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 housing connections	PA PA glass fiber-reinforced / PA silver-plated
Plug force of the terminals		≤ 80 N
Approval marks		
Suitable for appliances of protection class II		





SERIES 1820 - SINGLE AND DOUBLE-POLE TOGGLE SWITCHES

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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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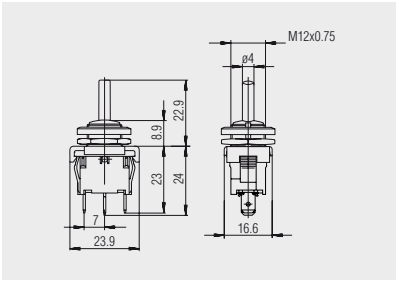
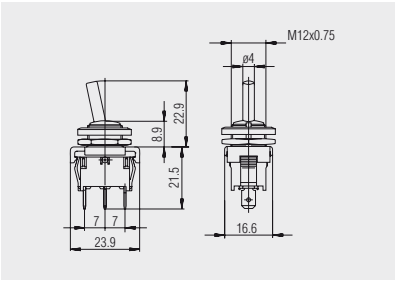
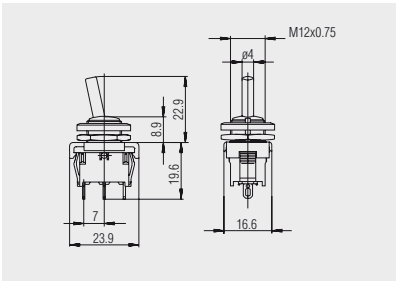
Basic types 1821, 1823 and 1828
single-pole



Quick-connect terminal 4.8
basic type 1828



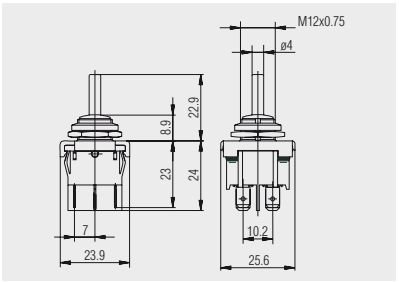
Quick-connect terminal 4.8
basic types 1821 and 1823



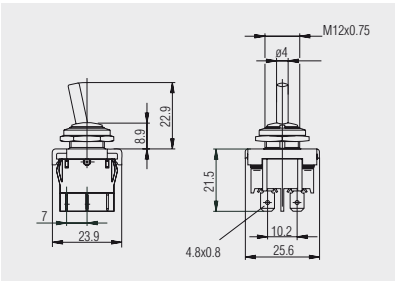
Solder terminal
1821.6101 and 1823.6101



Basic types 1822, 1824 and 1829
double-pole



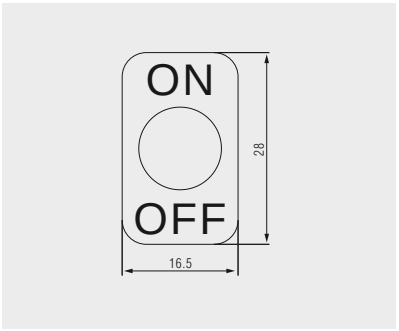
Quick-connect terminal 4.8
basic type 1829



Quick-connect terminal 4.8
basic types 1822 and 1824



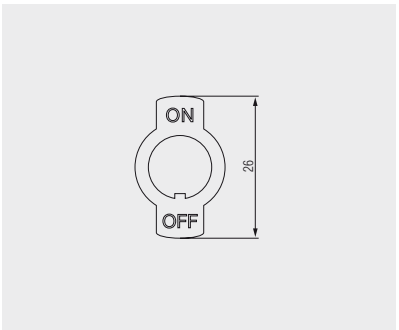
Identification plate
240.001.011



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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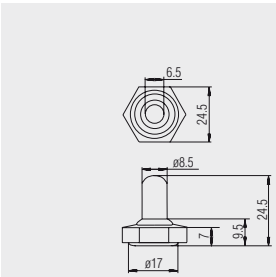
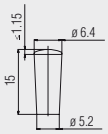
Protection cap
343.001.013 - green
343.001.023 - black
343.001.033 - red



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

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 ≙ **50 000** switching cycles