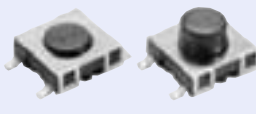
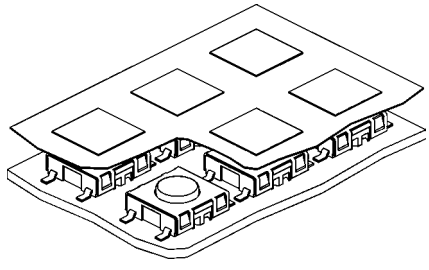
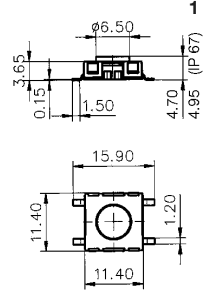
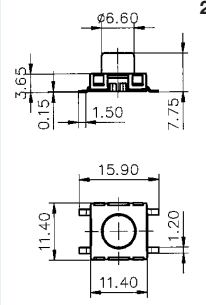
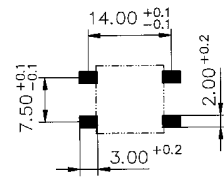

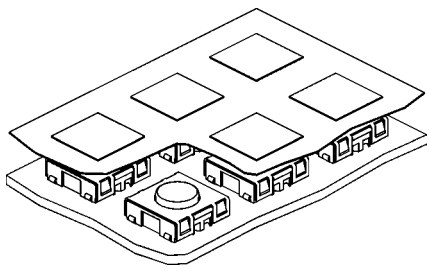
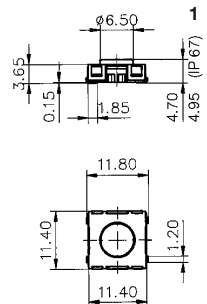
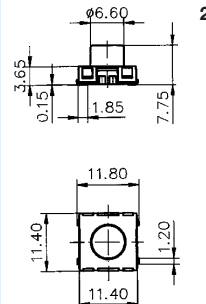
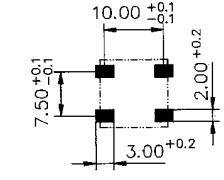

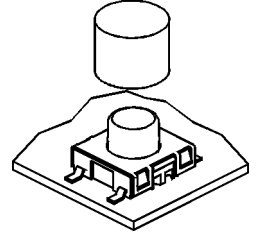
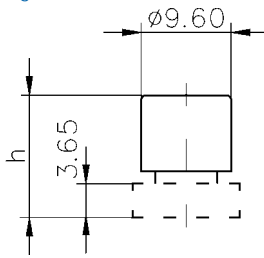
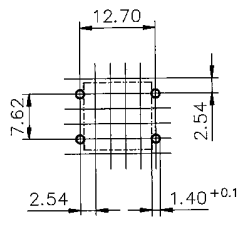
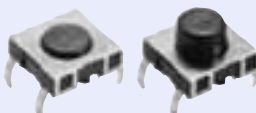
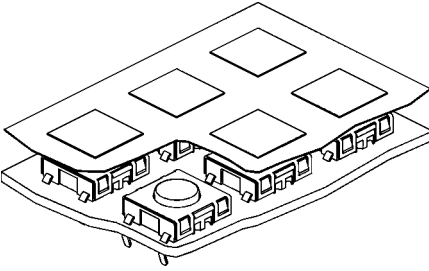
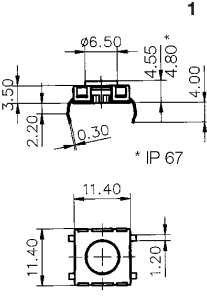
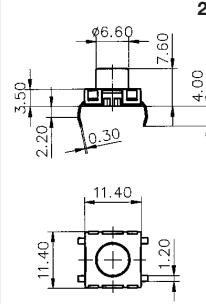
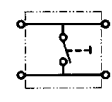

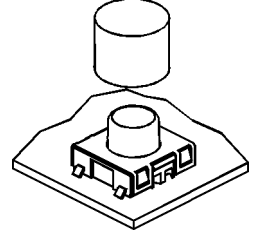
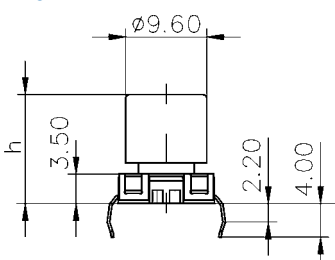
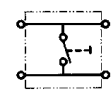
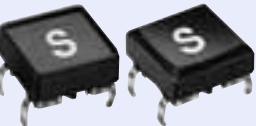
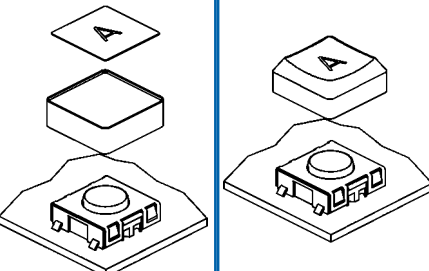
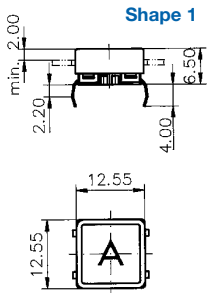
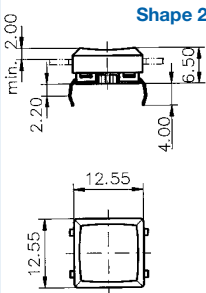
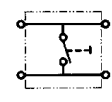


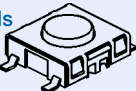
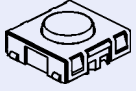
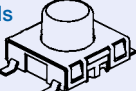
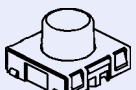
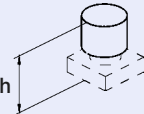
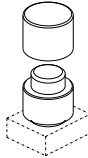
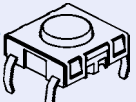
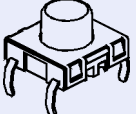
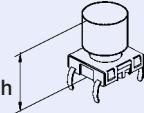
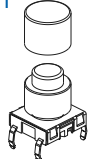
# Switches in momentary action SMS, PMS, PMK

| Models  | Construction  | Dimensions   |  | Solder pads   |
|---|---|--|--|---|
| <p><b>SMS</b><br/>Gullwing-leads</p>  <p>1 2</p>          |    | <p><b>1</b></p>                             | <p><b>2</b></p>          | <p><b>Solder pads</b><br/>Gullwing</p>             |
| <p><b>SMS</b><br/>J-leads</p>  <p>1 2</p>                 |    | <p><b>1</b></p>                             | <p><b>2</b></p>          | <p><b>Solder pads</b><br/>J-leads</p>             |
| <p>Buttons in variable heights</p>                       |   | <p>Overall height <b>h</b> variable</p>   |  | <p><b>Drilling diagram</b><br/>through hole</p>  |
| <p><b>PMS</b><br/>Through hole mounting</p>  <p>1 2</p> |  | <p><b>1</b></p>                           | <p><b>2</b></p>        | <p><b>Circuit diagram</b></p>                    |
| <p><b>PMS</b><br/>height variable</p>                   |  | <p>Overall height <b>h</b> variable</p>  |  | <p><b>Circuit diagram</b></p>                    |
| <p><b>PMK</b></p>  <p>Shape 1 Shape 2</p>               |  | <p><b>Shape 1</b></p>                     | <p><b>Shape 2</b></p>  | <p><b>Circuit diagram</b></p>                    |

# Technical Data SMS, PMS, PMK

| 1. Mechanical data  |                | SMS  | PMS                          | PMK                          |
|---|----------------|--|------------------------------|------------------------------|
| Actuating force   | IP 40<br>IP 67 | 1,8 N ±0,4 N<br>2,2 N ±0,4 N                 | 1,8 N ±0,4 N<br>2,2 N ±0,4 N | 2,2 N ±0,4 N                 |
| Contact travel  |                | 0,35 mm ±0,1 mm                              | 0,35 mm ±0,1 mm              | 0,30 mm ±0,1 mm              |
| (DIN 41640 Teil 19) / End stop strength   |                | > 100 N                                      |                              |                              |
| (IEC 512-5 Test 9a, actuating force 5 N) / Lifetime   |                | > 10 <sup>6</sup> Operations                 |                              |                              |
| 2. Electrical data  |                |  |                              |                              |
| Switching voltage max.  |                | 30V AC / 42V DC                              |                              |                              |
| Switching current max.  |                | 50 mA  |                              |                              |
| Lifetime (at rated breaking capacity 0,12 W)  |                | > 10 <sup>6</sup> Cycles                     |                              |                              |
| (IEC 512-2, mV-Method)<br>Initial contact resistance, new   |                | < 50 mΩ                                      |                              |                              |
| Initial contact resistance after 10 <sup>6</sup> cycles   |                | < 150 mΩ                                     |                              |                              |
| (IEC 512-2) Insulation resistance   |                | > 10 <sup>8</sup> Ω                          |                              |                              |
| Contact bounce time   |                | typ. 0,15 ms                                 |                              |                              |
| 3. Other data   |                | SMS  | PMS                          | PMK                          |
| Solderability (CECC 00802 und IEC 68-2-20)  |                | IR-Reflow                                    |                              |                              |
| (IEC 68-2-20 Test Tb, Method 1A)<br>Soldering heat resistance (IEC 68-2-20 Test Tb, Method 2)<br>(CECC 00802 Classification B)<br>(CECC 00802 Classification C) |                | 350 °C / 10s<br>215 °C / 40s<br>260 °C / 10s | 260 °C / 10s<br>350 °C / 10s | 260 °C / 10s<br>350 °C / 10s |
| Ambient temperature   |                | -40 °C...+85 °C                              |                              |                              |
| Storage temperature   |                | -40 °C...+85 °C                              |                              |                              |
| (IEC 68-2-45) Testmedium<br>Cleaning agent proof  |                | Zestron                                      |                              |                              |
| (DIN 41640 Teil 84) Flux-proof  |                | —  | given                        | given                        |
| Degree of protection  |                | IP 40 / IP 67                                | IP 40 / IP 67                | IP 67                        |
| 4. Materials  |                | SMS  | PMS                          | PMK                          |
| Contact material gold   |                | CuZn – 1,5 μm Ni + 0,5 μm Au                 |                              |                              |
| Terminals   |                | CuZn – 8 μm SnPb                             |                              |                              |
| Socket  |                | Thermoplast PA 4.6                           |                              |                              |
| Actuator  |                | Thermoplast PPS                              |                              |                              |
| Cover plate   |                | X12CrNi17 7                                  |                              |                              |
| Sealing membrane  |                | —  | VMQ                          | VMQ                          |
| 5. Packaging  |                | SMS  | PMS                          | PMK                          |
|   |                | taped and reeled                             |                              |                              |
|   |                | loose in boxes                               | loose in boxes               | loose in boxes               |

# Switches in momentary action SMS, PMS

| Models<br>SMS  | Variations  |              |   |                         | Part Number |           |  |
|--|---|--------------|---|-------------------------|-------------|-----------|--|
| Gullwing-leads<br>  | Degree of protection  | IP 40        |   | 1241.1600. XX           |             |           |  |
|  |   | IP 67        |   | 1241.1606. XX           |             |           |  |
| J-leads<br>   |   | IP 40        |   | 1241.1601. XX           |             |           |  |
|  |   | IP 67        |   | 1241.1607. XX           |             |           |  |
| Gullwing-leads<br>  |   | IP 40        |   | 1241.1612. XX           |             |           |  |
|  |   | IP 67        |   | 1241.1618. XX           |             |           |  |
| J-leads<br>   |   | IP 40        |   | 1241.1613. XX           |             |           |  |
|  |   | IP 67        |   | 1241.1619. XX           |             |           |  |
| Packaging  | loose in boxes  |              |   |                         | 11          |           |  |
|  | taped and reeled  |              |   |                         | 23          |           |  |
| Button in variable heights<br>for long actuators<br>(must be ordered separately)<br> | Overall height h<br> | 8,50 mm      | (yellow)  | 0862.8101               |             |           |  |
|  |   | 9,25 mm      | (orange)  | 0862.8102               |             |           |  |
|  |   | 10,00 mm     | (red)   | 0862.8103               |             |           |  |
|  |   | 10,75 mm     | (blue)  | 0862.8104               |             |           |  |
|  |   | 11,50 mm     | (green)   | 0862.8105               |             |           |  |
|  |   | 12,25 mm     | (grey)  | 0862.8106               |             |           |  |
|  |   | 13,00 mm     | (black)   | 0862.8107               |             |           |  |
|  |   | 13,75 mm     | (white)   | 0862.8108               |             |           |  |
|  |   | <sup>1</sup> | additional key cap  |                         |             | 0862.8226 |  |
|  |   | <sup>1</sup> | Starting with 14,50 mm, additional (second) key caps for midsizes (h +6mm) are necessary. Order separately. |                         |             |           |  |
| <b>PMS</b>   |   |              |   |                         |             |           |  |
| Short actuator<br>  | Degree of protection  | IP 40        |   | 1241.1602               |             |           |  |
|  |   | IP 67        |   | 1241.1608               |             |           |  |
| Long actuator<br>   |   | IP 40        |   | 1241.1614               |             |           |  |
|  |   | IP 67        |   | 1241.1620               |             |           |  |
| Height variable<br>  | Degree of protection  | IP 40        |   | 1241.1624. XX           |             |           |  |
|  |   | IP 67        |   | 1241.1625. XX           |             |           |  |
| Overall height h<br>  | (yellow)  | 8,35 mm =    | 1   | <sup>2</sup> 14,35 mm = | 11          |           |  |
|  | (orange)  | 9,10 mm =    | 2   | 15,10 mm =              | 21          |           |  |
|  | (red)   | 9,85 mm =    | 3   | 15,85 mm =              | 31          |           |  |
|  | (blue)  | 10,60 mm =   | 4   | 16,60 mm =              | 41          |           |  |
|  | (green)   | 11,35 mm =   | 5   | 17,35 mm =              | 51          |           |  |
|  | (grey)  | 12,10 mm =   | 6   | 18,10 mm =              | 61          |           |  |
|  | (black)   | 12,85 mm =   | 7   | 18,85 mm =              | 71          |           |  |
|  | (white)   | 13,60 mm =   | 8   | 19,60 mm =              | 81          |           |  |
| <sup>2</sup>   | Starting with 14,35 mm the heights were realized with an additional (second) keycap.                    |              |   |                         |             |           |  |

# PMK and key caps for SMS, Illumination key caps

| Models<br><b>PMK</b>                              |                               | Variations  | Part Number     |            |              |              |
|---|-------------------------------|---|-----------------|------------|--------------|--------------|
| Shape 1<br>                                       | Degree of protection          | with legend   | 1241.1629.X.XXX |            |              |              |
|   |                               | without legend  | 1241.1629.X.XXX |            |              |              |
| Shape 2<br>                                       |                               | with legend   | 1241.1633.X.XXX |            |              |              |
|   |                               | without legend  | 1241.1633.X.XXX |            |              |              |
| Shape 1<br>                                       | for IP 67 with short actuator | with legend   | 0865.9541.X.XXX |            |              |              |
|   |                               | without legend  | 0865.9541.X.XXX |            |              |              |
| Shape 2<br>                                       |                               | with legend   | 0865.9542.X.XXX |            |              |              |
|   |                               | without legend  | 0862.800 X      |            |              |              |
| <b>SMS<br/>Tastkappe<br/>Key cap</b>              |                               | Color of key cap  |                 |            |              |              |
| Shape 1<br>Insert plate<br>Key cap<br>Base module |                               | red   | 3               |            |              |              |
|   |                               | green   | 5               |            |              |              |
|   |                               | grey  | 6               |            |              |              |
|   |                               | black   | 7               |            |              |              |
|   |                               | white   | 8               |            |              |              |
| <b>PMK</b><br>Shape 2<br>Key cap<br>Base module   |                               | Legend of key cap/insert plate<br>(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   |              |
|   |                               | Color of insert plate without legend shape 1                          |                 | yellow     | = 091        | grey         |
| orange  | = 092                         |   |                 | black      | = 097        |              |
| red   | = 093                         |   |                 | white      | = 098        |              |
| blue  | = 094                         |   |                 | anthracite | = 099        |              |
| green   | = 095                         |   |                 |            |              |              |
| Illumination key cap                              |                               | In Preparation  |                 |            |              |              |
| <br><br>  |                               | Color of key cap  | transparent     | 0859.9335  |              |              |

Auftragsbezogene Fertigung / Order specific production

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

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<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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