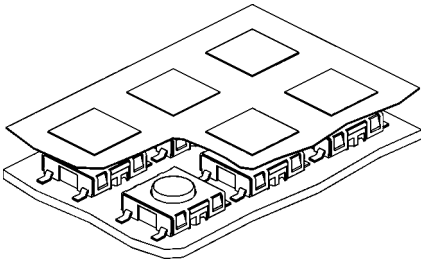
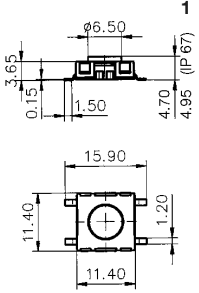
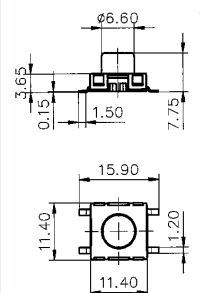
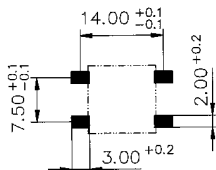
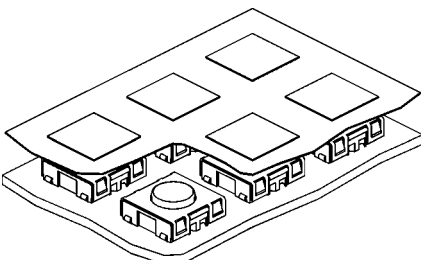
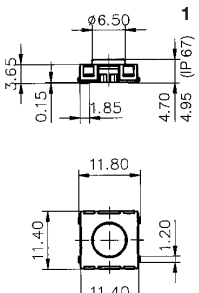
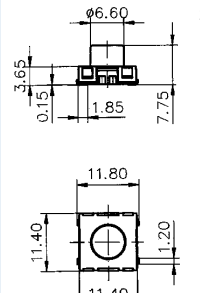
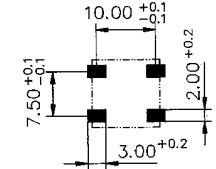
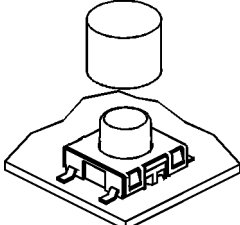
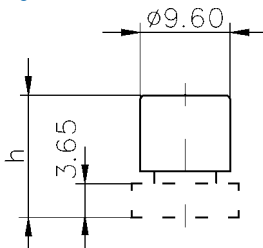
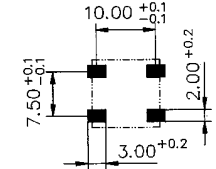
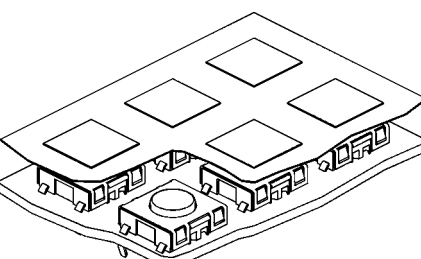
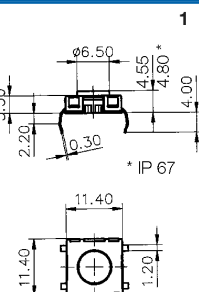
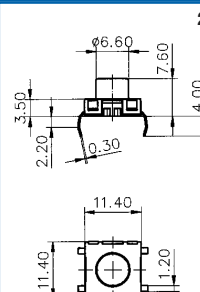
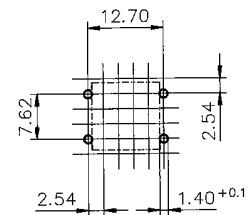
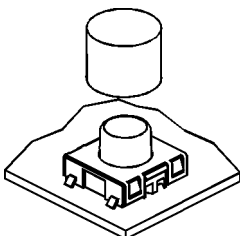
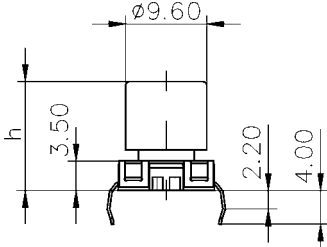
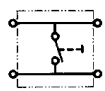
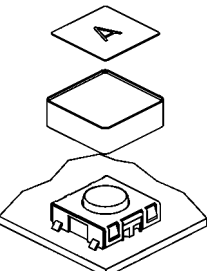
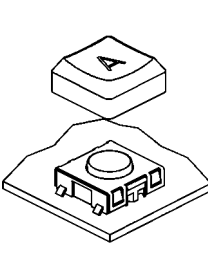
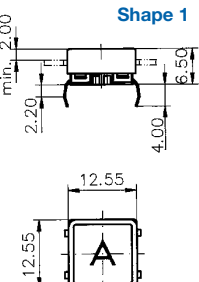
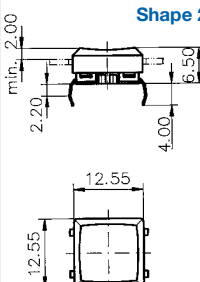


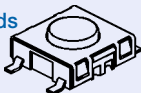
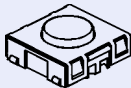
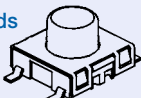
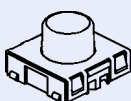
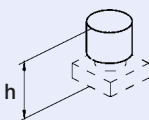
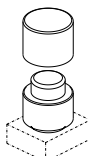
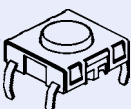
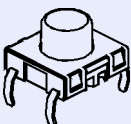
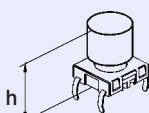
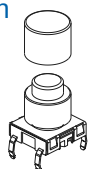
Switches in momentary action SMS, PMS, PMK

Models	Construction	Dimensions		Solder pads
SMS Gullwing-leads  12		1 	2 	Solder pads Gullwing 
SMS J-leads  12		1 	2 	Solder pads J-leads 
Buttons in variable heights 		Overall height h variable 		
PMS Through hole mounting  12		1 	2 	Drilling diagram through hole 
PMS height variable 		Overall height h variable 		Circuit diagram 
PMK Shape 1  Shape 2 	 	Shape 1 	Shape 2 	

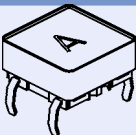
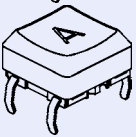
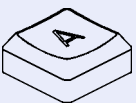
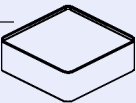
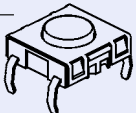
Technical Data SMS, PMS, PMK

1. Mechanical data		SMS	PMS	PMK
Actuating force	IP 40 IP 67	1,8 N ±0,4 N 2,2 N ±0,4 N	1,8 N ±0,4 N 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 ⁶ 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 ⁶ Cycles		
(IEC 512-2, mV-Method) Initial contact resistance, new		< 50 mΩ		
Initial contact resistance after 10 ⁶ cycles		< 150 mΩ		
(IEC 512-2) Insulation resistance		> 10 ⁸ 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 SMS		Variations			Part Number	
Gullwing-leads 	Degree of protection	IP 40			1241.1600.	XX
		IP 67			1241.1606.	XX
J-leads 		IP 40			1241.1601.	XX
		IP 67			1241.1607.	XX
Gullwing-leads 		IP 40			1241.1612.	XX
		IP 67			1241.1618.	XX
J-leads 		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	
	¹ additional key cap				0862.8226	
	¹ Starting with 14,50 mm, additional (second) key caps for midsizes (h +6mm) are necessary. Order separately.					
PMS						
Short actuator 	Degree of protection	IP 40			1241.1602	
		IP 67			1241.1608	
Long actuator 		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 		yellow)	8,35 mm =	1	² 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
		² Starting with 14,35 mm the heights were realized with an additional (second) keycap.				

PMK and key caps for SMS, Illumination key caps

Models PMK		Variations				Part Number	
Shape 1  Shape 2 	Degree of protection	with legend				1241.1629.X.XXX	
		without legend				1241.1629.X.XXX	
		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	
SMS Tastkappe Key cap		Color of key cap					
Shape 1 Insert plate  Key cap  Base module 		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			