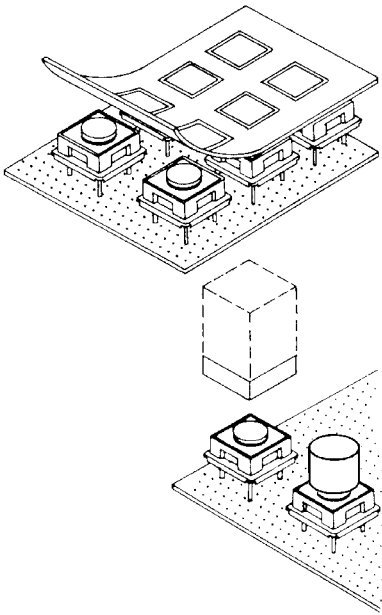
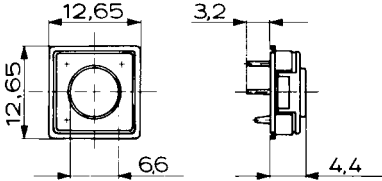
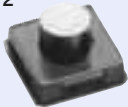
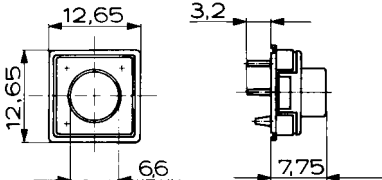
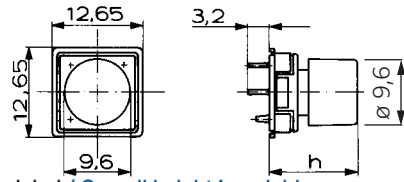
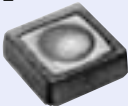
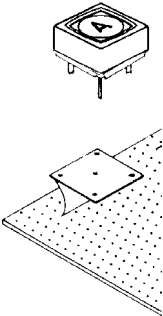
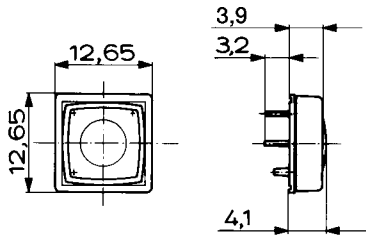
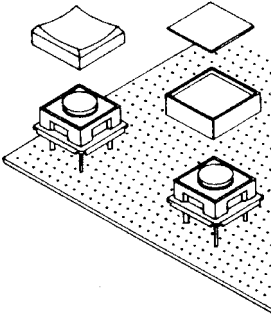
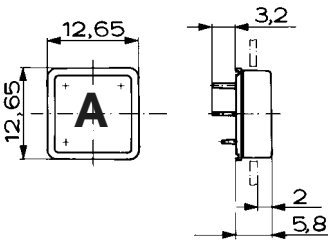
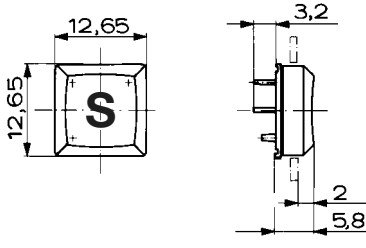
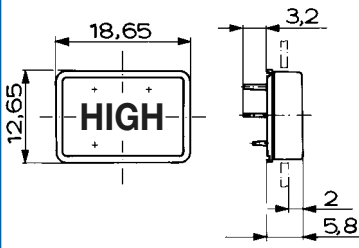
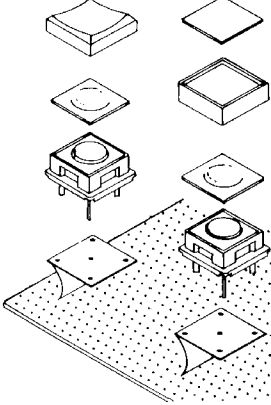
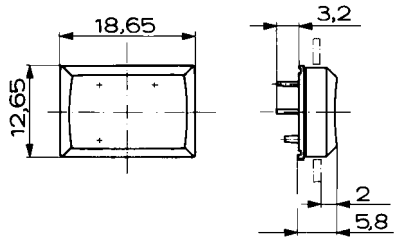


Taster MTG, MCS, MTP 1/2"

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

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

Technische Daten MTG, MCS, MTP 1/2"

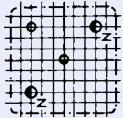
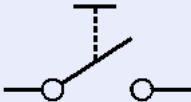
Technical Data MTG, MCS, MTP 1/2"

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

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

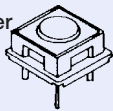
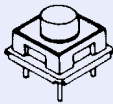
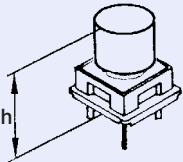
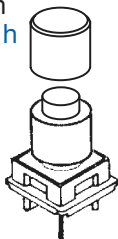
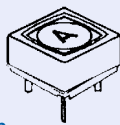
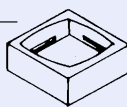
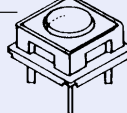
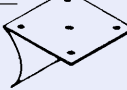
3. Sonstige Kennwerte / Other data	MTG	MCS	MTP
Schutzgrad / Degree of protection	IP 40	IP 65	IP 40 / IP 65
Lötbarkeit / Solderability (IEC 68-2-20 Test Ta, Methode 1)	235 °C / 2 s		
Lötwärmebeständigkeit (IEC 68-2-20 Test Tb, Methode 1A) Soldering heat resistance	260 °C / 5 s		
Umgebungstemperatur /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

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

Bohrbild / Drilling diagram	Schaltsymbol / Circuit diagram
 $\phi = 1 \cdot 0,1$ $\phi = 1,3 \cdot 0,1$	

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"		Kontaktmaterial Contact material				1241.1053.X.XXX			
Ohne Dichtung zur Platine Without sealing pad on reverse side 		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					
Blende Bezel  Tastenfeld Face foil  Grundmodul Base module  Dichtung (auf Anfrage) Sealing pad (on request) 	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	1241.1007.X.XXX						
Form 2 Shape 2	1241.1055.X.XXX						
	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	1241.1041.X.XXX						
Form 2 ohne Dichtung Shape 2 without sealing pad	1241.1090.X.XXX						
	1241.1040.X.XXX						
MTP 1/2" IP 65				1241.1088.X.XXX			
Form 1 Shape 1	1241.1086.X.XXX						
Form 2 Shape 2							
Form 1 / Shape 1		Farbe der Tastkappe Colour of key cap		3			
IP 40 IP 65 Einlegeschild Insert plate Tastkappe Key cap Dichtungsfolie Sealing foil Grundmodul Base module Dichtung Sealing pad		rot red		5			
		grün green		6			
		grau grey		7			
		schwarz black		8			
		weiß white					
Form 2 / Shape 2 IP 40 IP 65 Tastkappe Key cap Dichtungsfolie Sealing foil Grundmodul Base module Dichtung Sealing pad		Beschriftung Tastkappe/Ein- legeschild (Schrifthöhe/ Schriftarten siehe Seite 39)					
		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	
		Farbe des Einlegeschildes bei unbeschrifteter Ausführung Form 1 Colour of insert plate without legend shape 1		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				