



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 terminal 4.8 x 0.5 mm

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)
Proof tracking	250 PTI
Protection type	IP 40 (actuator side)
Ambient temperature	-40 °C ... +125 °C
Flammability	UL 94 V-0
Glow wire test temperature	850 °C
Material actuator additional actuator housing terminals	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	

ROCKER SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH 'N' DRIVE



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	Normally closed contact (SPNC)		Normally open contact (SPNO)		Changeover switch (SPDT momentary)	
21 (8) A 250 V AC 1E4						1080.0103
16 (8) A 250 V AC 1E4	o		o		o	1080.0203
16 (4) A 250 V AC 5E4			o		o	1080.0304
16 (4) A 250 V AC 25E3					o	1080.0403
10 (4) A 250 V AC 25E3				o		1080.0903
6 (2) A 250 V AC 5E4				o		1080.5906
4 (4) A 250 V AC 5E4				o		1085.0103
3 (1) A 250 V AC 5E4				o		1085.0403
3 (1) A 250 V AC 25E3					o	1085.0375
21 A 250 V AC 2 HP			o			
21 A 125 V AC 1 HP			o			
16 A 250 V AC 1/2 HP	o		o			
16 A 125 - 250 V AC 1/2 HP					o	
16 A 125 V AC 1/3 HP	o		o		o	
10 A 250 V AC 1/3 HP				o		
10 A 125 V AC 1/8 HP				o		
3 A 125 - 250 V AC				o		
Terminal type						
Terminal description	6.3		6.3 straight		6.3	
Contact material	Ag		Ag		Ag	
Operating force (N)	≤ 1.0		≤ 1.5		≤ 1.0	
Operating position (OP) (mm)	14.7 ± 0.5		14.7 ± 0.5		14.7 ± 0.5	
Difference travel max. (mm)	0.3		0.3		0.3	
Free position (FP) max. (mm)	16.2		16.2		16.2	
Permissible total travel position (TP) (mm)	13.2		13.2		13.2	
Actuator description						
Lever drawing					L02	
Contact distance (mm)	< 3		< 3		< 3	
EN 60335 cap. 30 conform "G"	o		o			
Stock version					o	

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Technical drawing of a mechanical part, showing a side view and a front view. The side view (left) includes dimensions: 10.3 (height), 3.1 (width), 20.25 (width), 16.2 (width), $\varnothing 3.1$ (hole diameter), 15.9 (width), 3.3 (width), 22.2 (width), and 27.8 (width). The front view (right) includes dimensions: 10.3 (width), 4 (height), and 10 (height).

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions in millimeters. The drawing includes a side view and a cross-sectional view.

Side View Dimensions:

- Overall width: 20.25
- Distance from left edge to center of hole: 16.2
- Hole diameter: $\varnothing 3.1$
- Distance from center of hole to right edge: 15.9
- Overall height: 27.8
- Distance from bottom edge to center of hole: 22.2
- Distance from left edge to center of hole: 10.3
- Distance from center of hole to right edge: 3.1
- Distance from center of hole to right edge: 3.3

Cross-sectional View Dimensions:

- Overall width: 10.3
- Distance from left edge to center of hole: 4
- Overall height: 10

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions in millimeters. The drawing includes a side view and a cross-sectional view.

Dimensions:

- Overall width: 10.3
- Distance from left edge to center of first hole: 3.1
- Distance from left edge to center of second hole: 3.3
- Distance between centers of two holes: 22.2
- Overall length: 27.6
- Distance from right edge to center of third hole: 5
- Distance from right edge to center of fourth hole: 11.5
- Distance from right edge to center of fifth hole: 10.2
- Distance from right edge to center of sixth hole: 16.8
- Distance from right edge to center of seventh hole: 20.25
- Distance from right edge to center of eighth hole: 15.9
- Distance from right edge to center of ninth hole: 10.3
- Distance from right edge to center of tenth hole: 4
- Distance from right edge to center of eleventh hole: 15.9
- Distance from right edge to center of twelfth hole: 10.3
- Distance from right edge to center of thirteenth hole: 4
- Distance from right edge to center of fourteenth hole: 15.9
- Distance from right edge to center of fifteenth hole: 10.3
- Distance from right edge to center of sixteenth hole: 4
- Distance from right edge to center of seventeenth hole: 15.9
- Distance from right edge to center of eighteenth hole: 10.3
- Distance from right edge to center of nineteenth hole: 4
- Distance from right edge to center of twentieth hole: 15.9
- Distance from right edge to center of twenty-first hole: 10.3
- Distance from right edge to center of twenty-second hole: 4
- Distance from right edge to center of twenty-third hole: 15.9
- Distance from right edge to center of twenty-fourth hole: 10.3
- Distance from right edge to center of twenty-fifth hole: 4
- Distance from right edge to center of twenty-sixth hole: 15.9
- Distance from right edge to center of twenty-seventh hole: 10.3
- Distance from right edge to center of twenty-eighth hole: 4
- Distance from right edge to center of twenty-ninth hole: 15.9
- Distance from right edge to center of thirtieth hole: 10.3
- Distance from right edge to center of thirty-first hole: 4
- Distance from right edge to center of thirty-second hole: 15.9
- Distance from right edge to center of thirty-third hole: 10.3
- Distance from right edge to center of thirty-fourth hole: 4
- Distance from right edge to center of thirty-fifth hole: 15.9
- Distance from right edge to center of thirty-sixth hole: 10.3
- Distance from right edge to center of thirty-seventh hole: 4
- Distance from right edge to center of thirty-eighth hole: 15.9
- Distance from right edge to center of thirty-ninth hole: 10.3
- Distance from right edge to center of fortieth hole: 4
- Distance from right edge to center of forty-first hole: 15.9
- Distance from right edge to center of forty-second hole: 10.3
- Distance from right edge to center of forty-third hole: 4
- Distance from right edge to center of forty-fourth hole: 15.9
- Distance from right edge to center of forty-fifth hole: 10.3
- Distance from right edge to center of forty-sixth hole: 4
- Distance from right edge to center of forty-seventh hole: 15.9
- Distance from right edge to center of forty-eighth hole: 10.3
- Distance from right edge to center of forty-ninth hole: 4
- Distance from right edge to center of fiftieth hole: 15.9
- Distance from right edge to center of fifty-first hole: 10.3
- Distance from right edge to center of fifty-second hole: 4
- Distance from right edge to center of fifty-third hole: 15.9
- Distance from right edge to center of fifty-fourth hole: 10.3
- Distance from right edge to center of fifty-fifth hole: 4
- Distance from right edge to center of fifty-sixth hole: 15.9
- Distance from right edge to center of fifty-seventh hole: 10.3
- Distance from right edge to center of fifty-eighth hole: 4
- Distance from right edge to center of fifty-ninth hole: 15.9
- Distance from right edge to center of sixtieth hole: 10.3
- Distance from right edge to center of sixty-first hole: 4
- Distance from right edge to center of sixty-second hole: 15.9
- Distance from right edge to center of sixty-third hole: 10.3
- Distance from right edge to center of sixty-fourth hole: 4
- Distance from right edge to center of sixty-fifth hole: 15.9
- Distance from right edge to center of sixty-sixth hole: 10.3
- Distance from right edge to center of sixty-seventh hole: 4
- Distance from right edge to center of sixty-eighth hole: 15.9
- Distance from right edge to center of sixty-ninth hole: 10.3
- Distance from right edge to center of seventieth hole: 4
- Distance from right edge to center of seventy-first hole: 15.9
- Distance from right edge to center of seventy-second hole: 10.3
- Distance from right edge to center of seventy-third hole: 4
- Distance from right edge to center of seventy-fourth hole: 15.9
- Distance from right edge to center of seventy-fifth hole: 10.3
- Distance from right edge to center of seventy-sixth hole: 4
- Distance from right edge to center of seventy-seventh hole: 15.9
- Distance from right edge to center of seventy-eighth hole: 10.3
- Distance from right edge to center of seventy-ninth hole: 4
- Distance from right edge to center of eightieth hole: 15.9
- Distance from right edge to center of eighty-first hole: 10.3
- Distance from right edge to center of eighty-second hole: 4
- Distance from right edge to center of eighty-third hole: 15.9
- Distance from right edge to center of eighty-fourth hole: 10.3
- Distance from right edge to center of eighty-fifth hole: 4
- Distance from right edge to center of eighty-sixth hole: 15.9
- Distance from right edge to center of eighty-seventh hole: 10.3
- Distance from right edge to center of eighty-eighth hole: 4
- Distance from right edge to center of eighty-ninth hole: 15.9
- Distance from right edge to center of ninetieth hole: 10.3
- Distance from right edge to center of ninety-first hole: 4
- Distance from right edge to center of ninety-second hole: 15.9
- Distance from right edge to center of ninety-third hole: 10.3
- Distance from right edge to center of ninety-fourth hole: 4
- Distance from right edge to center of ninety-fifth hole: 15.9
- Distance from right edge to center of ninety-sixth hole: 10.3
- Distance from right edge to center of ninety-seventh hole: 4
- Distance from right edge to center of ninety-eighth hole: 15.9
- Distance from right edge to center of ninety-ninth hole: 10.3
- Distance from right edge to center of one hundredth hole: 4

Technical drawing of a mechanical part, likely a bracket or support arm, shown in two views: a front view (left) and a side view (right). The drawing includes various dimensions in millimeters.

Front View Dimensions:

- Total width: 27.8
- Distance from left edge to center of first hole: 22.2
- Distance between centers of two holes: 3.3
- Radius of the top-left corner: R10.3
- Vertical distance from bottom edge to the start of the horizontal section: 4
- Horizontal distance from the vertical section to the center of the second hole: 7
- Horizontal distance from the center of the second hole to the right edge: 16.8
- Top horizontal dimension from the left edge to the start of the horizontal section: 20.25
- Horizontal distance from the left edge to the center of the first hole: 3.1
- Hole diameter: $\varnothing 3.1$

Side View Dimensions:

- Width: 10.3
- Height from bottom edge to the top surface: 15.9
- Thickness of the part: 4

Technical drawing of a mechanical part, showing a side view and a front view. The side view (left) includes dimensions: 10.3, 3.1, 3.3, 22.2, 27.8, 20.25, 8.4, $\varnothing 3.1$, and 15.9. The front view (right) includes dimensions: 10.3, 4, 8.2, and 15.9. The part features a central vertical shaft with a flange, a horizontal shaft with a flange, and a base with a circular feature.

Technical drawing of a mechanical part, showing a side view and a front view. The side view includes dimensions: 10.3 (height), 3.1 (width), 3.3 (width), 22.2 (width), 27.8 (width), 15.9 (height), 20.25 (width), 6.2 (width), and $\varnothing 3.1$ (hole diameter). The front view includes dimensions: 10.3 (width), 4 (width), 5.75 (height), and $\varnothing 3$ (hole diameter).

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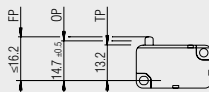


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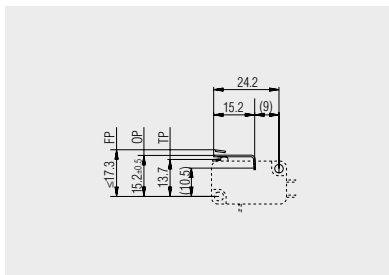
Switching positions



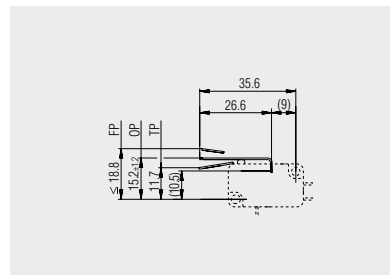
FP: free position
OP: operating position
TP: permissible total travel position



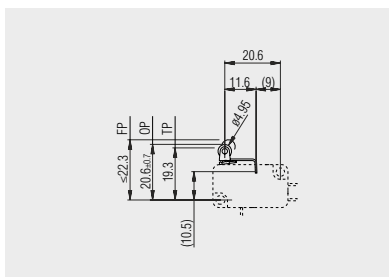
Auxiliary actuators



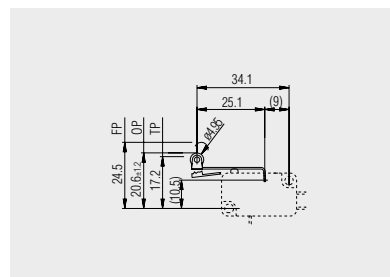
L01: straight lever
191.080.091



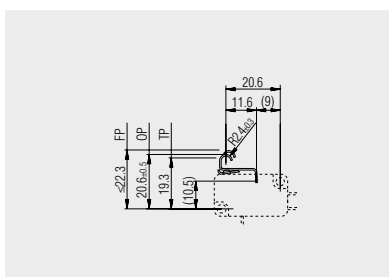
L02: straight lever
191.080.101



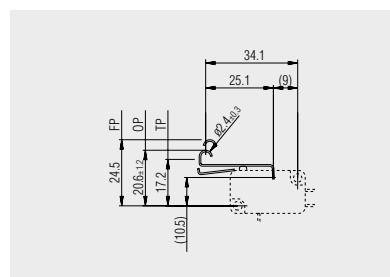
L11: roller lever
191.079.013



L12: roller lever
191.079.023



L21: simulated roller
191.080.451



L22: simulated roller
191.080.471

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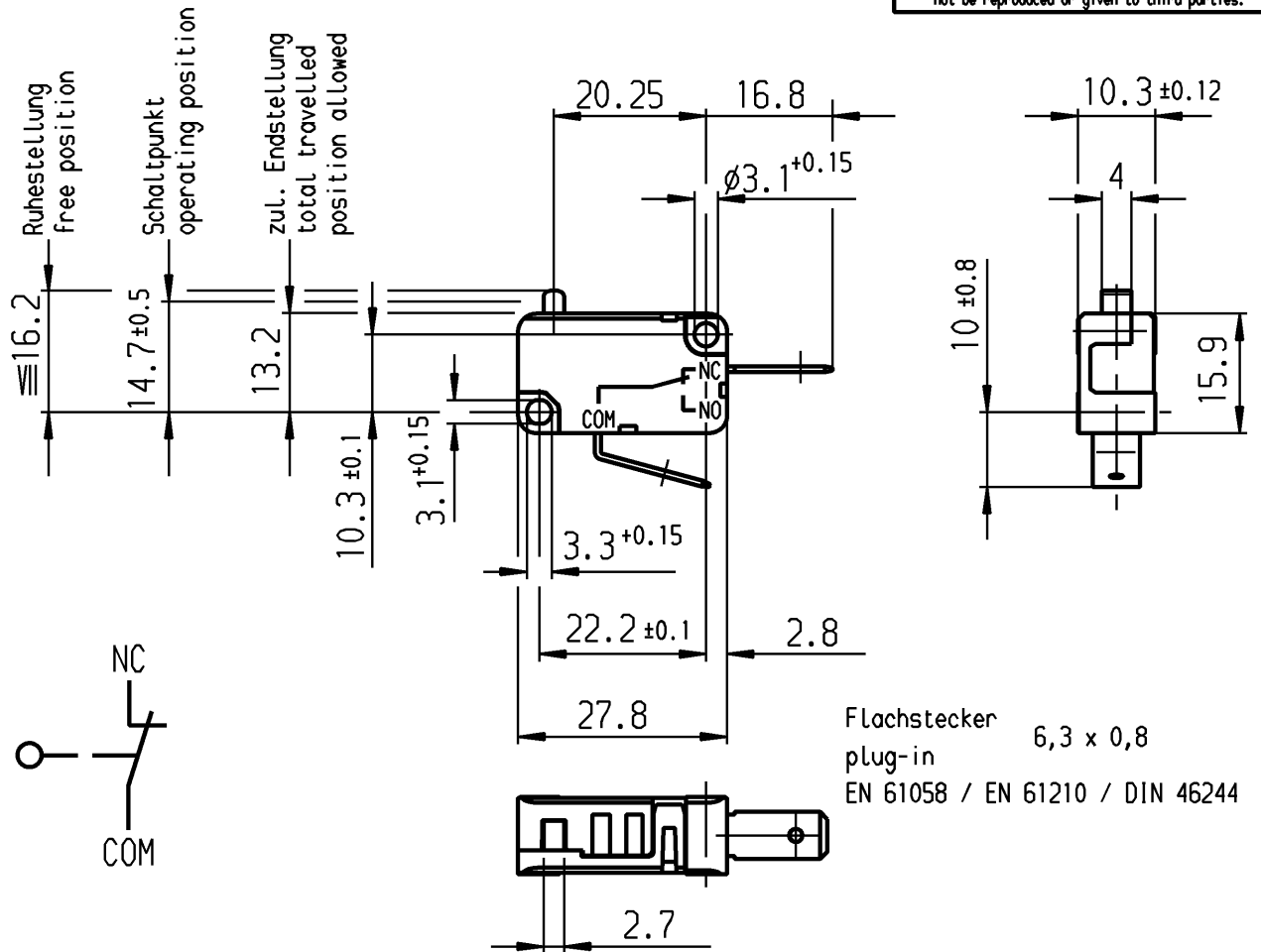
SENSORS

ECO

PUSH'N'DRIVE

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**Aufschrift
Marking**

MARQUARDT (M)

1080 µ 40T125

16(8)/250~10E3



16A 125V AC 1/3HP

16A 250V AC 1/2HP

R135



Herstelljahr/-woche nach
year and week of production acc. to DIN EN 60062

auf Verpackung
E01B70001

**Öffner 1-polig
SPNC**

Schalt-Betätigungskraft
actuating force ≤1.0 N

Rückschaltkraft
release force ≥0.3 N

Differenzweg
movement differential ≤0.3 N

Schutzklasse nach DIN 40 050
protection class IP 40

Konform nach IEC 60335
matching IEC 60335

Allgemeintoleranzen/UNTOLERANCED DIMENSIONS

Für Längen und Radien FOR LENGTHS AND RADII.	Abmaße in mm für Nennmaßbereich in mm ALL DIMENSIONS ARE IN MILLIMETRES		
	bis/UP TO	über/OVER	über/OVER
	6	6 bis/UP TO 30	30
±	0.2	0.3	



Für Winkel
FOR ANGLE
± 2°

Pause
COPY

Blatt
SHEET

Original
DIN

Maßstab
SCALE

1:1

K

Zeichn./DRAWING NO.

1080.0464

0 10 20 30 mm
gez./DRAWN BY 21.12.95 gue

Ersatz für/REPLACEMENT OF
1080V94.288

Schnappschalter
Snap Action Switch

MARQUARDT
Marquardt GmbH, D-78604 Rietheim-Weilheim