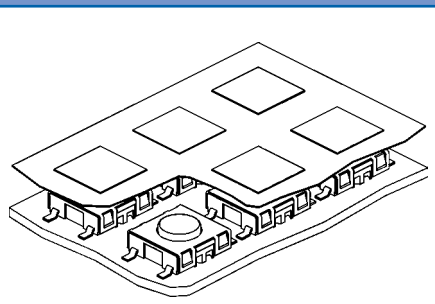
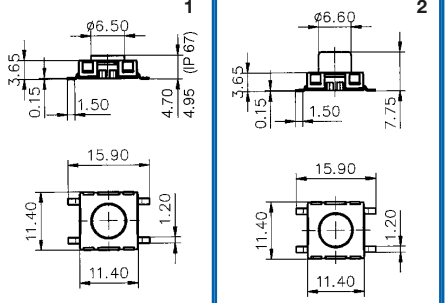
Switches in momentary action SMS, PMS, PMK

Models	Construction	Dimensions	Solder pads

SMS
Gullwing-leads

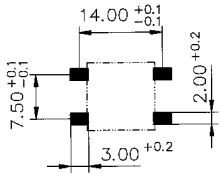
1 2



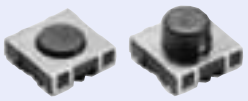


Solder pads

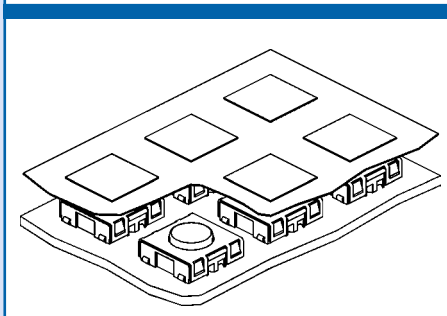
Gullwing

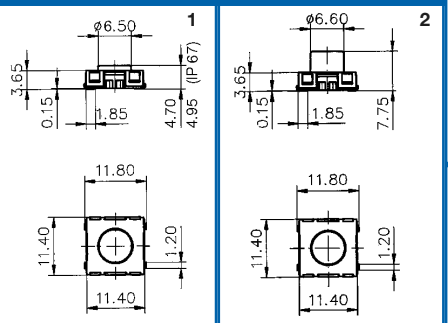


SMS
J-leads



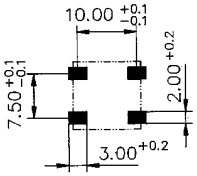
1 2



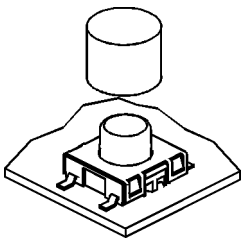


Solder pads

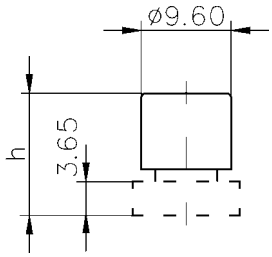
J-leads



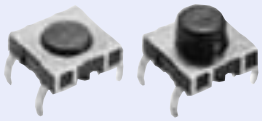
Buttons in variable heights



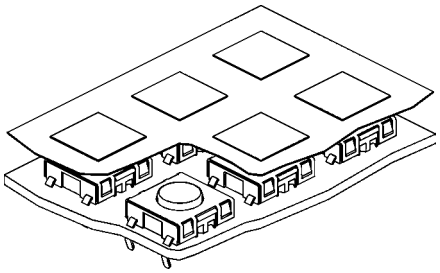
Overall height **h** variable

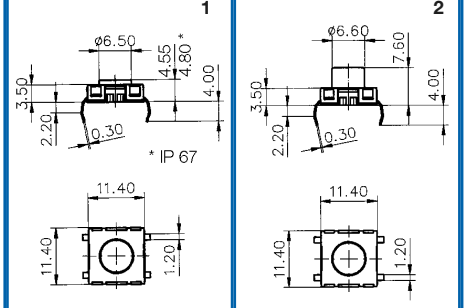


PMS
Through hole mounting



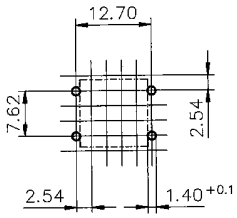
1 2



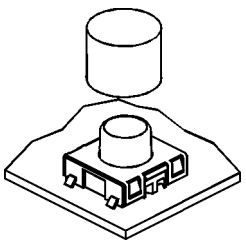


Drilling diagram

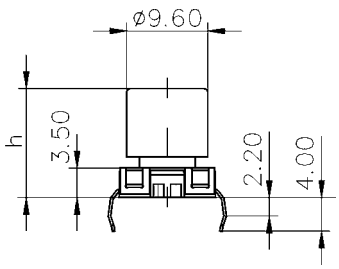
through hole



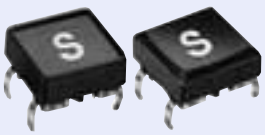
PMS
height variable



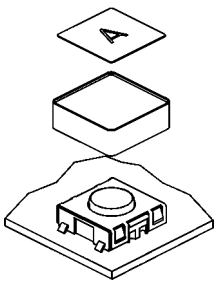
Overall height **h** variable

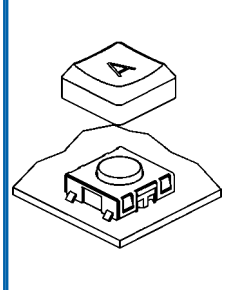


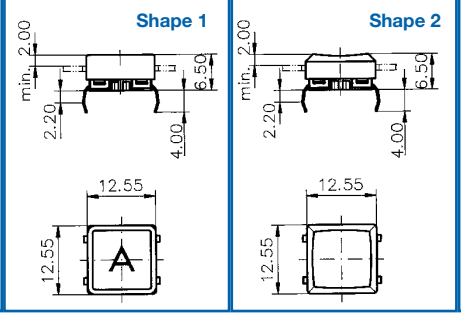
PMK



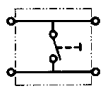
Shape 1 Shape 2







Circuit diagram



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.	30 V AC / 42 V 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

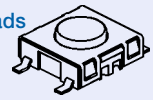
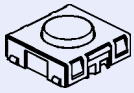
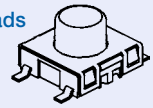
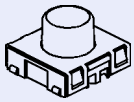
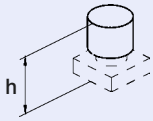
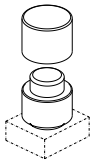
3. Other data		SMS	PMS	PMK
Solderability	(CECC 00802 und IEC 68-2-20)	IR-Reflow		
(IEC 68-2-20 Test Tb, Method 1A) Soldering heat resistance	(IEC 68-2-20 Test Tb, Method 2) (CECC 00802 Classification B) (CECC 00802 Classification C)	350 °C / 10 s 215 °C / 40 s 260 °C / 10 s	260 °C / 10 s 350 °C / 10 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

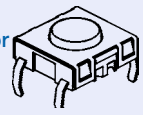
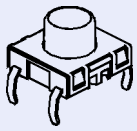
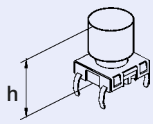
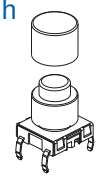
Switches in momentary action SMS, PMS

SMS

Models	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 seperately) 	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 +6 mm) are necessary. Order seperately.

PMS

Models	Variations			Part Number
Short actuator 	Degree of protection	IP 40		1241.1602
		IP 67		1241.1608
Long actuator 		IP 40		1241.1614
		IP 67		1241.1620
	Degree of protection	IP 40		1241.1624.XX
		IP 67		1241.1625.XX
Height variable 	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

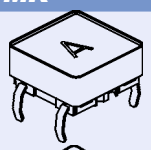
[2] Starting with 14,35 mm the heights were realized with an additional (second) keycap.

PMK and key caps for SMS, Illumination key caps

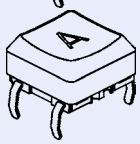
Models

PMK

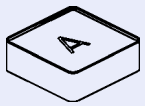
Shape 1



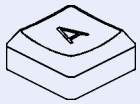
Shape 2



Shape 1



Shape 2

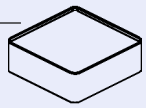


SMS Tastkappe Key cap

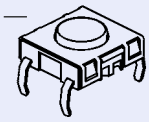
Shape 1

Insert plate

Key cap



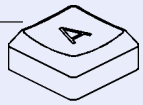
Base module



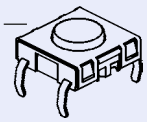
PMK

Shape 2

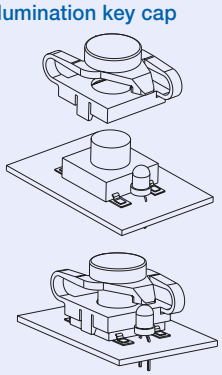
Key cap



Base module



Illumination key cap



Variations / Part Number

Variations		Part Number
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
for IP 67 with short actuator	with legend	0865.9541. X . XXX
	without legend	0865.9541. X . XXX
	with legend	0865.9542. X . XXX
	without legend	0862.800 X

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	

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			

In Preparation		
Color of key cap	transparent	0859.9335

Aufragsbezogene Fertigung / Order specific production