


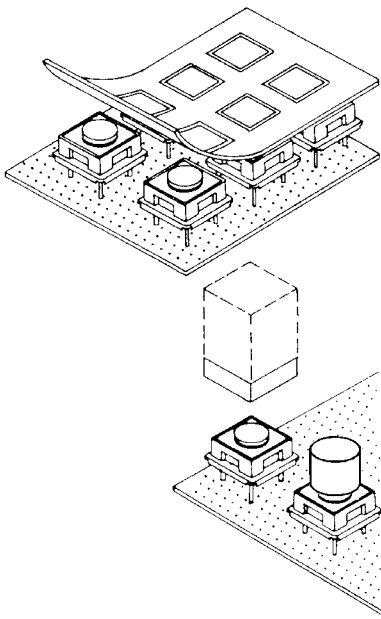
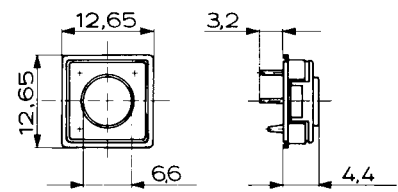
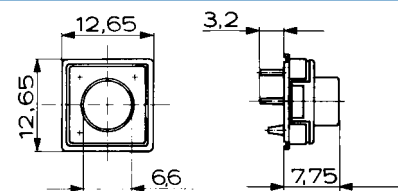
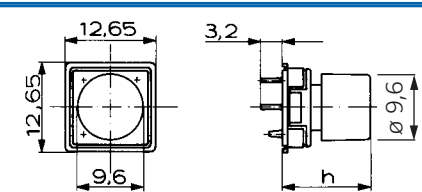
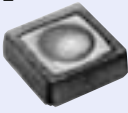

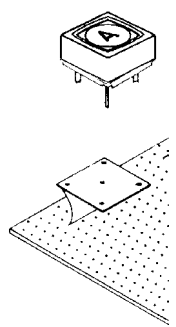
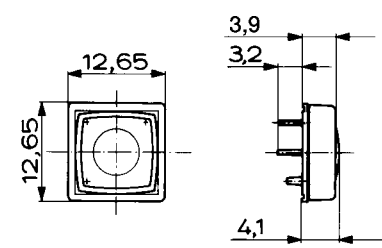


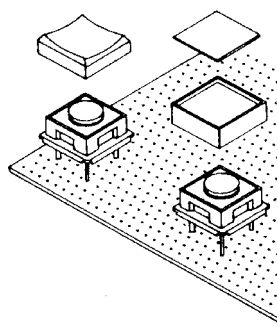
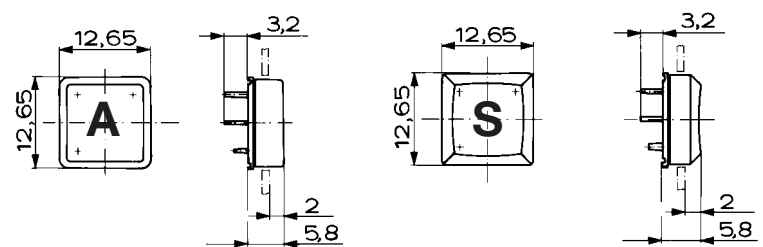


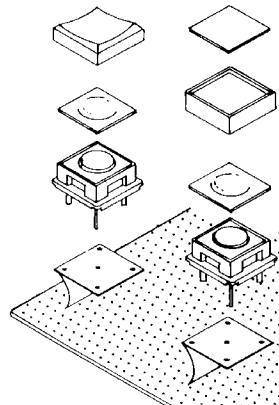
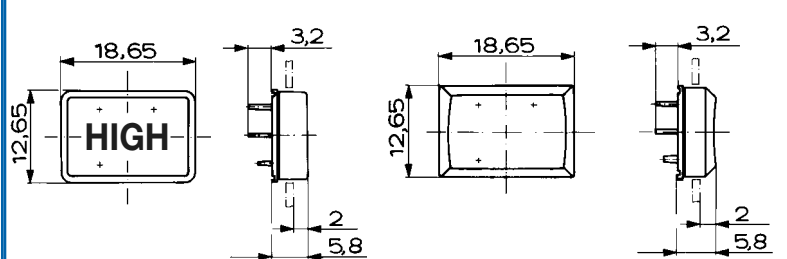


Taster MTG, MCS, MTP 1/2"

Switches in momentary action MTG, MCS, MTP 1/2"

Ausführungen Models	Aufbau Construction	Abmessungen Dimensions
<p>MTG 1/2"</p>  <p>MTG 1/2"</p>  <p>MTG 1/2"</p> 		   <p>Gesamthöhe h variabel / Overall height h variable</p>
<p>MCS 1/2"</p>  <p>MCS 1/2"</p> 		
<p>MTP 1/2"</p>  <p>MTP 1/2"</p> 		
<p>MTP 1/2"</p>  <p>MTP 1/2"</p> 		

1. Mechanische Kennwerte / Mechanical data	MTG	MCS	MTP
Betätigungskraft Actuating force	2,5N ±0,5N	3N ±0,5N	IP40: 2,3N ±0,5N IP65: 2,0N ±0,4N
Schaltweg Contact travel	0,45mm ±0,1mm	0,45mm ±0,1mm	IP40: 0,45mm ±0,05 IP54: 0,25mm ±0,05
Endanschlagfestigkeit (DIN 41640 Teil 19) / End stop strength	> 50N		
Lebensdauer (IEC 512-5 Test 9a, Betätigungskraft 5N) / Lifetime	> 10 ⁶ Betätigungen / Operations		

2. Elektrische Kennwerte / Electrical data	MTG	MCS	MTP
Kontaktmaterial / Contact material	Gold / Gold		Silber / Silver
Schaltspannung max. / Switching voltage max.	max. 24V DC		max. 48V DC
Schaltstrom max. / Switching current max.	max. 50mA		max. 125mA
Nennschaltleistung / Rated breaking capacity	0,48W		2,40W
Lebensdauer (bei Nennschaltleistung) Lifetime (at rated breaking capacity)	> 10 ⁶ Schaltungen Cycles		
Durchgangswiderstand, neu (IEC 512-2, mV-Methode) Initial contact resistance, new	< 50mΩ		
Durchgangswiderstand, nach 10 ⁶ Schaltungen Initial contact resistance, after 10 ⁶ cycles	< 50mΩ		
Isolationswiderstand (IEC 512-2) / Insulation resistance	> 10 ⁸ Ω		
Prellzeit / Contact bounce time	typ. 0,1ms		

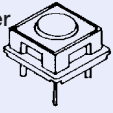
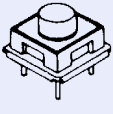
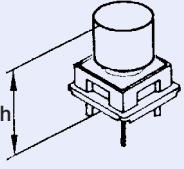
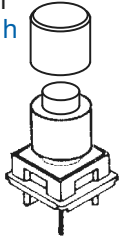
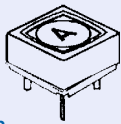
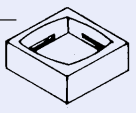

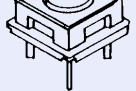
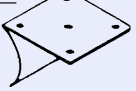
3. Sonstige Kennwerte / Other data	MTG	MCS	MTP
Schutzgrad / Degree of protection	IP 40	IP 65	IP 40 / IP 65
Lötbarkeit / Solderability (IEC 68-2-20 Test Ta, Methode 1)	235 °C / 2s		
Lötwärmebeständigkeit (IEC 68-2-20 Test Tb, Methode 1A) Soldering heat resistance	260 °C / 5s		
Umgebungstemperatur / Ambient temperature	-25 °C...+85 °C		
Lagertemperatur / Storage temperature	-25 °C...+85 °C		

4. Werkstoffe / Materials	MTG	MCS	MTP
Kontaktmaterial Gold / Contact material gold	CuZn -3µm Ni +2µm Au		
Kontaktmaterial Silber / Contact material silver	CuZn - 2,5µm Ag passiviert / passivated		
Sockel / Socket	Thermoplast PES		
Betätiger / Actuator	Thermoplast PC		

Bohrbild / Drilling diagram	Schaltsymbol / Circuit diagram
<p> $\phi = \phi 1 \overset{+0,1}{0}$ $\phi = \phi 1,3 \overset{+0,1}{0}$ </p>	

Taster MTG, MCS 1/2"

Switches in momentary action MTG, MCS 1/2"

Ausführungen Models MTG 1/2"	Varianten Variations		Artikelnummer Part Number			
kurzer Betätiger short actuator 	Kontaktmaterial Contact material	Ag	1241.1052			
		Au	1241.1002			
		Ag	1241.1072			
		Au	1241.1022			
langer Betätiger long actuator 	Kontaktmaterial Contact material	Ag	1241.1082.XX			
		Au	1241.1032.XX			
höhenvariabel height variable 	Gesamthöhe h Overall height h 	(gelb / yellow)	8,50 mm = 1	14,50 mm = 11		
		(orange / orange)	9,25 mm = 2	15,25 mm = 21		
		(rot / red)	10,00 mm = 3	16,00 mm = 31		
		(blau / blue)	10,75 mm = 4	16,75 mm = 41		
		(grün / green)	11,50 mm = 5	17,50 mm = 51		
		(grau / grey)	12,25 mm = 6	18,25 mm = 61		
		(schwarz / black)	13,00 mm = 7	19,00 mm = 71		
		(weiß / white)	13,75 mm = 8	19,75 mm = 81		
		*Ab 14,50 mm werden die Höhen mit einer zusätzl. (zweiten) Verlängerungskappe realisiert. Starting with 14,50 mm, the heights were realized with an additional (second) keycap.				
		MCS 1/2" Ohne Dichtung zur Platine Without sealing pad on reverse side 	Kontaktmaterial Contact material	Ag	1241.1053.X.XXX	
	Au		1241.1003.X.XXX			
Farbe der Blende Colour of bezel	rot red				3	
	grün green				5	
	grau grey				6	
	schwarz black				7	
	weiß white			8		
Beschriftung Tastenfeld (Schrifthöhe/ Schriftarten siehe Seite 39) Legend of face foil (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		
	Farbe des Tastenfeldes bei unbeschrifteter Ausführung Colour of face foil without legend	gelb yellow	= 091	grau grey	= 096	
orange orange		= 092	schwarz black	= 097		
rot red		= 093	weiß white	= 098		
blau blue		= 094	anthrazit anthracite	= 099		
grün green		= 095				

Taster MTP 1/2" Switches in momentary action MTP 1/2"

Ausführungen Models		Varianten Variations		Artikelnummer Part Number	
MTP 1/2" IP 40		Kontaktmaterial Contact material		1241.1057.X.XXX	
Form 1 Shape 1		Ag			1241.1007.X.XXX
Form 2 Shape 2		Ag			1241.1055.X.XXX
		Au			1241.1005.X.XXX
MTP 1/2" IP 65		Kontaktmaterial Contact material		1241.1091.X.XXX	
Form 1 ohne Dichtung Shape 1 without sealing pad		Ag			1241.1041.X.XXX
Form 2 ohne Dichtung Shape 2 without sealing pad		Ag			1241.1090.X.XXX
		Au			1241.1040.X.XXX
MTP 1/2" IP 65				1241.1088.X.XXX	
Form 1 Shape 1		Ag			
Form 2 Shape 2		Ag			1241.1086.X.XXX
Form 1 / Shape 1		Farbe der Tastkappe Colour of key cap		3	
IP 40	IP 65	rot red		5	
		grün green		6	
Einlegeschild Insert plate		grau grey		7	
Tastkappe Key cap		schwarz black		8	
Dichtungsfolie Sealing foil		weiß white			
Grundmodul Base module					
Dichtung Sealing pad					
Form 2 / Shape 2		Beschriftung		A= 001	
IP 40	IP 65	Tastkappe/Ein- legeschild (Schrifthöhe/ Schriftarten siehe Seite 39)		P= 016	
		Legend of key cap/insert plate (Type height/ type face see page 39)		4= 031	
Dichtungsfolie Sealing foil				⇕= 046	
Grundmodul Base module				→= 047	
Dichtung Sealing pad				←= 048	
				↓= 049	
				↑= 050	
				%= 051	
				√= 052	
				CTRL= 053	
				RETURN= 054	
				SHIFT= 055	
				LOCK= 056	
				STOP= 057	
				ENTER= 058	
				BACK= 059	
				LINE= 060	
				EIN= 061	
				AUS= 062	
				AUF= 063	
				AB= 064	
				ON= 065	
				OFF= 066	
				UP= 067	
				DOWN= 068	
				HIGH= 069	
				LOW= 070	
				ON/OFF= 071	
				START= 072	
Form 1		Farbe des Einlegeschildes bei unbeschrifteter Ausführung		gelb yellow = 091	
Colour of insert plate without legend shape 1				orange orange = 092	
				rot red = 093	
				blau blue = 094	
				grün green = 095	
				grau grey = 096	
				schwarz black = 097	
				weiß white = 098	
				anthrazit anthracite = 099	