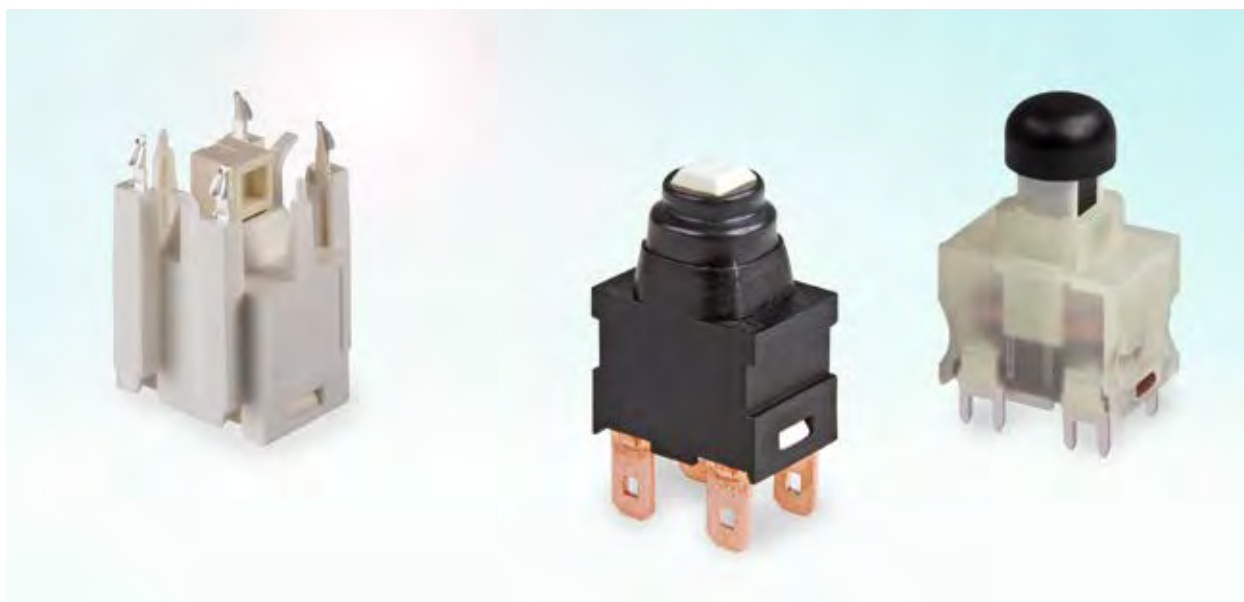




SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 (4) A / 12 (12) A 250 V AC



PRODUCT FEATURES

- Million times proven double lifting contact system with at least 100 000 mechanical switching cycles
- High electrical rating up to 16 A
- High mechanical load capacity up to 750 N (for foot actuation)
- Great variety
- Variable housing and pushbutton form with holders
- With pole separating wall (basic type 1689)

ON REQUEST

- Special plastics
- Other terminal variants
- Customized actuators and housing contours
- Cable assembly
- Behind PCB mountable variants

Mechanical life endurance	10E4
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
Ambient temperature	terminal side -20 °C ... +100 °C ... +105 °C ... +125 °C (product-dependent) actuating side -20 °C ... +55 °C
Flammability	UL 94 (actuator: V-0, socket: V-1, housing: V-2) UL 94 V-0 (product-dependent)
Glow wire test temperature	850 °C
Material actuator	PBTP / PA / PA (product-dependent)
housing	PA / PA glass fiber-reinforced / PA C3U /
terminals	PA Latamid glass fiber-reinforced (product-dependent) silver plated / tinned / copper bare (product-dependent)
Plug force of the terminals	≤ 80 N
Approval marks	 /  /  /  (product-dependent)
Suitable for appliances of protection class II	



SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 (4) A / 12 (12) A 250 V AC

 single-pole	8 (8) A 250 V AC 1E4	16 (4) A 250 V AC 1E4	12 (12) A 250 V AC 5E4	12 (12) A 250 V AC 1E4	12 (8) A 250 V AC 1E4	10 (8) A 250 V AC 5E4	16 A 125 - 250 V AC	12 A 125 - 250 V AC 1/2 HP	5 A 125 V AC L	Terminal type	Terminal description	Contact distance (mm)	Contact material	Operating force (N)	Free position (FP) max. (mm)	Operating position (OP) (mm)	Permissible total travel position (TP) (mm)	EN 60335 cap. 30 conform “G”	Miscellaneous	Actuator description	Stock version	
	ON / OFF switch (SPST)																					
	1681.2102			○				○		⌋	vertical	≥ 3	Ag	7.0 ±2.5	26.5	23.8	22.2	○	resting pin			
	1681.3104			○				○		⌋	4.8 horizontal	≥ 3	Ag	7.0 ±2.5	26.5	23.8	22.2	○				
	1681.4403			○				○		⌋	horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7	○	resting pin			
	1681.4431			○			○	○	○		⌋	5.3 long horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.8		flange on the end faces		
	1681.1101					○	○	○	○		⌋	4.8 vertical	≥ 3	Ag	7.0 ±2.5	26.5	23.8	22.2				○
	1681.1702					○	○	○	○		⌋	4.8 vertical	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7	○			
	1681.3101					○	○	○	○		⌋	4.8 horizontal	≥ 3	Ag	7.0 ±2.5	26.5	23.8	22.2				
	1681.3701					○	○	○	○		⌋	4.8 horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7				
1681.4402					○	○	○	○		⌋	horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7		rest pin			
1681.4701					○	○	○	○		⌋	horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7		resting pin			
1681.5701												≥ 3	Ag	7.0 ±2.5	24	21.3	19.7					
Normally closed contact (SPNC)																						
1681.9408				○		○				⌋	horizontal	≥ 3	Ag	6.5 ±1.5	26.85	29.4	22.8		resting pin			
Normally open contact (SPNO)																						
1681.1354					○	○		○		⌋	4.8 vertical	≥ 3	Au	7.0 ±2.5	24	≤ 21.3	19.7	○	special housing contour			
1681.3501					○	○		○		⌋	4.8 horizontal	≥ 3	Ag	7.0 ±2.5	24	21.3	19.7					

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

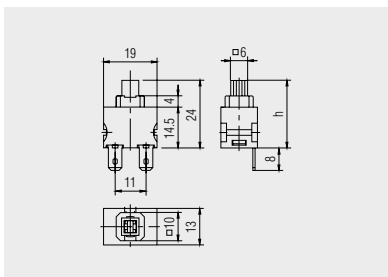


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

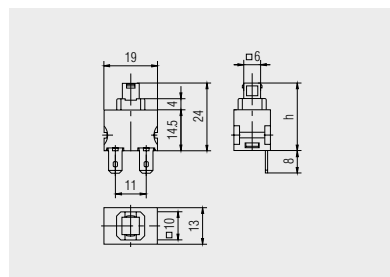
TO 16 (4) A / 12 (12) A 250 V AC



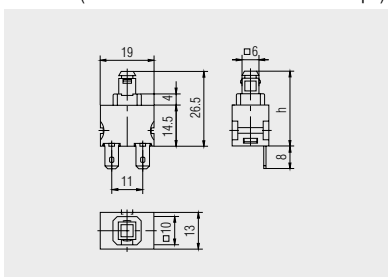
Basic type 1681
single-pole



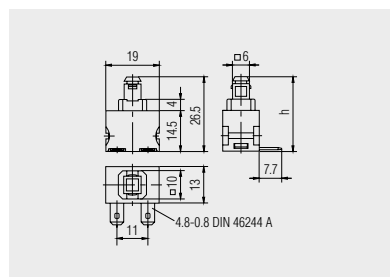
Quick-connect terminal 4.8 x 0.8
vertical
(actuator with holder for different caps)



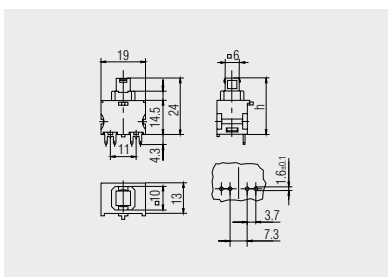
Quick-connect terminal 4.8 x 0.8
vertical (shortened actuator)



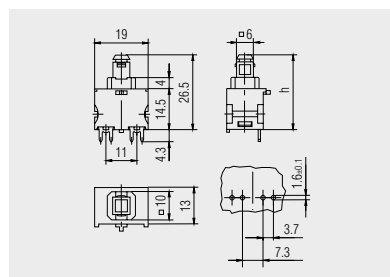
Quick-connect terminal 4.8 x 0.8
vertical (standard actuator)



Quick-connect terminal 4.8 x 0.8
horizontal (standard actuator)



PCB terminal vertical



PCB terminal vertical
(standard actuator)

ROCKER SWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

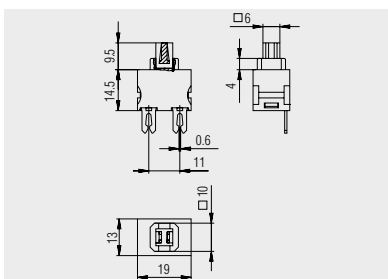
SENSORS

ECO

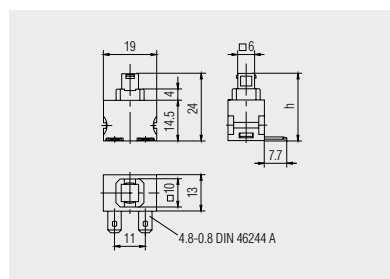
PUSH 'N' DRIVE



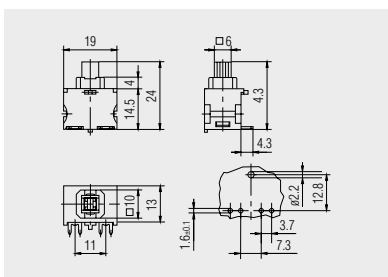
Basic type 1681
single-pole



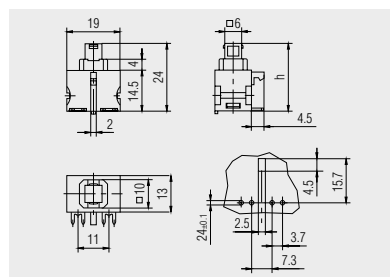
 Cut terminal
(actuator with holder for different caps)



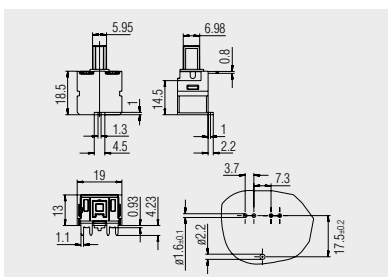
 Quick-connect terminal 4.8 x 0.8
horizontal (shortened actuator)



⌈ PCB terminal horizontal
(actuator with holder for different caps)



⌋ PCB terminal horizontal
(shortened actuator)



1681.9408
 normally closed contact SPNC
 (actuator with holder for different caps)

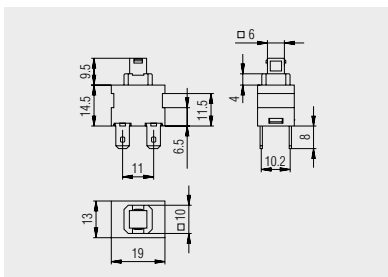


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

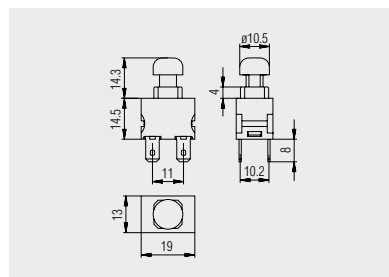
T0 16 (4) A / 12 (12) A 250 V AC



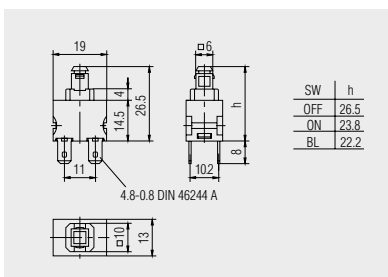
Basic types 1682 and 1689
double-pole



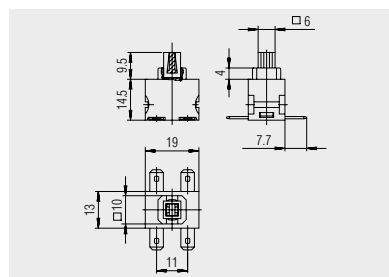
Quick-connect terminal 4.8 x 0.8
vertical (shortened actuator)



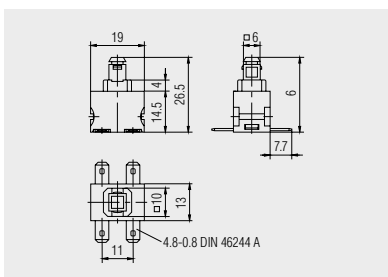
Quick-connect terminal 4.8 x 0.8
vertical (with mounted cap)



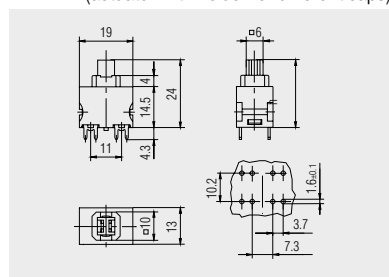
Quick-connect terminal 4.8 x 0.8
vertical (standard actuator)



Quick-connect terminal 4.8 x 0.8
horizontal
(actuator with holder for different caps)



Quick-connect terminal 4.8 x 0.8
horizontal (standard actuator)



PCB terminal vertical
(actuator with holder for different caps)

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

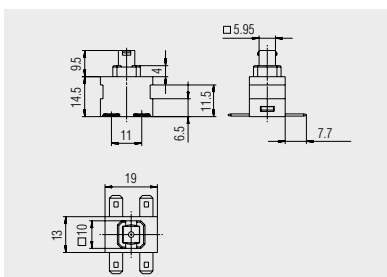


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

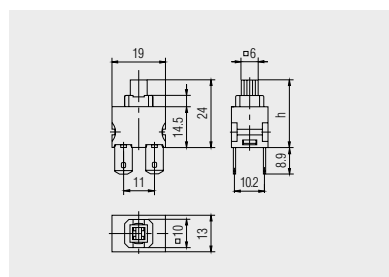
TO 16 (4) A / 12 (12) A 250 V AC



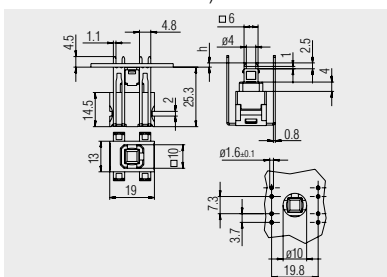
Basic types 1682 and 1689
double-pole



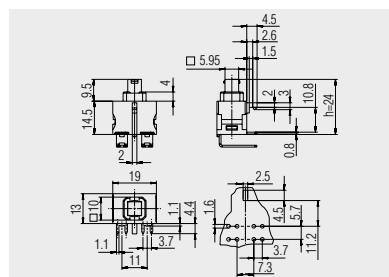
Quick-connect terminal 4.8 x 0.8
horizontal (shortened actuator
without cut-out)



Quick-connect terminal 6.3 vertical
(actuator with holder for different caps)



PCB terminal 180° angled
(shortened actuator)



PCB terminal horizontal (shortened
actuator without cut-out)

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Flachstecker / plug in
ähnlt. DIN 46 244-A 4.8-0.8

Aufschrift
Marking



168..

12(8)/250~ T100/55

$$10(8)/250 \sim 5E4$$

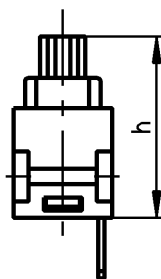

12A 125 - 250 VAC

1/2 HP 125-250 VAC

R 97

Herstelljahr/-woche
nach DIN EN 60062

date code of manufacture:
year / week
acc. to DIN EN 60062



operating position	Schaltstellung	h
OFF	AUS	24.0
ON	EIN	21.3
block	Block	19.7

Ausschalter 1-polig

Fuer Geraete der Klasse II geeignet

SPST

suitable for appliances of class II

Auf Verpackung/on box: G

9000054813

G=Konform nach IEC 60335-1:2001 Kap.30

G=matching IEC 60335-1:2001 clause 30

Für Form und Lage				Allgemeintoleranzen UNTOLERANCED DIMENSIONS				Pause COPY		Blatt SHEET		Typ K	Zeichn./DRAWING NO. 1681.1702	Index																										
FOR SHAPE AND LOC.																																								
Für Winkel FOR ANGLE ± 2°				PROJECTION 		Abmasse und Nennmossbereiche Angaben in mm		<table><tr><td></td><td>Laengen LENGTH</td><td>Radien RADII</td></tr><tr><td>0-6</td><td>± 0.2</td><td>±</td></tr><tr><td>>6-15</td><td>± 0.4</td><td>±</td></tr><tr><td>>15-30</td><td>± 0.4</td><td>±</td></tr><tr><td>>30-70</td><td>±</td><td></td></tr><tr><td>>70-120</td><td>±</td><td>±</td></tr><tr><td>>120-200</td><td>±</td><td></td></tr></table>			Laengen LENGTH	Radien RADII	0-6	± 0.2	±	>6-15	± 0.4	±	>15-30	± 0.4	±	>30-70	±		>70-120	±	±	>120-200	±		Original DIN A4		Maßstab SCALE 1:1		<table><tr><td>0</td><td>10</td><td>20</td><td>30 mm</td></tr></table>		0	10	20	30 mm
	Laengen LENGTH	Radien RADII																																						
0-6	± 0.2	±																																						
>6-15	± 0.4	±																																						
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>30-70	±																																							
>70-120	±	±																																						
>120-200	±																																							
0	10	20	30 mm																																					
c				g				CAD Medusa		Z		Geraeteschalter Appliance Switch MARQUARDT Marquardt GmbH, D-78604 Rietheim-Weilheim																												
b		48970		11.09.06		vor		f																																
a		47885		11.07.06		hhe		e																																
		41897		15.12.04		hhe		d																																
Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY		Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY		Ersatz für/REPLACEMENT OF																												