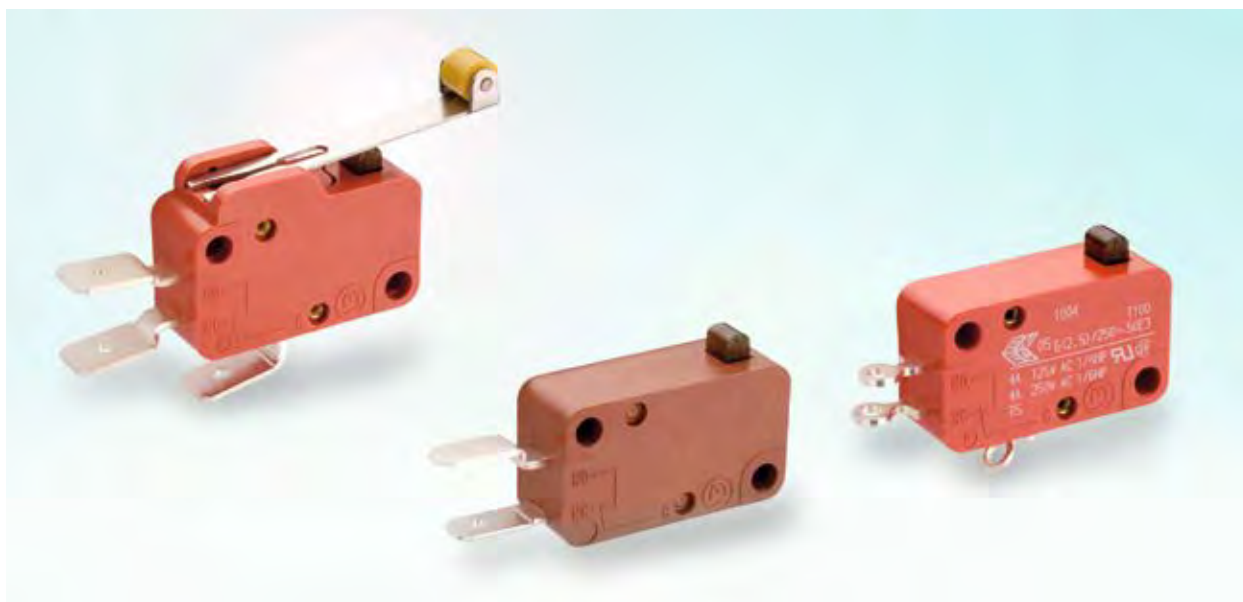




SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

TO 21 (8) A 250 V AC



PRODUCT FEATURES

- Friction contact system whose shearing movement can loosen welding
- Very high inrush currents (capacitive)
- Contact distances less and greater than 3 mm
- Operating forces from 0.2 to 4.2 N

ON REQUEST

- Material conformant with the filament wire test acc. to IEC 60335-1:2001 chap. 30
- Side bearing terminal
- Electrical rating 16 (16) A 250 V 5E4 for normally closed and normally open version

Design	DIN 41635 A
Mechanical life endurance	5E6 version with lever or contact spacing > 3 mm 10E6 standard version 5E4 version with curved spring steel lever
Contact resistance (new condition)	< 100 mOhm (1 A 12 V DC)
Insulation resistance (new condition)	> 100 MOhm (500 V DC)
Proof tracking	250 PTI
Ambient temperature	-40 °C ... +100 °C on request ... +125 °C ... +85 °C
Flammability	UL 94 (housing: V-0, actuator: V-2) UL 94 V-2
Glow wire test temperature	850 °C
Material additional actuator housing terminals	galvanized steel / spring steel / stainless steel Duroplast type 182 / PA glass fiber-reinforced / PA Latamid silver plated / chromated
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



SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

TO 21 (8) A 250 V AC

																		
21 (8) A 250 V AC 25E3				Normally closed contact (SPNC)			Normally open contact (SPNO)						Changeover switch (SPDT momentary)					
20 (4) A 400 V AC 1E4				1005.1105			1005.2809						1005.0404					
16 (16) A 250 V AC 5E4				1005.1101			1005.1207						1005.1004					
16 (4) A 400 V AC 5E4				1006.3402			1005.1226											
16 (4) A 250 V AC 5E4																		
16 (4) A 250 V AC 25E3																		
12 (12) A 250 V AC 5E4																		
10 (6) A 250 V AC 5E4																		
10 (4) A 400 V AC 1E4																		
10 (4) A 250 V AC 5E4																		
8 (8) A 250 V AC 5E4																		
6 (2.5) A 400 V AC 5E4																		
6 (2.5) A 250 V AC 5E4																		
21 A 250 V AC 2 HP																		
21 A 125 V AC 1 HP																		
16 A 250 V AC 2 HP																		
16 A 125 V AC 1 HP																		
16 A 125 - 250 V AC 1/2 HP																		
10 A 125 - 250 V AC 1/2 HP																		
10 A 125 - 250 V AC 1/4 HP																		
8 A 125 - 250 V AC 1/3 HP																		
4 A 125 - 250 V AC 1/6 HP																		
Terminal type																		
Terminal description																		
Contact distance (mm)																		
Contact material																		
Operating force (N)																		
Operating position (OP) (mm)																		
Difference travel max. (mm)																		
Free position (FP) max. (mm)																		
Permissible total travel position (TP) (mm)																		
Actuator description																		
Lever drawing																		
Miscellaneous																		
Stock version																		

ROCKER SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MIKRO-SIGNALSCHALTER

SENSORS

ECO

PUSH'N'DRIVE



SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

TO 21 (8) A 250 V AC

	Changeover switch (SPDT momentary)													1006.1514	1005.0507	1005.1010	1004.0509	1005.0101	1005.0401	1005.1001	1005.3501	1006.0701	1006.0901	1006.1011	1006.1101	1006.1201	1006.1301	1006.1401	
21 (8) A 250 V AC 25E3																													
20 (4) A 400 V AC 1E4	o																												
16 (16) A 250 V AC 5E4																													
16 (4) A 400 V AC 5E4	o																												
16 (4) A 250 V AC 5E4			o		o																								
16 (4) A 250 V AC 25E3						o																							
12 (12) A 250 V AC 5E4																													
10 (6) A 250 V AC 5E4	o	o																											
10 (4) A 400 V AC 1E4								o		o										o		o		o		o		o	o
10 (4) A 250 V AC 5E4						o																							
8 (8) A 250 V AC 5E4				o																									
6 (2.5) A 400 V AC 5E4								o		o										o		o		o		o		o	o
6 (2.5) A 250 V AC 5E4																													
21 A 250 V AC 2 HP																													
21 A 125 V AC 1 HP																													
16 A 250 V AC 2 HP																													
16 A 125 V AC 1 HP																													
16 A 125 - 250 V AC 1/2 HP	o	o			o																								
10 A 125 - 250 V AC 1/2 HP				o																									
10 A 125 - 250 V AC 1/4 HP								o		o										o		o		o		o		o	o
8 A 125 - 250 V AC 1/3 HP																													
4 A 125 - 250 V AC 1/6 HP																													
Terminal type																													
Terminal description	6.3			6.3				M3			6.3														6.3		6.3		6.3
Contact distance (mm)	< 3	< 3	< 3	> 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Contact material	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag	Ag
Operating force (N)	1.2 - 2.1	2.4 - 3.8	2.4 - 3.8	2.4 - 3.8	0.8 - 1.8	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	
Operating position (OP) (mm)	20.8 ± 1.2	14.7 ± 0.5	14.4 ± 0.3	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	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	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	14.7 ± 0.5	14.7 ± 0.5
Difference travel max. (mm)	0.9	0.3	1.2	0.1 - 0.25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Free position (FP) max. (mm)	23.5	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Permissible total travel position (TP) (mm)	18	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
Actuator description																													
Lever drawing	L12																												
Miscellaneous				milled bearing blade																									
Stock version								o		o		o							o		o				o		o		o

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 IN DRIVE



SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

TO 21 (8) A 250 V AC

	Changeover switch (SPDT momentary)						
21 (8) A 250 V AC 25E3		1006.1511		1006.1801		1006.4103	
20 (4) A 400 V AC 1E4						1006.4203	
16 (16) A 250 V AC 5E4						1004.4601	
16 (4) A 400 V AC 5E4						1004.0402	
16 (4) A 250 V AC 5E4							1004.1002
16 (4) A 250 V AC 25E3							
12 (12) A 250 V AC 5E4							
10 (6) A 250 V AC 5E4							
10 (4) A 400 V AC 1E4	○		○		○		
10 (4) A 250 V AC 5E4					○		
8 (8) A 250 V AC 5E4							
6 (2.5) A 400 V AC 5E4	○		○		○		
6 (2.5) A 250 V AC 5E4						○	○
21 A 250 V AC 2 HP							
21 A 125 V AC 1 HP							
16 A 250 V AC 2 HP							
16 A 125 V AC 1 HP							
16 A 125 - 250 V AC 1/2 HP							
10 A 125 - 250 V AC 1/2 HP							
10 A 125 - 250 V AC 1/4 HP	○		○		○		
8 A 125 - 250 V AC 1/3 HP					○		
4 A 125 - 250 V AC 1/6 HP						○	○
Terminal type							
Terminal description	6.3	6.3			6.3		6.3
Contact distance (mm)	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Contact material	Ag	Ag	Ag	Ag	Ag	Ag	Ag
Operating force (N)	0.7 - 1.25	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	0.5 - 1.1	0.2 - 0.6	0.2 - 0.6
Operating position (OP) (mm)	20.8 ± 1.2	22 ± 1	20.8 ± 0.5	20.8 ± 0.5	20.8 ± 0.5	14.7 ± 0.5	14.7 ± 0.5
Difference travel max. (mm)	0.9	0.6	0.3	0.3	0.3	0.3	0.3
Free position (FP) max. (mm)	23.5	24.5	22.1	22.1	22.1	16	16
Permissible total travel position (TP) (mm)	18	18.5	19.5	19.5	19.5	13.4	13.4
Actuator description							
Lever drawing	L12	L31	L11	L11	L11		
Miscellaneous					milled bearing blade	milled bearing blade	milled bearing blade
Stock version	○					○	○

ROCKER SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MIKRO-SIGNALSCHALTER

SENSORS

ECO

PUSH'N'DRIVE

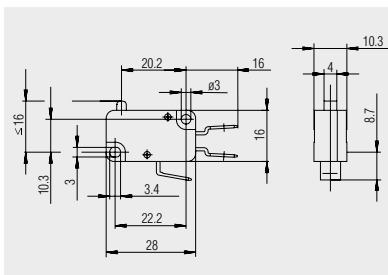


SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

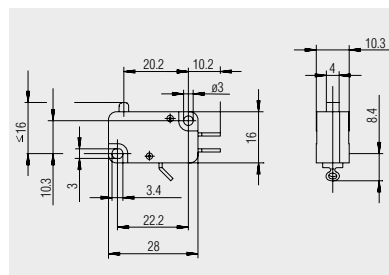
TO 21 (8) A 250 V AC



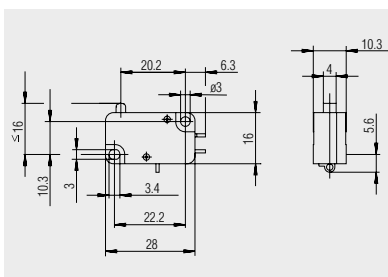
Basic type 1005



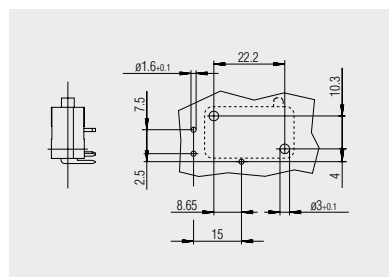
Quick-connect terminal 6.3 x 0.8



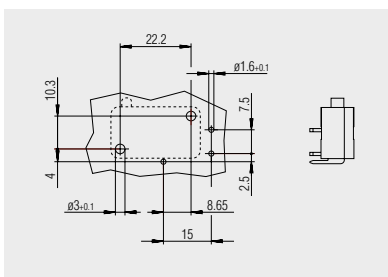
Solder terminal



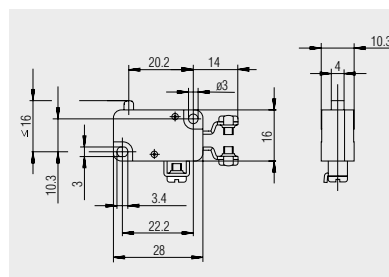
Short solder terminal



PCB terminal (cover side)
right angled



PCB terminal (base side)
left angled



Screw terminal M3

ROCKER SWITCHES

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PUSH 'N' DRIVE

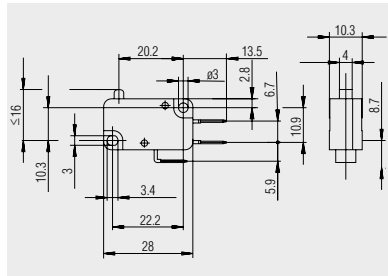


SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

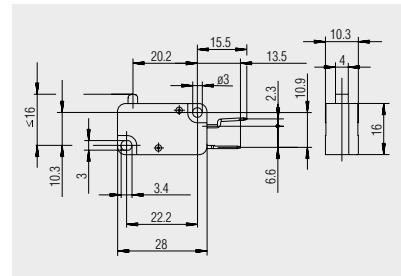
T0 21 (8) A 250 V AC



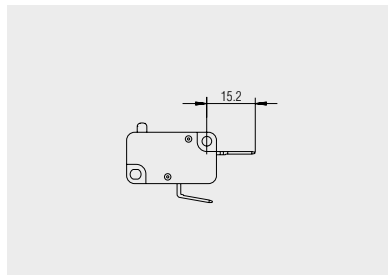
Basic type 1005



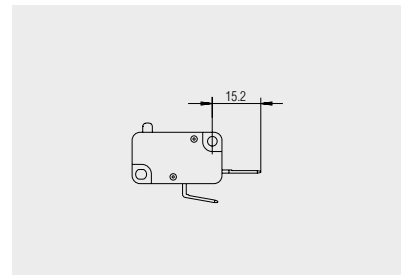
Quick-connect terminal 4.8 x 0.8 straight



Quick-connect terminal 4.8 x 0.8 top side



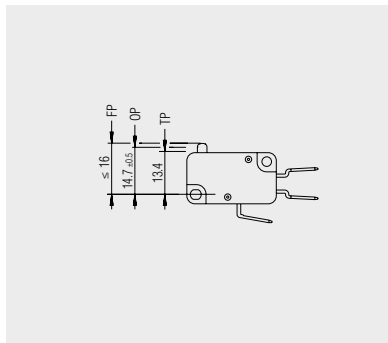
Quick-connect terminal 6.3 x 0.8 normally open contact version



Quick-connect terminal 6.3 x 0.8 normally closed contact version



Basic types 1004 and 1005 switching positions



FP: free position

OP: operating position

TP: permissible total travel position

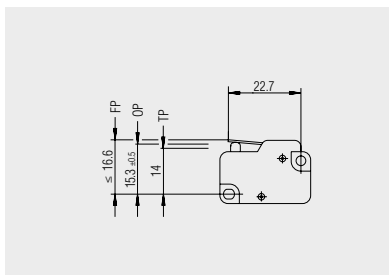


SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

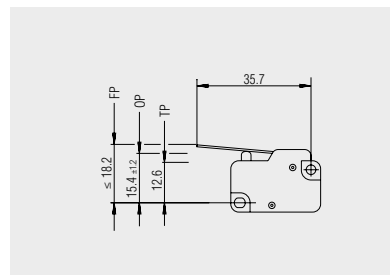
TO 21 (8) A 250 V AC



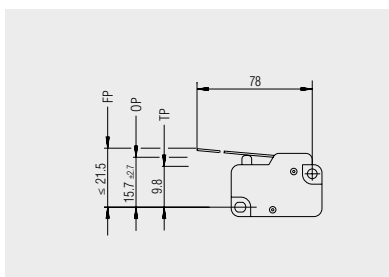
Basic type 1006
auxiliary actuator



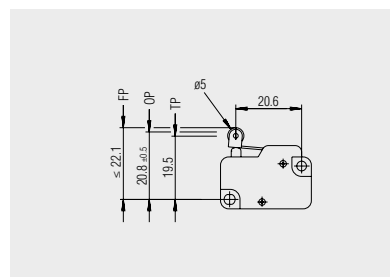
L01: straight lever



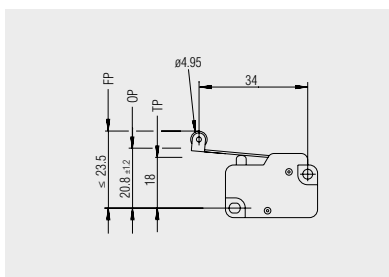
L02: straight lever



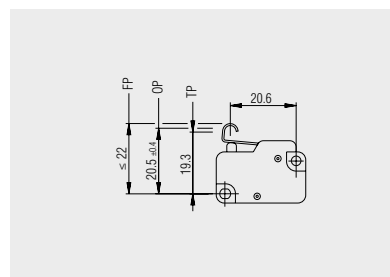
L04: straight lever



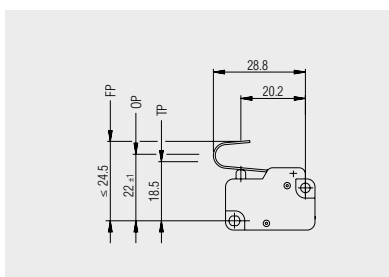
L11: roller lever



L12: roller lever



L21: simulated roller



L31: spring lever

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

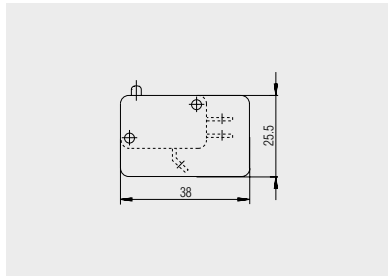


SERIES 1005 - MINIATURE SNAP-ACTION SWITCHES

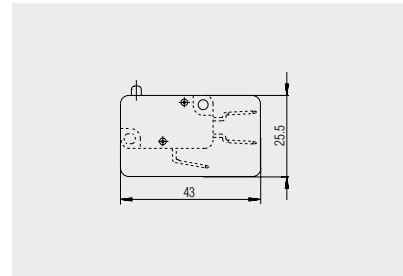
TO 21 (8) A 250 V AC



Additional parts



Insulating plate for solder terminal
0.5 mm: 231.009.011



Insulating plate for quick-connect terminal
0.5 mm: 231.010.011
0.8 mm: 231.010.021



191.013.013

Stainless spring steel

Lever 20.6 long with roller diameter
5 out of PA yellow (to be mounted
lateral with the switch using screws)

Further information under

WWW.MARQUARDT-SWITCHES.COM

ROCKER SWITCHES

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PUSH'N'DRIVE

1		2		3		4																						
Ruhestellung free position Schaltpunkt operating position zul. Endstellung total travel position allowed																												
Aufschrift marking 1005 T100 10161/250 ~ 50E3 05 10A 125V AC 1/2HP 10A 250V AC 1/2HP R10				A-A 2:1		B-B 2:1																						
Herstelldatum: Herstelljahr/-woche nach DIN EN 60062 oder Herstelljahr/-woche/-tag nach Marquardt Standard Date code of manufacture: year / week acc. to DIN EN 60062 or year / week / day acc. to Marquardt standard auf Verpackung on packing 0527/2		Schliesser 1-polig SPNO Schalt-Betaetigungskraft actuating force Differenzweg movement differential		2.4 bis 3.8 N 2.4 up to 3.8 N ≤ 1.2 mm																								
fuer Form und Lage FOR SHAPE AND LOC. fuer Winkel FOR ANGLE		ALLGEMEINTOLERANZEN UNTOLERANCED DIMENSIONS <table border="1"> <tr> <th>Abmasse und Nennmassbereiche Angaben in mm</th> <th>Laenge LENGTH</th> <th>Radial RADII</th> </tr> <tr> <td>0-6</td> <td>± 0.1</td> <td>± 0.2</td> </tr> <tr> <td>>6-15</td> <td>± 0.15</td> <td>± 0.3</td> </tr> <tr> <td>>15-30</td> <td>± 0.2</td> <td>± 0.5</td> </tr> <tr> <td>>30-70</td> <td>± 0.3</td> <td></td> </tr> <tr> <td>>70-120</td> <td>± 0.4</td> <td></td> </tr> <tr> <td>>120-200</td> <td>± 0.8</td> <td></td> </tr> </table> ALL DIMENSIONS ARE IN MILLIMETRES		Abmasse und Nennmassbereiche Angaben in mm	Laenge LENGTH	Radial RADII	0-6	± 0.1	± 0.2	>6-15	± 0.15	± 0.3	>15-30	± 0.2	± 0.5	>30-70	± 0.3		>70-120	± 0.4		>120-200	± 0.8		Pause COPY Blatt SHEET 01 Original Din A4 Massstab SCALE 1:1 0 10 20 30mm		TYP Zechn./DRAWING NO. Index K 10050904 k	
Abmasse und Nennmassbereiche Angaben in mm	Laenge LENGTH	Radial RADII																										
0-6	± 0.1	± 0.2																										
>6-15	± 0.15	± 0.3																										
>15-30	± 0.2	± 0.5																										
>30-70	± 0.3																											
>70-120	± 0.4																											
>120-200	± 0.8																											
k 70330 21.09.10 LM j 42059 18.01.05 OU i 28755 25.11.99 PFU h 21191 21.11.91 WA		CAD: NX V6.0 gez./DRAWN BY 25.11.99 qu gepr./CHECKED BY ZES Ersatz fuer/REPLACEMENT OF Medusazeichnung		SNAPPSCHALTER Snap action switch		MARQUARDT																						