

SERIES 1820 - SINGLE AND DOUBLE-POLE TOGGLE SWITCHES

TO 6 (4) A 250 V AC






PRODUCT FEATURES

- ◆ 100 million times proven switching principle
- ◆ Long life endurance with 50 000 mechanical switching cycles
- ◆ Excellent actuating characteristic
- ◆ Fastening with nut M12

ON REQUEST

- ◆ Other colors
- ◆ Other switching functions
- ◆ Other connection variants
- ◆ Cable assembly

Mechanical life endurance	5E4
Contact resistance (new condition)	< 100 mOhm (1 A 12 V DC)
Insulation resistance (new condition)	> 100 MOhm (500 V DC)
Voltage strength at 250 V	1 500 V function insulation / basic insulation 3 000 V reinforced insulation 500 V small contact distance
Proof tracking	250 PTI
Insulation spacing	acc. to EN 61058 for reinforced or double insulation
Protection type	IP 40
Ambient temperature	connection side -20 °C ... +100 °C actuating side -20 °C ... +55 °C
Flammability	UL 94 V-2
Heat and fire resistance	850 °C (category D)
Material	actuator PA housing PA glass fiber-reinforced / PA connections silver-plated
Plug force of the terminals	≤ 80 N
Approval marks	 /  / 
Suitable for appliances of protection class II	



ROCKER SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

POWER TOOL SWITCHES

TACT AND KEY SWITCHES




































SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

SERIES 1820 - SINGLE AND DOUBLE-POLE TOGGLE SWITCHES

TO 6 (4) A 250 V AC

 single-pole	Actuator color / printing	Housing color	6 (4) A 250 V AC 5E4	6 (2) A 250 V AC 1E4	6 A 250 V AC 1/2 HP	6 A 125 V AC 1/4 HP	Connection type	Connection description	Contact distance in mm	Contact material	Miscellaneous	Stock version
ON/OFF switch (SPST)												
1821.1101			●		●	●		4.8	≥ 3	Ag		●
1821.6101			●		●	●			≥ 3	Ag		●
Switch (SPDT)												
1823.1101			●					4.8	≥ 3	Ag		●
1823.6101			●						≥ 3	Ag		●
Switch with OFF position in the center (SPDT - Center OFF)												
1828.1101				●				4.8	< 3	Ag		●
1828.1201				●				4.8	< 3	Ag	momentary function one side	●
1828.1301				●				4.8	< 3	Ag	momentary function both sides	●
 double-pole	Actuator color / printing	Housing color	6 (4) A 250 V AC 5E4	6 (2) A 250 V AC 1E4	6 A 250 V AC 1/2 HP	6 A 125 V AC 1/4 HP	Connection type	Connection description	Contact distance in mm	Contact material	Miscellaneous	Stock version
ON/OFF switch (DPST)												
1822.1101			●		●	●		4.8	≥ 3	Ag		●
Switch (DPDT)												
1824.1101			●					4.8	≥ 3	Ag		●
Switch with OFF position in the center (DPDT - Center OFF)												
1829.1101				●				4.8	< 3	Ag		●
1829.1301				●				4.8	< 3	Ag	momentary function both sides	●

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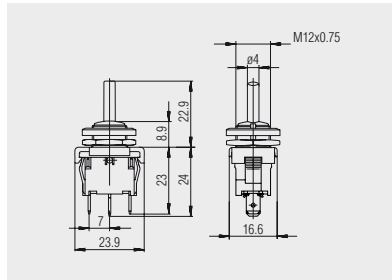
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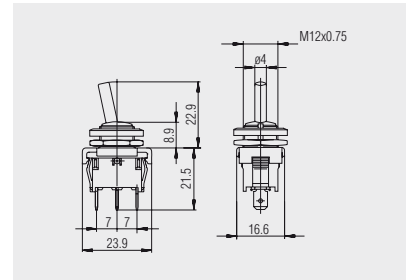
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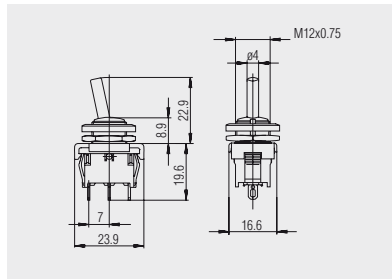
Basic types 1821, 1823 and 1828 single-pole



Quick-connect terminal 4.8 basic type 1828



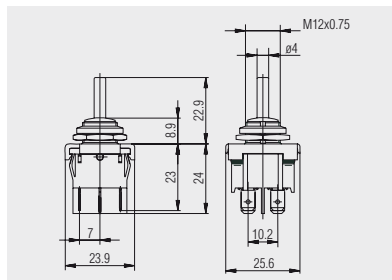
Quick-connect terminal 4.8 basic types 1821 and 1823



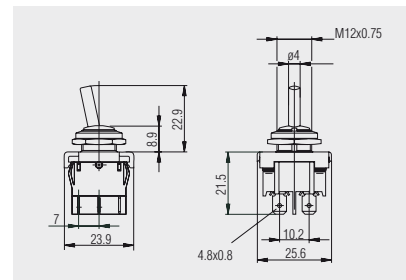
Solder terminal 1821.6101 and 1823.6101



Basic types 1822, 1824 and 1829 double-pole



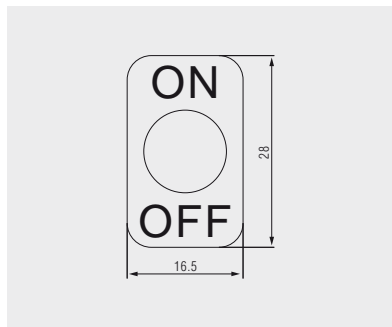
Quick-connect terminal 4.8 basic type 1829



Quick-connect terminal 4.8 basic types 1822 and 1824



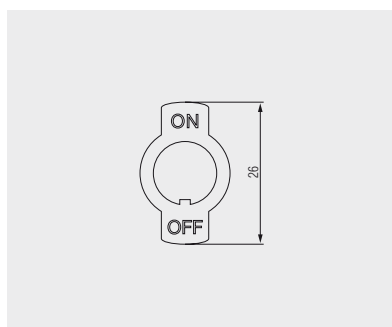
Identification plate 240.001.011



Identification plate of aluminum for plugging on with black inscription "ON" and "OFF"



Identification plate 240.002.011



Identification plate of CuZn nickel-plated for plugging on as well as with twist protection and stamped inscription "ON" and "OFF"

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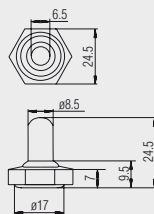
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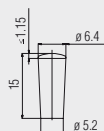
Protection cap
343.001.013 - green
343.001.023 - black
343.001.033 - red



Neopren® - cap for screwing on (M12 x 0.75) to levers of the series 1820 for dust and water protection of the actuator side



Lever receptacle
203.105.011 - black
203.105.021 - white
203.105.031 - red
203.105.041 - green



Lever receptacle in various colors for the plastic levers of the 1820 series for customer assembly. Serves as a design element and for distinguishing and marking.

Further information under

WWW.MARQUARDT.DE

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








MICRO-SIGNAL SWITCHES

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











APPROVAL MARKS

	ENEC 05 (KEMA)		UL (USA)
	ENEC 10 (VDE)		UL (USA + Canada)
	VDE		CSA (Canada)
			CSA (Canada + USA)

TERMINAL SYMBOLS

	Quick-connect terminal		Cable
	Solder terminal		Terminal strip
	Short solder terminal		Push-in terminal
	PCB terminal		Snap-in terminal
	PCB terminal angled to left		Cut terminal
	PCB terminal angled to right		Screw terminal
	Socket terminal		

ACTUATOR SYMBOLS

	Straight lever		Lever simulated roller with adjusting screw
	Lever simulated roller		Lever with adjusting screw and roller
	Lever with roller		Lever with cams
	Differential lever		Housing cams
	Spring lever		Pushbutton
	Spring lever bent		Rotary shaft
	Spring lever with molded spring cam		Standard actuator
	Lever with adjusting screw		Mushroom-shaped actuator

ABBREVIATIONS TECHNICAL DRAWINGS

ad	Adjustable	OP	Operating position
AN	Anode	OP NC	Operating position normally closed contact
BL	Block	OP NO	Operating position normally open contact
FH	Fixing hole, locating hole fixing pin	OR	On request
FI	Fields for function indicator	RC	Recommended cut-out
FP	Free position	RL	Reference level
FX	Fixing pin	SH	Snap-in hole
ju	Adjusted	SL	Symbol limit
MC	Marking cathode	SP	Solder pads
MF	Mounting frame	ST	Slide travel
MP	Measuring point	SW	Switching position
OFF	Off	TH	Terminal hole
off-range	Zero position	tk	Thick
OG	Operating range	to	Top
ON	On	TP	Total travel position

SWITCHING FREQUENCY (ABBREVIATIONS)

e.g. 5E4 switching cycles $\hat{=}$ 50 000 switching cycles