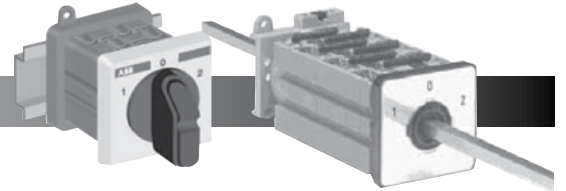


9 - Cam switches



Cam switches 9.1 – 9.20

Features and benefits	9.1
General information	9.2
Ordering details	
ON-OFF switches	9.3 - 9.4
Change-over switches	9.5
Multi-step switches	9.6 - 9.9
Motor control switches	9.10
Voltmeter switches	9.11
Ammeter switches	9.12
Accessories	9.13 - 9.14
Technical data	9.15 - 9.16
Approximate dimensions	9.17 - 9.19
Special cam switches, contact plan	9.20

Cam switches OM, ON & OL (10A, 25A, 40A, 80A, 125A, 160A & 200A)

Complete range of standard and special cam switches for door and base mounting



Complete delivery includes handle and front plate. Snap-on mounting of contact block with interlocking

Protected terminals and interconnections. Self lifting plus-minus screws for fast assembly.

Handle, color black or grey. Padlockable handle, color black or red-yellow.



Keylock and cylinder lock solutions



General Information

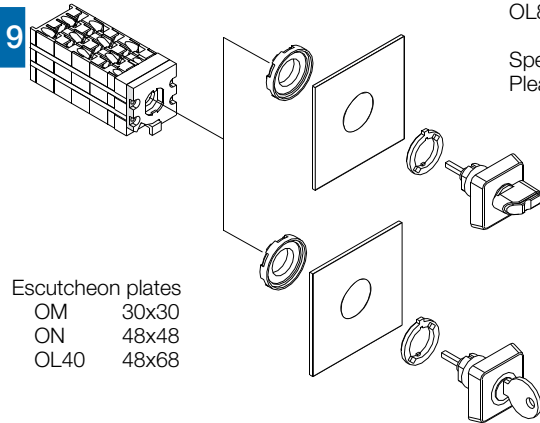
Door mounting cam switches

- IP 65
- NEMA 4X outdoor (ON, OL40)
- Key operated switch, IP54
- OM, Miniature
- ON, Normal
- OL, Large

Door drilling

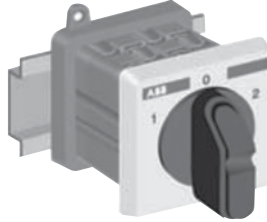
OM: Ø 16.5mm / Ø 22.5mm
ON: Ø 22.5mm / Ø 30.5mm
OL40: Ø 22.5mm / Ø 30.5mm

Maximum panel thickness 5.5 mm.
The black handle with square escutcheon plate marked for switch type is supplied with the switch body. Optional adaptor ring available for 30.5 mm hole.



DIN-rail mounting

- P 44
- ON, Modular



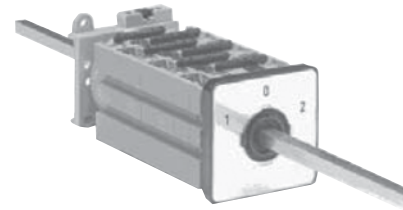
Number of contacts

OM: 16 contacts
ON: 20 contacts
ON_M: 6 contacts
OL40: 20 contacts
OL80, 125, 160, 200: 24 contacts

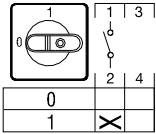
Special switches up to 60 contacts
Please consult with us.

Features:

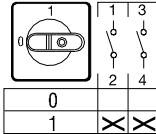
- Complete delivery for easy purchasing and assembly
 - Standard delivery with black handle, alt. grey or red yellow handle
 - Small panel size: front space in side to side mounting 30 mm or 50 mm up to 25 A
 - Finger protected terminals and interconnections (IP20, VBG4)
 - Self lifting screws, terminal screws for fast cabling
 - Double break silver contacts with 0,35 µm gold grid ensure a high breaking capacity and reliable connection.
- Also available with solid golden contacts for extremely difficult circumstances. Have to be ordered separately, please add G to the type, e.g; OMA 1 PBG.
- Fast special engraving service available
 - Metallic shaft as special version
 - Fast-on terminals available as special version



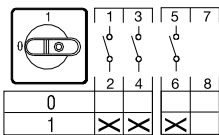
ON-OFF Switches



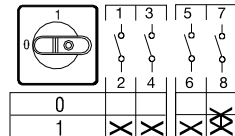
O_A1_



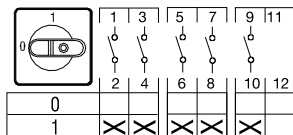
O_A2_



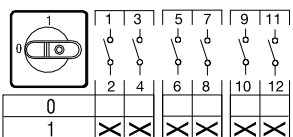
O_A3_



O_A4_



O_A5_



O_A6_

Black handle and front plate with standard text are included. The type and the ordering number are for one piece.
Special engraved front-plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
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Rotating angle 90°, O-position: 9 o'clock

Miniature, door mounted

0 - 1	1	10	0.04	OMA1PB
	2	10	0.04	OMA2PB
	3	10	0.05	OMA3PB
0 - 1	4	10	0.05	OMA4PB
	5	10	0.06	OMA5PB
	6	10	0.06	OMA6PB

Normal, door mounted

0 - 1	1	25	0.08	ONA1PB
	2	25	0.09	ONA2PB
	3	25	0.10	ONA3PB
0 - 1	4	25	0.11	ONA4PB
	5	25	0.12	ONA5PB
	6	25	0.12	ONA6PB

Large, door mounted

0 - 1	1	40	0.13	OL40A1PB
	2	40	0.17	OL40A2PB
	3	40	0.21	OL40A3PB
0 - 1	4	40	0.25	OL40A4PB
	5	40	0.29	OL40A5PB
	6	40	0.33	OL40A6PB

Modular, DIN-rail mounted

0 - 1	1	25	0.09	ONA1M
	2	25	0.10	ONA2M
	3	25	0.11	ONA3M
	6	25	0.12	ONA6M

Key operated, withdrawable in both positions, rotating angle 90°, O-position: 9 o'clock ①

Miniature, door mounted

0 - 1	1	10	0.06	OMA1KB
	3	10	0.07	OMA3KB

Normal, door mounted 90°

0 - 1	1	25	0.11	ONA1KB
	3	25	0.13	ONA3KB

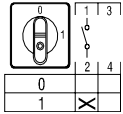
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

① Different withdrawability of key is also possible to be ordered as special switch.

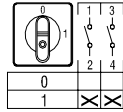
Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

ON-OFF Switches

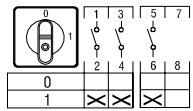
Change-over switches



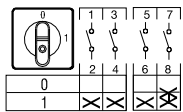
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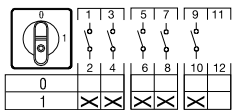
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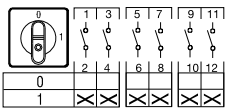
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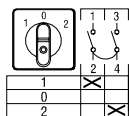
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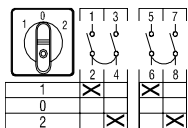
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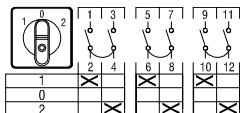
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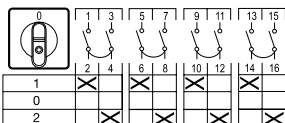
O_U1_



O_U2_



O_U3_



O_U4_

ON - OFF switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
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Rotating angle 90°, O-position: 12 o'clock

Miniature, door mounted

0 - 1	1	10	0.04	OMA01PB
	2	10	0.04	OMA02PB
	3	10	0.05	OMA03PB
0 - 1	4	10	0.05	OMA04PB
	5	10	0.06	OMA05PB
	6	10	0.06	OMA06PB

Normal, door mounted

0 - 1	1	25	0.08	ONA01PB
	2	25	0.09	ONA02PB
	3	25	0.10	ONA03PB
0 - 1	4	25	0.11	ONA04PB
	5	25	0.12	ONA05PB
	6	25	0.12	ONA06PB

Modular, DIN-rail mounted

0 - 1	1	25	0.09	ONA01M
	2	25	0.10	ONA02M
	3	25	0.11	ONA03M
	6	25	0.12	ONA06M

Key operated, withdrawable in both positions, rotating angle 90°, O-position: 12 o'clock

Miniature, door mounted

0 - 1	1	10	0.06	OMA01KB
	3	10	0.07	OMA03KB

Normal, door mounted

0 - 1	1	25	0.11	ONA01KB
	3	25	0.13	ONA03KB

Change-over switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

Rotating angle 60° - 0 - 60°

Miniature, door mounted

1 - 0 - 2	1	10	0.05	OMU1PB
	2	10	0.06	OMU2PB
	3	10	0.06	OMU3PB
	4	10	0.07	OMU4PB

Normal, door mounted

1 - 0 - 2	1	25	0.09	ONU1PB
	2	25	0.11	ONU2PB
	3	25	0.13	ONU3PB
	4	25	0.14	ONU4PB

Large, door mounted

1 - 0 - 2	1	40	0.17	OL40U1PB
	2	40	0.25	OL40U2PB
	3	40	0.33	OL40U3PB
	4	40	0.41	OL40U4PB

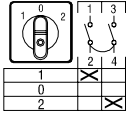
Modular, DIN-rail mounted

1 - 0 - 2	1	25	0.09	ONU1M
	2	25	0.11	ONU2M
	3	25	0.13	ONU3M
	4	25	0.14	ONU4M

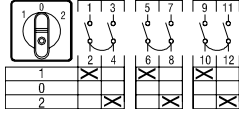
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

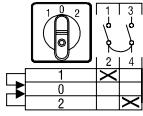
Change-over switches



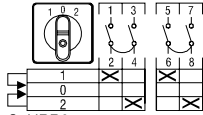
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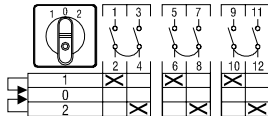
O_U3_



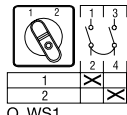
O_URR1_



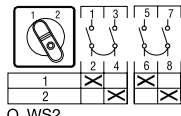
O_URR2_



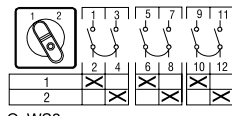
O_URR3_



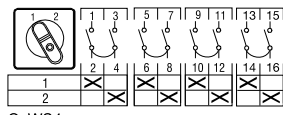
O_WS1_



O_WS2_



O_WS3_



O_WS4_

Black handle and front plate with standard text are included. The type and the ordering number are for one piece. Special engraved front plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
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Key operated, with 0-position, withdrawable in all positions

Miniature, door mounted

1 - 0 - 2	1 3	10 10	0.07 0.08	OMU1KB OMU3KB
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Normal, door mounted

1 - 0 - 2	1 3	25 25	0.12 0.13	ONU1KB ONU3KB
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1_R - 0 - 2_R, with two sided spring return

Miniature, door mounted

1 _R - 0 - 2 _R	1 3	10 10	0.05 0.06	OMURR1PB OMURR3PB
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Normal, door mounted

1 _R - 0 - 2 _R	1 2 3	25 25 25	0.09 0.11 0.12	ONURR1PB ONURR2PB ONURR3PB
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Large, door mounted

1 _R - 0 - 2 _R	1 2 3	45 45 45	0.17 0.25 0.33	OL40URR1PB OL40URR2PB OL40URR3PB
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Modular, DIN-rail mounted

1 _R - 0 - 2 _R	1	25	0.09	ONURR1M
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Without 0-position

Miniature, door mounted

1 - 2	1 2 3 4	10 10 10 10	0.09 0.11 0.13 0.14	OMWS1PB OMWS2PB OMWS3PB OMWS4PB
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Normal, door mounted

1 - 2	1 2 3 4	25 25 25 25	0.09 0.11 0.13 0.14	ONWS1PB ONWS2PB ONWS3PB ONWS4PB
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Large, door mounted

1 - 2	1 2 3 4	40 40 40 40	0.17 0.25 0.33 0.41	OL40WS1PB OL40WS2PB OL40WS3PB OL40WS4PB
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Modular, DIN-rail mounted

1 - 2	1 2 3 4	25 25 25 25	0.09 0.11 0.13 0.14	ONWS1M ONWS2M ONWS3M ONWS4M
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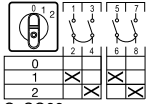
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

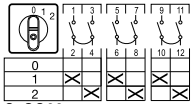
Multi-step switches



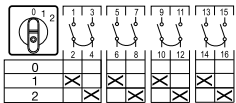
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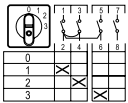
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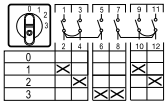
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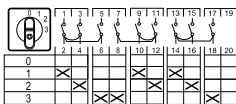
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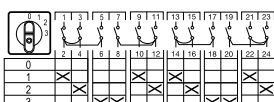
O_SO31_



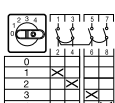
O_SO32_



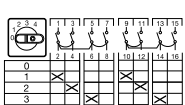
O_SO33_



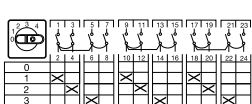
O_SO34_



O_SO41_



O_SO42_



O_SO43_

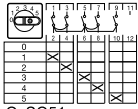
Black handle and front plate with standard text are included. The type and the ordering number are for one piece. Special engraved front plates to be ordered as separate items..

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
2- step, with O-position				
Miniature, door mounted				
0 - 1 - 2	1	10	0.04	OMSO21PB
	2	10	0.05	OMSO22PB
	3	10	0.06	OMSO23PB
	4	10	0.07	OMSO24PB
Normal, door mounted				
0 - 1 - 2	1	25	0.10	ONSO21PB
	2	25	0.12	ONSO22PB
	3	25	0.13	ONSO23PB
	4	25	0.14	ONSO24PB
Modular, DIN-Rail mounted				
0 - 1 - 2	1	25	0.10	ONSO21M
3- step, with O-position				
Miniature, door mounted				
0 - 1 - 2 - 3	1	10	0.05	OMSO31PB
	2	10	0.06	OMSO32PB
	3	10	0.07	OMSO33PB
	4	10	0.08	OMSO34PB
Normal, door mounted				
0 - 1 - 2 - 3	1	25	0.10	ONSO31PB
	2	25	0.12	ONSO32PB
	3	25	0.13	ONSO33PB
	4	25	0.14	ONSO34PB
Large, door mounted				
0 - 1 - 2 - 3	1	45	0.41	OL40SO31PB
Modular, DIN-rail mounted				
0 - 1 - 2 - 3	1	25	0.11	ONSO31M
3- step, with O-position				
Miniature, door mounted				
1 - 2 - 3	1	10	0.05	OMST31PB
	2	10	0.06	OMST32PB
	3	10	0.07	OMST33PB
	4	10	0.08	OMST34PB
Normal, door mounted				
1 - 2 - 3	1	25	0.10	ONST31PB
	2	25	0.12	ONST32PB
	3	25	0.13	ONST33PB
	4	25	0.14	ONST34PB
Modular, DIN-rail mounted				
1 - 2 - 3	1	25	0.10	ONST31M
4- step, with O-position				
Miniature, door mounted				
0 - 1 - 2 - 3 - 4	1	10	0.05	OMSO41PB
	2	10	0.06	OMSO42PB
	3	10	0.07	OMSO43PB
Normal, door mounted				
0 - 1 - 2 - 3 - 4	1	25	0.11	ONSO41PB
	2	25	0.12	ONSO42PB
	3	25	0.13	ONSO43PB
4- step, without O-position				
Miniature, door mounted				
1 - 2 - 3 - 4	1	10	0.05	OMST41PB
	2	10	0.06	OMST42PB
	3	10	0.07	OMST43PB
Normal, door mounted				
1 - 2 - 3 - 4	1	25	0.11	ONST41PB
	2	25	0.12	ONST42PB
	3	25	0.13	ONST43PB

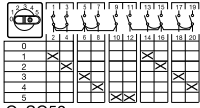
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

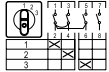
Multi-step switches



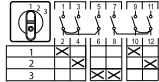
O_SO51_



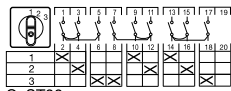
O_SO52_



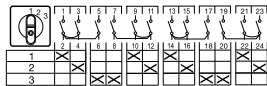
O_ST31_



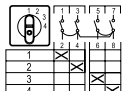
O_ST32_



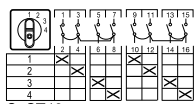
O_ST33_



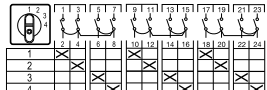
O_ST34_



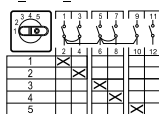
O_ST41_



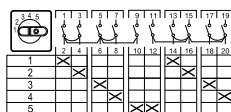
O_ST42_



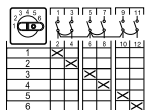
O_ST43_



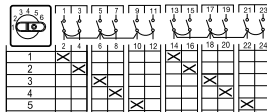
O_ST51_



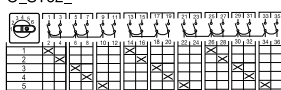
O_ST52_



O_ST61_



O_ST62_



O_ST63_

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.
Special engraved front plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
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5- step, with O-position

Miniature, door mounted

0 - 1 - 2 - 3 - 4 - 5	1 2	10 10	0.06 0.08	OMSO51PB OMSO52PB
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Normal, door mounted

0 - 1 - 2 - 3 - 4 - 5	1 2	25 25	0.12 0.14	ONSO51PB ONSO52PB
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5- step, without O-position

Miniature, door mounted

0 - 1 - 2 - 3 - 4 - 5	1 2	10 10	0.06 0.08	OMST51PB OMST52PB
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Normal, door mounted

0 - 1 - 2 - 3 - 4 - 5	1 2	25 25	0.12 0.14	ONST51PB ONST52PB
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6- step, with O-position

Normal, door mounted

1-2-3-4-5-6	1 2 3	25 25 25	0.115 0.19 0.265	ONSO61PB ONSO62PB ONSO63PB
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Large, door mounted

1-2-3-4-5-6	1 2 3	40 40 40	0.185 0.305 0.425	OL40SO61PB OL40SO62PB OL40SO63PB
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6-step without O-position

Normal, door mounted

1-2-3-4-5-6	1 2 3	25 25 25	0.115 0.19 0.265	ONST61PB ONST62PB ONST63PB
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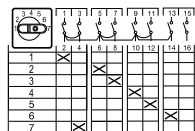
Large, door mounted

1-2-3-4-5-6	1 2 3	40 40 40	0.185 0.305 0.425	OL40ST61PB OL40ST62PB OL40ST63PB
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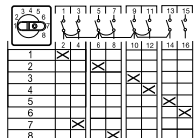
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

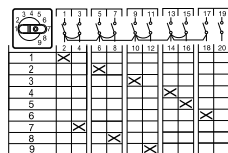
Multi-step switches



O_ST71_



O_ST81_



O_ST91_

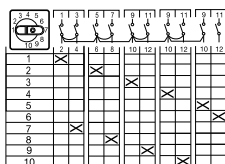
Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

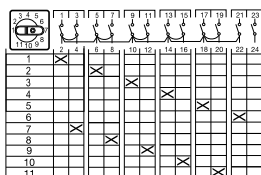
Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
7-step with 0-position				
Normal, door mounted				
1-2-3-4-5-6-7	1	25	0.14	ONSO71PB
Large, door mounted				
1-2-3-4-5-6-7	1	40	0.3	OL40SO71PB
7-step without 0-position				
Normal, door mounted				
1-2-3-4-5-6-7	1	25	0.14	ONST71PB
Large, door mounted				
1-2-3-4-5-6-7	1	40	0.3	OL40ST71PB
8-step with 0-position				
Normal, door mounted				
1-2-3-4-5-6-7-8	1	25	0.145	ONSO81PB
Large, door mounted				
1-2-3-4-5-6-7-8	1	40	0.148	OL40SO81PB
8-step without 0-position				
Normal, door mounted				
1-2-3-4-5-6-7-8	1	25	0.145	ONST81PB
Large, door mounted				
1-2-3-4-5-6-7-8	1	40	0.148	OL40ST81PB
9-step with 0-position				
Normal, door mounted				
1-2-3-4-5-6-7-8-9	1	25	0.165	ONSO91PB
Large, door mounted				
1-2-3-4-5-6-7-8-9	1	40	0.265	OL40SO91PB
9-step without 0-position				
Normal, door mounted				
1-2-3-4-5-6-7-8-9	1	25	0.165	ONST91PB
Large, door mounted				
1-2-3-4-5-6-7-8-9	1	40	0.265	OL40ST91PB

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

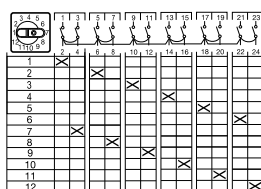
Multi-step switches



O_ST101_



O_ST111_



O_ST121_

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
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10-step with 0-position

Normal, door mounted

1-2-3-4-5-6-7-8-9-10	1	25	0.17	ONSO101PB
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Large, door mounted

1-2-3-4-5-6-7-8-9-10	1	40	0.27	OL40SO101PB
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10-step without 0-position

Normal, door mounted

1-2-3-4-5-6-7-8-9-10	1	25	0.17	ONST101PB
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Large, door mounted

1-2-3-4-5-6-7-8-9-10	1	40	0.27	OL40ST101PB
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11-step with 0-position

Normal, door mounted

1-2-3-4-5-6-7-8-9-10-11	1	25	0.19	ONSO111PB
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Large, door mounted

1-2-3-4-5-6-7-8-9-10-11	1	40	0.305	OL40SO111PB
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11-step without 0-position

Normal, door mounted

1-2-3-4-5-6-7-8-9-10-11	1	25	0.19	ONST111PB
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Large, door mounted

1-2-3-4-5-6-7-8-9-10-11	1	40	.305	OL40ST111PB
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12-step without 0-position

Normal, door mounted

1-2-3-4-5-6-7-8-9-10-11-12	1	25	0.195	ONST121PB
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Large, door mounted

1-2-3-4-5-6-7-8-9-10-11-12	1	40	0.31	OL40ST121PB
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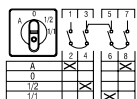
Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

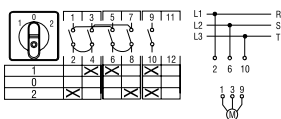
Motor control switches



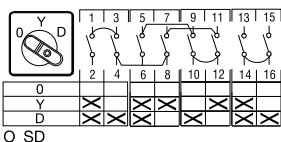
O_SE158_



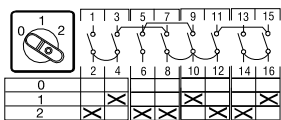
O_ST301_



O_W3_



O_SD_



O_P12_

Pumpstart switches

Miniature, door mounted

Function	Number of poles	Rated thermal current [A]	Weight [kg]	Catalog number
0 - 1	1	10	0.04	OMSE158PB

Normal, door mounted

0 - 1	1	25	0.09	ONSE158PB
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Modular, DIN-rail mounted

0 - 1	1	25	0.09	ONSE158M
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Ventilation switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

Function	Number of poles	Rated thermal current [A]	Motor rating [kW/400V]	Weight [kg]	Catalog number
Miniature, door mounted					
A - 0 - 1/2 - 1/1	2	10	7.5	0.06	OMST301PB

Normal, door mounted

A - 0 - 1/2 - 1/1	2	25	7.5	0.11	ONST301PB
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Modular, door mounted

A - 0 - 1/2 - 1/1	2	25	7.5	0.11	ONST301M
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Large, door mounted

A - 0 - 1/2 - 1/1	2	40	15	0.21	OL40ST301PB
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Reversing switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs..

Special engraved front plates to be ordered as separate items.

Normal, door mounted

1 - 0 - 2	3	25	7.5	0.10	ONW3PB
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Large, door mounted

1 - 0 - 2	3	40	15	0.21	OL40W3PB
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Star-delta switches

Normal, door mounted

0 - Y - ΔΔ	3	25	7.5	0.12	ONSDEPB
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Large, door mounted

0 - Y - Δ	3	40	15	0.21	OL40SDEPB
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Pole-change switches (Dahlander)

Winding for 2 speeds, one direction, 0 - A - AYY

Normal, door mounted

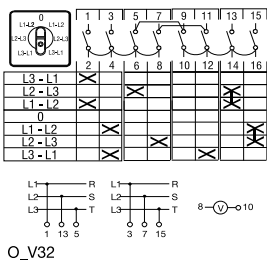
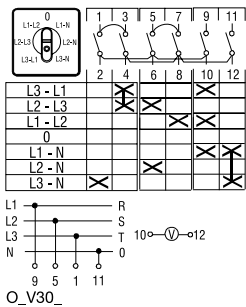
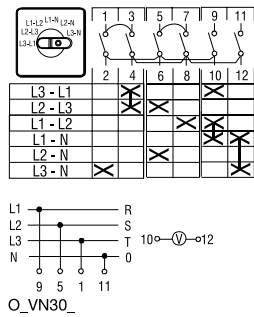
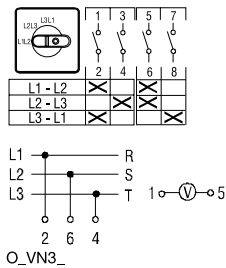
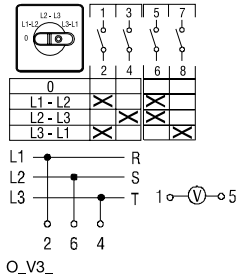
0 - 1 - 2	3	25	7.5	0.12	ONP12PB
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Large, door mounted

0 - 1 - 2	3	40	15	0.25	OL40P12PB
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Packing sizes: OM 130 x 100 x 120 [mm]
ON, OL 250 x 100 x 110 [mm]

Voltmeter switches



Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.

Special engraved front plates to be ordered as separate items.

Function	Number of stages	Rated thermal current [A]	Weight [kg]	Catalog number
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4 Positions, 3 phase -3 wire, with 0-position

Miniature, door mounted

0, L1-L2, L2-L3, L3-L1	2	10	0.06	OMV3PB
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Normal, door mounted

0, L1-L2, L2-L3, L3-L1	2	25	0.11	ONV3PB
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Modular, DIN-rail mounted

0, L1-L2, L2-L3, L3-L1	2	25	0.11	ONV3M
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3 Positions, 3 phase -3 wire, without 0-position

Miniature, door mounted

L1-L2, L2-L3, L3-L1	2	10	0.06	OMVN3PB
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Normal, door mounted

L1-L2, L2-L3, L3-L1	2	25	0.11	ONVN3PB
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Modular, DIN-rail mounted

L1-L2, L2-L3, L3-L1	2	25	0.11	ONVN3M
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7 Positions, 3 phase to phase 3 phase to neutral, without 0-position

Miniature, door mounted

L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	3	10	0.08	OMVN30PB
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Normal, door mounted

L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	3	25	0.12	ONVN30PB
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Normal, door mounted

L1-L3, L2-L3, L1-L2 L1-N, L2-N, L3-N	M	25	0.12	ONVN30M
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7 Positions, 3 phase to phase 3 phase to neutral, with 0-position

Miniature, door mounted

L1-L3, L2-L3, L1-L2, 0 L1-N, L2-N, L3-N	3	10	0.12	OMV30PB
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Normal, door mounted

L1-L3, L2-L3, L1-L2, 0 L1-N, L2-N, L3-N	3	25	0.12	ONV30PB
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Modular, DIN-rail mounted

L1-L3, L2-L3, L1-L2, 0 L1-N, L2-N, L3-N	3	25	0.12	ONV30M
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7 Positions, 3 phase to phase voltages for 2 circuits, with 0 position

Miniature, door mounted

L1-L3, L2-L3, L1-L2, 0 L1-L3, L2-L3, L1-L2	4	10	0.14	OMV32PB
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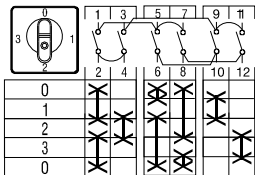
Normal, door mounted

L1-L3, L2-L3, L1-L2, 0 L1-L3, L2-L3, L1-L2	4	25	0.14	ONV32PB
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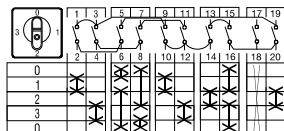
Packing sizes: OM 130 x 100 x 120 [mm]
ON 250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

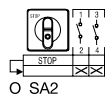
Ammeter switches



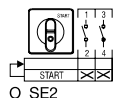
O_AU31



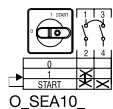
O_AU32



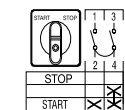
O_SA2_



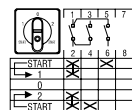
O_SE2_



O_SEA10_



ONSEA1PB



O_UR139_

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs.
Special engraved front plates to be ordered as separate items.

Function	Number of stages	Rated thermal current [A]	Weight [kg]	Catalog number
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For 3 current transformer circuits, with 0-position

Miniature, door mounted

Single pole	3	10	0.12	OMAU31PB
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Normal, door mounted

Single pole	3	25	0.12	ONAU31PB
2 pole or direct measurement in 3 phases	5	25	0.15	ONAU32PB

Modular, DIN-rail mounted

Single pole	4	25	0.12	ONAU31M
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Stop switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs. Special engraved front plates to be ordered as separate items.

Miniature, door mounted, with spring return, contacts N.C.

0 _R -Stop	2	10	0.04	OMSA2PB
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Normal, door mounted, with spring return, contacts N.C.

0 _R -Stop	2	25	0.09	ONSA2PB
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Start switches

Black handle and front plate with standard text are included. The type and the ordering number are for one piece, package quantity is 10 pcs. Special engraved front plates to be ordered as separate items. With spring return.

Miniature, door mounted, with spring return.

0 _R -Start	1	10	0.04	OMSE2PB
0-1 _R -Start	1	10	0.05	OMSEA10PB

Normal, door mounted, with spring return.

Stop-Start	1	25	0.04	ONSEA1PB
0 _R -Start	1	25	0.04	ONSE2PB
0-1 _R -Start	1	25	0.09	ONSEA10PB
Start-1 _R -0-2 _R -Start	1	25	0.09	ONUR139PB

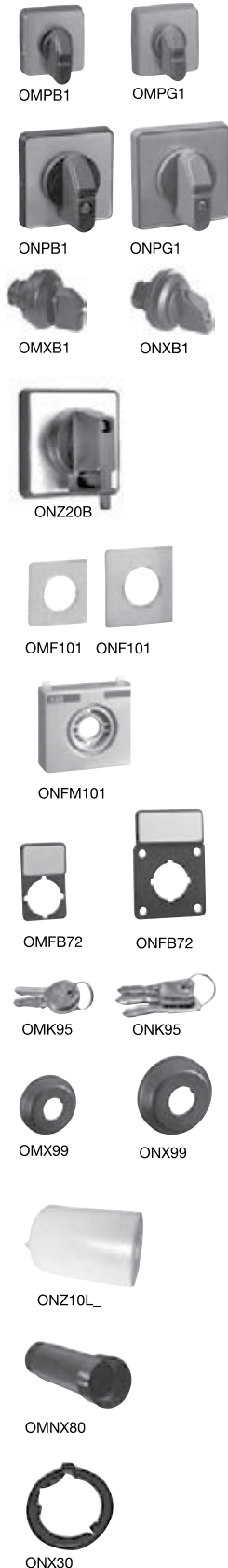
Modular, DIN-rail mounted, with spring return

0-1 _R -Start	1	25	0.09	ONSEA10M
Start-1 _R -0-2 _R -Start	1	25	0.09	ONUR139M

Packing sizes:	OM	130 x 100 x 120 [mm]
	ON, OL	250 x 100 x 110 [mm]

Standard delivery with black handle. Available also as an optional extra with grey handle, please change in type designation B to G, eg. OMA1PB would be OMA1PG with grey handle.

Accessories



The type and the ordering number are for one piece.

Color	For cam switches type	Packing quantities	Weight [kg]	Catalog number
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Handle with blank front plate without engraving

Black	OM_, Mini	5	0.05	OMP1
Grey	OM_, Mini		0.05	OMPG1
Black	ON_Normal, OL40	5	0.08	ONPB1
Grey	ON_Normal, OL40		0.08	ONPG1

Handle with round escutcheon plate

Black	OM_, Mini	5	0.02	OMXB1
Black, nose-type	OM_, Mini		0.02	OMXNB1
Black	ON_Normal, OL40		0.02	ONXB1

Padlockable handle

For max 2 padlocks with 6 mm bail diameter or for max 3 padlocks with 4 mm bail diameter, 90 degrees.

Black	ON_Normal, OL40	5	0.06	ONZ20B
Red yellow	ON_Normal, OL40		0.06	ONZ20RY

Front ring only

Black	OM_, Mini	10	0.01	OMX99
Black	ON_, Normal		0.01	ONX99

Front plate, blank without engraving ①

Silver	OM_, Mini	10	0.003	OMF101
Silver	ON_, Normal		0.003	ONF 101
Yellow	ON_Normal, OL40		0.003	ONFY 101
Grey	ON_, Modular		0.003	ONFM 101

Additional lettering plate, without engraving, black engraving from front side ②

Black frame	OM_, Mini	5	0.01	OMFB72
Black frame	ON_, Normal,		0.01	ONFB72
Grey frame	OM_, Mini		0.01	OMFG72
Grey frame	ON_, Normal		0.01	ONFG72

Spare key

2 pcs	OM_, Mini	2	0.01	OMK95
3 pcs	ON_, Normal, OL40		0.01	ONK95

Protective rear cover

Transparent, IP 42 protection

Number of characters	Contacts	For cam switches type	Packing quantities	Weight [kg]	Catalog number
1-2	2-4	ON_, Normal	1	0.02	ONZ10L2
3-4	6-8	ON_, Normal		0.04	ONZ10L4
5-6	10-12	ON_, Normal		0.06	ONZ10L6

Nut spanner for mounting the handle to the door

Black	OM_, Mini	1	0.02	OMNX80
	ON_, Normal			

Adaptor ring for 30 mm door drilling

Black	ON_, Normal	10	0.01	ONX30
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① Special front plate for standard switches: order as separate position. Attach specification in electronic format or paper. Eg. ONF 101/TEXT

② Additional lettering plate with engraving: order as separate position. Attach specification in electronic format or paper. The text can also be typed as comment. Eg. ONFB 72/TEXT Pumping station.

Accessories

Available for special cam switches



ONZ74_

The type and the ordering number are for one piece.
Special cam switches to be specified by CAMWEB configurator.

Base mounting switches

Base mounting kit includes base for DIN-rail mounting, shaft adaptor and 200 mm shaft for cutting up to 250 mm panel depth. Can be supplied also as optional extra.

Depth(mm)	For cam switches	Catalog number
250	ON_Normal	ONZ74



O_Z31_

Cylinder interlock

To lock all pre-determined positions with a safety key (2 pcs)
Available for special cam switches only. Special configuration with CAMWEB.

	OL_Large	OLZ31
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O_Z21_

Pushbutton interlock

To release all pre-determined positions while pushed. Special configuration with CAMWEB.

	OL_Large	OLZ21
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Technical data

According to IEC / 60947-3-4-5

IEC ratings

Resistive and inductive load

AC ratings

			OM_	N_	OL40
Impulse withstand voltage	U _{imp}	kV	-	-	6
Rated operating voltage U _e	IEC	V	500	690	690
Isolation conditions acc. to VDE		V	250	400	690
Rated thermal current I _{th}	IEC	A	10	25	45
Rated short circuit current (prospective)		kA	1	10	10
Max back up fuse link		A	10	25	40
Short time current carrying capacity		3s 10s 30s 60s	A A A A	- 100 60 32 30	360 200 120 80
Rated operational current I _e		A	10	25	45
Non- or slightly inductive load	AC1	380 V	A	10	25
Switching of resistive loads	AC21	400 V	A	10	25
Switching of magnetic drives relays, valves, traction magnets	AC11	220-240 V 380-440 V 500 V	A A A	2.5 - - 5.5 3.5 4.5	14 6 7
Mixed resistive and inductive load, pf. 0,7	AC22	220-500 V 660-690 V	A A	10 - 20 20	40 40
DC ratings					
Switching capacity DC rated voltage with resistive circuits (T ≤ 1ms)	DC1	24 V 40 V 60 V 110 V 220 V 440 V	A A A A A A	10 6 2.5 0.7 0.3 -	10 10 3 0.8 0.32 0.22
Switching capacity DC rated voltage with inductive circuits (T < 50 ms)	DC1	24 V 30 V 40 V 60 V 110 V	A A A A A	- 6 3 1 0.7 0.3	10 4.5 1.7 0.7 0.3
Motor ratings					
AC ratings					
Rated operational power	AC2	220-240 V	kW	2.5	3.5
3-phase		380-440 V	kW	-	6
Starting of slip-ring, switching off		500 V	kW	-	6
		660-690 V	kW	-	6
Rated operational power	AC3	220-240 V	kW	1.8	2.2
3-phase, 3-pole		380-440 V	kW	2.2	5.5
Direct starting of squirrel cage motors, switching off running motors		500 V	kW	-	4
		660-690 V	kW	-	4
1-phase		110 V	kW	0.3	0.4
		220-240 V	kW	0.55	0.75
		400 V	kW	0.75	1.3
Rated operational power	AC23	220-240 V	kW	1.8	2.6
3-phase, 3-pole		380-440 V	kW	3.0	7.5
Occasional switching of motors or other highly-inductive devices load		500 V	kW	-	4.8
		660-690 V	kW	-	4.8
1-phase		110 V	kW	0.37	0.5
		220-240 V	kW	0.75	0.9
		380-440 V	kW	1.1	1.5

Technical data

UL/CSA

UL and CSA ratings

			OM_	ON_	OL_40	OL80	OL125	OL160	OL200
UL 508 Manual Motor Controller file number E 63822									
Maximum operating voltage		VAC							
Ampere rating	Pilot duty	A	300	600	600	600	600	600	600
	General use		A300	A600	A600	A600	A600	A600	A600
			10	25	40	80	125	160	200
Rated power (HP) 3-phase	120V	HP	1	1	5	10	15	15	32
	240V	HP	1	1	10	30	40	40	64
	480V	HP	-	2	20	40	50	50	120
	600V	HP	-	5	23	40	50	50	120
1-Phase	120V	HP	0.33	.05	2	7.5	10	10	—
	240V	HP	0.75	1	3	15	20	20	—
	480V	HP	-	2	10	—	—	—	—
	600V	HP	-	3	10	—	—	—	—
Short circuit ratings									
Maximum prospective fault current		kA	1	10	10	10	10	10	10
Maximum fuse size		A	16	35(RK5)	50(RK3)	100(RK5)	150(RK5)	200(RK5)	—
Switching frequency		cycles/h	150	150	150	150	150	150	—
Connecting screws		M	2.5	3.5	5	5	5	5	10
Max. cable cross section		MM ²	1.5	4	6	70	70	70	150
		AGW	14	14-12	14-8(Cu75)	12-2/0	12-2/0	12-2/0	300 kcmil

9

Approvals:

UL-Approval, file number EG 63822
 CSA-Approval
 Lloyds Register of Shipping
 Det Norske Veritas (DNV)
 Germanischer Lloyd (GL)
 Ghost R



ON_, Normal



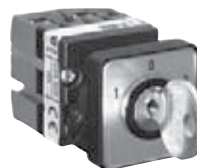
ON_M, Modular



OM_, Miniature



OL_, Large



OM_, Key operated

Standards:

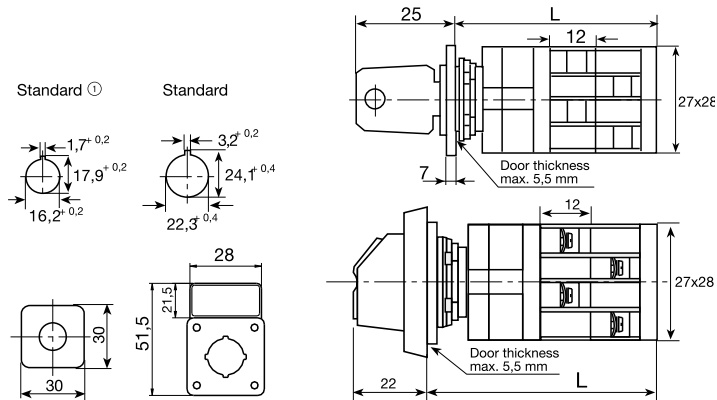
IEC 60947-3
 EN 60947-3
 UL 508
 CSA C22.2 No14

Approximate dimensions OM, ON and OL switches

Dimensions in mm.

Remark: Terminal screws on top and bottom side.

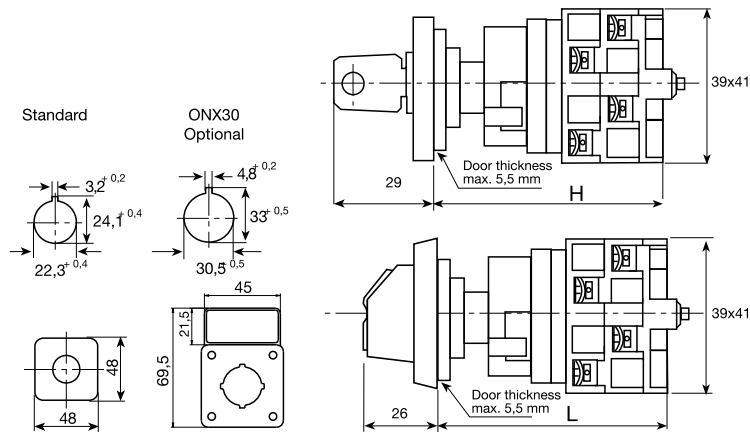
OM, Miniature



L number of contact chambers

1	2	3	4	5	6	7	8
45	57	69	81	90	105	11	138

ON, Normal



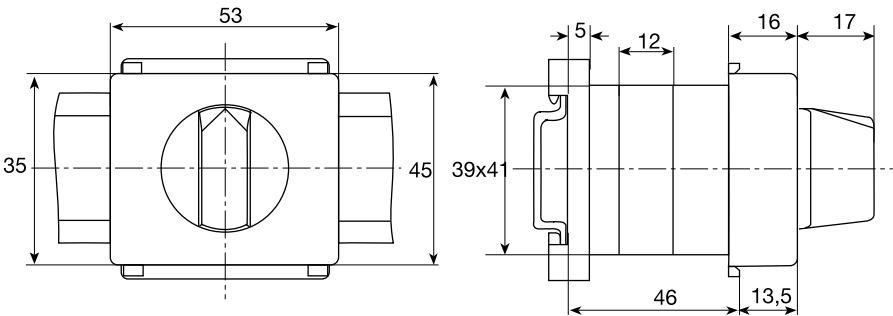
L number of contact chambers

	1	2	3	4	5	6	7	8	9	10
L	54	66	78	90	102	114	126	138	150	162
H	62	76	86	98	110	122	134	146	159	171

① 22mm adaptor ring can be removed and become 16mm.

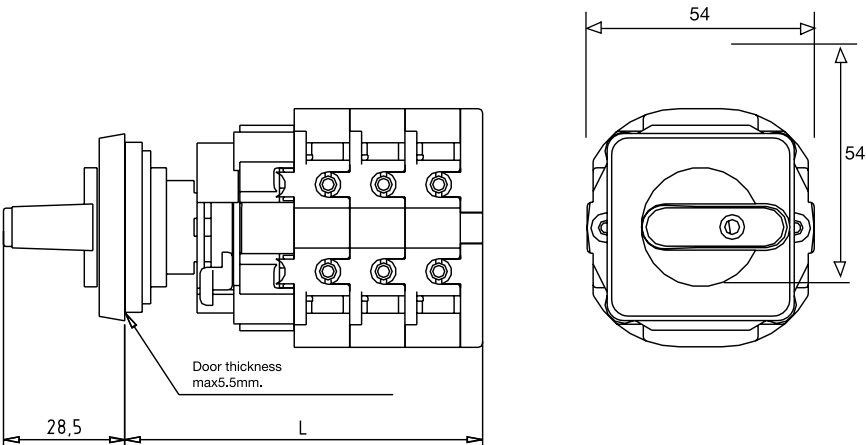
Approximate dimensions
ON and OL cam switches

ON, Modular



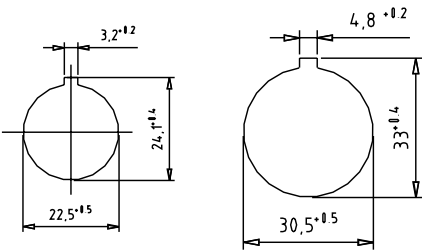
9

OL, Large



Standard

ONX30 (Optional)

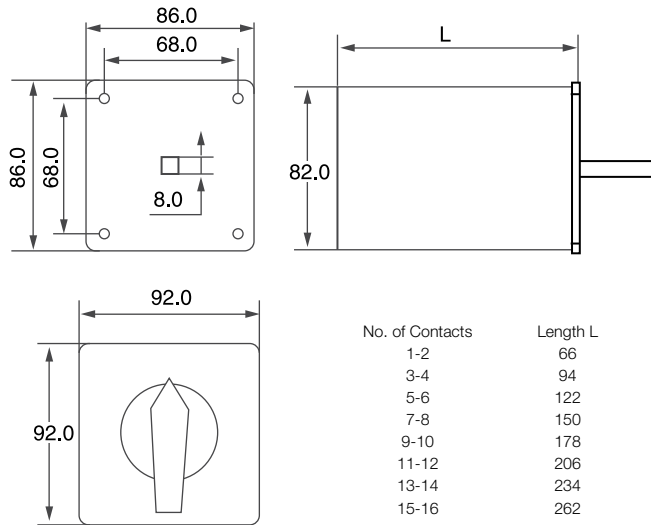


L number of contact chambers

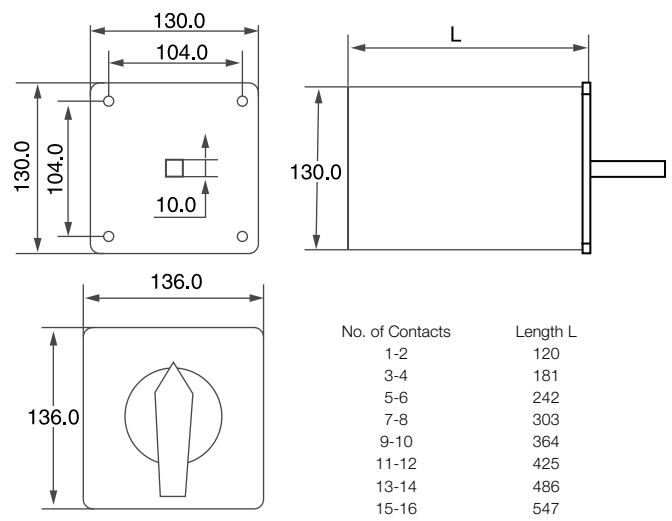
1	2	3	4	5	6	7	8	9	10
59	72	85	98	111	124	137	150	163	176

Approximate dimensions OL Cam switches

OL 80, OL125, & OL150



OL 200





Special cam switches, contact plan

Company_____

Type_____

Phone/Fax nr._____

Project number_____

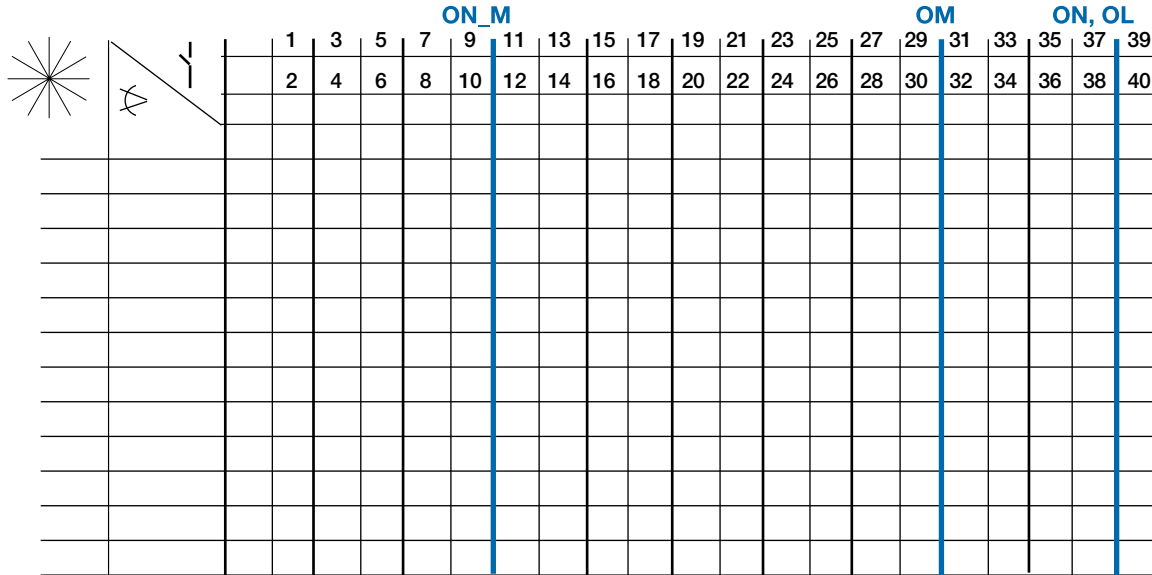
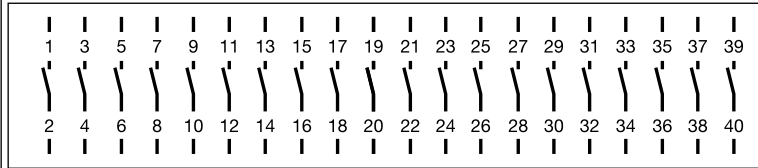
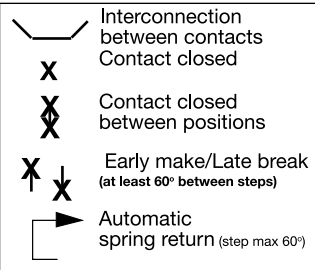
Name_____

Customer's number_____

Quantity:_____pcs

Handled by:_____

Date:_____



	Normal	Padlockable _X20	NKey operated _K	Enclosed _E_6 IP65	Cylinder locking	Pusbutton locking
Black _B						
Grey _G						
Red-yellow _RY						

Door mounting

OM, 10A
ON, 25A
OL, 40A
OL, 80A
OL, 125A
OL, 160A
OL, 200A

☐
☐
☐
☐
☐
☐
☐

Additional
lettering
plate

Front
plate

Max 6 (7) Letters

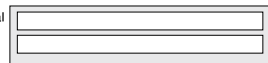
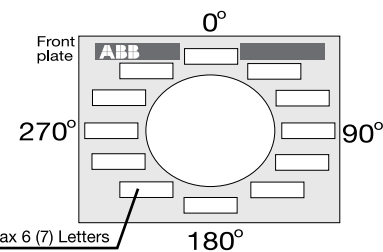


ABB Inc.

DIN-rail mounting

ON_M, Modular ☐



Max 3 chambers = 6 contacts
[Max 6 (7) Letters]

NOTE: Special Cam switches have minimum purchase quantities dependent on amperage size and number of contacts.

*Return completed form to:
lvps.support@us.abb.com*