

## ➔ SERIES 1683 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 A 250 V AC



### PRODUCT FEATURES

- ➔ Million times proven, double lifting contact system
- ➔ High electrical rating up to 16 A
- ➔ High rating with 100 000 mechanical switching cycles
- ➔ Illuminated and non-illuminated variants

### ON REQUEST


- ➔ Other colors
- ➔ Printing
- ➔ Other lamp variants
- ➔ Snap-on customized actuators
- ➔ Other terminal variants (e.g. 6.3 x 0.8 mm)
- ➔ Cable assembly
- ➔ Variant with dust and water protection


Mechanical life endurance	10E4
Operating force	approx. 8 N (basic type 1683) approx. 12 N
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	terminal side -20 °C ... +100 °C actuating side -20 °C ... +55 °C
Flammability	UL 94 (actuator: V-0, socket: V-1, housing: V-2) UL 94 V-0
Glow wire test temperature	850 °C
Actuator	IP 40 IP 65 and IP 67 (product- dependent)
Material actuator housing	PC / EPDM / PA Latamid PA / PA glass fiber-reinforced / PA C3U / PA Latamid glass fiber-reinforced
Plug force of the terminals	≤ 80 N
Approval marks	
Suitable for appliances of protection class II	



# SERIES 1683 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 A 250 V AC

 single-pole		Lighting voltage (V)	Actuator color / printing	16 (4) A 250 V AC 1E4	12 (8) A 250 V AC 1E4	10 (8) A 250 V AC 5E4	12 A 125 - 250 V AC 1/2 HP	Terminal type	Terminal description	Contact distance (mm)	Contact material	Free position (FP) max. (mm)	Operating position (OP) (mm)	Permissible total travel position (TP) (mm)	Actuator	Miscellaneous	Stock version
<b>ON / OFF switch (SPST)</b>																	
1686.1101	230		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.9	20.85	19.7	IP 40		
1686.8104	230		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	28	25	23.8	IP 65 and IP 67		
1683.1101			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.9	20.85	19.7	IP 40		
1683.8101			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	28	25	23.8	IP 65 and IP 67		
<b>Normally open contact (SPNO)</b>																	
1686.6155	24		<input type="radio"/>						4.8 / 2 x 2.8	≥ 3	Au	23.9	20.85	19.7	IP 40	lamp terminal (2.8) external	
1683.1201			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.9	20.85	19.7	IP 40		<input type="radio"/>
1683.1802			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.5	20.45	19.3	IP 40		

 double-pole		Lighting voltage (V)	Actuator color / printing	16 (4) A 250 V AC 1E4	12 (8) A 250 V AC 1E4	10 (8) A 250 V AC 5E4	12 A 125 - 250 V AC 1/2 HP	Terminal type	Terminal description	Contact distance (mm)	Contact material	Free position (FP) max. (mm)	Operating position (OP) (mm)	Permissible total travel position (TP) (mm)	Actuator	Miscellaneous	Stock version
<b>ON / OFF switch (DPST)</b>																	
1687.1104	230		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.9	20.85	19.7	IP 40		<input type="radio"/>
1684.1101			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.9	20.85	19.7	IP 40		
1684.1701			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.5	20.45	19.3	IP 40	snap-on actuator	
1684.1801			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	23.5	20.45	19.3	IP 40		
<b>Normally open contact (SPNO)</b>																	
1684.8202			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		4.8	≥ 3	Ag	28	25	23.8	IP 65 and IP 67		

ROCKERSWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH'DRIVE

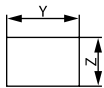


# SERIES 1683 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 A 250 V AC

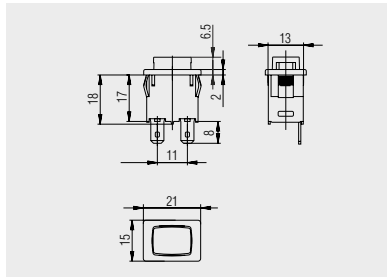


Basic type 1683  
single-pole  
non-illuminated

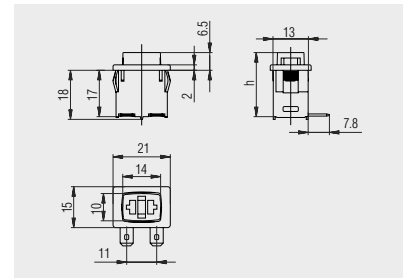


X = Wall thickness

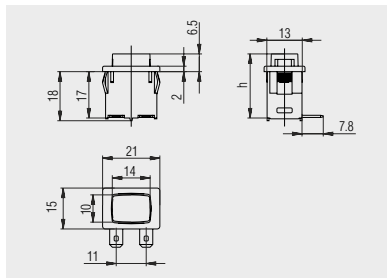
x	y	z
0.75 ... 1.25	19.2 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>
1.25 ... 2	19.4 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>
2 ... 3	19.8 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>



Quick-connect terminal 4.8 x 0.8



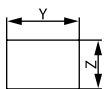
Quick-connect terminal 4.8 x 0.8  
horizontal



Quick-connect terminal 4.8 x 0.8  
horizontal

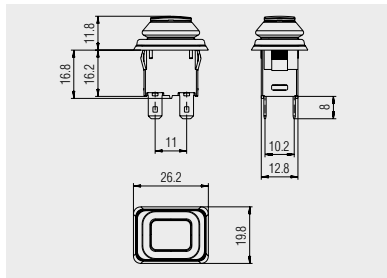


Basic types 1683, 1684,  
1686 and 1687  
single and double-pole  
illuminated / non-illuminated



X = Wall thickness

x	y	z
1.0 ... 2.0	19.8 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>



Quick-connect terminal 4.8 x 0.8  
1686.8101 and 1683.8104 with  
bellows for IP 65/IP 67

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

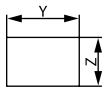


# SERIES 1683 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 A 250 V AC

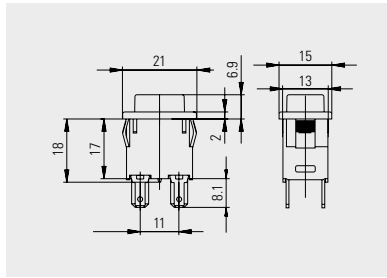


Basic types 1683, 1684, 1686 and 1687  
single and double-pole  
illuminated / non-illuminated

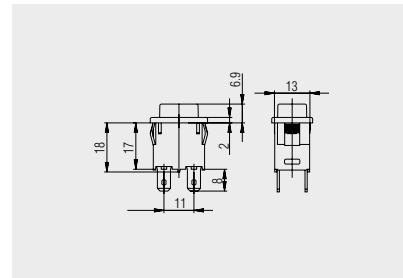


X = Wall thickness

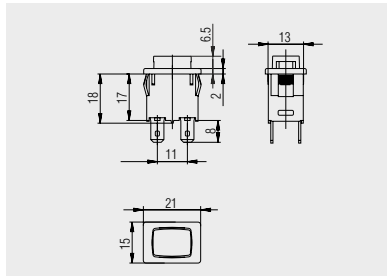
x	y	z
0.75 ... 1.25	19.2 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>
1.25 ... 2	19.4 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>
2 ... 3	19.8 <sup>-0.1</sup>	12.9 <sup>+0.1</sup>



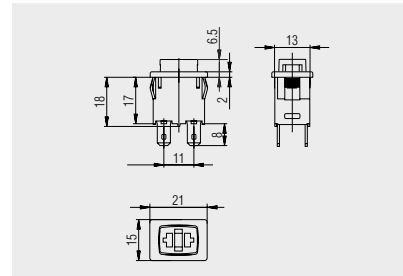
Quick-connect terminal 4.8 x 0.8  
/ 2 x 2.8 x 0.8 with external lamp  
1686.6155



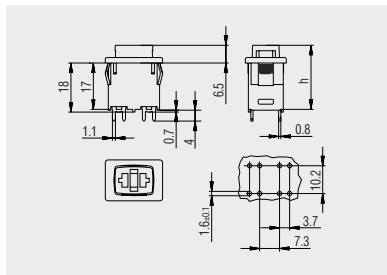
Quick-connect terminal 4.8 x 0.8  
1684.1101, 1684.1104, 1684.1201,  
basic types 1687 and 1686



Quick-connect terminal 4.8 x 0.8  
basic type 1684



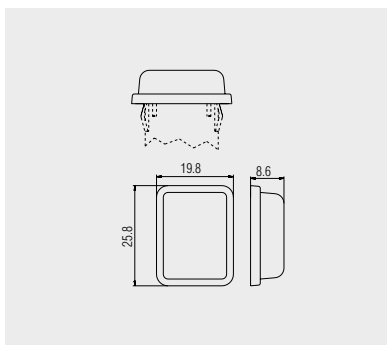
Quick-connect terminal 4.8 x 0.8  
basic type 1684



PCB terminal vertical  
1684.2701



Protection cap  
203.701.011



Transparent PVC-protection cap for  
dust and water protection from the  
actuation side

ROCKERSWITCHES

PUSHBUTTON SWITCHES

TOGGLE SWITCHES

SLIDE SWITCHES

ROTARY SWITCHES

FOOT SWITCHES

TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

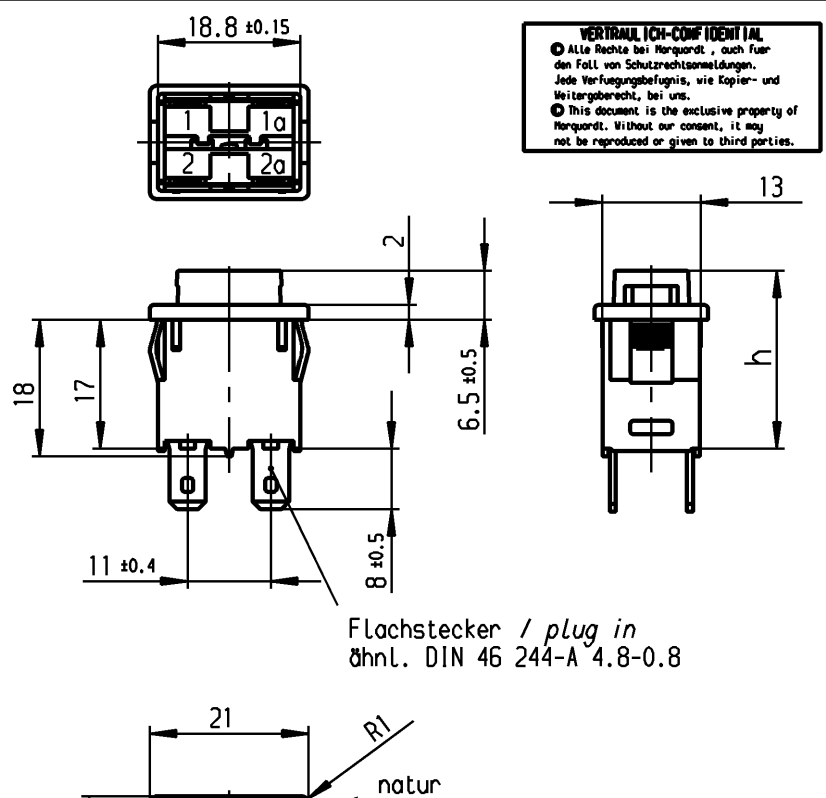
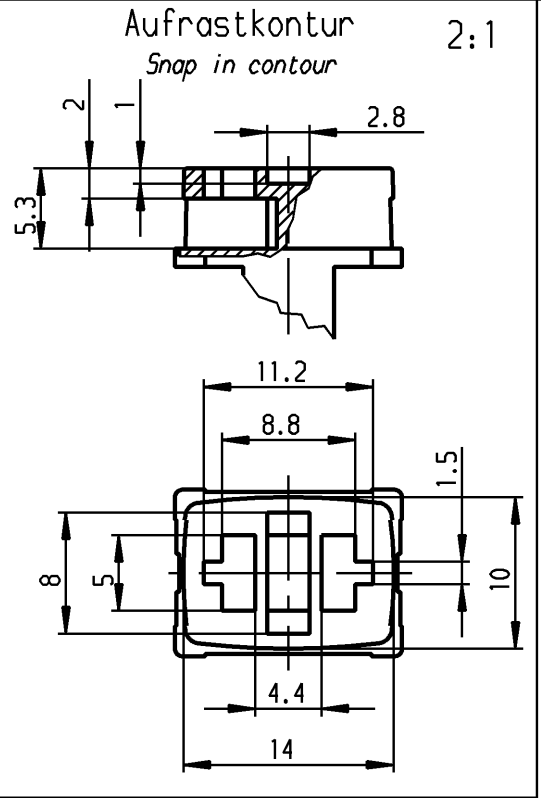
MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH'N'DRIVE

1	2	3	4
Empfohlener Ausschnitt für Rastbefestigung (Grat gegenüber Bestückungsseite) <i>recommended cut-out for snap-in fixing (edge opposite to snap-in direction)</i>	Wanddicke <i>wall thickness</i>	Ausschnittlänge <i>length of cut-out</i>	Ausschnittbreite <i>width of cut-out</i>
	0.75 to / bis 1.25	19.2 -0.1	12.9 +0.1
	1.25 to / bis 2	19.4 -0.1	12.9 +0.1
	2 to / bis 3	19.8 -0.1	12.9 +0.1



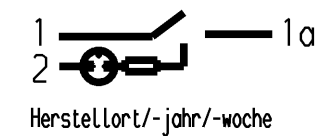
**VERTRAULICH-CONFIDENTIAL**  
 © Alle Rechte bei Marquardt, auch für den Fall von Schutzrechtsverletzungen. Jede Weitergabe, Kopieren, Nachdruck, Verbreitung, ist ohne schriftliche Genehmigung Marquardt. Without our consent, it may not be reproduced or given to third parties.

**Aufschrift**  
*Marking*

168..

16(4)/250 ~ T100/55  
 12(8)/250 ~  
 10(8)/250 ~ 5E4

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



Schaltstellung	operating position	h
AUS	OFF	23.5
EIN	ON	20.45
Block	block	19.3

Ausschalter 2-polig  
 Für Geräte der Klasse II geeignet  
 DPST  
 suitable for appliances of class II

*date code of manufacture:  
 place/year/week*

Auf Verpackung on box: G

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

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

Für Form und Lage FOR SHAPE AND LOC. 		ALLgemeintoleranzen UNTOLERANCED DIMENSIONS		Pause COPY Blatt SHEET 01 Original DIN A4 Maßstab SCALE 1:1 	Typ K Zeichn./DRAWING NO. 1684.1701 Index																			
Für Winkel FOR ANGLE ± 2° 		Abmasse und Nennmassbereiche Angaben in mm <table border="1"> <tr> <td>0-6</td> <td>± 0.15</td> <td>± 0.2</td> </tr> <tr> <td>&gt;6-15</td> <td>± 0.2</td> <td>± 0.3</td> </tr> <tr> <td>&gt;15-30</td> <td>± 0.25</td> <td>± 0.5</td> </tr> <tr> <td>&gt;30-70</td> <td>± 0.4</td> <td></td> </tr> <tr> <td>&gt;70-120</td> <td>± 0.6</td> <td></td> </tr> <tr> <td>&gt;120-200</td> <td>± 1</td> <td></td> </tr> </table>				0-6	± 0.15	± 0.2	>6-15	± 0.2	± 0.3	>15-30	± 0.25	± 0.5	>30-70	± 0.4		>70-120	± 0.6		>120-200	± 1		PROJECTION 
0-6	± 0.15	± 0.2																						
>6-15	± 0.2	± 0.3																						
>15-30	± 0.25	± 0.5																						
>30-70	± 0.4																							
>70-120	± 0.6																							
>120-200	± 1																							
ALL DIMENSIONS ARE IN MILLIMETRES		CAD Medusa Z gez./DRAWN BY 14.01.02 grh gepr./CHECKED BY mej Ersatz für/REPLACEMENT OF		<b>MARQUARDT</b> Marquardt, D-78604 Riethem-Weilheim																				
Ausg. ISSUE Änderung REVISION gez. DRAWN BY	c 77010 17.01.12 hhe a 41382 25.10.04 hhe 33122 14.01.02 grh	g f e d	Ausg. ISSUE Änderung REVISION gez. DRAWN BY																					