



## BENEFITS

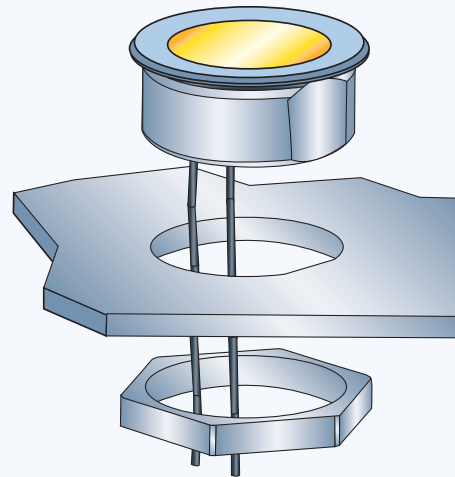
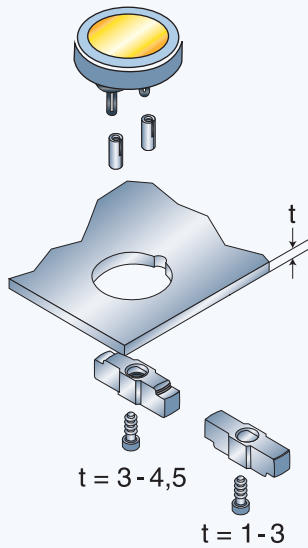
- Unique mechanical switches with tactile feedback
- Extremely high life time of 5 million switching
- Small mounting depth
- Various lettering options
- Front and rear tested to degree of protection IP 65

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

**DIMENSIONS MCS 18**

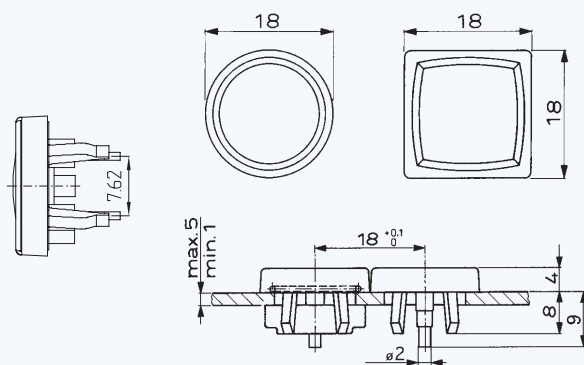
**SWITCHES-MOMENTARY ACTION**

**CONSTRUCTION**

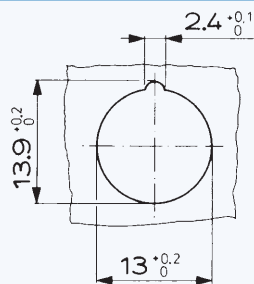


MCS 18

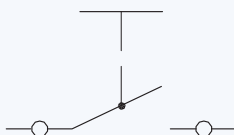
**DIMENSIONS**



**DRILLING DIAGRAM**



**CIRCUIT DIAGRAM**

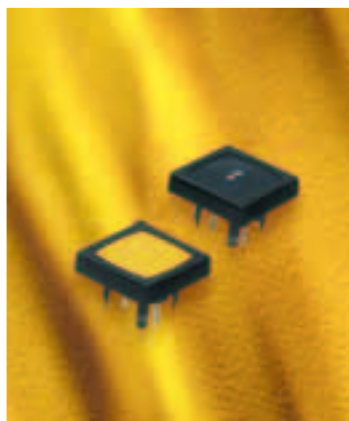


## OVERVIEW MCS 18

## SWITCHES – MOMENTARY ACTION



MCS 18



MCS 18

| FEATURES                           |             |   |     |             |       |
|------------------------------------|-------------|---|-----|-------------|-------|
| Contact material                   | Ag          |   |     | Au          |       |
| Degree of protection               | 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                        |             |   |     |             |       |
| Colour of face foil                |             |   |     |             |       |
| red                                |             |   |     |             |       |
| green                              |             |   |     |             |       |
| 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 |       |
| Accessories                        |             |   |     |             |       |
| IP 65 to the front                 | 0098.9201   |   |     | 0098.9201   |       |

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

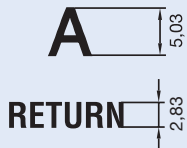


## LETTERING

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