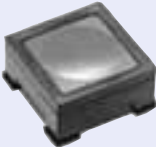
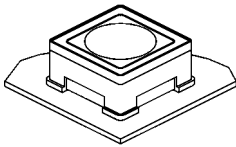
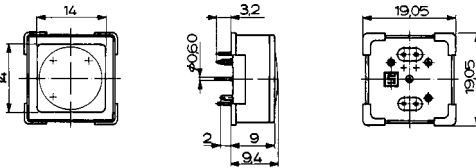
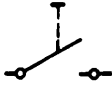
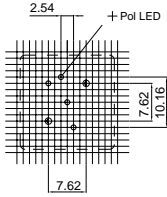
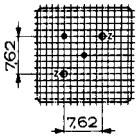

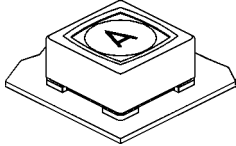
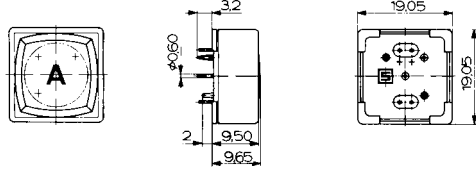
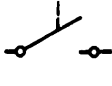
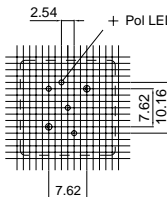
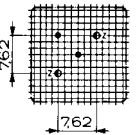

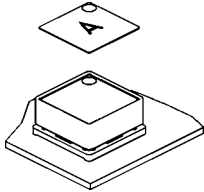
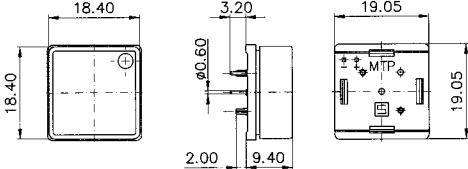
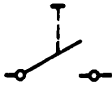
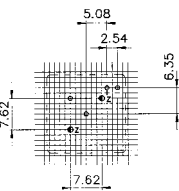

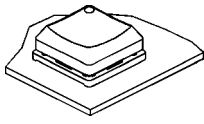
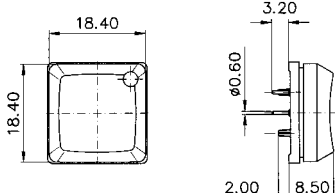
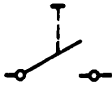
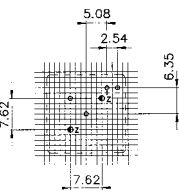
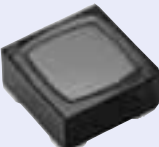
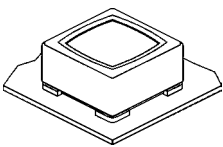
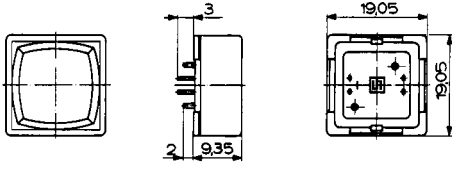

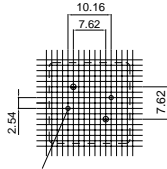


# Taster MTG, MCS, MTP und MTL $\frac{3}{4}$ "

## Switches in momentary action MTG, MCS, MTP and MTL $\frac{3}{4}$ "

Ausführungen Models	Aufbau Construction	Abmessungen Dimensions	Schaltensymbol Circuit diagram	Bohrplan Drilling diagram
MTG $\frac{3}{4}$ " 				beleuchtet illuminated  + Pol LED unbeleuchtet non-illuminated 
MCS $\frac{3}{4}$ " 				beleuchtet illuminated  + Pol LED unbeleuchtet non-illuminated 
MTP $\frac{3}{4}$ " 				Z=Zentrierbohrung $\phi 1^{+0.1}$ $\phi 1.3^{+0.1}$ 
MTP $\frac{3}{4}$ " 				
MTL $\frac{3}{4}$ " Beleuchtungselement Indicator 				beleuchtet illuminated  + Pol LED $\phi 1^{+0.1}$ $\phi 1.3^{+0.1}$ Z= Zentrierbohrung Bohrplan-Raster $1/20" = 1,27 \text{ mm}$ Z= drilling for location pins drilling diagram $1/20" = 1,27 \text{ mm}$

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

2. Elektrische Kennwerte / Electrical data	MTG	MCS	MTP
Kontaktmaterial / Contact material	Gold / Gold	Silber / Silver	
Schaltspannung max. / Switching voltage max.	24 V DC	48 V DC	
Schaltstrom max. / Switching current max.	50 mA	125 mA	
Nennschaltleistung / Rated breaking capacity	0,36 W	2,40 W	
Lebensdauer (bei Nennschaltleistung) / Lifetime (at rated breaking capacity)	> 10 <sup>6</sup> Schaltungen / Cycles		
Durchgangswiderstand, neu (IEC 512-2, mV-Methode) / Initial contact resistance, new	< 50 mΩ		
Durchgangswiderstand, nach 10 <sup>6</sup> Schaltungen / Initial contact resistance, after 10 <sup>6</sup> cycles	< 150 mΩ		
Isolationswiderstand (IEC 512-2) / Insulation resistance	> 10 <sup>8</sup> Ω		
Prellzeit / Contact bounce time	typ. 0,2 ms		

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

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

5. LED Kennwerte / LED data	MTG	MCS	MTP	MTL
Siehe Seite 38 / see page 38	925.9299-9301	925.9730-32	925.9299-9301	

# Taster MTG, MCS, MTP und MTL 3/4"

## Switches in momentary action and indicator

Ausführungen Models MTG 3/4"	Varianten Variations		Artikelnummer Part Number			
	Kontaktmaterial Contact material	Ag	1241.1117			
		Au	1241.1118			
		Ag	1241.1115.X			
		Au	1241.1116.X			
<b>MCS 3/4"</b> 	Kontaktmaterial Contact material	Ag	1241.1130.X.XXX			
		Au	1241.1120.X.XXX			
		Ag	1241.1132.X.XXX.X			
		Au	1241.1122.X.XXX.X			
<b>MTL 3/4"</b> Beleuchtungselement Indicator 			1241.1119.X.X			
	Farbe der Blende Colour of bezel	rot red	3			
		grün green	5			
		grau grey	6			
		schwarz black	7			
		weiß white	8			
<b>MCS 3/4", MTL 3/4"</b> 	Beschriftung Einlegeschild (Schrifthöhe/Schriftarten siehe Seite 39)	A = 001	P = 016	4 = 031	↓ = 046	EIN = 061
	Legend of insert plate (Type height/type face see page 39)	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 Colour of insert plate without legend	transparent (unbeschriftet, beleuchtet / transparent (without legend, illuminated)				090	
	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					
Farbe der LED Colour of LED	rot red				1	
	grün green				2	
	gelb yellow				3	

# Taster MTP 3/4" Switches in momentary action MTP 3/4"

Ausführungen Models MTP 3/4"		Varianten Variations				Artikelnummer Part Number		
Form 1 Shape 1		IP 40	Kontaktmaterial Contact material		Ag	unbeleuchtet non- illuminated	1241.1153.X.XXX.	
			Au	1241.1163.X.XXX.				
		IP 54			Ag		1241.1154.X.XXX.	
			Au	1241.1164.X.XXX.				
Form 1 Shape 1		IP 40			Ag	beleuchtet illuminated	1241.1150.X.XXX.X	
			Au	1241.1160.X.XXX.X				
		IP 54			Ag		1241.1151.X.XXX.X	
			Au	1241.1161.X.XXX.X				
Form 2 Shape 2		IP 40	Kontaktmaterial Contact material		Ag	unbeleuchtet non- illuminated	1241.1173.X.XXX.	
			Au	1241.1183.X.XXX.				
		IP 54			Ag		1241.1174.X.XXX.	
			Au	1241.1184.X.XXX.				
Form 2 Shape 2		IP 40			Ag	beleuchtet illuminated	1241.1170.X.XXX.X	
			Au	1241.1180.X.XXX.X				
		IP 54			Ag		1241.1171.X.XXX.X	
			Au	1241.1181.X.XXX.X				
		IP 40			Ag	mit LED- Bohrung (ohne LED)	1241.1190.X.XXX.	
			Au	1241.1193.X.XXX.				
		IP 54			Ag	with hole for LED (without LED)	1241.1191.X.XXX.	
			Au	1241.1194.X.XXX.				
Form 1 Shape 1		Farbe der Tastkappe Colour of key cap		rot red			3	
				grün green			5	
				grau grey			6	
				schwarz black			7	
				weiß white			8	
Form 2 Shape 2		Tastkappe mit Grundmodul Key cap with base module	Beschriftung	A = 001	P = 016	4 = 031	↑ = 046	EIN = 061
			Tastkappe/Einlegeschild	B = 002	Q = 017	5 = 032	→ = 047	AUS = 062
			(Schriftgröße/Schriftarten siehe Seite 39)	C = 003	R = 018	6 = 033	← = 048	AUF = 063
			Legend of key cap insert plate (Type height/type face see page 39)	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	
Form 2 Shape 2		Tastkappe mit Grundmodul Key cap with base module	Farbe des Einlegeschildes bei unbeschrifteter Ausführung Colour of insert plate 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					
Form 2 Shape 2		Tastkappe mit Grundmodul Key cap with base module	Farbe der LED Colour of LED		rot red	1		
			grün green	2				
			gelb yellow	3				