



US Catalog | December 2016

E210

On-off switches, pushbuttons and indicator lights



E210

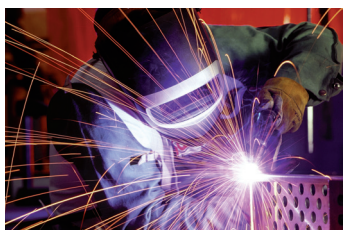
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Applications

On-off switches, pushbuttons, indicator lights

Using modular DIN-rail mounted devices (MDRC) such as On-Off switches, pushbuttons and indicator lights makes it possible to switch and control electric loads from a central location. Thanks to signalling of the switch position, operating states can be recognized easily and users have an overview of the situation. Space is saved on the control panel thanks to the new narrow width of only 9 mm, 0.35" (0.5 modular width). The On-Off switches are easy to operate and the switched position is always clearly recognizable. Depending on requirements, the switch position can also be indicated by a built-in yellow LED. The pushbuttons are excellently suitable for forwarding pulse control commands, e.g. in lighting controls. The indicator lights are optimally used to signal or report back an operating state.



Industrial installations

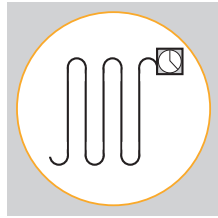
The E210 product range is also used in all industrial establishments.

Examples:

- Phase monitoring
- Manual flap controls (ventilation systems)
- Switching pumps on/off
- Manual - Off - Automatic changeover
- Manual changeover of two-speed machines

Integration of modular installation devices (on-off switches, pushbuttons and indicator lights) in the subdistribution board offers the additional advantage of intelligent signalling of electric loads' operating states. Easy operation or interpretation of devices is ensured by the clearly recognizable switching position (toggle lever) and/or a status display by means of an LED light. Depending on the system requirements, further signalling or control functionality for reliable operation can be used in the subdistribution board in the form of pushbuttons or indicator lights.

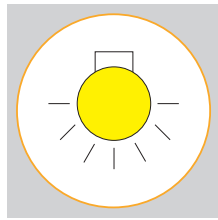
Electric heating devices



On-off switches, pushbuttons and pushbuttons with LED

Manual direct or pulse-controlled On/Off switching of additional heating elements, e.g. in DIY workshops or other purpose-built installations.

Lighting systems



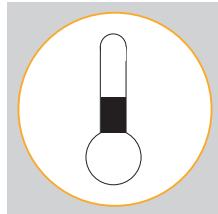
On-off switches

As master switches for multiple-phase lighting sections, e.g. in halls, large basement rooms or provisional constructions.

Pushbuttons and pushbuttons with LED (pulse contact operation)

Issuing of commands to latching relay or miniature contactors with visual feedback.

Air conditioners and fans



On-off switches or pushbuttons

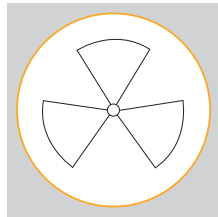
Connecting air conditioners or ventilation fans as required.

Change over switches or group switches I-0-II

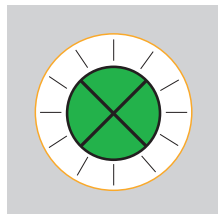
Switching over fans with two operating levels

Group switches I-0-II

Manual - Off - Automatic changeover (from normal to emergency mains)



Signalling



On-off switches or pushbuttons with LED

Clear signalling and indication of the operating states of electric loads.

Indicator lights

Phase monitoring display

Characteristics

Special features

Impressive solutions at a glance

On-off switches, pushbuttons, indicator lights

- Touch protection to DIN EN 50274 (DIN VDE0660 Part 514)
- Reliable and convenient operation
- Color-fast LEDs: 5 colors for luminous pushbuttons and indicator lights
- LED voltage ranges: 12-48 VAC/DC; 115-250 VAC; 60-220 VDC
- Maintenance-free LED light source (up to 100,000 h)
- Consistent innovative design
- Dissipated power optimized
- Compliance with international standards



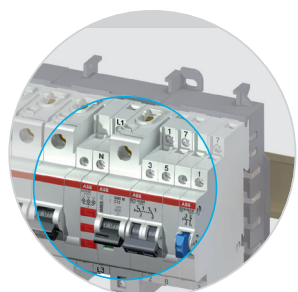
Cross-head recessed screws

Pozidrive 1 (captive)

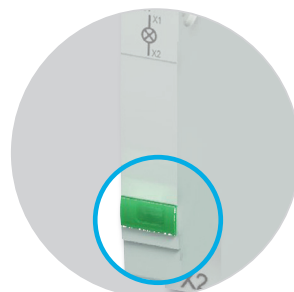


Switch position

Clearly recognizable



Can be used in the SMISLINE TP bus system



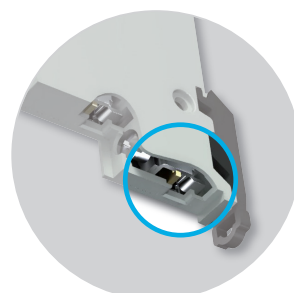
Indicator lights

Five different colors (red, green, yellow, blue, white)



Visual switch position indication

By on/off switches (with LED light)



Reliable connection terminals

With integrated shutter



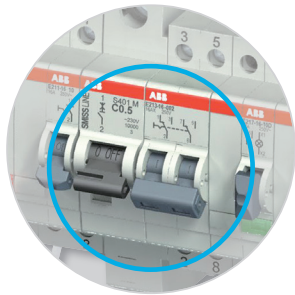
Pushbutton

Six different colors (grey, red, green, yellow, black, blue)



Type designation and schematic

With lasting laser marking



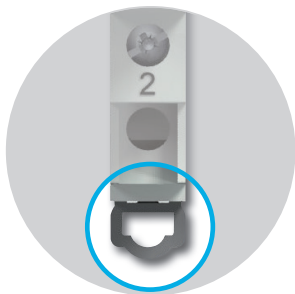
Uniform design

ABB pro M compact device family



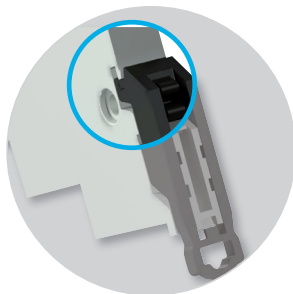
On/off switch, lockable

In the on or off setting



Fast mounting

Easily accessible with latching function



Command and signalling E210 switches



2CCC441003F0001

E 210

On-off switches

General	
Overall depth	68 mm/2.68"
Width	0.5 or 1 module (9 or 18 mm / 0.35" or 0.71")
Color	grey, RAL 7035
Climatic resistance to	IEC 60068-2-2 (dry heat) IEC 60068-2-30 (humid heat) IEC 60068-2-1 (low temperatures)
Ambient temperature	-13 °F to 131 °F (-25 °C to 55 °C)
Storage temperature	-40 °F to 158 °F (-40 °C to 70 °C)
Connection cross-section (Cu)	from 1 x 1 mm ² to 1 x 6 mm ² or 2 x 2.5 mm ² solid; from 1 x 0.75 mm ² to 2 x 1.5 mm ² flexible with end ferrule or pin cable lug
Tightening torque	1.2-1.5 Nm
Contacts	Double interrupting

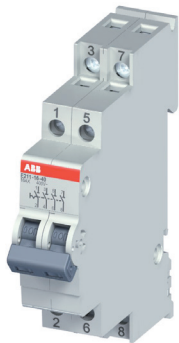
Command and signalling

E210 switches



E 211-16-10

2CCC441003F0001



E211-16-20

2CCC441006F0001

These devices are specifically made for controlling loads and signaling of electrical conditions in any low-voltage control panel. They are available in half or one DIN module wide, depending on the contact-layout. The devices with indicator lights are equipped with an LED, which offers an optimal illumination with very low power consumption.

General new features

- Space-saving through 9 mm/0.35" modules
- All terminals equipped with Pozidrive 1 screws
- Safe connection due to cage-clamp
- LED with bright colors and available in three different voltage ranges
- Different lens and button colors
- Compliance to international standards

On-off switches (E211; E211X) technical characteristics

Short-circuit withstand capacity I _{nc}	3kA
Rated current I _n	16 A, 25 A, 32 A
Rated voltage U _n	240 VAC (in accordance to UL 508)
Rated impulse withstand voltage U _{imp}	6 kV
Utilization category	AC-22 A, DC-22 A acc. IEC/EN 60947-3
LED voltage ranges	On-off switches E211X 115-240 VAC (Tolerance +/- 10%)
Frequency	50/60 Hz
Sealable	In the On and Off positions
Standards	DIN EN 60669-1 *VDE 0632-1 DIN EN 60669-2-4 *VDE 0632-2-4 UL 508
Approvals	VDE; UL; GOST; CCC

E 211-... ON-OFF switches

These devices can be used as switches for indicators or other electrical components such as fans and air-conditioners. The new On-Off switches distinguish themselves through simple handling, easy mounting and optimal functionality.

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	0.32	9/0.35"	E211-16-10	10
2 NO	240	0.82	9/0.35"	E211-16-20	10
3 NO	240	1.14	18/0.71"	E211-16-30	10
4 NO	240	1.64	18/0.71"	E211-16-40	10

Rated current = 25 A

Contacts	Rated voltage V AC	Power loss W	Width mm	Catalog number	Pack unit pc.
1 NO	240	0.75	9/0.35"	E211-25-10	10
2 NO	240	1.95	9/0.35"	E211-25-20	10
3 NO	240	2.70	18/0.71"	E211-25-30	10
4 NO	240	3.90	18/0.71"	E211-25-40	10

Rated current = 32 A

Contacts	Rated voltage V AC	Power loss W	Width mm	Catalog number	Pack unit pc.
1 NO	240	1.12	9/0.35"	E211-32-10	10
2 NO	240	2.73	9/0.35"	E211-32-20	10
3 NO	240	3.85	18/0.71"	E211-32-30	10
4 NO	240	5.46	18/0.71"	E211-32-40	10

Command and signalling

E210 switches



E211X-16-10

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E 211X-... On-Off switches with yellow LED for contact indication

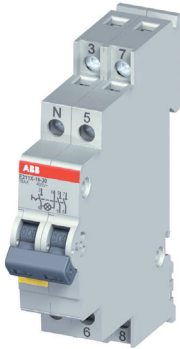
LED voltage 115-240 V AC

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	0.50	yellow	9/0.35"	E211X-16-10	10
2 NO	240	1.00	yellow	18/0.71"	E211X-16-20	10
3 NO	240	1.50	yellow	18/0.71"	E211X-16-30	10

Rated current = 25 A

Contacts	Rated voltage V AC	Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	1.15	yellow	9/0.35"	E211X-25-10	10
2 NO	240	2.30	yellow	18/0.71"	E211X-25-20	10
3 NO	240	3.45	yellow	18/0.71"	E211X-25-30	10



E211X-16-20

2CCC441035F0001

E 213-... Change over switches

The new change-over switches distinguish themselves through simple handling, easy mounting and optimal functionality. Example applications include opening and closing of electrically operated flaps.

Change over, group and control switches (E213; E214; E218) technical characteristics

Rated current In	16 A, 25 A
Rated voltage Un	240 VAC (in accordance to UL 508)
Lowest operating voltage	24 VAC; 25 mA
Frequency	50/60 Hz
Switches sealable	in the On and Off positions
Standards	DIN EN 60669-1 *VDE 0632-1 UL 508
Approvals	VDE; UL; GOST; CCC

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1 CO	240	0.32	9/0.35"	E213-16-001	10
2 CO	240	0.82	18/0.71"	E213-16-002	10

Rated current = 25 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1 CO	240	0.40	9/0.35"	E213-25-001	10
2 CO	240	0.88	18/0.71"	E213-25-002	10



E213-16-001

2CCC441019F0001



E 213-16-002

2CCC441020F0001

Command and signalling

E210 switches



E214-16-101

2CCC441 023F0001

E 214-... Group switches (I-0-II, manual-OFF-automatic)

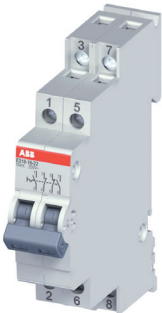
The new Group switches can be used to control the main installation of an emergency supply. Such devices distinguish themselves through simple handling, easy mounting and optimal functionality.

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1 CO	240	0.32	9/0.35"	E214-16-101	10
2 CO	240	0.82	18/0.71"	E214-16-202	10

Rated current = 25 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1 CO	240	0.40	9/0.35"	E214-25-101	10
2 CO	240	0.88	18/0.71"	E214-25-202	10



E214-16-202

2CCC441 024F0001

E 218-... Control switches

These devices can be used in control panels for any control function. These control switches distinguish themselves through simple handling, easy mounting and optimal functionality.

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1NO+1NC	240	0.50	9/0.35"	E218-16-11	10
2NO+2NC	240	1.00	18/0.71"	E218-16-22	10
3NO+1NC	240	1.50	18/0.71"	E218-16-31	10

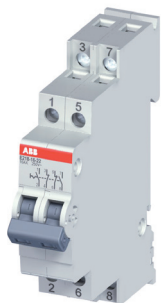
Rated current = 25 A

Contacts	Rated voltage V AC	Power loss W	Width mm/inch	Catalog number	Pack unit pc.
1NO+1NC	240	0.75	9/0.35"	E218-25-11	10



E 218-16-11

2CCC441 023F0001

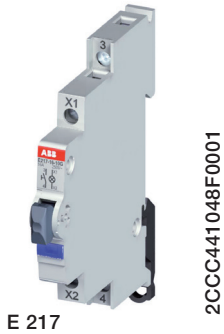
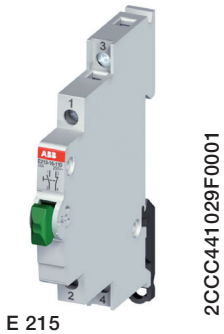


E 218-16-22

2CCC441 024F0001

Command and signalling

E210 switches



E 215-... Pushbuttons (6 different button colors)

Pushbuttons are 9 mm/0.35" wide (0.5 module) and available with and without LEDs. Can be used in distribution panels and are all distinguished by their simple handling, ease of mounting and optimal functionality. The pushbuttons are used for remote control in all kinds of electrical installations (e.g. public, industrial). The range offers three different voltage ranges 12-48 V AC/DC; 115-250 V AC and 60-220 V DC.

Pushbuttons without and with LED (E215; E217) technical characteristics

Rated current In	16A
Rated voltage Un	240 VAC (in accordance to UL 508)
Lowest operating voltage	24 VAC; 25 mA
LED voltage ranges	12-48 VAC/DC; 115-240 VAC; 60-220 VDC (Tolerance +/- 10%)
Frequency	50/60 Hz
Standards	DIN EN 60669-1 *VDE 0632-1 UL508
Approvals	VDE; UL; GOSTI CCC

Rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	Button color	Width mm/inch	Catalog number	Pack unit pc.
1NO+1NC	240	0.50	grey	9/0.35"	E215-16-11B	10
1NO+1NC	240	0.50	red	9/0.35"	E215-16-11C	10
1NO+1NC	240	0.50	green	9/0.35"	E215-16-11D	10
1NO+1NC	240	0.50	yellow	9/0.35"	E215-16-11E	10
1NO+1NC	240	0.50	black	9/0.35"	E215-16-11F	10
1NO+1NC	240	0.50	blue	9/0.35"	E215-16-11G	10

E 217-... Luminous pushbuttons (5 different LED colors)

LED voltage range = 115-240 V AC, rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	1.10	white	9/0.35"	E217-16-10B	10
1 NO	240	1.10	red	9/0.35"	E217-16-10C	10
1 NO	240	1.10	green	9/0.35"	E217-16-10D	10
1 NO	240	1.10	yellow	9/0.35"	E217-16-10E	10
1 NO	240	1.10	blue	9/0.35"	E217-16-10G	10
1 NC	240	1.10	white	9/0.35"	E217-16-01B	10
1 NC	240	1.10	red	9/0.35"	E217-16-01C	10
1 NC	240	1.10	green	9/0.35"	E217-16-01D	10
1 NC	240	1.10	yellow	9/0.35"	E217-16-01E	10
1 NC	240	1.10	blue	9/0.35"	E217-16-01G	10

Command and signalling

E210 switches



E 217

2CCC441048F0001

E 217-... Luminous pushbuttons (5 different LED colors)

LED voltage range = 12-48 V AC/DC, rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	0.72	white	9/0.35"	E217-16-10B48	10
1 NO	240	0.72	red	9/0.35"	E217-16-10C48	10
1 NO	240	0.72	green	9/0.35"	E217-16-10D48	10
1 NO	240	0.72	yellow	9/0.35"	E217-16-10E48	10
1 NO	240	0.72	blue	9/0.35"	E217-16-10G48	10
1 NC	240	0.72	white	9/0.35"	E217-16-01B48	10
1 NC	240	0.72	red	9/0.35"	E217-16-01C48	10
1 NC	240	0.72	green	9/0.35"	E217-16-01D48	10
1 NC	240	0.72	yellow	9/0.35"	E217-16-01E48	10
1 NC	240	0.72	blue	9/0.35"	E217-16-01G48	10

LED voltage range = 60-220 V DC, rated current = 16 A

Contacts	Rated voltage V AC	Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1 NO	240	1.50	white	9/0.35"	E217-16-10B220	10
1 NO	240	1.50	red	9/0.35"	E217-16-10C220	10
1 NO	240	1.50	green	9/0.35"	E217-16-10D220	10
1 NO	240	1.50	yellow	9/0.35"	E217-16-10E220	10
1 NO	240	1.50	blue	9/0.35"	E217-16-10G220	10
1 NC	240	1.50	white	9/0.35"	E217-16-01B220	10
1 NC	240	1.50	red	9/0.35"	E217-16-01C220	10
1 NC	240	1.50	green	9/0.35"	E217-16-01D220	10
1 NC	240	1.50	yellow	9/0.35"	E217-16-01E220	10
1 NC	240	1.50	blue	9/0.35"	E217-16-01G220	10

Command and signalling

E210 indicator lights



E 219

2CCC441075F0001

E 219-...Single indicator lights with LED (5 different colors)

Indicator lights are 9 mm/0.35" wide (= 0.5 modules) and can be used for indicating any operational condition such as loss of a phase. The range offers three different voltages 12-48 V AC/DC; 115-250 V AC and 110-220 V DC).

Indicator lights (E219) technical characteristics

LED voltage ranges	12-48 VAC / DC; 115-240 VAC; 60-220 VDC (Tolerance +/- 10%)
Frequency	50/60 Hz
Insulation voltage	250 V
Rated impulse withstand voltage Uimp	4 kV
Dissipated power	0.47-1 W
Standards	DIN EN 62094-1 UL 508
Approvals	VDE; UL; GOST; *1

Single indicator light - LED voltage range = 115-240 V AC

Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
0.47	white	9/0.35"	E219-B	10
0.47	red	9/0.35"	E219-C	10
0.47	green	9/0.35"	E219-D	10
0.47	yellow	9/0.35"	E219-E	10
0.47	blue	9/0.35"	E219-G	10

Single indicator light - LED voltage range = 12-48 V AC/DC

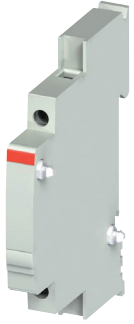
Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
0.40	white	9/0.35"	E219-B48	10
0.40	red	9/0.35"	E219-C48	10
0.40	green	9/0.35"	E219-D48	10
0.40	yellow	9/0.35"	E219-E48	10
0.40	blue	9/0.35"	E219-G48	10

Single indicator light - LED voltage range = 60-220 V DC

Power loss W	LED color	Width mm/inch	Catalog number	Pack unit pc.
1.00	white	9/0.35"	E219-B220	10
1.00	red	9/0.35"	E219-C220	10
1.00	green	9/0.35"	E219-D220	10
1.00	yellow	9/0.35"	E219-E220	10
1.00	blue	9/0.35"	E219-G220	10

Command and signalling

E210 accessories



E 210-DH

2CCC441089F0001



E 210-ASV9

2CCC441088F0001

Accessories for E 210 device series

Dummy module

Description	Catalog number	Pack unit pc.
Dummy module for 9 mm/0.35" wide units. The modular with of 18 mm/0.71" must be used in the SMISLINE socket system. The dummy module is ready-made with two expanding connectors. Always snap on dummy module on the left.	E210-DH	10

Padlock

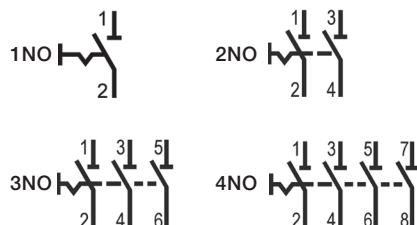
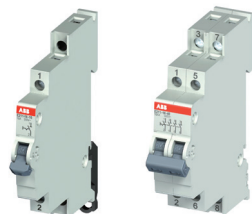
Description	Catalog number	Pack unit pc.
For use with 9 mm/0.35" and 18 mm/0.71" wide units	E210-ASV9	10

Wiring diagrams

On-off switches, change over switches, group switches, control switches

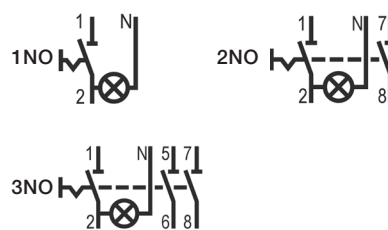
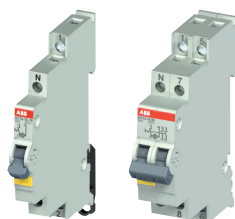
On-off switches

E211



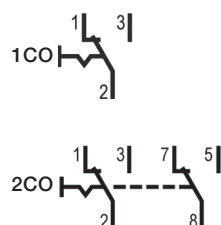
On-off switches with LED

E211X



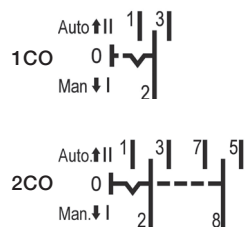
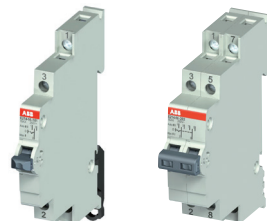
Change over switches

E213



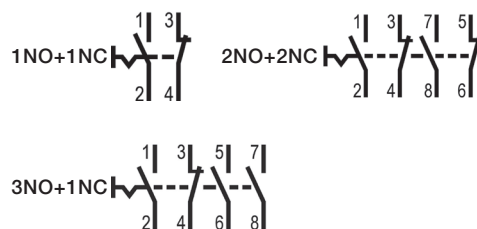
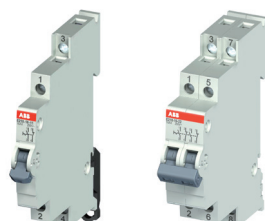
Group switches

E214



Control switches

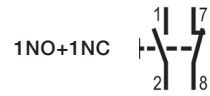
E218



Pushbuttons, indicator lights and accessories

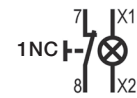
Pushbuttons

E215



Pushbuttons with LED

E217



Indicator lights

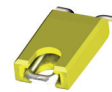
E219



Accessories



Dummy housings (attachable)



for 9 and 18 mm

Padlock

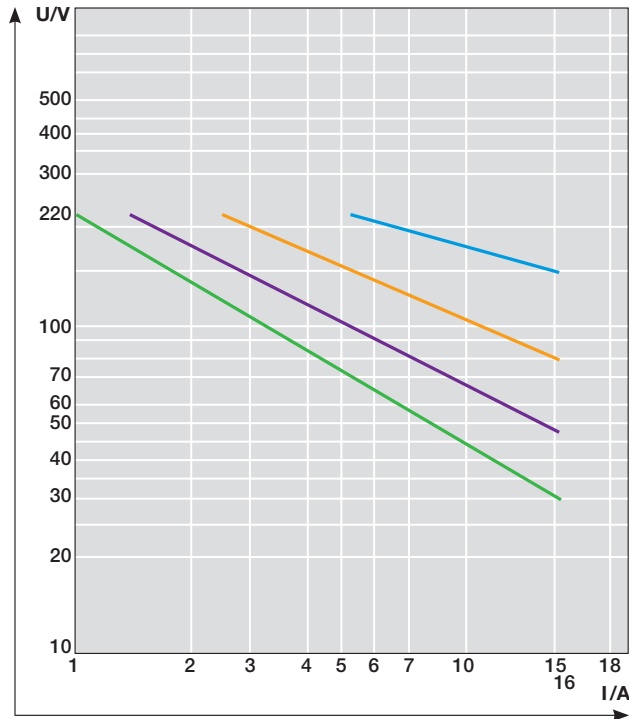
Technical data

On-off switches 16 A and 25 A

On-off switches 16 A



DC switching capacity E211 16 A



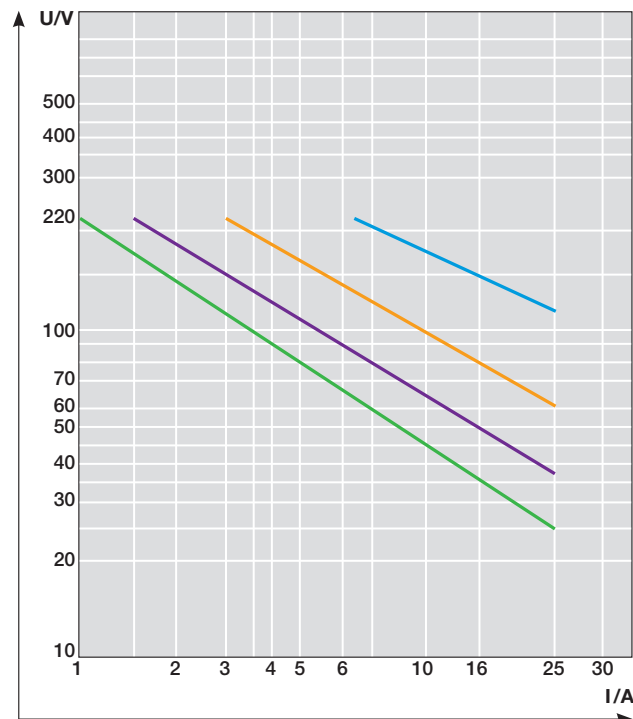
Ohmic load
— Normally-open contact
— Normally-closed contact

Load with time constant
 $t = 15\text{ms}$ (inductive load)
— Normally-open contact
— Normally-closed contact

On-off switches 25 A



DC switching capacity E211 25 A



Ohmic load
— Normally-open contact
— Normally-closed contact

Load with time constant
 $t = 15\text{ms}$ (inductive load)
— Normally-open contact
— Normally-closed contact

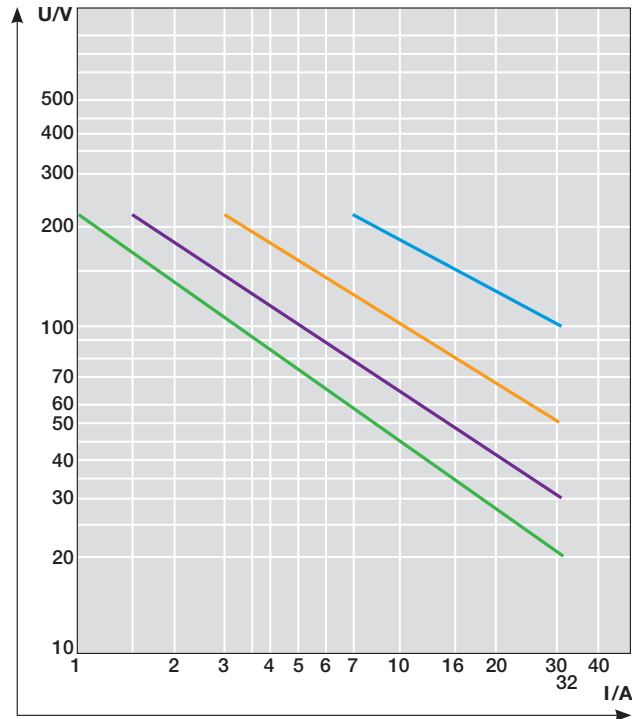
Technical data

On-off switches 32 A

On-off switches 32 A



DC switching capacity E211 32 A



Ohmic load

- Normally-open contact
- Normally-closed contact

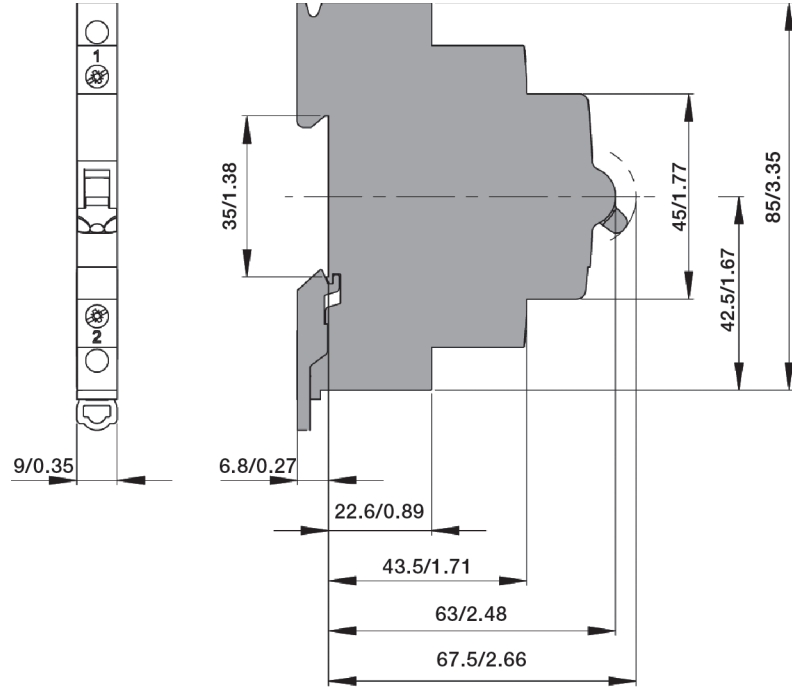
Load with time constant
 $t = 15\text{ms}$ (inductive load)

- Normally-open contact
- Normally-closed contact

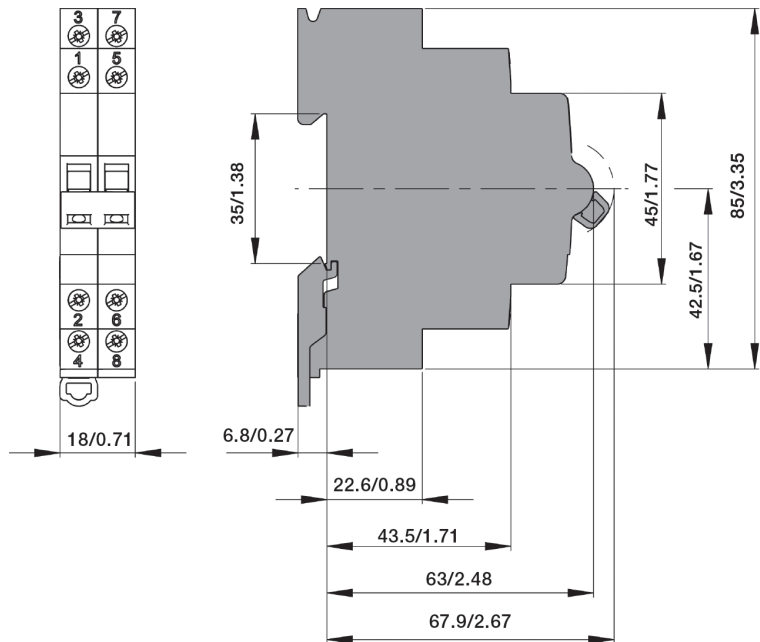
Dimensions (in mm/inches) Switches

Switches 16 A, 25 A and 32 A

Switch, 1+2-pole

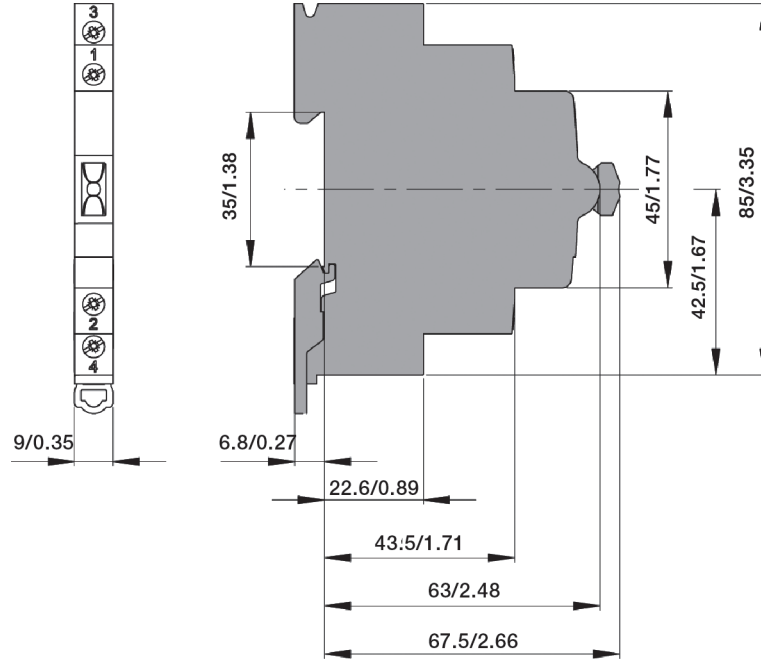


Switch, 3+4-pole

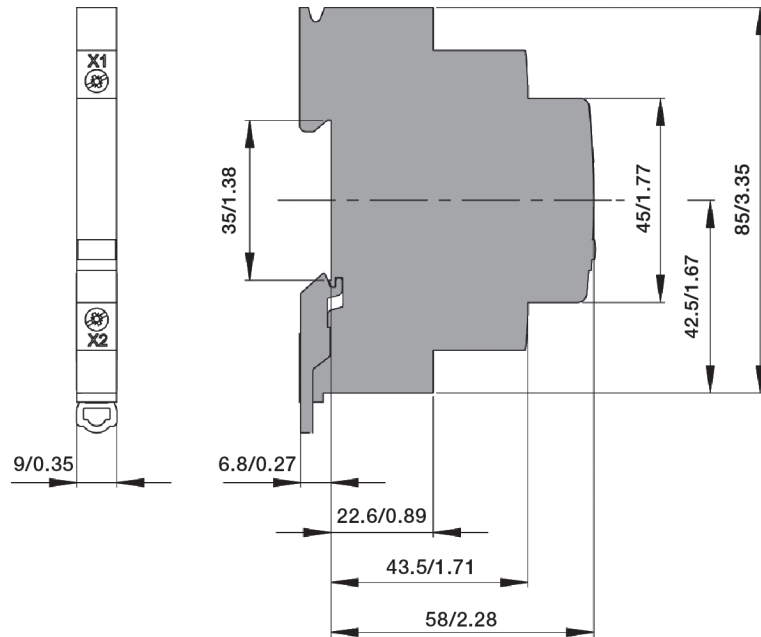


Dimensions (in mm/inches) Pushbuttons and indicator lights

Pushbuttons



Indicator lights



Notes

A series of horizontal dotted lines for writing notes.

Contact us

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