

➔ 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
ON / OFF switch (SPST)																	
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		
Normally open contact (SPNO)																	
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
ON / OFF switch (DPST)																	
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		
Normally open contact (SPNO)																	
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

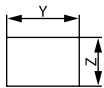


SERIES 1683 - SINGLE AND DOUBLE-POLE PUSHBUTTON SWITCHES

TO 16 A 250 V AC

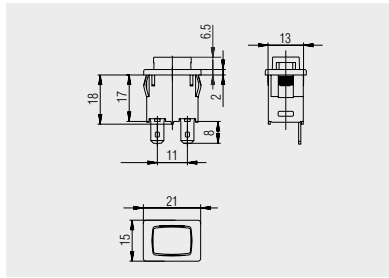


Basic type 1683
single-pole
non-illuminated

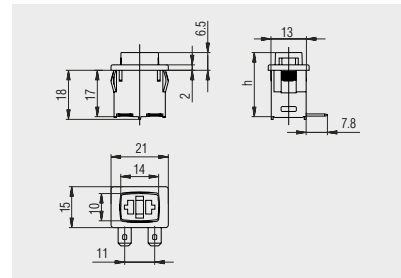


X = Wall thickness

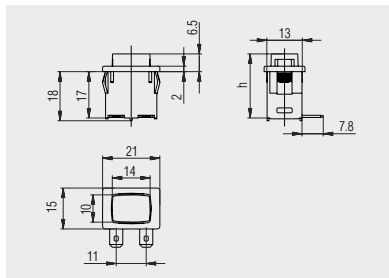
x	y	z
0.75 ... 1.25	19.2 ^{-0.1}	12.9 ^{+0.1}
1.25 ... 2	19.4 ^{-0.1}	12.9 ^{+0.1}
2 ... 3	19.8 ^{-0.1}	12.9 ^{+0.1}



Quick-connect terminal 4.8 x 0.8



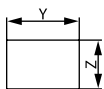
Quick-connect terminal 4.8 x 0.8
horizontal



Quick-connect terminal 4.8 x 0.8
horizontal

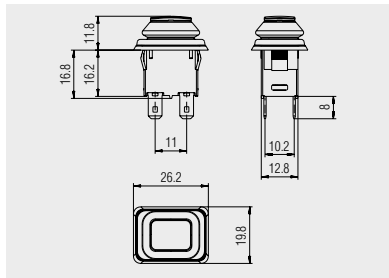


Basic types 1683, 1684,
1686 and 1687
single and double-pole
illuminated / non-illuminated



X = Wall thickness

x	y	z
1.0 ... 2.0	19.8 ^{-0.1}	12.9 ^{+0.1}



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

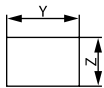


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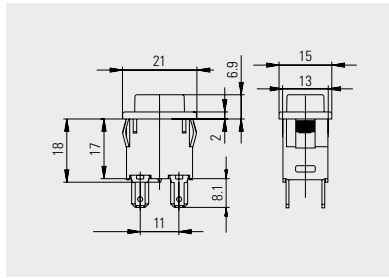


Basic types 1683, 1684, 1686 and 1687
single and double-pole
illuminated / non-illuminated

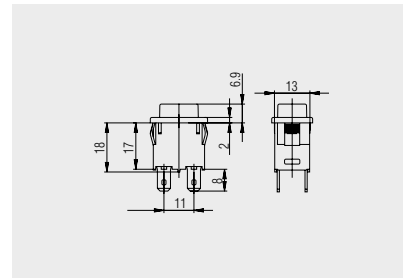


X = Wall thickness

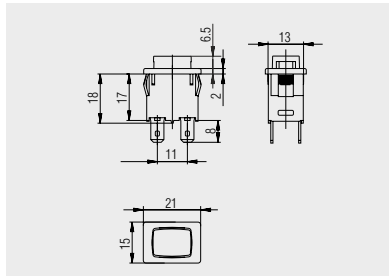
x	y	z
0.75 ... 1.25	19.2 ^{-0.1}	12.9 ^{+0.1}
1.25 ... 2	19.4 ^{-0.1}	12.9 ^{+0.1}
2 ... 3	19.8 ^{-0.1}	12.9 ^{+0.1}



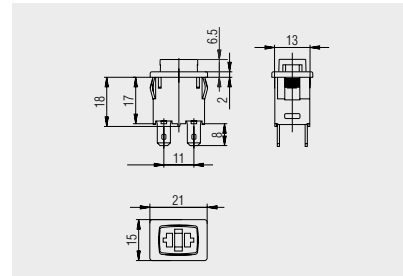
Quick-connect terminal 4.8 x 0.8
/ 2 x 2.8 x 0.8 with external lamp
1686.6155



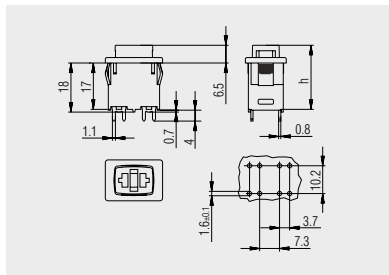
Quick-connect terminal 4.8 x 0.8
1684.1101, 1684.1104, 1684.1201,
basic types 1687 and 1686



Quick-connect terminal 4.8 x 0.8
basic type 1684



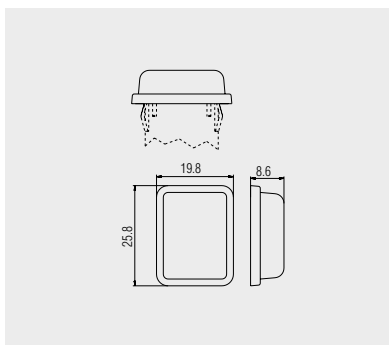
Quick-connect terminal 4.8 x 0.8
basic type 1684



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

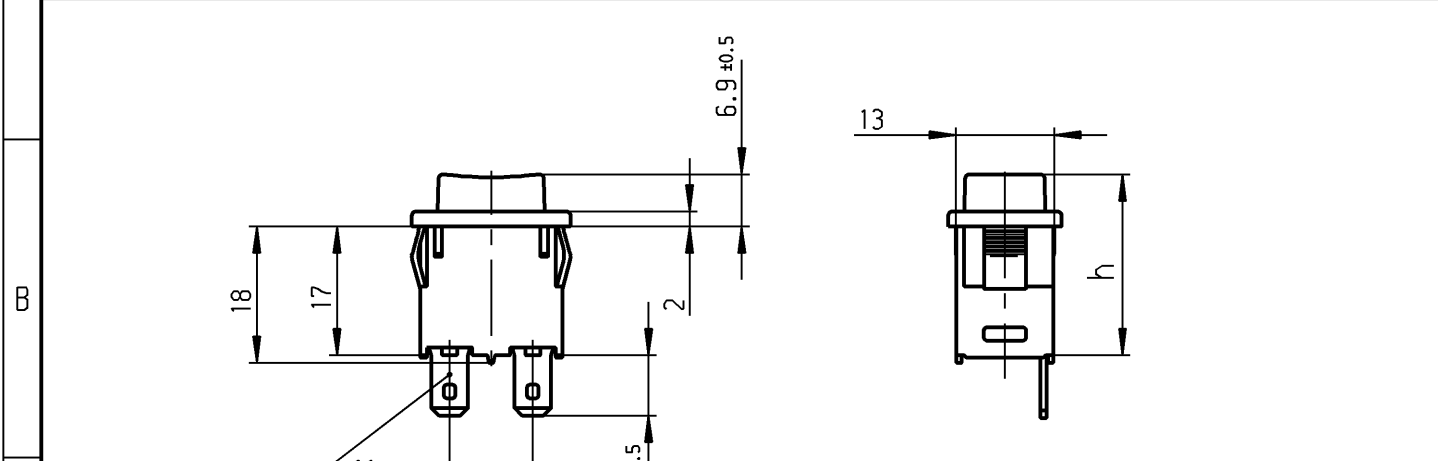
MICRO-SIGNAL SWITCHES

SENSORS

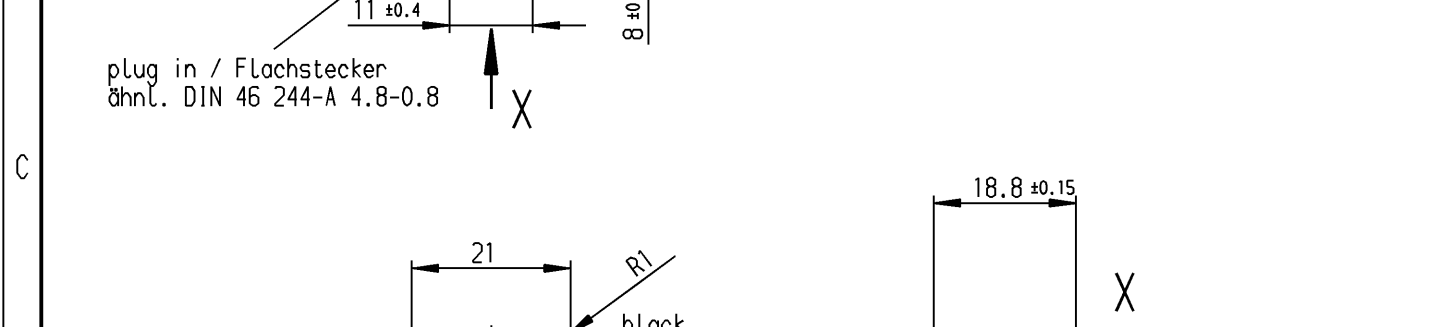
ECO

PUSH'N'DRIVE

	1	2	3	4
	recommended cut-out for snap-in fixing (edge opposite to snap-in direction) Empfohlener Ausschnitt für Rastbefestigung (Grat gegenüber Bestückungsseite)	wall thickness Wanddicke	length of cut-out Ausschnittlänge	width of cut-out Ausschnittbreite
A		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



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



Marking
Aufschrift



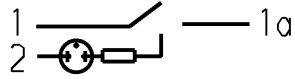
168..
16(4)/250 ~
12(8)/250 ~
10(8)/250 ~ 5E4



T1100/55

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

R 97



operating position	Schaltstellung	h
OFF	AUS	23.9
ON	EIN	20.85
block	Block	19.7

SPST

suitable for appliances of class II

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

Ausschalter 1-polig

Für Geräte der Klasse II geeignet

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Für Form und Lage		Allgemeintoleranzen UNTOLERANCED DIMENSIONS		Pause COPY		Blatt SHEET		Typ		Zeichn./DRAWING NO.		Index	
FOR SHAPE AND LOC.		PROJECTION		Laengen LENGTH		Original DIN		K		1683.1101			
Für Winkel FOR ANGLE ± 2°		Abmasse und Nennmassbereiche Angaben in mm		Radien RADII		Maßstab SCALE		Appliance Switch					
		ALL DIMENSIONS ARE IN MILLIMETRES		± 10%		A4 1:1		Geräteschalter					
						0 10 20 30 mm		CAD Medusa					
c		g						Z					
b 41382		25.10.04 hhe		f				gez./DRAWN BY 25.01.01 grh					
a 31290		20.02.01 grh		e				gepr./CHECKED BY Kiz					
31167		25.01.01 grh		d				Ersatz für/REPLACEMENT OF					
Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY		Ausg. ISSUE		Änderung REVISION		gez. DRAWN BY			
												MARQUARDT Marquardt GmbH, D-78604 Rietheim-Weilheim	