

➔ 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

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 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		

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/DRIVE

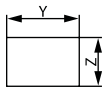


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TO 16 A 250 V AC

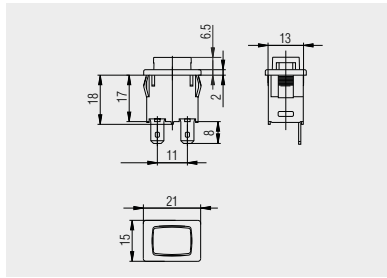


Basic type 1683
single-pole
non-illuminated

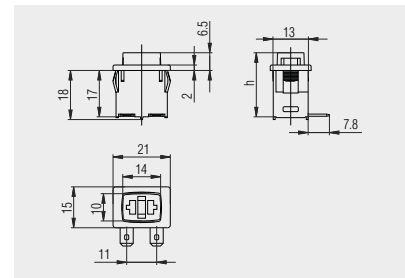


X = Wall thickness

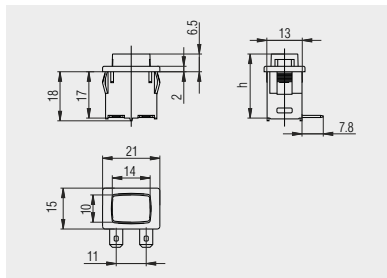
x	y	z
0.75 ... 1.25	19.2 ^{-0.1}	12.9 ^{+0.1}
1.25 ... 2	19.4 ^{-0.1}	12.9 ^{+0.1}
2 ... 3	19.8 ^{-0.1}	12.9 ^{+0.1}



Quick-connect terminal 4.8 x 0.8



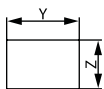
Quick-connect terminal 4.8 x 0.8
horizontal



Quick-connect terminal 4.8 x 0.8
horizontal

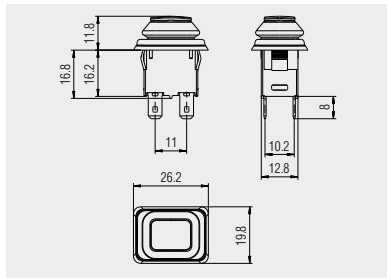


Basic types 1683, 1684,
1686 and 1687
single and double-pole
illuminated / non-illuminated



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

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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

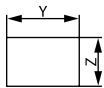


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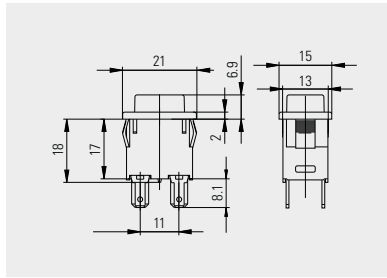


Basic types 1683, 1684, 1686 and 1687
single and double-pole
illuminated / non-illuminated

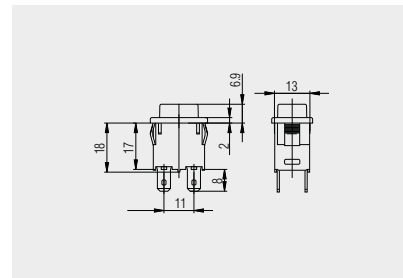


X = Wall thickness

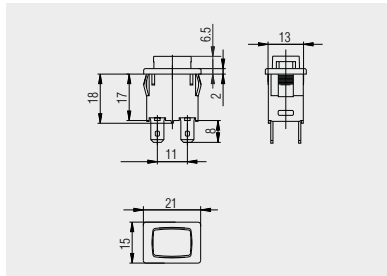
x	y	z
0.75 ... 1.25	19.2 ^{-0.1}	12.9 ^{+0.1}
1.25 ... 2	19.4 ^{-0.1}	12.9 ^{+0.1}
2 ... 3	19.8 ^{-0.1}	12.9 ^{+0.1}



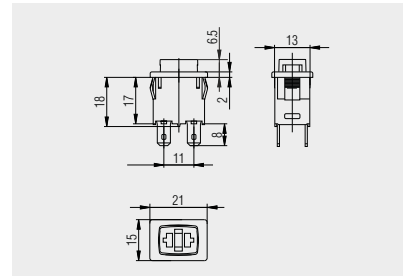
Quick-connect terminal 4.8 x 0.8 / 2 x 2.8 x 0.8 with external lamp 1686.6155



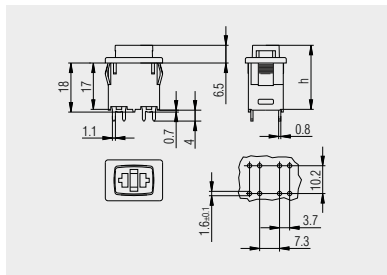
Quick-connect terminal 4.8 x 0.8 1684.1101, 1684.1104, 1684.1201, basic types 1687 and 1686



Quick-connect terminal 4.8 x 0.8 basic type 1684



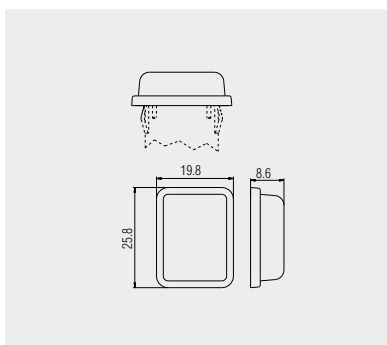
Quick-connect terminal 4.8 x 0.8 basic type 1684



PCB terminal vertical 1684.2701



Protection cap 203.701.011



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

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TACT AND KEY SWITCHES

SNAP-ACTION SWITCHES

MICRO-SIGNAL SWITCHES

SENSORS

ECO

PUSH/DRIVE

MARQUARDT INTERNATIONAL.



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