING	P012 - P016 - P020	C025 - C032 - C040	C063 - C080	G125	G200
	screw	001/0008 056X/0008	007/0008	201/0008	441/0008	461/0008
	screw	002/0008 058X/0008	008/0008	-	-	-
	screw	003/0008 059X/0008	003/0008	-	-	-
	screw	004/0008 060X/0008	004/0008	-	-	-
	screw	009/0008 061X/0008	009/0008	209/0008	-	-
	screw	010/0008 062X/0008	010/0008	210/0008	-	-
	ø22	057X/0008-CA	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-

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



REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12

12-16-20A	<p>45° 60° G125 G200</p>																																			
25-32-40A																																				
63-80A	<table border="1"> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>9-10</td><td>X</td><td></td><td>X</td><td></td></tr> <tr><td>7-8</td><td>X</td><td></td><td></td><td></td></tr> <tr><td>5-6</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>3-4</td><td></td><td></td><td>X</td><td></td></tr> <tr><td>1-2</td><td>X</td><td></td><td></td><td></td></tr> <tr><td>WAF</td><td>CONT.</td><td>1</td><td>0</td><td>2</td></tr> </table>	3					9-10	X		X		7-8	X				5-6			X		3-4			X		1-2	X				WAF	CONT.	1	0	2
3																																				
9-10	X		X																																	
7-8	X																																			
5-6			X																																	
3-4			X																																	
1-2	X																																			
WAF	CONT.	1	0	2																																
125A																																				
200A																																				

SERIES	AC21A	REVERSING SWITCH 3 POLES	REVERSING SWITCH 3 POLES WITH SPRING RETURN TO ZERO	DAHLANDER POLE CHANGING TWO SPEED SWITCH	REVERSING SWITCH SINGLE PHASE WITH CENTRIFUGAL CUT-OUT
P012	12A	P0120012R	P0120013R	P0120014R	P0120016R
P016	16A	P0160012R	P0160013R	P0160014R	P0160016R
P020	20A	P0200012R	P0200013R	P0200014R	P0200016R
C025	25A	C0250012R	C0250013R	C0250014R	C0250016R
C032	32A	C0320012R	C0320013R	C0320014R	C0320016R
C040	40A	C0400012R	C0400013R	C0400014R	C0400016R
C063	63A	C0630012R	-	C0630014R	-
C080	80A	C0800012R	-	C0800014R	-
G125	125A	G1250012R	-	G1250014R	-
G200	200A	G2000012R	-	G2000014R	-

ACTUATOR	FIXING	P012 - P016 - P020			C025 - C032 - C040		C063 - C080	G125	G200
		45°	45°	NO	45°	45°	45°	60°	60°
	screw	001/0008	001/0013	-	007/0008	007/00013	201/0008	441/0008	461/0008
	ø22	056X/0008	056X/0013	-	-	-	-	-	-
	screw	002/0008	002/0013	-	008/0008	-	-	-	-
	ø22	058X/0008	058X/0013	-	-	-	-	-	-
	screw	003/0008	003/0013	-	003/0008	003/0013	-	-	-
	ø22	059X/0008	059X/0013	-	-	-	-	-	-
	screw	004/0008	004/0013	-	004/0008	004/0013	-	-	-
	ø22	060X/0008	060X/0013	-	-	-	-	-	-
	screw	009/0008	009/0013	-	009/0008	009/0013	209/0008	-	-
	ø22	061X/0008	061X/0013	-	-	-	-	-	-
	screw	010/0008	010/0013	-	010/0008	010/0013	210/0008	-	-
	ø22	062X/0008	062X/0013	-	-	-	-	-	-
	ø22	057X/0008-CA	057X/0013-CA	-	-	-	-	-	-
	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°



REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12

12-16-20A

25-32-40A

125A

200A

60°
60°
G125
G200

45°

45°

45°

4	15-16			X
	13-14	X-X	X	
3	11-12	X		
	9-10	X-X	X	
2	7-8	X		
	5-6			X
1	3-4			X
	1-2	X-X	X	
WAF	CONT.	0	Y	Δ

6	23-24	X			X			
	21-22		X	X				
5	19-20	X			X			
	17-18	X			X			
4	15-16		X	X				
	13-14		X	X				
3	11-12	X			X			
	9-10	X			X			
2	7-8	X			X			
	5-6	X	X					
1	3-4	X	X					
	1-2			X	X			
WAF	CONT.	2	0	1	0	1	0	2

2	7-8	X-X		
	5-6	X-X		
1	1-2		X	
WAF	CONT.	0	1	AVV.

3	11-12	X-X	X-X			
	9-10	X-X	X-X			
2	7-8			X		
	5-6	X				
1	3-4	X-X				
	1-2		X-X			
WAF	CONT.	AVV.	1	0	2	AVV.

R/L1
S/L2
T/L3

L1 L2 L3

R/L1
S/L2
T/L3

L1 L2 L3

R/L1
S/L2

L1 L2

R/L1
S/L2

L1 L2

MARCH START

U V A

MARCH START

U V Y Z

SERIES	AC21A	STAR-DELTA STARTER SWITCH	REVERSING-DAHLANDER POLE CHANGING TWO SPEED SWITCH	STARTER WITH SINGLE PHASE WITH AUXILIARY PHASE	REVERSING-STARTER SWITCH SINGLE PHASE WITH AUXILIARY PHASE
P012	12A	P0120015R	P0120031R	P0120017R	P0120018R
P016	16A	P0160015R	P0160031R	P0160017R	P0160018R
P020	20A	P0200015R	P0200031R	P0200017R	P0200018R
C025	25A	C0250015R	C0250031R	-	-
C032	32A	C0320015R	C0320031R	-	-
C040	40A	C0400015R	C0400031R	-	-
C063	63A	-	-	-	-
C080	80A	-	-	-	-
G125	125A	G1250015R	-	-	-
G200	200A	G2000015R	-	-	-

ACTUATOR	FIXING	P012 - P016 - P020				C025 - C032 C040		C063 - C080	G125	G200	
		60°	45°	45°	45°	NO	60°	45°	60°	60°	
	screw	001/0015	001/0031	001/0017	001/0018	-	007/0015	007/0031	-	441/0015	461/0015
	ø22	056X/0015	056X/0031	056X/0017	056X/0018	-	-	-	-	-	-
	screw	002/0015	002/0031	002/0017	002/0018	-	008/0015	008/0031	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	screw	003/0015	003/0031	003/0017	003/0018	-	003/0015	003/0031	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	screw	004/0015	004/0031	004/0017	004/0018	-	004/0015	004/0031	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	screw	009/0015	009/0031	009/0017	009/0018	-	009/0015	009/0031	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	screw	010/0015	010/0031	010/0017	010/0018	-	010/0015	010/0031	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-	-	-	-

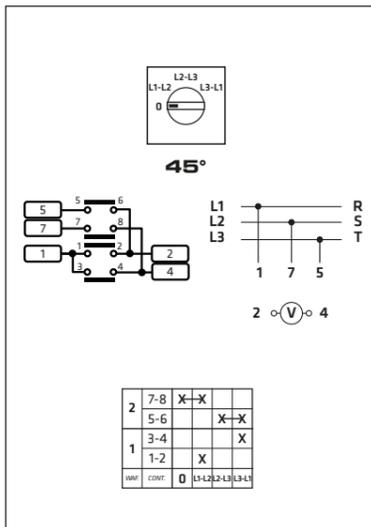
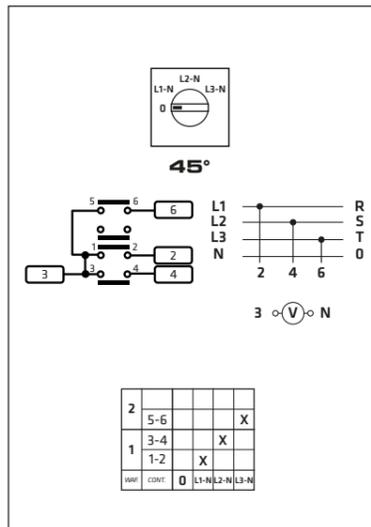
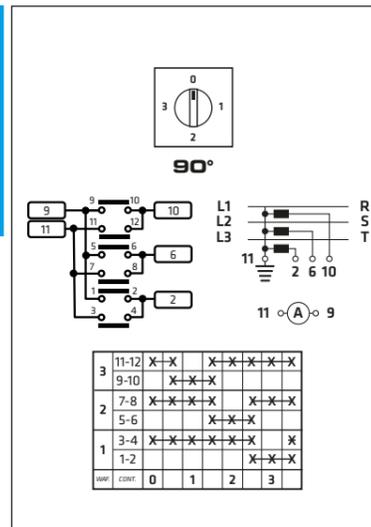


REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



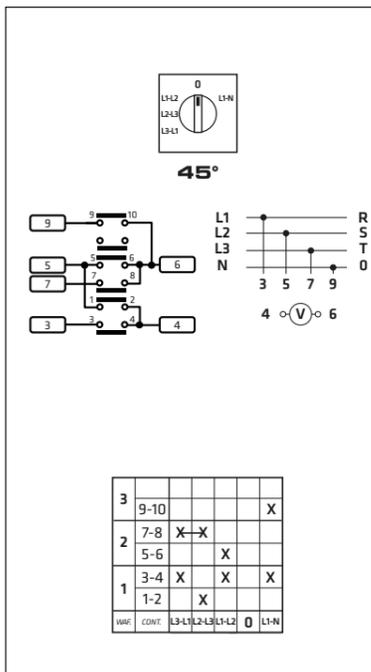
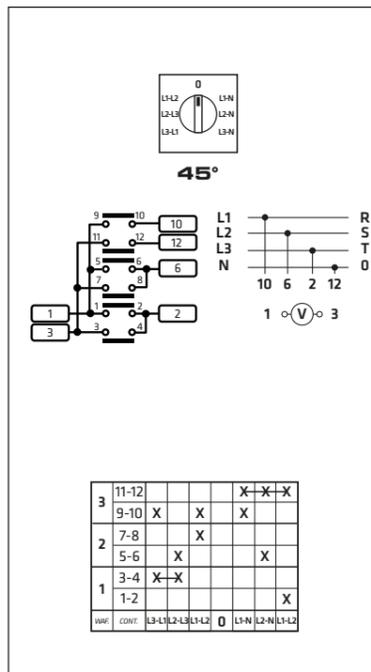
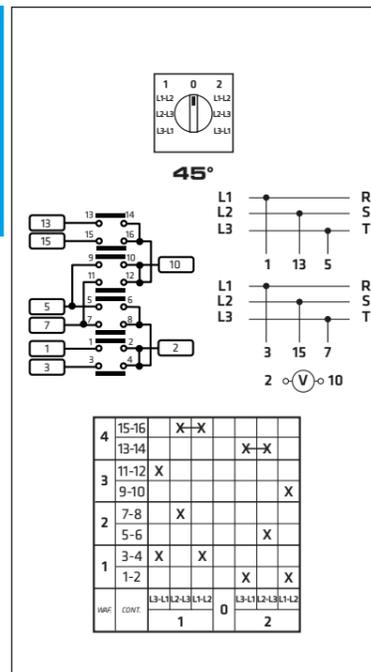
12-16-20A



SERIES	AC21A	AMMETER SELECTOR SWITCH 1 POLE FOR 3 CURRENT TRANSFORMERS	VOLTMETER SELECTOR SWITCH PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE
P012	12A	P0120019R	P0120020R	P0120021R
P016	16A	P0160019R	P0160020R	P0160021R
P020	20A	P0200019R	P0200020R	P0200021R



12-16-20A



SERIES	AC21A	VOLTMETER SELECTOR SWITCH PHASE-PHASE FOR TWO CIRCUITS	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND 1 PHASE-NEUTRAL
P012	12A	P0120022R	P0120023R	P0120024R
P016	16A	P0160022R	P0160023R	P0160024R
P020	20A	P0200022R	P0200023R	P0200024R

ACTUATOR	FIXING	P012 - P016 - P020						
		90°	45°	45°	45°	45°	45°	NO
	screw	001/0019	001/0020	001/0021	001/0022	001/0023	001/0024	-
	ø22	056X/0019	056X/0020	056X/0021	056X/0022	056X/0023	056X/0024	-
	screw	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-
	screw	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-
	screw	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-
	screw	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-
	screw	-	-	-	-	-	-	-
	ø22	-	-	-	-	-	-	-
	screw	-	-	-	-	-	-	028X
	ø22	-	-	-	-	-	-	029X



REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



12-16-20A

25-32-40A

63-80A

125A

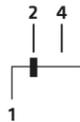
200A



45°



60°
G125
G200



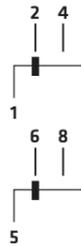
1	3-4	X
1	1-2	X
MMF	COND.	1 2



45°



60°
G125
G200



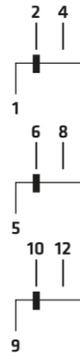
2	7-8	X
2	5-6	X
1	3-4	X
1	1-2	X
MMF	COND.	1 2



45°



60°
G125
G200



3	11-12	X
3	9-10	X
2	7-8	X
2	5-6	X
1	3-4	X
1	1-2	X
MMF	COND.	1 2

SERIES	AC21A	1 POLE	2 POLES	3 POLES
P012	12A	P0120025R	P0120026R	P0120027R
P016	16A	P0160025R	P0160026R	P0160027R
P020	20A	P0200025R	P0200026R	P0200027R
C025	25A	C0250025R	C0250026R	C0250027R
C032	32A	C0320025R	C0320026R	C0320027R
C040	40A	C0400025R	C0400026R	C0400027R
C063	63A	C0630025R	C0630026R	C0630027R
C080	80A	C0800025R	C0800026R	C0800027R
G125	125A	G1250025R	G1250026R	G1250027R
G200	200A	G2000025R	G2000026R	G2000027R

ACTUATOR	FIXING	P012 - P016 - P020	C025 C032 C040	C063 C080	G125	G200
		45°	NO	45°	45°	60°
	screw	001/0025	-	007/0025	201/0025	441/0025
	ø22	056X/0025	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-

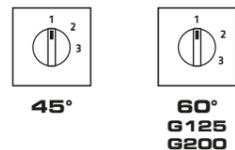


REAR PANEL MOUNTING

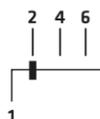
PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



12-16-20A



25-32-40A



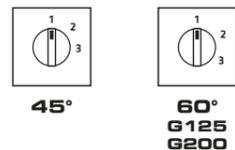
63-80A



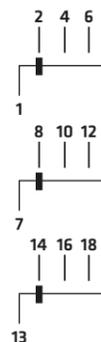
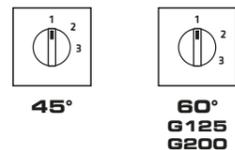
125A



200A



3	11-12			X
	9-10	X		
2	7-8	X		
	5-6		X	
1	3-4	X		
	1-2	X		
NOV. CONT.	1	2	3	



5	17-18			X
4	15-16	X		
	13-14	X		
3	11-12		X	
	9-10	X		
2	7-8	X		
	5-6		X	
1	3-4	X		
	1-2	X		
NOV. CONT.	1	2	3	

SERIES	AC21A	1 POLE	2 POLES	3 POLES
P012	12A	P0120038R	P0120039R	P0120040R
P016	16A	P0160038R	P0160039R	P0160040R
P020	20A	P0200038R	P0200039R	P0200040R
C025	25A	C0250038R	C0250039R	C0250040R
C032	32A	C0320038R	C0320039R	C0320040R
C040	40A	C0400038R	C0400039R	C0400040R
C063	63A	C0630038R	C0630039R	C0630040R
C080	80A	C0800038R	C0800039R	C0800040R
G125	125A	G1250038R	G1250039R	G1250040R
G200	200A	G2000038R	G2000039R	G2000040R

ACTUATOR	FIXING	P012 - P016 - P020	C025 C032 C040	C063 C080	G125	G200
		45°	NO	45°	45°	60°
	screw	001/0038	-	007/0038	201/0038	441/0038
	ø22	056X/0038	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-



REAR PANEL MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



12-16-20A

25-32-40A

63-80A

125A

200A

1	3-4		X
VAR. CONT.	0	1	2

2	7-8		X
1	3-4		X
VAR. CONT.	0	1	2

3	11-12		X
2	7-8		X
1	3-4		X
VAR. CONT.	0	1	2

SERIES	AC21A	1 POLE	2 POLES	3 POLES
P012	12A	P0120028R	P0120032R	P0120033R
P016	16A	P0160028R	P0160032R	P0160033R
P020	20A	P0200028R	P0200032R	P0200033R
C025	25A	C0250028R	C0250032R	C0250033R
C032	32A	C0320028R	C0320032R	C0320033R
C040	40A	C0400028R	C0400032R	C0400033R
C063	63A	C0630028R	C0630032R	C0630033R
C080	80A	C0800028R	C0800032R	C0800033R
G125	125A	G1250028R	G1250032R	G1250033R
G200	200A	G2000028R	G2000032R	G2000033R

ACTUATOR	FIXING	P012 - P016 - P020	C025 C032 C040	C063 C080	G125	G200
		45°	NO	45°	45°	60°
	screw	001/0028	-	007/0028	201/0028	441/0028
	ø22	056X/0028	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-

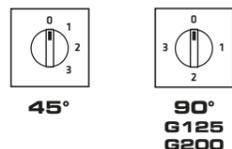


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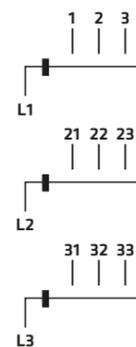
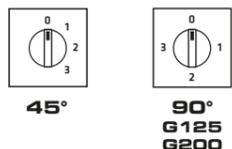
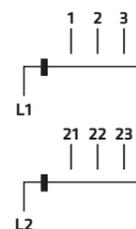
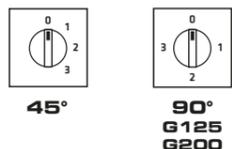
PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



12-16-20A



25-32-40A



125A

2	7-8			X	
	5-6	X			
1	1-2		X		
WAF	CONT.	0	1	2	3

3	11-12			X	
	9-10	X			
2	7-8		X		
	5-6		X		
1	3-4			X	
	1-2	X			
WAF	CONT.	0	1	2	3

5	19-20			X	
4	15-16			X	
	13-14	X			
3	11-12			X	
	9-10	X			
2	7-8		X		
	5-6		X		
1	3-4			X	
	1-2	X			
WAF	CONT.	0	1	2	3



200A

SERIES	AC21A	1 POLE	2 POLES	3 POLES
P012	12A	P0120029R	P0120034R	P0120035R
P016	16A	P0160029R	P0160034R	P0160035R
P020	20A	P0200029R	P0200034R	P0200035R
C025	25A	C0250029R	C0250034R	C0250035R
C032	32A	C0320029R	C0320034R	C0320035R
C040	40A	C0400029R	C0400034R	C0400035R
C063	63A	-	-	-
C080	80A	-	-	-
G125	125A	G1250029R	G1250034R	G1250035R
G200	200A	G2000029R	G2000034R	G2000035R

ACTUATOR	FIXING	P012 - P016 - P020	C025 C032 C040	C063 C080	G125	G200
		45°	NO	45°	90°	90°
	screw	001/0029	-	007/0029	-	441/0029
	ø22	056X/0029	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-

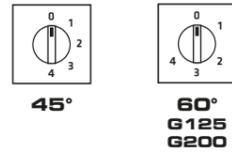


REAR PANEL MOUNTING

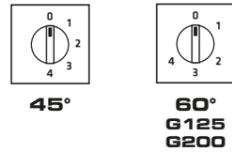
PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



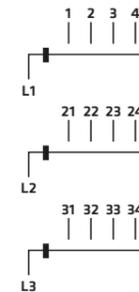
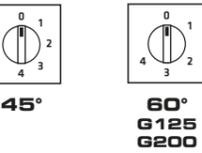
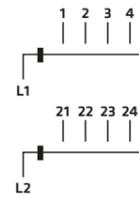
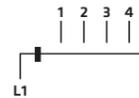
12-16-20A



25-32-40A



125A



200A

2	7-8			X		
	5-6	X				
1	3-4			X		
	1-2	X				
SWP	CONT.	0	1	2	3	4

4	15-16			X		
	13-14	X				
3	11-12			X		
	9-10	X				
2	7-8			X		
	5-6	X				
1	3-4			X		
	1-2	X				
SWP	CONT.	0	1	2	3	4

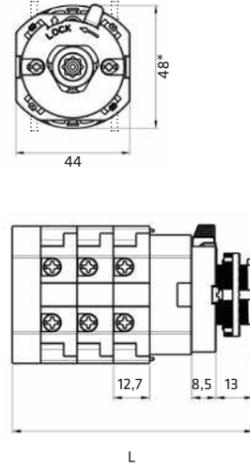
6	23-24			X		
	21-22	X				
5	19-20			X		
	17-18	X				
4	15-16			X		
	13-14	X				
3	11-12			X		
	9-10	X				
2	7-8			X		
	5-6	X				
1	3-4			X		
	1-2	X				
SWP	CONT.	0	1	2	3	4

SERIES	AC21A	1 POLE	2 POLES	3 POLES
P012	12A	P0120030R	P0120036R	P0120037R
P016	16A	P0160030R	P0160036R	P0160037R
P020	20A	P0200030R	P0200036R	P0200037R
C025	25A	C0250030R	C0250036R	C0250037R
C032	32A	C0320030R	C0320036R	C0320037R
C040	40A	C0400030R	C0400036R	C0400037R
C063	63A	-	-	-
C080	80A	-	-	-
G125	125A	G1250030R	G1250036R	G1250037R
G200	200A	G2000030R	G2000036R	G2000037R

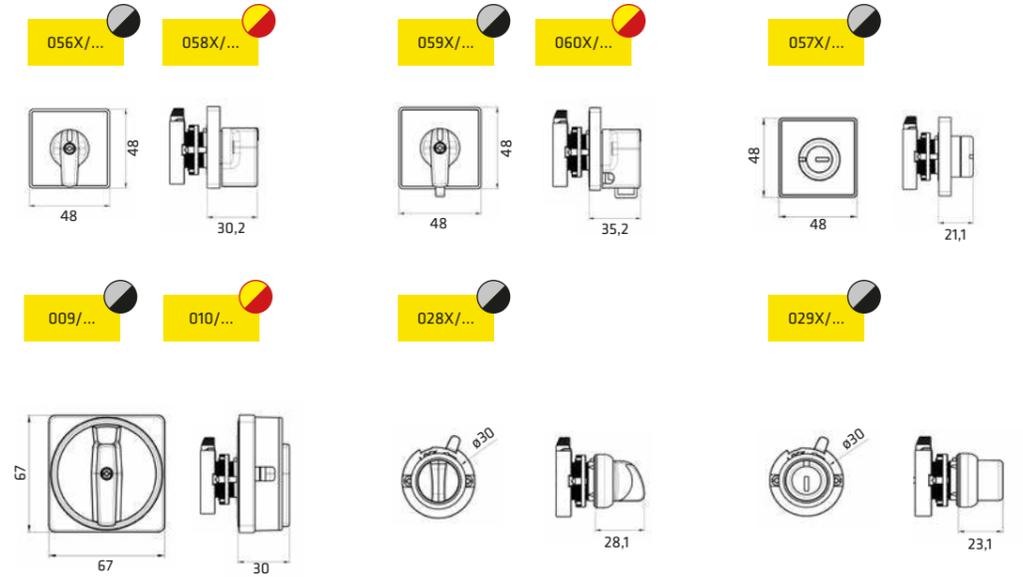
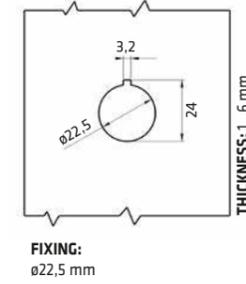
ACTUATOR	FIXING	P012 - P016 - P020	C025 C032 C040	C063 C080	G125	G200
		45°	NO	45°	60°	60°
	screw	001/0030	-	007/0030	-	441/0030
	ø22	056X/0030	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	screw	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	-	-	-	-
	ø22	-	028X	-	-	-
	ø22	-	029X	-	-	-



12-16-20A



WAFER GAP	PANEL THICKNESS	L x WAFER N°					
		1	2	3	4	5	6
12,7	1 mm	57,9	70,6	83,3	96	108,7	121,4
	2 mm	56,9	69,6	82,3	95	107,7	120,4
	3 mm	55,9	68,6	81,3	94	106,7	119,4
	4 mm	54,9	67,6	80,3	93	105,7	118,4
	5 mm	53,9	66,6	79,3	92	104,7	117,4
	6 mm	52,9	65,6	78,3	91	103,7	116,4



* 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.



GIOVENZANA
INTERNATIONAL B.V.



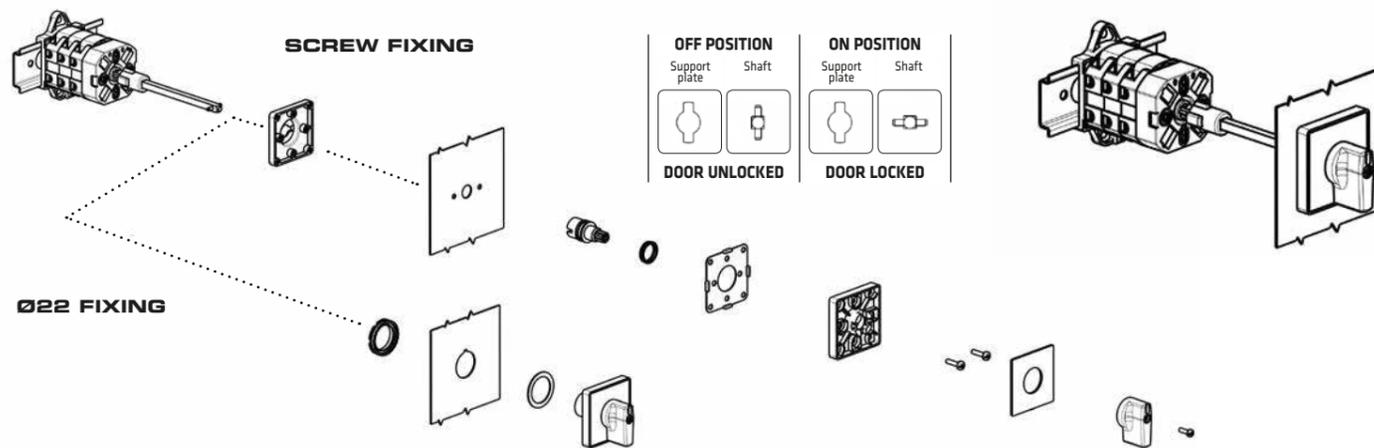
GIOVENZANA
INTERNATIONAL B.V.



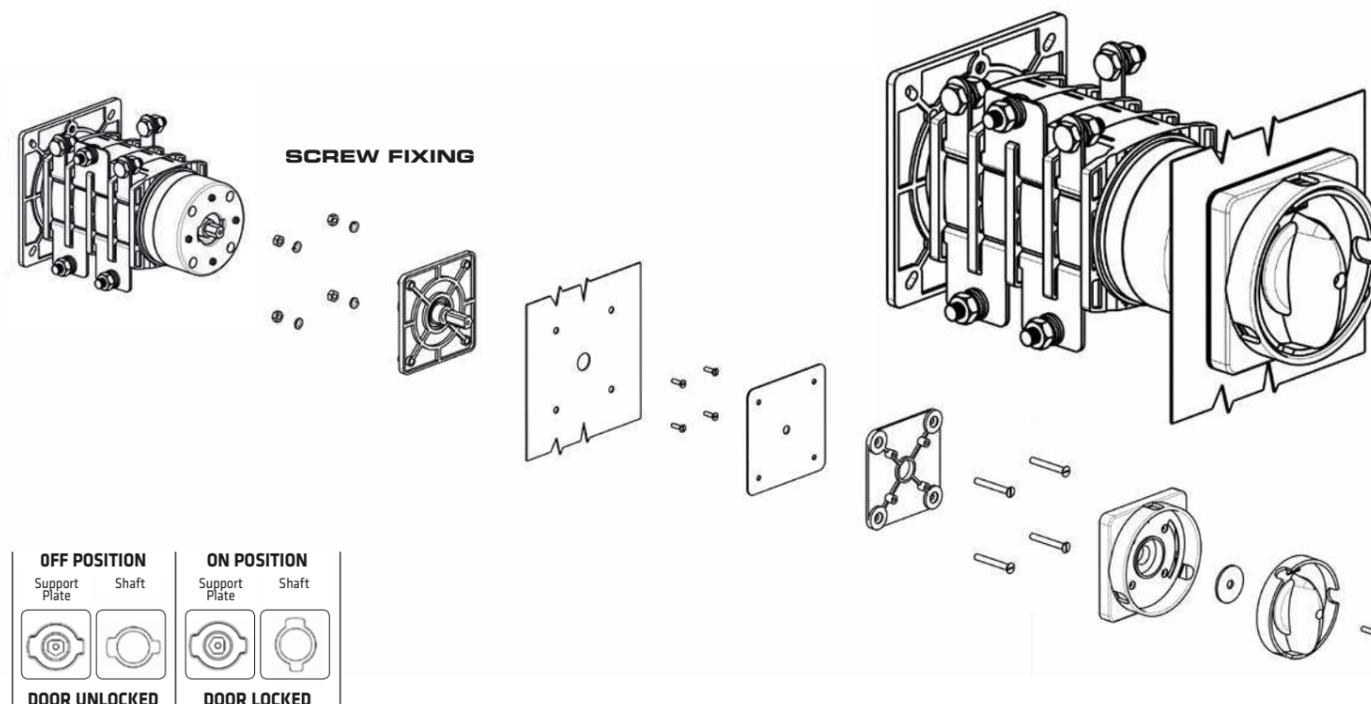
PHOENIX CAM SWITCHES
BASE MOUNTING - B

B **BASE MOUNTING**

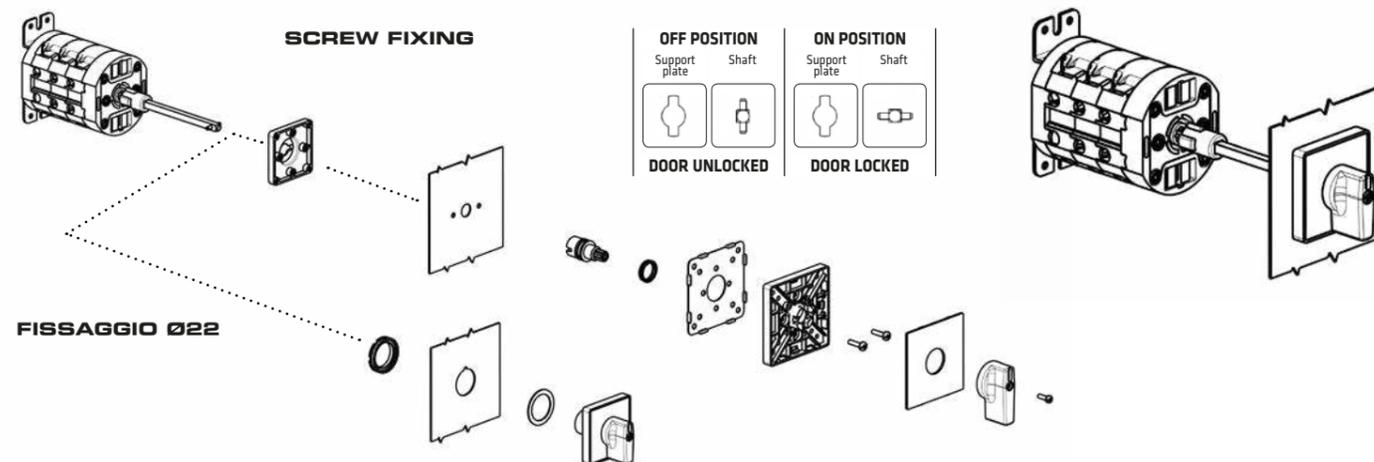
| RANGE AC21A | 12A - 16A - 20A |



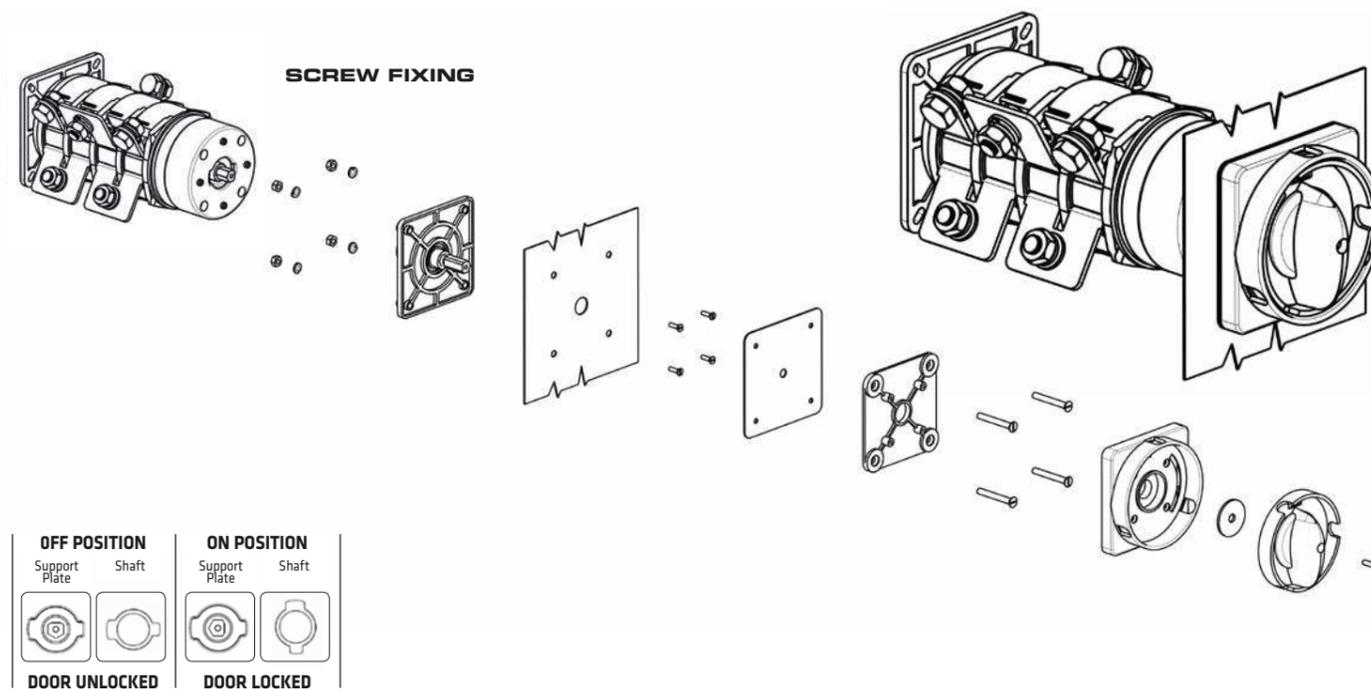
| RANGE AC21A | 125A |



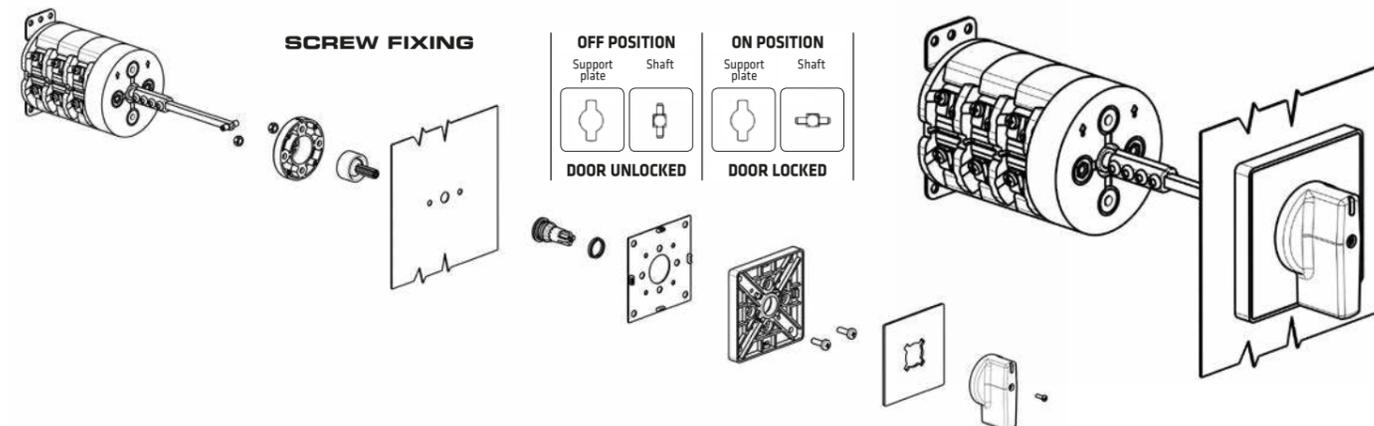
| RANGE AC21A | 25A - 32A - 40A |



| RANGE AC21A | 200A |



| RANGE AC21A | 63A - 80A |



B

BASE MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12

	12-16-20A																																																																																
	25-32-40A																																																																																
	63-80A																																																																																
	125A	<table border="1"><tr><td>1</td><td>3-4</td><td></td><td>X</td></tr><tr><td></td><td>1-2</td><td></td><td>X</td></tr><tr><td>VARF</td><td>CONT.</td><td>0</td><td>1</td></tr></table>	1	3-4		X		1-2		X	VARF	CONT.	0	1	<table border="1"><tr><td>2</td><td>5-6</td><td></td><td>X</td></tr><tr><td>1</td><td>3-4</td><td></td><td>X</td></tr><tr><td></td><td>1-2</td><td></td><td>X</td></tr><tr><td>VARF</td><td>CONT.</td><td>0</td><td>1</td></tr></table>	2	5-6		X	1	3-4		X		1-2		X	VARF	CONT.	0	1	<table border="1"><tr><td>2</td><td>7-8</td><td></td><td>X</td></tr><tr><td></td><td>5-6</td><td></td><td>X</td></tr><tr><td>1</td><td>3-4</td><td></td><td>X</td></tr><tr><td></td><td>1-2</td><td></td><td>X</td></tr><tr><td>VARF</td><td>CONT.</td><td>0</td><td>1</td></tr></table>	2	7-8		X		5-6		X	1	3-4		X		1-2		X	VARF	CONT.	0	1	<table border="1"><tr><td>3</td><td>11-12</td><td></td><td>X</td></tr><tr><td></td><td>9-10</td><td></td><td>X</td></tr><tr><td>2</td><td>7-8</td><td></td><td>X</td></tr><tr><td></td><td>5-6</td><td></td><td>X</td></tr><tr><td>1</td><td>3-4</td><td></td><td>X</td></tr><tr><td></td><td>1-2</td><td></td><td>X</td></tr><tr><td>VARF</td><td>CONT.</td><td>0</td><td>1</td></tr></table>	3	11-12		X		9-10		X	2	7-8		X		5-6		X	1	3-4		X		1-2		X	VARF	CONT.	0	1
1	3-4		X																																																																														
	1-2		X																																																																														
VARF	CONT.	0	1																																																																														
2	5-6		X																																																																														
1	3-4		X																																																																														
	1-2		X																																																																														
VARF	CONT.	0	1																																																																														
2	7-8		X																																																																														
	5-6		X																																																																														
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	9-10		X																																																																														
2	7-8		X																																																																														
	5-6		X																																																																														
1	3-4		X																																																																														
	1-2		X																																																																														
VARF	CONT.	0	1																																																																														
	200A																																																																																

SERIES	AC21A	1 POLE	2 POLES	3 POLES	4 POLES
P012	12A	P0120002B	P0120003B	P0120004B	P0120006B
P016	16A	P0160002B	P0160003B	P0160004B	P0160006B
P020	20A	P0200002B	P0200003B	P0200004B	P0200006B
C025	25A	C0250002B	C0250003B	C0250004B	C0250006B
C032	32A	C0320002B	C0320003B	C0320004B	C0320006B
C040	40A	C0400002B	C0400003B	C0400004B	C0400006B
C063	63A	C0630002B	C0630003B	C0630004B	C0630006B
C080	80A	C0800002B	C0800003B	C0800004B	C0800006B
G125	125A	G1250002B	G1250003B	G1250004B	G1250006B
G200	200A	G2000002B	G2000003B	G2000004B	G2000006B

ACTUATOR	FIXING	P012 - P016 - P020	C025 - C032 - C040	C063 - C080	G125	G200
	screw	020/0001	021/0001	220/0001	-	-
	ø22	095/0001	095/0001	-	-	-
	screw	030/0001	-	-	-	-
	ø22	070/0001	070/0001	-	-	-
	screw	005/0001	-	-	-	-
	ø22	077/0001	077/0001	-	-	-
	screw	006/0001	-	-	-	-
	ø22	069/0001	069/0001	-	-	-
	screw	011/0001	011/0001-A	011/0001	011/0001-A	211/0001
	ø22	063/0001	063/0001-1	063/0001	063/0001-1	211/0001-1
	screw	012/0001	012/0001-2	012/0001	012/0001-2	212/0001
	ø22	064/0001	064/0001-1	064/0001	064/0001-1	212/0001-1
DOORLOCK SHAFT		Metallic □5x85mm		Metallic □6x100mm		Direct doorlock coupling (no metallic shaft)

All base mounting's actuators are equipped with doorlock function that permits to open the door only in "0" position.

▲ UL50 NEMA Type 1-4-4X

▲ Metallic shaft can be cut according customer needs. Longer metallic shaft are available in accessories to page 77.

CHANGEOVER SWITCHES 1-0-2 | TYPE B

ACTUATORS CHANGEOVER SWITCHES 1-0-2 | TYPE B

B

BASE MOUNTING

PROTECTION CLASS EN60529 - IP65 UL50 NEMA TYPE 1-4-4X-12



12-16-20A



25-32-40A



63-80A

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SERIES	AC21A	1 POLE	2 POLES	3 POLES	4 POLES
P012	12A	P0120008B	P0120009B	P0120010B	P0120011B
P016	16A	P0160008B	P0160009B	P0160010B	P0160011B
P020	20A	P0200008B	P0200009B	P0200010B	P0200011B
C025	25A	C0250008B	C0250009B	C0250010B	C0250011B
C032	32A	C0320008B	C0320009B	C0320010B	C0320011B
C040	40A	C0400008B	C0400009B	C0400010B	C0400011B
C063	63A	C0630008B	C0630009B	C0630010B	C0630011B
C080	80A	C0800008B	C0800009B	C0800010B	C0800011B
G125	125A	-	-	-	-
G200	200A	-	-	-	-

ACTUATOR	FIXING	P012 P016 P020	C025 C032 C040	C063 - C080	G125	G200
		 45°	 45°	 45°	 60°	 60°
	screw	020/0008	021/0008	220/0008	-	-
	ø22	095/0008	095/0008	-	-	-
	screw	030/0008	-	-	-	-
	ø22	070/0008	070/0008	-	-	-
	screw	005/0008	005/0008	-	-	-
	ø22	077/0008	077/0008	-	-	-
	screw	006/0008	006/0008	-	-	-
	ø22	069/0008	069/0008	-	-	-
	screw	011/0008	011/0008	211/0008	-	-
	ø22	063/0008	063/0008	-	-	-
	screw	012/0008	012/0008	212/0008	-	-
	ø22	064/0008	064/0008	-	-	-
DOORLOCK SHAFT		Metallic □5x85mm		Metallic □6x100mm	Direct doorlock coupling (no metallic shaft)	



All base mounting's actuators are equipped with Doorlock function that permits to open the door only in "0" position.

▲ UL50 NEMA Type 1-4-4X

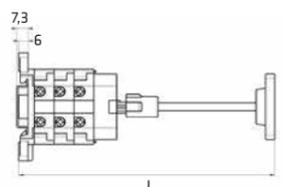
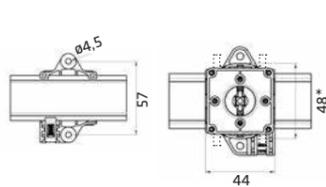
▲ Metallic shaft can be cut according customer needs. Longer metallic shaft are available in accessories to page 77.

B

BASE MOUNTING | ACTUATORS SCREW FIXING



12-16-20A



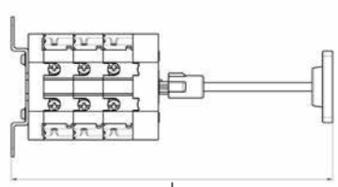
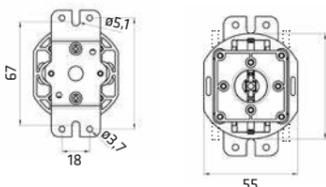
WAFER GAP	L x WAFER N°						
	1	2	3	4	5	6	
12,7	min*	80,4	93,1	105,8	118,5	131,2	143,9
	max	138,4	151,1	163,8	176,5	189,2	201,9

* Minimum length with cut shaft.

* 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



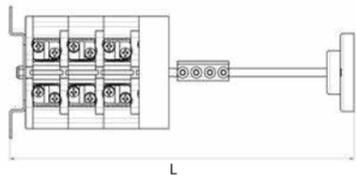
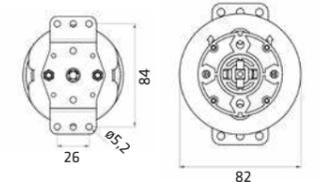
WAFER GAP	L x WAFER N°						
	1	2	3	4	5	6	
17,5	min*	96	113,5	131	148,5	166	183,5
	max	154	171,5	189	206,5	224	241,5

* Minimum length with cut shaft.

* 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.



63-80A

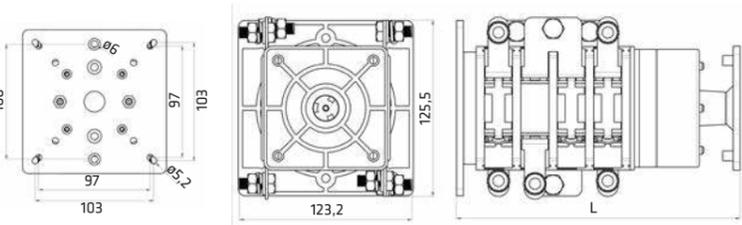


WAFER GAP	L x WAFER N°						
	1	2	3	4	5	6	
26	min*	148	174	200	226	252	278
	max	196	222	248	274	300	326

* Minimum length with cut shaft.



125A

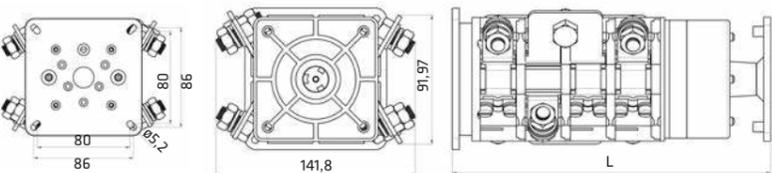


WAFER GAP	L x WAFER N°						
	1	2	3	4	5	6	
26	min*	125	151	177	203	229	255
	max						

* Direct doorlock coupling bloccoporta (no metallic shaft).

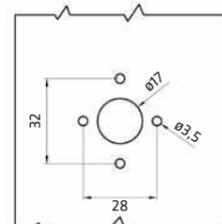


200A



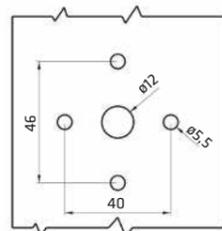
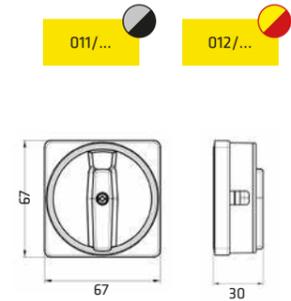
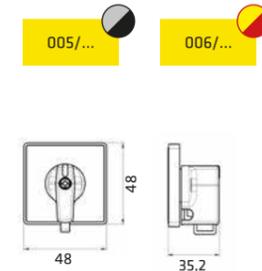
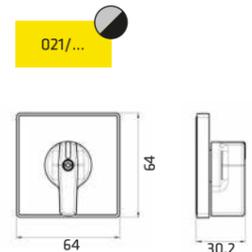
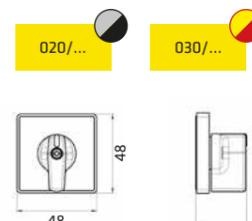
WAFER GAP	L x WAFER N°						
	1	2	3	4	5	6	
32	min*	131	163	195	227	259	291
	max						

* Direct doorlock coupling bloccoporta (no metallic shaft).



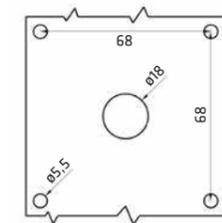
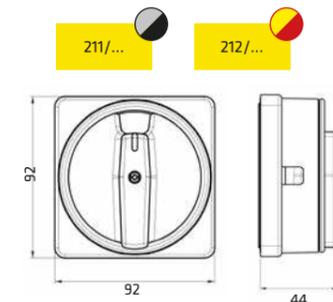
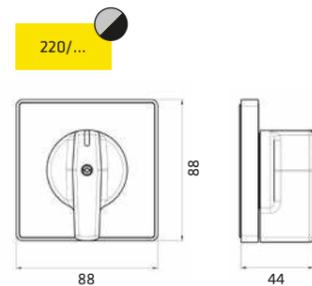
FIXING:
Screwplast 28 or 32 mm

THICKNESS: 1...4 mm



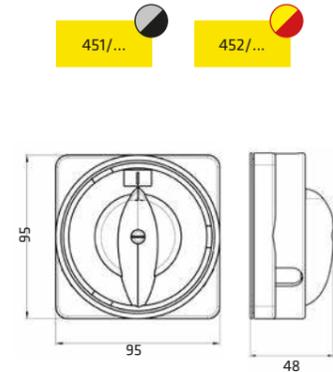
FIXING:
Screwplast 40 or 46 mm

THICKNESS: 1...10 mm

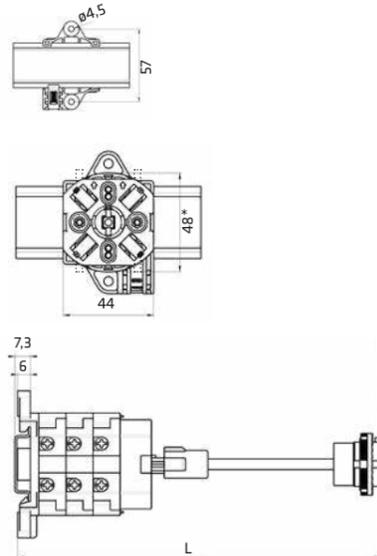


FIXING:
M5 bolt □68 mm

THICKNESS: 3...5 mm



12-16-20A

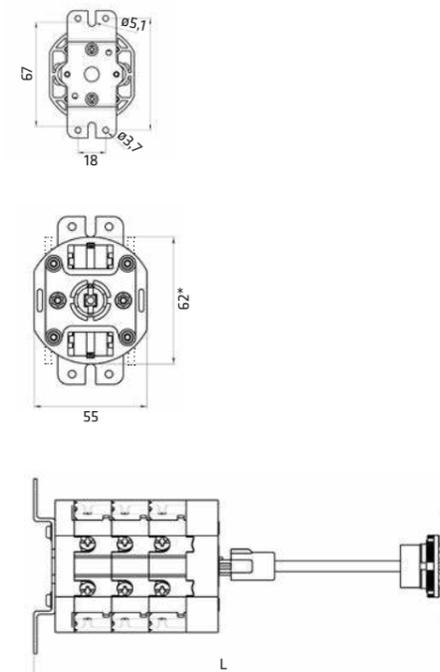


WAFER GAP	PANEL THICKNESS	L x WAFER N°					
		1	2	3	4	5	6
12,7	1 mm	min* 84,2	96,9	109,6	122,3	135	147,7
		max 143,7	156,4	169,1	181,8	194,5	207,2
	2 mm	min* 83,2	95,9	108,6	121,3	134	146,7
		max 142,7	155,4	168,1	180,8	193,5	206,2
	3 mm	min* 82,2	94,9	107,6	120,3	133	145,7
		max 141,7	154,4	167,1	179,8	192,5	205,2
4 mm	min* 81,2	93,9	106,6	119,3	132	144,7	
	max 140,7	153,4	166,1	178,8	191,5	204,2	
5 mm	min* 80,2	92,9	105,6	118,3	131	143,7	
	max 139,7	152,4	165,1	177,8	190,5	203,2	
6 mm	min* 78,2	91,9	104,6	117,3	130	142,7	
	max 138,7	151,4	164,1	176,8	189,5	202,2	

* Minimum length with cut shaft.

* 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.

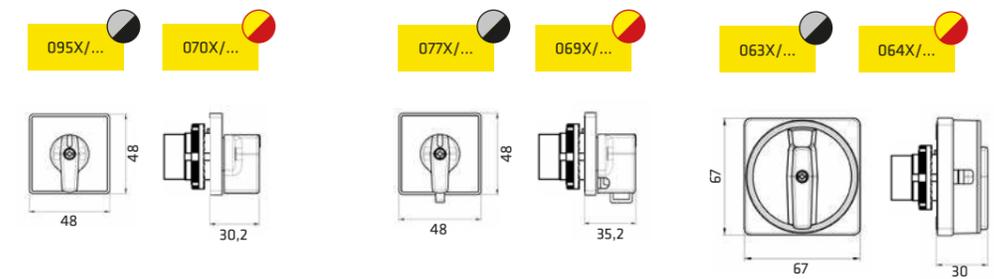
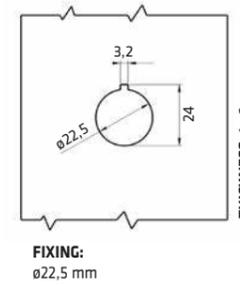
25-32-40A



WAFER GAP	PANEL THICKNESS	L x WAFER N°					
		1	2	3	4	5	6
17,5	1 mm	min* 93,8	115,8	133,3	150,8	168,3	185,8
		max 157,8	175,3	192,8	210,3	227,8	245,3
	2 mm	min* 97,3	114,8	132,3	149,8	167,3	184,8
		max 156,8	174,3	191,8	209,3	226,8	244,3
	3 mm	min* 96,3	113,8	131,3	148,8	166,3	183,8
		max 155,8	173,3	190,8	208,3	225,8	243,3
4 mm	min* 95,3	112,8	130,3	147,8	165,3	182,8	
	max 154,8	172,3	189,8	207,3	224,8	242,3	
5 mm	min* 94,3	111,8	129,3	146,8	164,3	181,8	
	max 153,8	171,8	188,8	206,3	223,8	241,3	
6 mm	min* 93,3	110,8	128,3	145,8	163,3	180,8	
	max 152,8	170,3	187,8	205,3	222,8	240,3	

* Minimum length with cut shaft.

* 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.





GIOVENZANA
INTERNATIONAL B.V.



GIOVENZANA
INTERNATIONAL B.V.



PHOENIX CAM SWITCHES
DIN MOUNTING - D



PHOENIX CAM SWITCHES | TYPE D

DIMENSIONS AND DRILLING PLAN | TYPE D

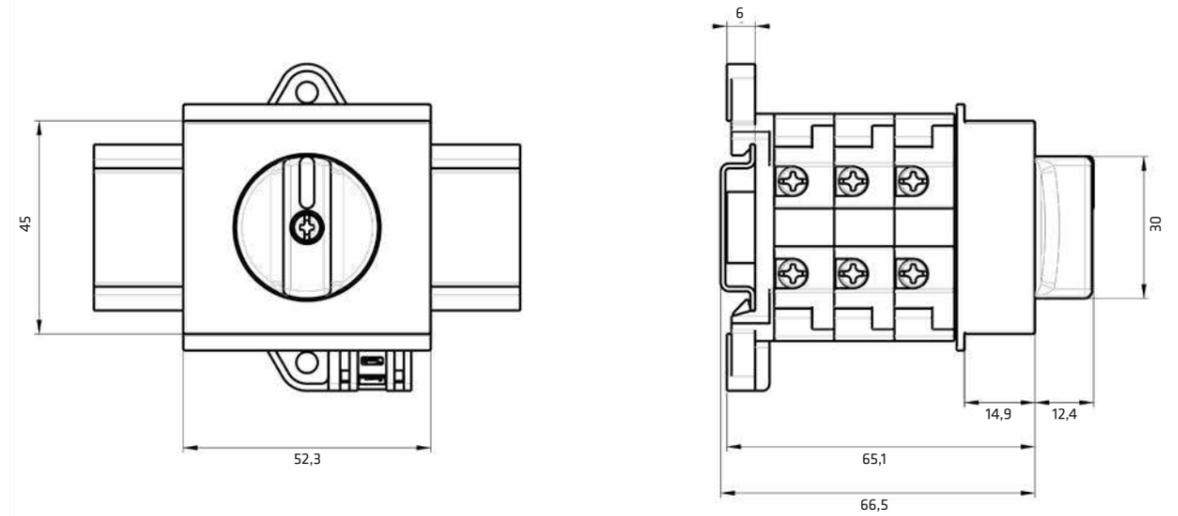
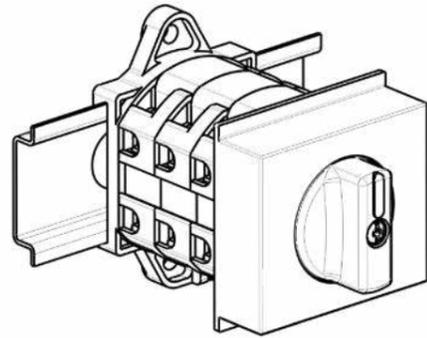


DIN MOUNTING 46 mm

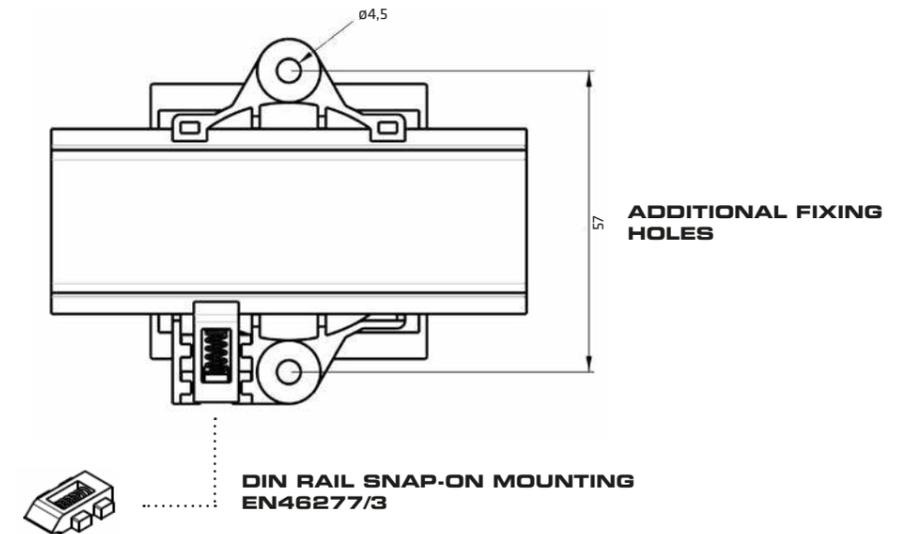
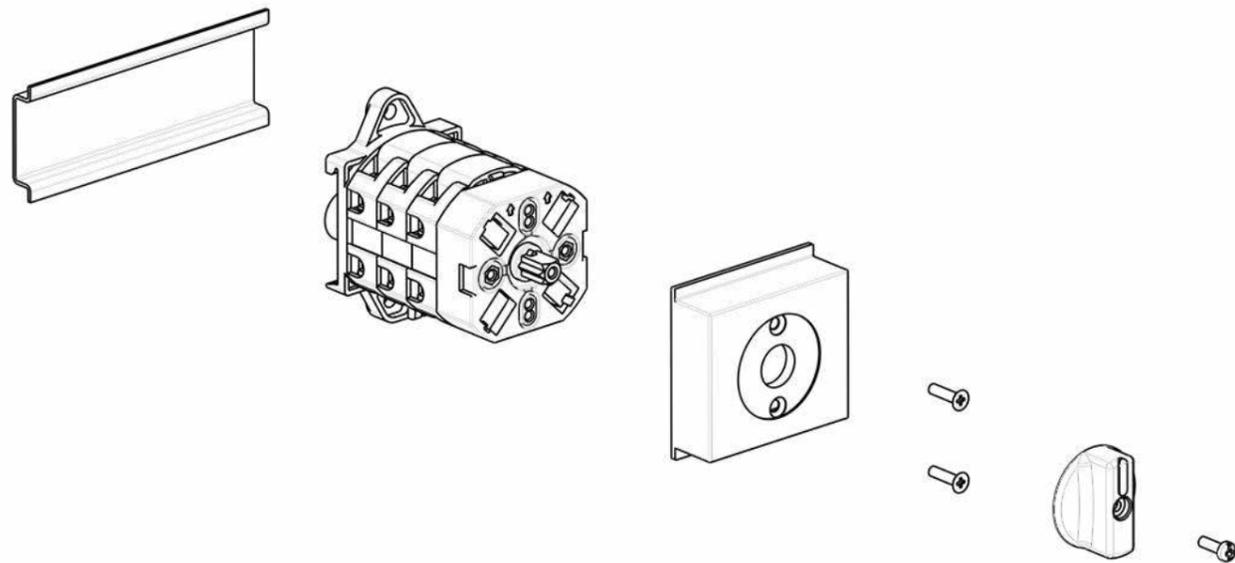
Only switches DIN rail mounting 46 mm standard boxes

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

DIN EN46277/3



**STEADY Length
3 WAFERS**



**ADDITIONAL FIXING
HOLES**

**DIN RAIL SNAP-ON MOUNTING
EN46277/3**



ON-OFF SWITCHES 0-1 | TYPE D

ACTUATORS ON-OFF SWITCHES 0-1 | TYPE D

DIN MOUNTING 46 mm

Only switches DIN rail mounting 46 mm standard boxes



12-16-20A

 90°	 90°	 90°	 90°	 90°	 90°																																																																																																																			
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ACTUATOR	P012 - P016 - P020
 90°	 90°
-	027/0001



SERIES	AC21A	1 POLE	2 POLES	3 POLES	4 POLES	5 POLES	6 POLES
P012	12A	P0120001D	P0120002D	P0120003D	P0120004D	P0120005D	P0120006D
P016	16A	P0160001D	P0160002D	P0160003D	P0160004D	P0160005D	P0160006D
P020	20A	P0200001D	P0200002D	P0200003D	P0200004D	P0200005D	P0200006D



CHANGEOVER SWITCHES 1-0-2 | TYPE D

ACTUATORS CHANGEOVER SWITCHES 1-0-2 | TYPE D



DIN MOUNTING 46 mm

Only switches DIN rail mounting 46 mm standard boxes



12-16-20A

 45° <table border="1"> <tr><td>1</td><td>3-4</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>1-2</td><td>X</td><td></td><td></td></tr> <tr><td>VAR.</td><td>CONT.</td><td>1</td><td>0</td><td>2</td></tr> </table>	1	3-4			X		1-2	X			VAR.	CONT.	1	0	2	 45° <table border="1"> <tr><td>2</td><td>7-8</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>5-6</td><td>X</td><td></td><td></td></tr> <tr><td>1</td><td>3-4</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>1-2</td><td>X</td><td></td><td></td></tr> <tr><td>VAR.</td><td>CONT.</td><td>1</td><td>0</td><td>2</td></tr> </table>	2	7-8			X		5-6	X			1	3-4			X		1-2	X			VAR.	CONT.	1	0	2	 45° <table border="1"> <tr><td>3</td><td>11-12</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>9-10</td><td>X</td><td></td><td></td></tr> <tr><td>2</td><td>7-8</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>5-6</td><td>X</td><td></td><td></td></tr> <tr><td>1</td><td>3-4</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>1-2</td><td>X</td><td></td><td></td></tr> <tr><td>VAR.</td><td>CONT.</td><td>1</td><td>0</td><td>2</td></tr> </table>	3	11-12			X		9-10	X			2	7-8			X		5-6	X			1	3-4			X		1-2	X			VAR.	CONT.	1	0	2	 45° <table border="1"> <tr><td>4</td><td>15-16</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>13-14</td><td>X</td><td></td><td></td></tr> <tr><td>3</td><td>11-12</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>9-10</td><td>X</td><td></td><td></td></tr> <tr><td>2</td><td>7-8</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>5-6</td><td>X</td><td></td><td></td></tr> <tr><td>1</td><td>3-4</td><td></td><td></td><td>X</td></tr> <tr><td></td><td>1-2</td><td>X</td><td></td><td></td></tr> <tr><td>VAR.</td><td>CONT.</td><td>1</td><td>0</td><td>2</td></tr> </table>	4	15-16			X		13-14	X			3	11-12			X		9-10	X			2	7-8			X		5-6	X			1	3-4			X		1-2	X			VAR.	CONT.	1	0	2
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ACTUATOR	P012 - P016 - P020
 45°	 45° <div style="background-color: yellow; padding: 5px;">027/0008</div>

SERIES	AC21A	1 POLE	2 POLES	3 POLES	4 POLES
P012	12A	P0120008D	P0120009D	P0120010D	P0120011D
P016	16A	P0160008D	P0160009D	P0160010D	P0160011D
P020	20A	P0200008D	P0200009D	P0200010D	P0200011D



AMMETER AND VOLTMETER SWITCHES | TYPE D

ACTUATORS AMMETER AND VOLTMETER SWITCHES | TYPE D

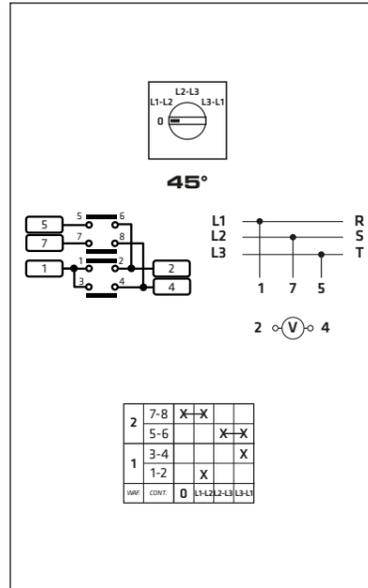
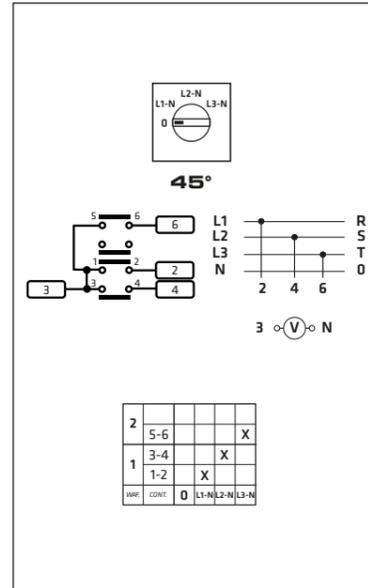
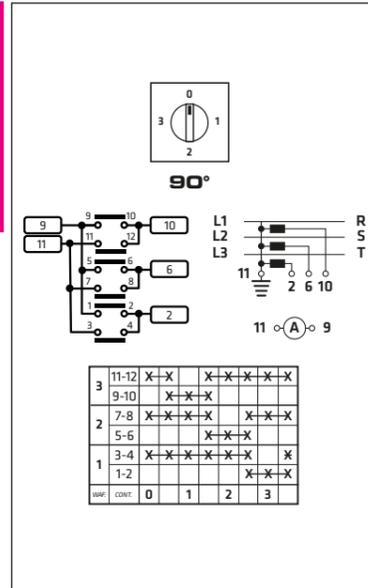


DIN MOUNTING 46 mm

Only switches DIN rail mounting 46 mm standard boxes



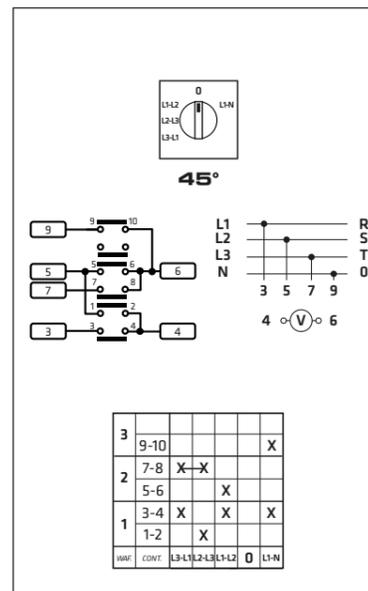
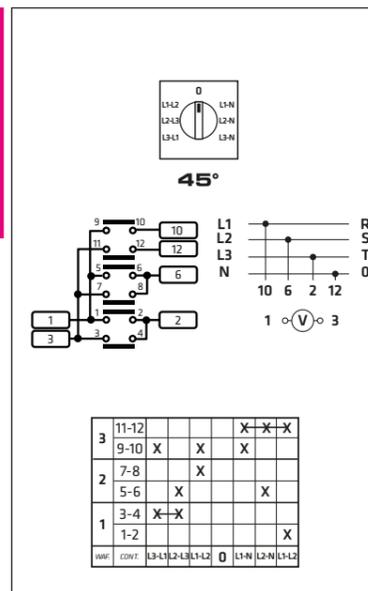
12-16-20A



SERIES	AC21A	AMMETER SELECTOR SWITCH 1 POLE FOR 3 CURRENT TRANSFORMERS	VOLTMETER SELECTOR SWITCH PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE
P012	12A	P0120019D	P0120020D	P0120021D
P016	16A	P0160019D	P0160020D	P0160021D
P020	20A	P0200019D	P0200020D	P0200021D



12-16-20A



SERIES	AC21A	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND PHASE-NEUTRAL	VOLTMETER SELECTOR SWITCH PHASE-PHASE AND 1 PHASE-NEUTRAL
P012	12A	P0120023D	P0120024D
P016	16A	P0160023D	P0160024D
P020	20A	P0200023D	P0200024D

ACTUATOR

P012 - P016 - P020

027/0019	027/0020	027/0021	027/0023	027/0024



GIOVENZANA
INTERNATIONAL B.V.

PHOENIX CAM SWITCHES
ACCESSORIES



PHOENIX CAM SWITCHES | ACCESSORIES

KNOBS



SERIES	COLOUR	DIMENSIONS	CODE	PROTECTION CLASS	
P012 ... 20 C025 ... 40	Black	ø40 x L50	072	IP40 *IP65 with gasket	
	Red	ø40 x L50	073	IP40 *IP65 with gasket	
	Black	ø44 x L68	081	IP40 *IP65 with gasket	
	Red	ø44 x L68	110	IP40 *IP65 with gasket	
C063 ... 80	Black	ø50 x L68	218	IP40 *IP65 with gasket	
	Red	ø50 x L68	219	IP40 *IP65 with gasket	



SERIES	COLOUR	DIMENSIONS	CODE	PROTECTION CLASS	
P012 ... 20 C025 ... 40	Black	ø34	018	IP40 *IP65 with gasket	
	Red	ø34	111	IP40 *IP65 with gasket	
	Black	ø40	040	IP40 *IP65 with gasket	
	Red	ø40	112	IP40 *IP65 with gasket	



SERIES	COLOUR	DIMENSIONS	CODE	PROTECTION CLASS	
G125 G200	Black	ø50 x L115	460	-	
	Red	ø50 x L115	470	-	

All knobs are supplied with fixing screws.
* See gaskets to page 76.

PHOENIX CAM SWITCHES | ACCESSORIES
PHOENIX CAM SWITCHES | ACCESSORIES
PROTECTIONS

R	BOOT PROTECTION	SERIES	WAFER	DIAMETER	CODE
		P012 P016 P020	Max 3	65	11706031
		SERIES	WAFER	DIAMETER	CODE
		C025 C032 C040	Max 3	85	20101005
		SERIES	WAFER	DIAMETER	CODE
EXTENSION UNIT		P012 P016 P020	2	65	11702038
		SERIES	WAFER	DIAMETER	CODE
		C025 C032 C040	2	85	11706332

R	SOFT BOOT PROTECTION	SERIES	WAFER	DIAMETER	CODE
		P012 P016 P020	Max 3	65	20101007

GASKETS IP65

R	SERIES		CODE
	P012 P016 P020	2800012	
R	SERIES		CODE
	C025 C032 C040	15000015	
R	SERIES		CODE
	C063 C080	15010016	

FIXING KEY

R	FIXING KEY Ø 22,5 mm	
	PCF	

SQUARE LONG DOORLOCK SHAFT

B	□ 5 mm	SERIES	L/mm	CODE
		P012 P016 P020	185	20401089
		SERIES	L/mm	CODE
		C025 C032 C040	300	20401164
		SERIES	L/mm	CODE
	□ 6 mm	C063 C080	300	20900046

PROTECTION/KNOB FOR DOORLOCK SHAFT □ 5mm

B	For maintenance operation, used to control the switch while the door is open and give a protection against injury due to doorlock shaft.	SERIES	CODE
		12 ... 40	11706094

BYPASS PROTECTIONS ø50 WITH LOCKING FACILITY

R	SCREW FIXING	FIXING	CODE
		screw*	PPF3-4
		ø22	PPF3-5
R	ø22 FIXING	FIXING	CODE
		screw*	PPF3-6
		ø22	PPF3-7

* Fixing screws are not supplied.

KT ADAPTOR PLATE IP65 □36 / □48

R	Complete with gasket IP65 and fixing screw.	SERIES	CODE
		12 ... 40	KIT 36/48

IP65 THERMOPLASTIC ENCLOSURES

PQCOGN

IP65 □

- Flat cover
- Front knob
- Dimensions:** 75x75x60 mm
- Black box - grey cover
- Cable entry: 1xM20 + 1xM16

SERIES	WAFER	CODE
P012	Max 2	PQCOGN
P016		
P020		

PQCPCGN

IP65 □

- Protected cover
- Front knob
- Dimensions:** 75x75x60 mm
- Black box - grey cover
- Cable entry: 1xM20 + 1xM16

SERIES	WAFER	CODE
P012	Max 2	PQCPCGN
P016		
P020		

BF 1/2NGO

IP65 □

- Front knob
- Dimensions:** 120x100x83 mm
- Black box - grey cover
- Cable entry: 8x knock-out Pg16 (2x on the bottom)

SERIES	WAFER	CODE
P012	Max 3	BF1/2NGO
P016		
P020		

BF 1/6NGO

IP65 □

- Front knob
- Dimensions:** 120x100x83 mm
- Black box - grey cover
- Cable entry: 8x knock-out Pg16 (2x on the bottom)

SERIES	WAFER	CODE
C025	Max 2	BF1/6NGO
C032		
C040		

BL 1/ONGO

IP65 □

- Side knob
- Dimensions:** 120x100x83 mm
- Black box - grey cover
- Cable entry: 8x knock-out Pg16 (2x on the bottom)

SERIES	WAFER	CODE
P012	Max 6	BL1/ONGO
P016		
P020		

IP65 THERMOPLASTIC ENCLOSURES

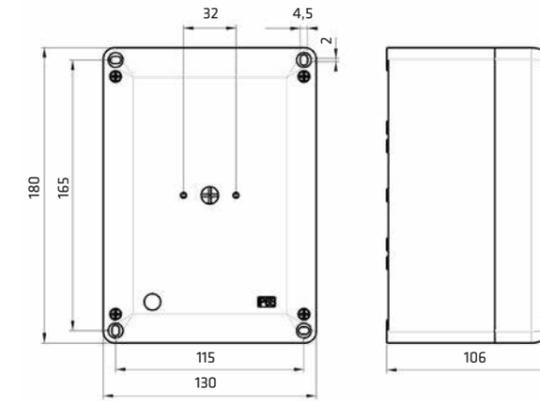


BF4/GNGO

IP65 □

- Front knob
- **Dimensions:** 130x180x106 mm
- Black box - grey cover
- Cable entry: 4x knock-out M25/M32 + 2x ø22,5mm closed hole on the bottom.

SERIES	WAFER	CODE
C025	Max 3	BF4/GNGO
C032		
C040		

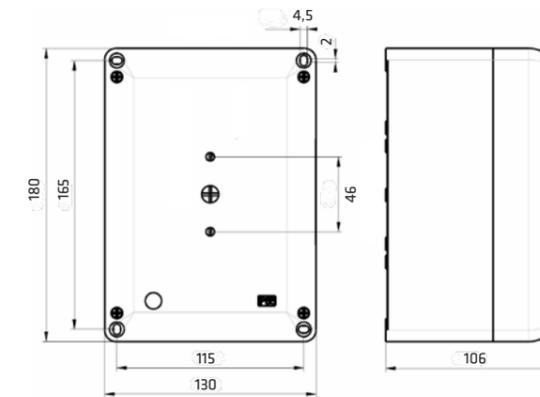


BF4/HNGO

IP65 □

- Front knob
- **Dimensions:** 130x180x106 mm
- Black box - grey cover
- Cable entry: 4x knock-out M25/M32 + 2x ø22,5mm closed hole on the bottom.

SERIES	WAFER	CODE
C063	Max 2	BF4/HNGO
C080		



IP65 ALUMINUM ENCLOSURES

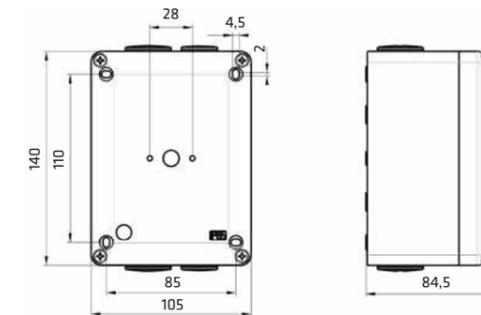


BFA/ANGO

IP65

- Front knob
- **Dimensions:** 105x140x85 mm
- Black box - grey cover
- Cable entry: cap 2x M20 +2x M25

SERIES	WAFER	CODE
P012	Max 3	BFA/ANGO
P016		
P020		

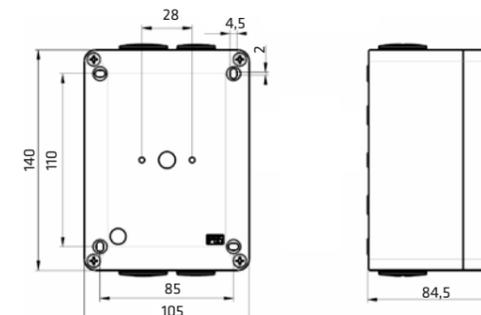


BFA/BNGO

IP65

- Front knob
- **Dimensions:** 105x140x85 mm
- Black box - grey cover
- Cable entry: cap 2x M20 +2x M25

SERIES	WAFER	CODE
C025	Max 2	BFA/BNGO
C032		
C040		



RANGE OVERVIEW AND GENERAL CHARACTERISTICS



COMPLY WITH RULES

IEC 947-3, EN 60947-3, UL508



SERIES		PO12-PO16-PO20 PX12-PX16-PX20	C025-C032-C040 CX25-CX32-CX40		
Protection class	control EN 60529 (UL50) NEMA 4X control with knob only terminals	IP65 (Type 1 - 4 -4X) IP40 IP20 (PO) - IP10 (PX)	IP65 (Type 1 - 4 -4X) IP40 IP20 (PO) - IP10 (PX)		
Material group	EN 60947-1	II	II		
Pollution grade	EN 60947-1	3	3		
Flammability	UL94	VO (Live Electrical parts)	VO (Live Electrical parts)		
Ambient temperature	°C	Operating: -40 +85 Storage: -40 +70	Operating: -40 +85 Storage: -40 +70		
Climate Withstand	IEC 68 part 2-3 IEC 68 part 2-30	Hot damp Unsettled hot damp	Hot damp Unsettled hot damp		
Terminal screw identification		EN50013	EN50013		
Connections	Terminal block caliber EN60947-1 Terminal screw Screwing torque EN60947-1 UL508	A3 M3,5 0,8 Nm (7,2 lb. in.) 7,5 lb. in. (0,85 Nm)	A5 M4 1,2 Nm (10,6 lb. in.) 12 lb. in. (1,4 Nm)		
Connectable section	Flexible conductors min/max mm ² AWG	1x0,75/4 - 2x0,75/2,5 10 - 18	2x2,5/10 14 - 6		
	Solid conductors min/max mm ² AWG	1x0,75/4 - 2x0,75/2,5 10 - 18	2x2,5/10 14 - 6		
Contacts		Double breaking	Double breaking		
Opening angles		30° - 45° - 60° - 90°	30° - 45° - 60° - 90°		
Mechanical lifetime at 120 operations for hour	mil./cl	1 1 1	1 1 1		
Electrical lifetime at 120 operations for hour	mil./cl	1 0,75 0,75	1 0,75 0,75		

CERTIFICATIONS		PO12 PX12	PO16 PX16	PO20 PX20	C025 CX25	C032 CX32	C040 CX40
CE	CE mark - Europe	■	■	■	■	■	■
cUL	cUL Listed - USA and Canada	●	●	●	●	●	●
IMQ	IMQ Istituto Marchio Qualità - Italy	●	●	●	●	●	●
CCC	CCC Cina	●	●	●	●	●	●
EAC	EAC Russia	●	●	●	●	●	●

C063-C080		G125	G200
IP65		IP65	IP65
IP40		-	-
IP00		IP00	IP00
II		IIIA	IIIA
3		3	3
VO (Live Electrical parts)		VO (Live Electrical parts)	VO (Live Electrical parts)
Operating: -40 +70		Operating: -15 +55	Operating: -15 +55
Storage: -40 +70		Storage: -25 +70	Storage: -25 +70
Hot damp		-	-
Unsettled hot damp		-	-
EN50013		-	-
A7		-	-
2xM4		Hex. screw M8 for bars and cable lugs	Hex. screw M10 for bars and cable lugs
1,2 Nm (10,6 lb. in.)		-	-
10,62 lb. in. (1,2 Nm)		-	-
2,5/35		-	-
14 - 3		-	-
2,5/35		-	-
14 - 3		-	-
Double breaking		Double breaking	Double breaking
45° - 60° - 90°		60° - 90°	60° - 90°
1	1	0,1	0,1
0,5	0,25	0,01	0,01

C063	C080	G125	G200
■	■	■	■
●	●	●	●
●	●		

PHOENIX CAM SWITCHES
PHOENIX CAM SWITCHES
ELECTRICAL CHARACTERISTICS

EN 60947-3 CHARACTERISTICS			PO12 - PX12	PO16 - PX16	PO20 - PX20
Rated operating voltage Ue	V		690	690	690
Rated insulation voltage Ui	V		690	690	690
Rated impulse withstand voltage Uimp (sectionable)	kV		4	4	4
Rated thermal current Ith	A		16	20	25
Rated thermal current in enclosed Ithe	A		12	16	20
Frequency	Hz		50/60	50/60	50/60

RATED OPERATING CURRENT Ie: alternate current			PO12 - PX12	PO16 - PX16	PO20 - PX20
AC-21A Switching resistive loads with light overloads	690V	A	12	16	20
AC-22A Switching mixed resistive and inductive loads at light overloads	690V	A	12	16	20
AC-23A Periodic switching of motors	single phase - 1 pole	110V A/kW	12/1,1	14/1,5	18/2
		230V A/kW	12/2,2	14/3	18/4
	3 phases - 3 poles	230V A/kW	10/3	14/4	16/5
		400V A/kW	10/5,5	14/7,5	16/9
		500V A/kW	10/7,5	14/10	16/11
AC3 Starting of cage motors (interruption hile running)	single phase - 2 poles	110V A/kW	10/0,75	12/1,1	16/1,5
		230V A/kW	10/2	12/2,2	16/3,5
	3 phases - 3 poles	230V A/kW	8/2,2	10/3	12/4
		400V A/kW	8/4	10/5	12/6
		500V A/kW	8/5,5	10/7,5	12/8
Nominal interruption power AC-23A (cosφ 0,45)	230V	A	80	104	128
		A	80	104	128
		A	80	112	128
		A	80	112	128
Power dissipation for each pole	W	0,3*	0,35*	0,4*	

RATED OPERATING CURRENT Ie: direct current			PO12 - PX12	PO16 - PX16	PO20 - PX20
DC-21A Switching resistive loads with light overloads	50V (1 phase)	A	10	12	16
DC-22A Switching mixed resistive and inductive loads at light overloads	30V (1 phase)	A	8	10	12

SHORT CIRCUIT CHARACTERISTICS			PO12 - PX12	PO16 - PX16	PO20 - PX20
Rated short-time short circuit withstand current Icw (1 s)	A		300	300	300
Rated short circuit making capacity Icm	A		1200	1200	1200
Conditional rated short circuit withstand current	kA		5	5	5
Fuse rating gG	690V	A	20	20	20

UL 508 CHARACTERISTICS			PO12 - PX12	PO16 - PX16	PO20 - PX20
General Use	600V AC	A	12	16	20
Standard motor load	single phase - 2 poles	120V AC HP (FLA)	0,5 (9,8)	1 (16)	1,5 (20)
		240V AC HP (FLA)	1 (8)	1,5 (10)	2 (12)
	3 phases - 3 poles	200V AC HP (FLA)	1,5 (6,9)	3 (11,04)	5 (17,5)
		240V AC HP (FLA)	3 (9,6)	5 (15,2)	5 (15,2)
		480V AC HP (FLA)	5 (7,6)	7,5 (11)	10 (14)
		600V AC HP (FLA)	5 (6,1)	7,5 (9)	10 (11)

CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200
690	690	690	690	690	690	690
690	690	690	690	690	690	690
6	6	6	8	8	6	6
32	40	50	85	100	150	225
25	32	40	85	100	150	225
50/60	50/60	50/60	50/60	50/60	50/60	50/60

CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200
25	32	40	63	80	125	200
25	32	40	63	80	125	200
25/1,5	30/2,2	35/3	45/4	63/5,5	-	-
25/4	30/5,5	35/6,5	45/7,5	63/11	-	-
25/7,5	30/9	35/11	50/15	58/18,5	140/45	169/55
22/11	24/15	32/18,5	40/22	54/30	78/45 (415V)	95/55 (415V)
22/11	27/18,5	32/22	40/30	54/37	65/45	79/55
20/15	22/18,5	25/22	32/30	40/37	47/45	57/55
22/1,1	25/1,5	30/2,5	36/3,7	45/4	-	-
22/3,7	25/4	30/5,5	36/6,5	45/7,5	-	-
18/5,5	23/7,5	27/9	37/11	47/15	115/37	140/45
18/7,5	23/11	27/15	35/18,5	44/22	64/37 (415V)	78/45 (415V)
18/11	23/15	27/18,5	35/22	44/30	53/37	64/45
14/11	18/15	20/18,5	25/22	32/30	39/37	47/45
200	240	280	400	464	-	-
176	216	256	320	432	-	-
176	216	256	320	432	-	-
160	176	200	256	320	-	-
-	-	-	-	-	-	-

CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200
20 ▼	25 ▼	32 ▼	-	-	-	-
16 ▼	20 ▼	25 ▼	-	-	-	-

CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200
500	500	500	1200	1200	-	-
2840	2840	2840	2000	2000	-	-
10	10	10	10	10	20	20
40 ■	40 ■	40 ■	100	100	125 ▲	200 ▲

CO25 - CX25	CO32 - CX32	CO40 - CX40	CO63	CO80	G125	G200
25	32	40	63	85	125	175
1,5 (20)	2 (24)	3 (34)	5 (56)	5 (56)	-	-
3 (17)	5 (28)	5 (28)	7,5 (40)	10 (50)	-	-
7,5 (25,3)	7,5 (25,3)	10 (32,2)	-	-	10 (56)	15 (84)
7,5 (22)	7,5 (22)	10 (28)	15 (42)	20 (54)	20 (54)	25 (68)
15 (21)	20 (27)	20 (27)	30 (40)	40 (52)	40 (52)	50 (65)
15 (17)	20 (22)	20 (22)	40 (41)	50 (52)	50 (52)	50 (52)

EXECUTION ON DEMAND

ORDER FORM FOR SPECIAL SCHEME ON REQUEST

SPECIAL SHAFTS

- Length and shape on request.



FAST ON CONNECTIONS

- Flat fast on terminals.
- Single or double terminals.
- P012 ... P020 - C025 ... C040 Series.



AXIAL INTERLOCK

- "Push and turn" interlock in several positions.
- C025 ... C040 Series.



UNDIRECTIONAL ROTATION

- Unidirectional turn.
- C025 ... C040 Series.



PE SERIES - LOWERED CAM SWITCHES

- Only for 12 ... 20A Series.
- Only for few electrical schemes.
- Length 20mm less than an equivalent PO-PX Series.



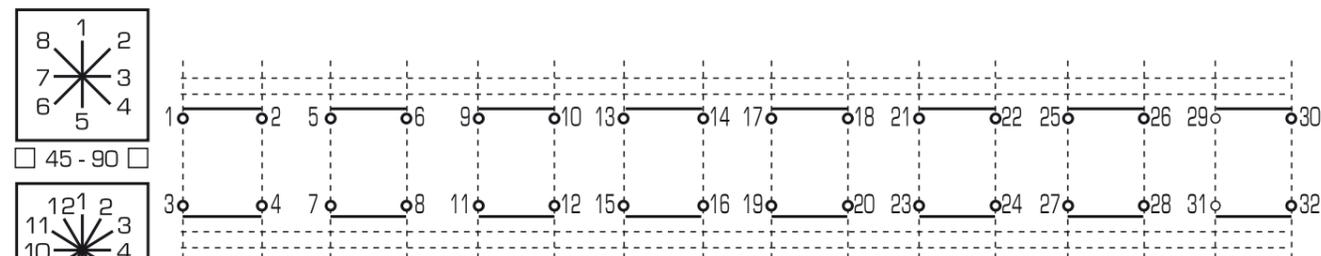
COAXIAL COUPLING

- Power Unit + Aux Unit.



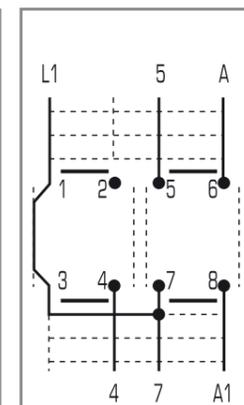
CAM SWITCH

- Suitable for PCB connection.
- PATENTED** product.



POS.	DESCRIPTION	POS.	DESCRIPTION
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

WAFER	CONT.	POSITION
10	39-40	
9	37-38	
9	35-36	
9	33-34	
8	31-32	
8	29-30	
7	27-28	
7	25-26	
6	23-24	
6	21-22	
5	19-20	
5	17-18	
4	15-16	
4	13-14	
3	11-12	
3	9-10	
2	7-8	
2	5-6	
1	3-4	
1	1-2	



WAFER	CONT.	POSITION
2	7-8	X
2	5-6	X X
1	3-4	X X
1	1-2	X

- Open Contact
- Closed contact
- Break before make
- Contact closed: no interruption during changeover
- Spring return
- Make before break
- Open contact early make

Rated current Ie		
Operational rated voltage Ue		
Category	Amp/kw	Volt
<input type="checkbox"/> AC-21A	A	V
<input type="checkbox"/> AC-22A	A	V
<input type="checkbox"/> AC-23A	1Ph kW	V
	3Ph kW	V
<input type="checkbox"/> AC-3	1Ph kW	V
	3Ph kW	V

Series _____

Mounting:

Rear Panel mounting

Base

Din

Operating:

Notes:

Company: _____

Contact person: _____

Phone _____

Fax _____

E-mail _____

Quantity _____

Due date _____

Order Nr. _____

