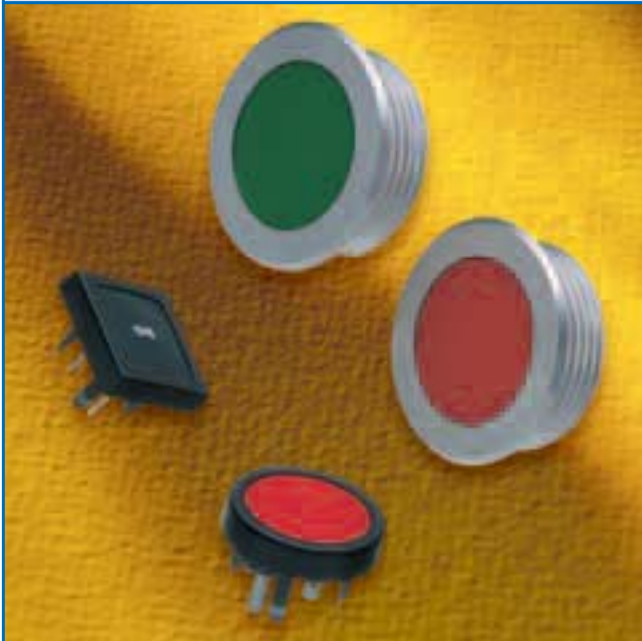


DATA MCS 18, SSM 27 SWITCHES–MOMENTARY ACTION



BENEFITS

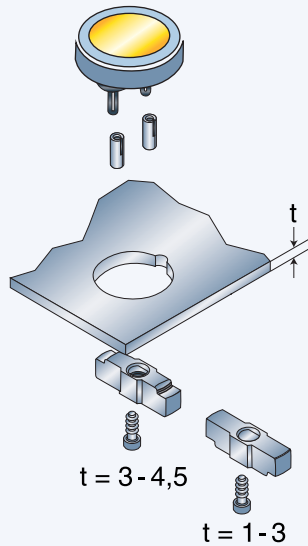
- Unique mechanical switches with tactile feedback
- Extremely high life time of 5 million switching cycles (SSM)
- Small mounting depth
- Various lettering options
- No mechanical stress of the switching elements due to magnetic switching principle (SSM)
- Front and rear tested to degree of protection IP 65

		MCS 18 gold contacts	MCS 18 silver contacts	SSM 27
Electrical data				
Contact material		gold	silver	AuNi
Switching voltage	[mV]	min. 50 DC	min. 5 V DC	min. 3 V DC
	[V]	max. 24 DC	max. 48 DC	max. 50 DC
Switching current max.	[mA]	80	125	50
Rated breaking capacity	[W]	0.36	0.72	2.5
Lifetime (at rated breaking capacity)		> 10 ⁶	> 10 ⁶	5 Mio.
Initial contact resistance, new	[mΩ]	< 50	< 50	*
Initial contact resistance, after lifetime	[mΩ]	< 150	< 150	*
Insulation resistance	[Ω]	> 10 ⁸	> 10 ⁸	*
Contact bounce time	[ms]	typ. 0.1	typ. 0.1	typ. 1
ESD resistance	[kV]	± 16	± 16	± 16
Mechanical data				
Actuating force	[N]	3 ± 1	3 ± 1	2.8
Contact travel	[mm]	0.5 ± 0.1	0.5 ± 0.1	0.30
End stop strength	[N]	> 50	> 50	IK 03
Lifetime	[operations]	> 1 Mio.	> 1 Mio.	> 5 Mio.
Other data				
Solderability	[°C/s]	235 / 2	235 / 2	
Soldering heat resistance	[°C/s]	260 / 5	260 / 5	
Ambient temperature	[°C]	-25 – +60	-25 – +60	-25 – +85
Storage temperature	[°C]	-25 – +60	-25 – +60	-25 – +85
Degree of protection		IP 65	IP 65	IP 65
Recommended torque	[N/cm]	8	8	250
Materials				
Socket/Housing (SSM 27)		Thermoplast PES	Thermoplast PES	Alu anodized
Face foil		PETP	PETP	PETP
Bezel		Thermoplast PBTP	Thermoplast PBTP	Alu anodized
Contact material gold / silver		CuZn 37, 3µm Ni 2µm Au	CuZn 37, 2.5µm Ag	Au Ni
Soldering aid		tinned	tinned	

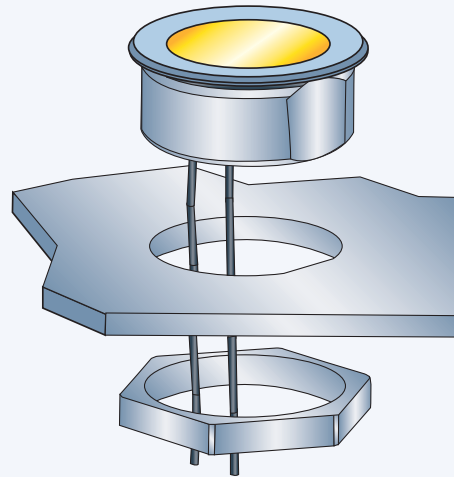
* on request

DIMENSIONS MCS 18, SSM 27 SWITCHES – MOMENTARY ACTION

CONSTRUCTION

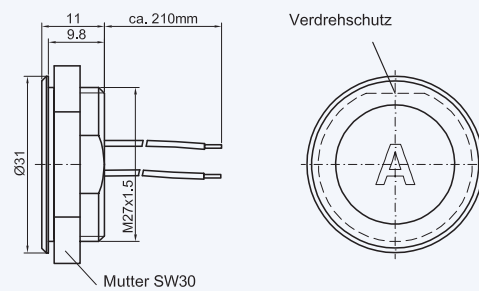
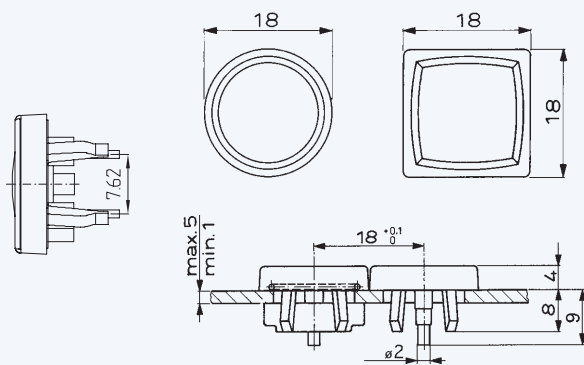


MCS 18

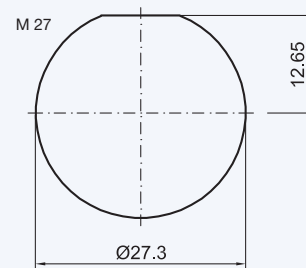
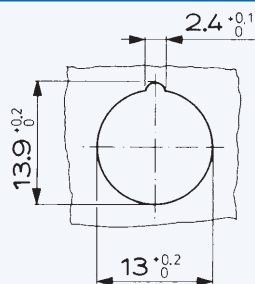


SSM 27

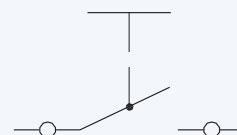
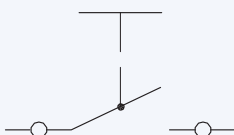
DIMENSIONS



DRILLING DIAGRAM



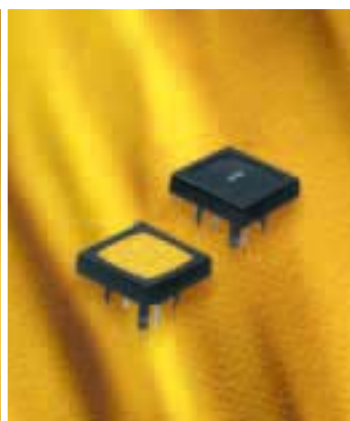
CIRCUIT DIAGRAM



OVERVIEW MCS 18, SSM 27 SWITCHES – MOMENTARY ACTION



MCS 18



MCS 18



SSM 27

FRONT PANEL
SHORT STROKE

FEATURES									
Contact material	Ag			Au			Au		
Degree of protection	IP 65			IP 65			IP 65		
PART NUMBER *									
square	1241.1100.	x	xxx		1241.1102.	x	xxx		
round	1241.1104.	x	xxx		1241.1106.	x	xxx		
square with soldering aid	1241.1112.	x	xxx						
round with soldering aid	1241.1113.	x	xxx						
Colour of bezel									
red		3				3			
grey		6				6			
black		7				7			
alu natural									o
Colour of face foil									
red								1245.2112.43100	093
green								1245.2112.45100	095
Colour of face foil without legend									
yellow			091				091		
red			093				093		
green			095				095		
grey			096				096		
black			097				097		
white			098				098		
Standard lettering									
Order index	see page 29			see page 29			see page 29		
Accessories									
IP 65 to the front	0098.9201			0098.9201			**		

* X in the Part No. must be replaced by the desired version

** Nut and O-ring are included

o Standard version

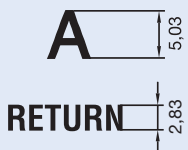


LETTERING

Depending on the application and font, there are various lettering possibilities. The following standards can be used for key letterings:

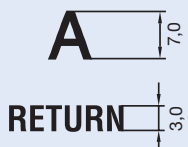
ORDER INDEX LETTERING

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	



MCS 18, LETTER HEIGHTS AND FONTS

- Single characters, Univers 65
- Legends max. 6 characters in line, Univers 65
- Insert label and front foil anthracite, RAL 7016
- Characters and symbols light grey, RAL 7035



SSM 27, LETTER HEIGHTS AND FONTS

- Single characters, Univers 65
- Legends max. 6 characters in line, Akzident-Grotesk condensed bold type
- Front foil anthracite, RAL 7016
- Characters and symbols light grey, RAL 7035



LIGHTING TECHNOLOGY

TECHNICAL DATA LEDs

1. Maximum ratings				
Part number		0925.9730	0925.9731	0925.9732
Light colour		red	green	yellow
Forward current, DC	I_F max. [mA]	40	40	40
Power dissipation	P_{tot} max. [mW]	130	130	130
2. Characteristics (typ. at $T_U = 25^\circ\text{C}$)				
Forward voltage	at $I_F = 10\text{mA}$, U_F typ. [mV]	2.0 (< 2.6)	2.0 (< 2.6)	2.0 (< 2.6)
Luminous intensity	at $I_F = 10\text{mA}$, I_v typ. [mcd]	11.2 - 28	18 - 45	11.2 - 28
Viewing angle	θ typ. [Degree]	50	50	50
Peak wave length	λ_{peak} typ. [nm]	635	565	586
Reverse voltage	U_R typ. [V]	5	5	5