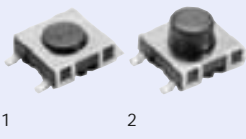
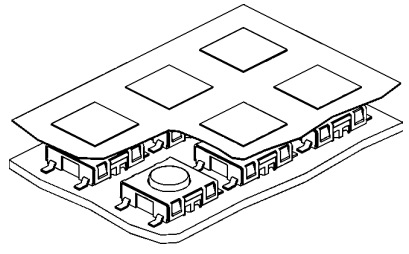
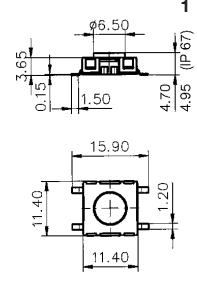
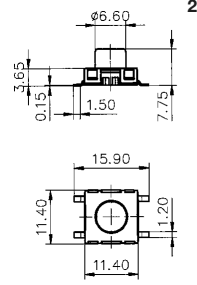
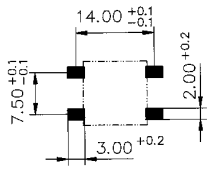
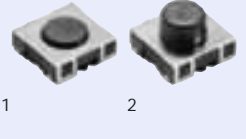
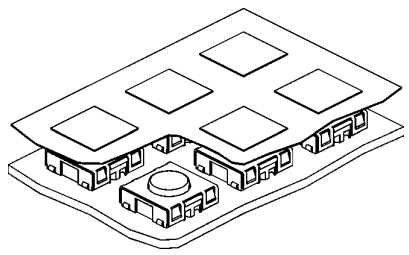
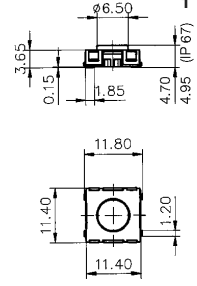
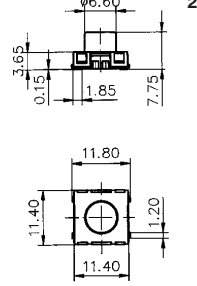
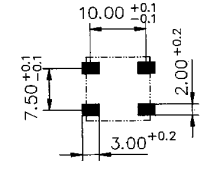

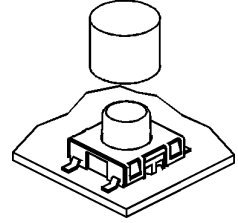
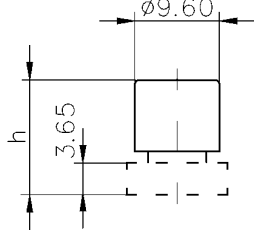
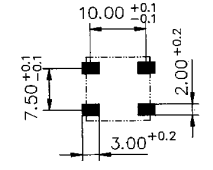

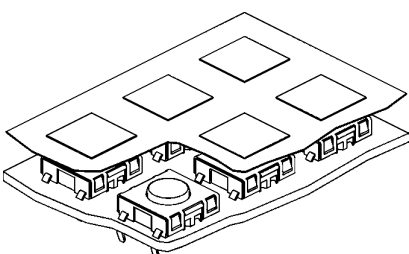
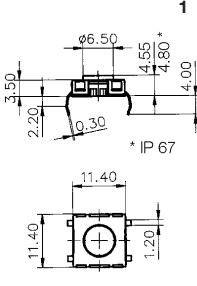
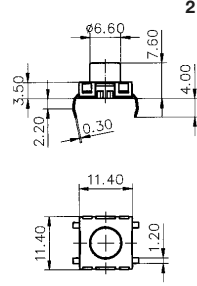
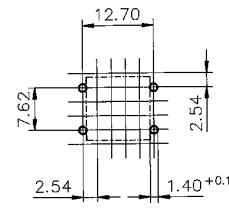

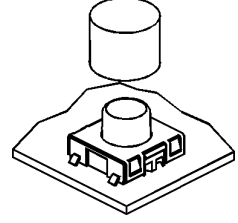
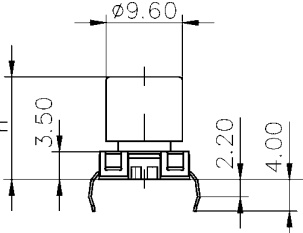

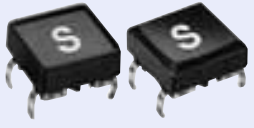
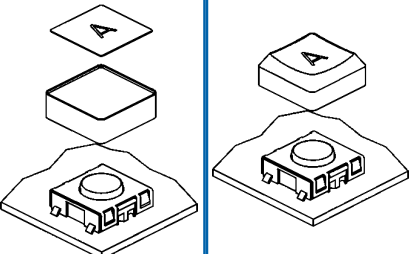
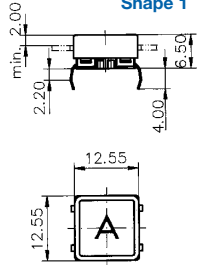
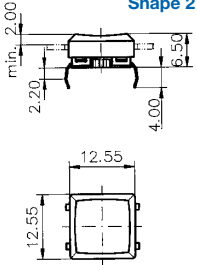



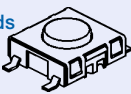
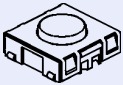
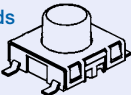
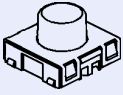
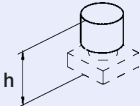
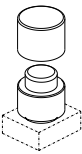
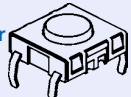
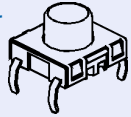
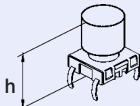
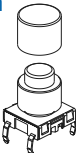
# Switches in momentary action SMS, PMS, PMK

Models	Construction	Dimensions		Solder pads
<p><b>SMS</b> Gullwing-leads</p> 		<p><b>1</b></p> 	<p><b>2</b></p> 	<p><b>Solder pads</b> Gullwing</p> 
<p><b>SMS</b> J-leads</p> 		<p><b>1</b></p> 	<p><b>2</b></p> 	<p><b>Solder pads</b> J-leads</p> 
<p>Buttons in variable heights</p> 		<p>Overall height <i>h</i> variable</p> 		
<p><b>PMS</b> Through hole mounting</p> 		<p><b>1</b></p> 	<p><b>2</b></p> 	<p><b>Drilling diagram</b> through hole</p> 
<p><b>PMS</b> height variable</p> 		<p>Overall height <i>h</i> variable</p> 		<p><b>Circuit diagram</b></p> 
<p><b>PMK</b></p> 		<p><b>Shape 1</b></p> 	<p><b>Shape 2</b></p> 	

# Technical Data SMS, PMS, PMK

1. Mechanical data		SMS	PMS	PMK
Actuating force	IP 40	1,8 N ±0,4 N	1,8 N ±0,4 N	2,2 N ±0,4 N
	IP 67	2,2 N ±0,4 N	2,2 N ±0,4 N	
Contact travel		0,35 mm ±0,1 mm	0,35 mm ±0,1 mm	0,30 mm ±0,1 mm
(DIN 41640 Teil 19) / End stop strength		> 100 N		
(IEC 512-5 Test 9a, actuating force 5 N) / Lifetime		> 10 <sup>6</sup> Operations		
2. Electrical data				
Switching voltage max.		30V AC / 42V DC		
Switching current max.		50 mA		
Lifetime (at rated breaking capacity 0,12 W)		> 10 <sup>6</sup> Cycles		
(IEC 512-2, mV-Method) Initial contact resistance, new		< 50 mΩ		
Initial contact resistance after 10 <sup>6</sup> cycles		< 150 mΩ		
(IEC 512-2) Insulation resistance		> 10 <sup>8</sup> Ω		
Contact bounce time		typ. 0,15 ms		
3. Other data		SMS	PMS	PMK
Solderability (CECC 00802 und IEC 68-2-20)		IR-Reflow		
(IEC 68-2-20 Test Tb, Method 1A) Soldering heat resistance (IEC 68-2-20 Test Tb, Method 2) (CECC 00802 Classification B) (CECC 00802 Classification C)		350 °C / 10 s 215 °C / 40 s 260 °C / 10 s	260 °C / 10 s 350 °C / 10 s	260 °C / 10 s 350 °C / 10 s
Ambient temperature		-40 °C...+85 °C		
Storage temperature		-40 °C...+85 °C		
(IEC 68-2-45) Testmedium Cleaning agent proof		Zestron		
(DIN 41640 Teil 84) Flux-proof		—	given	given
Degree of protection		IP 40 / IP 67	IP 40 / IP 67	IP 67
4. Materials		SMS	PMS	PMK
Contact material gold		CuZn – 1,5 μm Ni + 0,5 μm Au		
Terminals		CuZn – 8 μm SnPb		
Socket		Thermoplast PA 4.6		
Actuator		Thermoplast PPS		
Cover plate		X12CrNi17 7		
Sealing membrane		—	VMQ	VMQ
5. Packaging		SMS	PMS	PMK
		taped and reeled		
		loose in boxes	loose in boxes	loose in boxes

## Switches in momentary action SMS, PMS

Models <b>SMS</b>		Variations		Part Number		
Gullwing-leads 	Degree of protection	IP 40		1241.1600.XX		
		IP 67		1241.1606.XX		
J-leads 	Degree of protection	IP 40		1241.1601.XX		
		IP 67		1241.1607.XX		
Gullwing-leads 	Degree of protection	IP 40		1241.1612.XX		
		IP 67		1241.1618.XX		
J-leads 	Degree of protection	IP 40		1241.1613.XX		
		IP 67		1241.1619.XX		
Packaging	loose in boxes			11		
	taped and reeled			23		
Button in variable heights for long actuators (must be ordered separately) 	Overall height h 	8,50 mm	(yellow)	0862.8101		
		9,25 mm	(orange)	0862.8102		
		10,00 mm	(red)	0862.8103		
		10,75 mm	(blue)	0862.8104		
		11,50 mm	(green)	0862.8105		
		12,25 mm	(grey)	0862.8106		
		13,00 mm	(black)	0862.8107		
		13,75 mm	(white)	0862.8108		
		<sup>1</sup>	additional key cap			0862.8226
		<sup>1</sup>	Starting with 14,50 mm, additional (second) key caps for midsizes (h +6 mm) are necessary. Order separately.			
<b>PMS</b>						
Short actuator 	Degree of protection	IP 40		1241.1602		
		IP 67		1241.1608		
Long actuator 	Degree of protection	IP 40		1241.1614		
		IP 67		1241.1620		
Height variable	Degree of protection	IP 40		1241.1624.XX		
		IP 67		1241.1625.XX		
Overall height h 	Overall height h 	(yellow)	8,35 mm = 1	<sup>2</sup> 14,35 mm = 11		
		(orange)	9,10 mm = 2	15,10 mm = 21		
		(red)	9,85 mm = 3	15,85 mm = 31		
		(blue)	10,60 mm = 4	16,60 mm = 41		
		(green)	11,35 mm = 5	17,35 mm = 51		
		(grey)	12,10 mm = 6	18,10 mm = 61		
		(black)	12,85 mm = 7	18,85 mm = 71		
		(white)	13,60 mm = 8	19,60 mm = 81		
<sup>2</sup>	Starting with 14,35 mm the heights were realized with an additional (second) keycap.					

# PMK and key caps for SMS, Illumination key caps

Models <b>PMK</b>		Variations	Part Number
Shape 1	Degree of protection	with legend	1241.1629.X.XXX
		without legend	1241.1629.X.XXX
Shape 2		with legend	1241.1633.X.XXX
		without legend	1241.1633.X.XXX
Shape 1	for IP 67 with short actuator	with legend	0865.9541.X.XXX
		without legend	0865.9541.X.XXX
Shape 2		with legend	0865.9542.X.XXX
		without legend	0862.800 X
<b>SMS Tastkappe Key cap</b>			
Shape 1 Insert plate Key cap Base module	Color of key cap	red	3
		green	5
		grey	6
		black	7
		white	8
		Legend of key cap/insert plate (Type height/ type face see page 39)	A = 001      P = 016      4 = 031      ⇕ = 046      EIN = 061 B = 002      Q = 017      5 = 032      → = 047      AUS = 062 C = 003      R = 018      6 = 033      ← = 048      AUF = 063 D = 004      S = 019      7 = 034      ↓ = 049      AB = 064 E = 005      T = 020      8 = 035      ↑ = 050      ON = 065 F = 006      U = 021      9 = 036      % = 051      OFF = 066 G = 007      V = 022      + = 037      √ = 052      UP = 067 H = 008      W = 023      - = 038      CTRL = 053      DOWN = 068 I = 009      X = 024      · = 039      RETURN = 054      HIGH = 069 J = 010      Y = 025      x = 040      SHIFT = 055      LOW = 070 K = 011      Z = 026      ÷ = 041      LOCK = 056      ON/OFF = 071 L = 012      0 = 027      * = 042      STOP = 057      START = 072 M = 013      1 = 028      = = 043      ENTER = 058 N = 014      2 = 029      # = 044      BACK = 059 O = 015      3 = 030      ↔ = 045      LINE = 060
Shape 2 Key cap Base module	Color of insert plate without legend shape 1	yellow = 091	grey = 096
		orange = 092	black = 097
		red = 093	white = 098
		blue = 094	anthracite = 099
		green = 095	
<b>Illumination key cap</b> 	In Preparation		0859.9335
	Color of key cap	transparent	
Auftragsbezogene Fertigung / Order specific production			