

➔ 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 / PA Latamid glass fiber-reinforced (product-dependent) terminals: 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
 MICRO-SIGNAL SWITCHES
 SMIP-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

 double-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 (DPST)																				
1682.7704	○					○					6.3 vertical	≥ 3	Ag	9.0 ± 3	24	21.3	19.7	○			
1689.3803	○		○		○	○	○				4.8 horizontal	≥ 3	Ag	9.0 ± 3	24	≤ 20.95	19.7	○	special housing contour		
1682.1101					○	○	○				4.8 vertical	≥ 3	Ag	9.0 ± 3	26.5	23.8	22.2				
1682.1702					○	○	○				4.8 vertical	≥ 3	Ag	9.0 ± 3	24	21.3	19.7	○			
1682.2701					○	○	○				vertical	≥ 3	Ag	9.0 ± 3	24	21.3	19.7				
1682.3101					○	○	○				4.8 horizontal	≥ 3	Ag	9.0 ± 3	26.5	23.8	22.2				
1682.3702					○	○	○				4.8 horizontal	≥ 3	Ag	9.0 ± 3	24	23.8	22.2	○			
1682.6101					○	○	○				180° angled	≥ 3	Ag	9.0 ± 3	24	21.3	19.8	○			
1682.6401	○										180° angled	≥ 3	Ag	10 ± 3	0.4 ± 0.3	2.3 ± 0.3	3.9 ± 0.3	○			
Normally open contact (DPNO)																					
1689.4202		○			○	○	○				horizontal	≥ 3	Ag	9.0 ± 3	24	≤ 20.95	19.7	○	rest pin		
1682.1201					○	○	○				4.8 vertical	≥ 3	Ag	9.0 ± 3	26.5	23.8	22.2				
1682.1902					○	○	○	○			4.8 vertical	≥ 3	Ag	9.0 ± 3	28.8	26.1	24.5		with cap 205.021.011		
1682.3201					○	○	○				4.8 horizontal	≥ 3	Ag	9.0 ± 3	26.5	23.8	22.2				

ROCKERSWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SWAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH'N'DRIVE

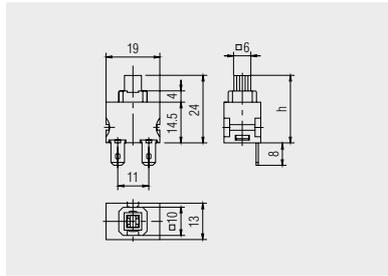


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

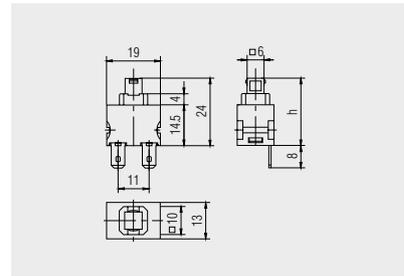
TO 16 (4) A / 12 (12) A 250 V AC



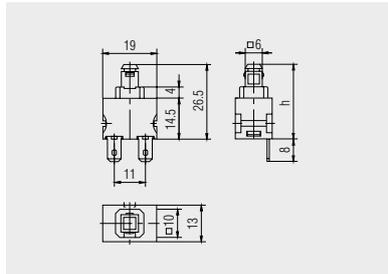
Basic type 1681
single-pole



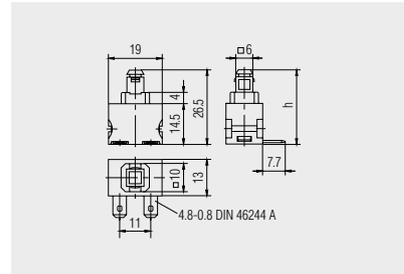
Quick-connect terminal 4.8 x 0.8
vertical
(actuator with holder for different caps)



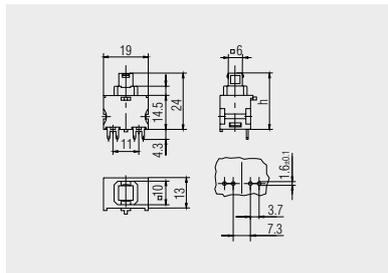
Quick-connect terminal 4.8 x 0.8
vertical (shortened actuator)



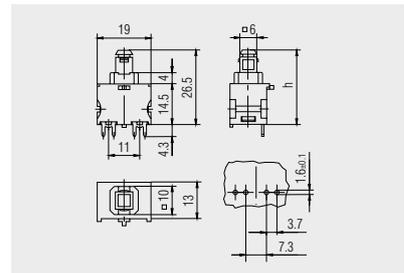
Quick-connect terminal 4.8 x 0.8
vertical (standard actuator)



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



PCB terminal vertical



PCB terminal vertical
(standard actuator)

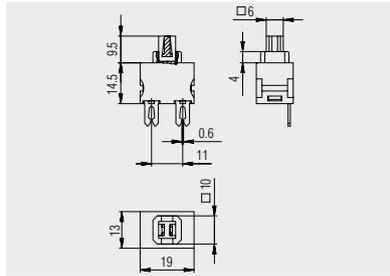


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

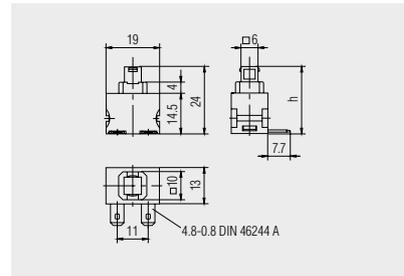
TO 16 (4) A / 12 (12) A 250 V AC



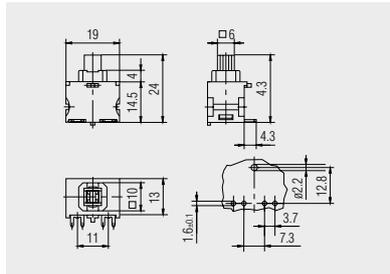
Basic type 1681
single-pole



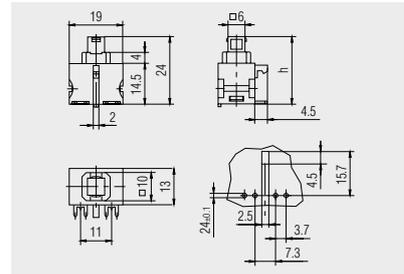
Cut terminal
(actuator with holder for different caps)



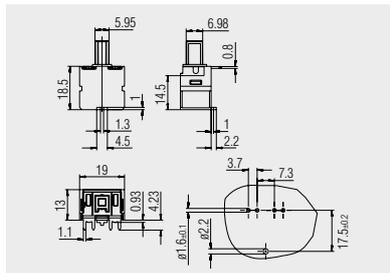
Quick-connect terminal 4.8 x 0.8
horizontal (shortened actuator)



PCB terminal horizontal
(actuator with holder for different caps)



PCB terminal horizontal
(shortened actuator)



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

ROCKERSWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SWAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH'N'DRIVE

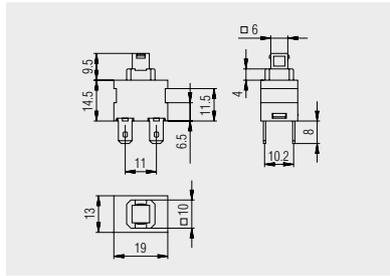


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

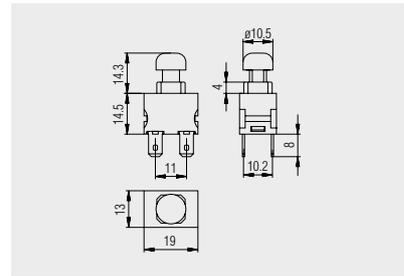
TO 16 (4) A / 12 (12) A 250 V AC



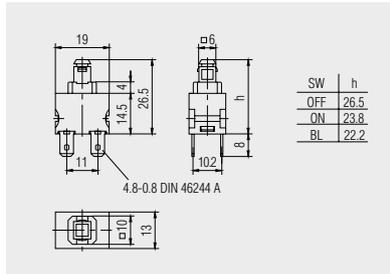
Basic types 1682 and 1689 double-pole



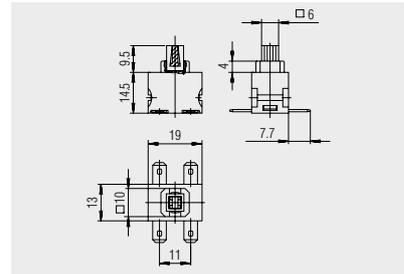
Quick-connect terminal 4.8 x 0.8 vertical (shortened actuator)



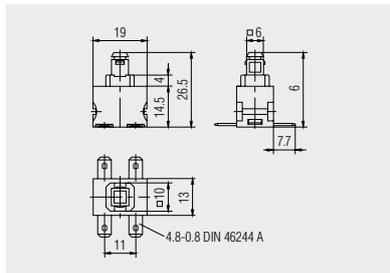
Quick-connect terminal 4.8 x 0.8 vertical (with mounted cap)



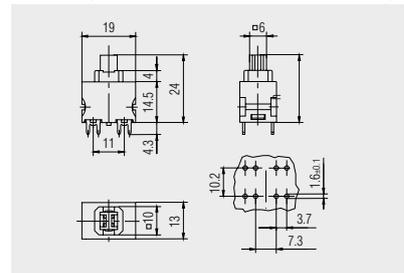
Quick-connect terminal 4.8 x 0.8 vertical (standard actuator)



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

SNMP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH 'N' DRIVE

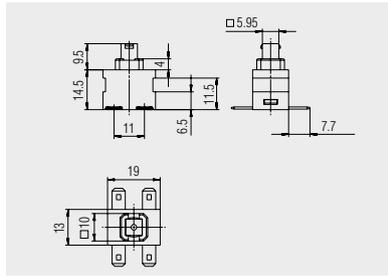


SERIES 1680 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

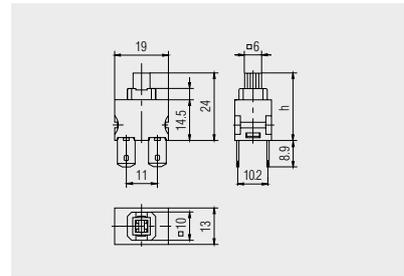
TO 16 (4) A / 12 (12) A 250 V AC



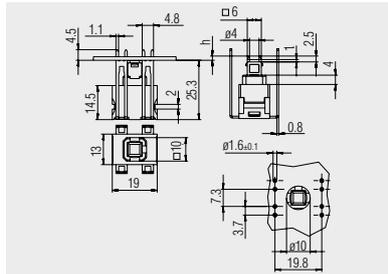
Basic types 1682 and 1689
double-pole



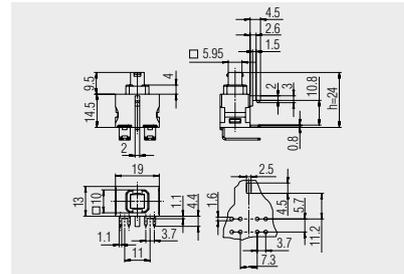
Quick-connect terminal 4.8 x 0.8
horizontal (shortened actuator
without cut-out)



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)

ROCKERSWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

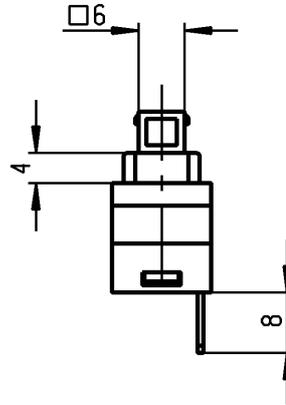
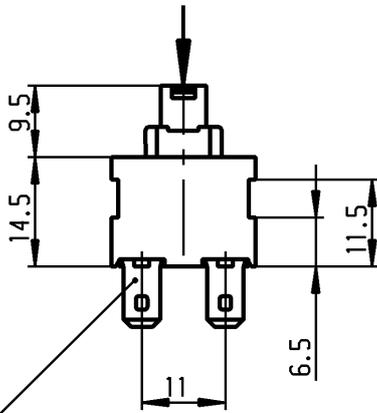
ECO

PUSH'N'DRIVE

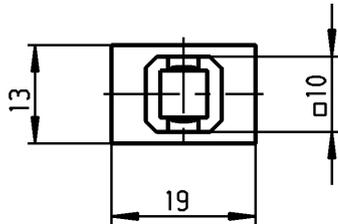
VERTRAULICH-CONFIDENTIAL

© Alle Rechte bei Marquardt GmbH, auch fuer den Fall von Schutzrechtsanmeldungen.
 Jede Verfuegungsbefugnis, wie Kopier- und Weitergaberecht, bei uns.
 © This document is the exclusive property of Marquardt GmbH. Without our consent, it may not be reproduced or given to third parties.

Betaetigungskraft
 operating force $F=7N \pm 2.5N$



Flachstecker / plug in
 ae hn l. DIN 46 244-A 4.8-0.8



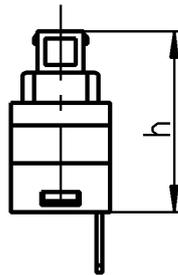
Aufschrift
 Marking

168..
 12(8)/250~ T100/55
 10(8)/250 ~ 5E4



12A 125 - 250 VAC
 1/2 HP 125-250 VAC
 R 97

Herstelljahr/-woche
 nach DIN EN 60062
 code of manufacture:
 year / week
 acc. to DIN EN 60062



Schalt- stellung	operating position	h
AUS	OFF	24.0
EIN	ON	≤21.3
Block	block	19.7

Schliesser 1-polig

Fuer Gerate der Klasse II geeignet
 Kontakte vergoldet

SPNO

suitable for appliances of class II
 contacts gold plated

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

Auf Verpackung / on box: 6.630-396.0 / 6.645-14
 G

Diese Unterlage ist geistiges Eigentum der Marquardt GmbH. Schutzvermerk nach DIN 34 beachten. Copyright reserved.

Für Form und Lage FOR SHAPE AND LOC.		Allgemeine Toleranzen UNTOLERANCED DIMENSIONS		Pause COPY		Blatt SHEET		Typ K		Zeichn./DRAWING NO. 1681.1354		Index	
Für Winkel FOR ANGLE $\pm 2^\circ$		Abmasse und Nennmassbereiche Angaben in mm ALL DIMENSIONS ARE IN MILLIMETRES		Laengen LENGTH		Radien RADII		Original DIN		Maßstab SCALE 1:1		Geraeteschalter Appliance Switch	
PROJECTION		>0-6 ± 0.2 >6-15 ± 0.4 >15-30 ± 0.4 >30-70 ± >70-120 ± >120-200 ±		0 10 20 30 mm		A4		CAD Medusa		Z		Gez./DRAWN BY 18.04.06 hhe Gepr./CHECKED BY Mej	
c b a		g f e d		52260 05.06.07 hhe		47147 18.04.06 hhe		Ersatz für/REPLACEMENT OF		MARQUARDT		Marquardt GmbH, D-78604 Rietheim-Weilheim	
Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY		Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY			