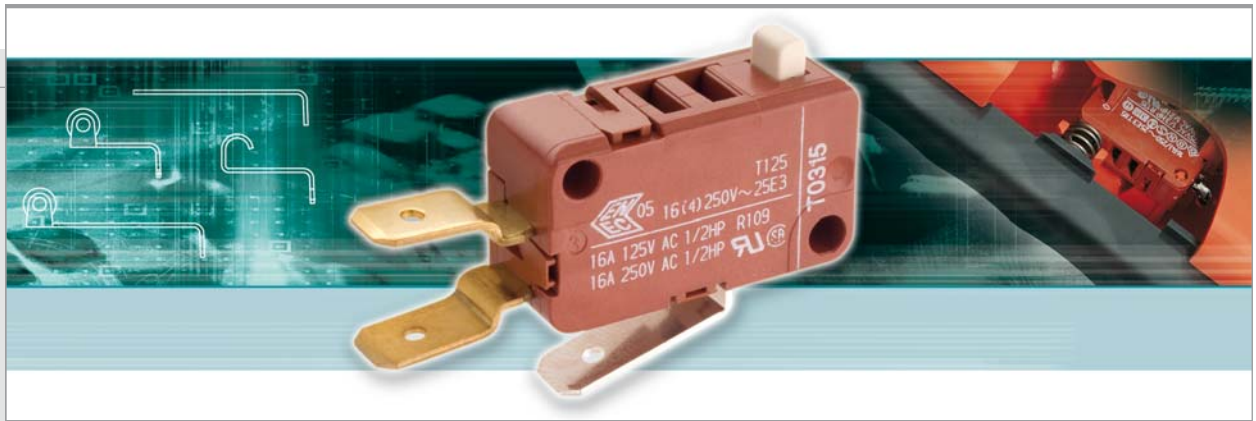
SERIES 1080 - MINIATURE SNAP-ACTION SWITCHES

TO 21 (8) A 250 V AC



PRODUCT FEATURES

- The precise mounting of the moving contact part (milled bearing blade) offers optimum snap-action even with slow actuation
- Wide range of ratings from 3 (1) A 250 V AC to 21 (8) A 250 V AC
- Versions with gold-plated contacts for signal current applications
- Various auxiliary actuators, two suspension points

ON REQUEST

- Low operating forces (≤ 0.15 N)
- Customized additional actuators
- Plug connection 4.8 x 0.5

Design		DIN 41635 A
Mechanical life endurance		2E6 (basic type 1080) 20E4 (basic type 1085)
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 (depending on installation situation) 500 V small contact distance
Proof tracking		250 PTI
Insulation spacing		acc. to EN 61058 for reinforced or double insulation
Protection type		IP 40 (actuator side)
Ambient temperature		-40 °C ... +125 °C
Flammability		UL 94 V-0
Heat and fire resistance		850 °C (category D)
Material	actuator additional actuator housing connections	PETP glass fiber-reinforced stainless steel PA glass fiber-reinforced / PETP glass fiber-reinforced silver-plated / CuZn
Bounce time		< 10 ms
Approval marks		/ /
Suitable for appliances of protection class II under compliance with the installation conditions required on the equipment side		







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	Normally closed contact (SPNC)	1080.0464	Normally open contact (SPNO)	1080.0440	1085.0342	1080.0585	Changeover switch (SPDT momentary)	1080.0103	1080.0203	1080.0304	1080.0403	1080.0503	1080.0603	1080.0903	1080.5906	1080.8403	1085.0103
21 (8) A 250 V AC 1E4				●													
16 (8) A 250 V AC 1E4		●		●				●	●	●	●	●	●	●	●	●	
16 (4) A 250 V AC 5E4				●													
16 (4) A 250 V AC 25E3								●	●	●	●	●	●	●	●	●	●
10 (4) A 250 V AC 25E3					●												
6 (3) A 250 V AC 6E4																	
6 (2) A 250 V AC 5E4					●												
4 (4) A 250 V AC 5E4					●												
3 (1) A 250 V AC 5E4						●											
3 (1) A 250 V AC 25E3																	
21 A 250 V AC 2 HP				●													
21 A 125 V AC 1 HP				●													
16 A 250 V AC 1/2 HP		●															
16 A 125 - 250 V AC 1/2 HP								●	●	●	●	●	●	●	●	●	●
16 A 125 V AC 1/3 HP		●															
10 A 250 V AC 1/3 HP					●												
10 A 125 V AC 1/8 HP					●												
6 A 250 V AC 1/4 HP																	
6 A 125 V AC 1/10 HP																	
3 A 125 - 250 V AC						●											
Connection type																	
Connection description		6.3		6.3 straight	standing	6.3 PITCH 5				standing	6.3	6.3 PITCH 5	6.3 PITCH 7	4.8 x 0.8	4.8 x 0.5 straight	6.3	
Contact material		Ag		Ag	Ag	Au		Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag
Operating force in N		≤ 1.0		≤ 1.5	≤ 3.5	≤ 1.0		≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 0.5	≤ 0.28	≤ 4.0
Operating position (OP) in mm		14.7 ±0.5		14.7 ±0.5	14.4 ± 0.5	14.7 ±0.5		14.7 ± 0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	15.2 ±1.2	15.2 ±2.2	14.7 ±0.5
Difference travel max. in mm		0.3		0.3	0.8	0.3		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	1.5	0.3
Free position (FP) max. in mm		16.2		16.2	16.2	16.2		16.2	16.2	16.2	16.2	16.2	16.2	16.2	18.8	21.5	16.2
Permissible total travel position (TP) in mm		13.2		13.2	13.2	13.2		13.2	13.2	13.2	13.2	13.2	13.2	13.2	11.7	8.0	13.2
Actuator description																	
Lever drawing															L02	L03	
Contact distance		< 3		< 3	> 3	< 3		< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
EN 60335 cap. 30 conform “G”		●				●											
Stock version								●			●						

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	Changeover switch (SPDT momentary)	1085.0203	1085.0403	1085.5203	1080.0279	1085.0375
21 (8) A 250 V AC 1E4						
16 (8) A 250 V AC 1E4						
16 (4) A 250 V AC 5E4						
16 (4) A 250 V AC 25E3		●	●	●		
10 (4) A 250 V AC 25E3						
6 (3) A 250 V AC 6E4					●	
6 (2) A 250 V AC 5E4						
4 (4) A 250 V AC 5E4						
3 (1) A 250 V AC 5E4						
3 (1) A 250 V AC 25E3						●
21 A 250 V AC 2 HP						
21 A 125 V AC 1 HP						
16 A 250 V AC 1/2 HP						
16 A 125 - 250 V AC 1/2 HP		●	●	●		
16 A 125 V AC 1/3 HP						
10 A 250 V AC 1/3 HP						
10 A 125 V AC 1/8 HP						
6 A 250 V AC 1/4 HP					●	
6 A 125 V AC 1/10 HP					●	
3 A 125 - 250 V AC						●
Connection type		faston	PCB	faston	faston	PCB
Connection description			6.3			standing
Contact material		Ag	Ag	Ag	Au	Ag
Operating force in N		≤ 4.0	≤ 4.0	≤ 1.8	≤ 1.0	≤ 1.7
Operating position (OP) in mm		14.7 ±0.5	14.7 ±0.5	15.3 ±1.5	14.7 ±0.5	14.7 ±0.5
Difference travel max. in mm		0.3	0.3	0.7	0.3	0.3
Free position (FP) max. in mm		16.2	16.2	19.5	16.2	16.2
Permissible total travel position (TP) in mm		13.2	13.2	12.5	13.2	13.2
Actuator description		pin plunger	pin plunger		pin plunger	pin plunger
Lever drawing				L02		
Contact distance		< 3	< 3	< 3	< 3	< 3
EN 60335 cap. 30 conform “G”						
Stock version			●			

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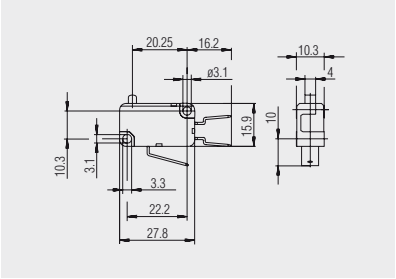
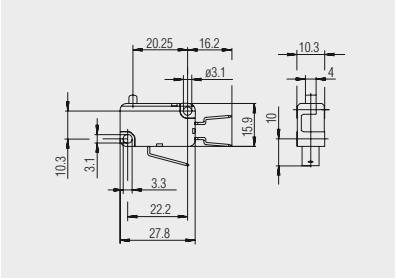
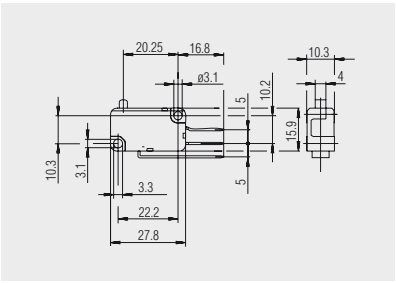
Terminal variants



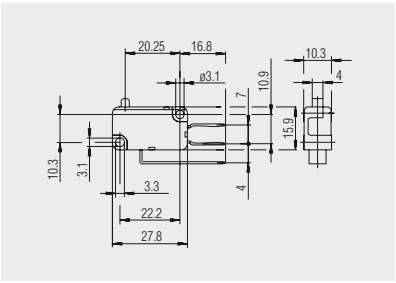
Quick-connect terminal 4.8 x 0.8



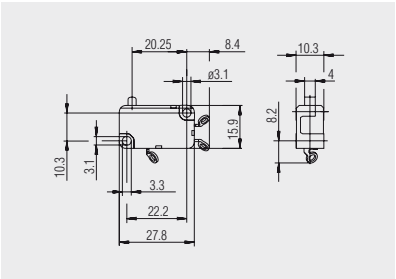
Quick-connect terminal 6.3



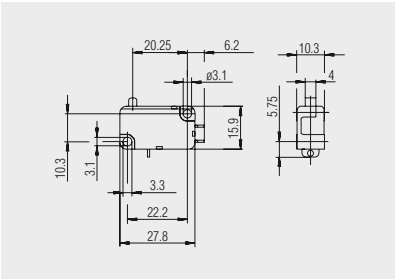
Quick-connect terminal 6.3
PITCH 5



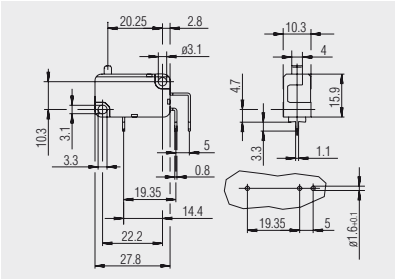
Quick-connect terminal 6.3
PITCH 7



Solder terminal



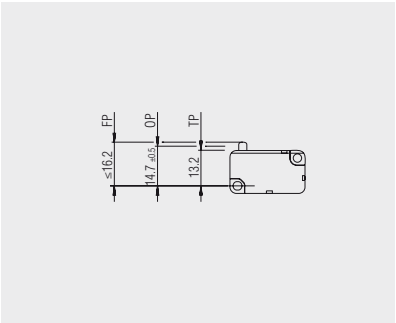
Short solder terminal



PCB terminal standing



Switching positions



FP: free position
OP: operating position
TP: total travel position

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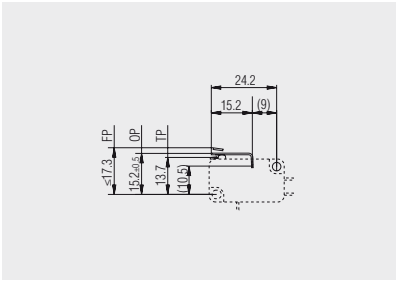
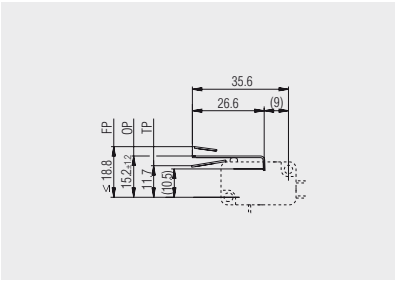
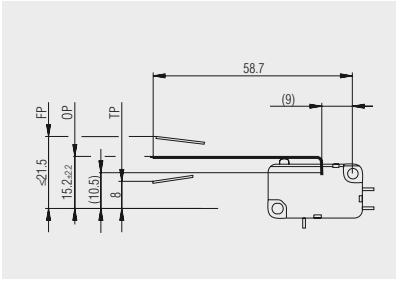
Auxiliary actuators



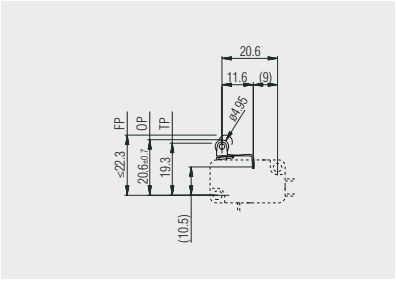
L01: straight lever
191.080.091



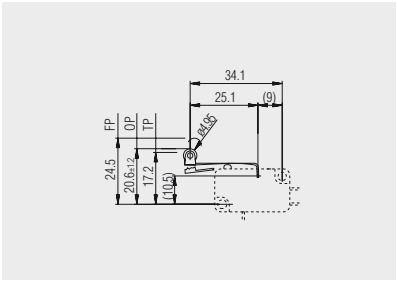
L02: straight lever
191.080.101



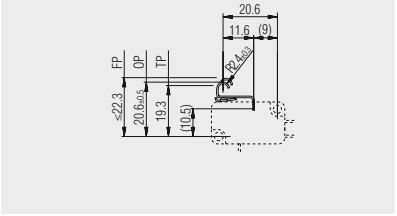
L03: straight lever



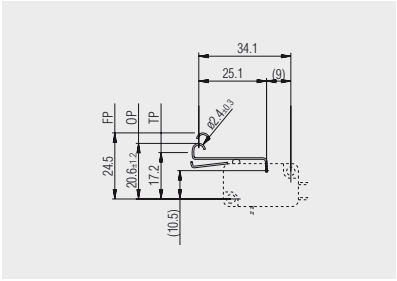
L11: roller lever
191.079.013



L12: roller lever
191.079.023



L21: simulated roller
191.080.451



L22: simulated roller
191.080.471

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