

# multimec® basic switch modules

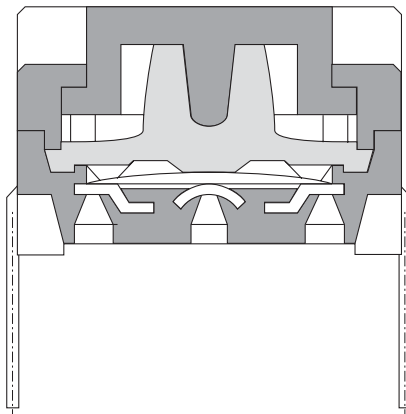
| Through-hole Versions   |                  |                      |                        |                          |  |                                   |   |
|---|------------------|----------------------|------------------------|--------------------------|--|-----------------------------------|---|
| 3A  |                  | 3C                   |                        | 3E                       | 3F   |                                   |   |
| For 1A/1B/1M/1ZA/1ZB  | w/LED for 1C/1H  |                      |                        | For 3E actuators/Varimec | For 1D/1K/1N/1P/1S/1T/1U/1V/1WA/1WD/1WG/1WP/1X/1ZC/1GA/1GC | w/LED for 1D/1E/1F/1N/1Q/1R/1S/1X | w/LED for 1K/1KB/1KC/1T/1U/1V/1WA/1WD/1WP |
|   |                  |                      |                        |                          |  |                                   |   |
| <b>Standard Versions</b>  |                  |                      |                        |                          |  |                                   |   |
| 3ATL6<br>3ATH9  | 3ATL600/20/40/80 | 3CTL6/3CTL9<br>3CTH9 | 3ETLXX-H*<br>3ETHXX-H* | 3FTL6<br>3FTH9           | 3FTL600/20/40/60/80/<br>2040/8020/8040                     | 3FTL623/45/88                     |   |
| * 3E available in 6 standard heights: 08.0, 09.5, 10.4, 11.0, 12.0, 15.0 mm. Other heights between 08.0 and 15.0 mm are available upon request. |                  |                      |                        |                          |  |                                   |   |
| Specials: Gold contacts, quiet version and actuation force other than 3.0N  |                  |                      |                        |                          |  |                                   |   |

| Surface Mount Versions   |              |                          |  | Right Angle Versions     |                          |   |   |
|--------------------------|--------------|--------------------------|--|--------------------------|--------------------------|---|---|
| 3A                       | 3C           | 3E                       | 3F   | 3C                       | 3E                       | 3F  | 3F w/LED                                  |
| For 1A/1B/1M/1ZA/1ZB     |              | For 3E actuators/Varimec | For 1D/1K/1N/1P/1S/1T/1U/1V/1WA/1WD/1WP/1X/1ZC/1GA/1GC |                          | For 3E actuators/Varimec | For 1D/1K/1N/1P/1S/1T/1U/1V/1W/1WA/1WD/1WP/1X/1ZC/1GA/1GC | For 1D/1E/1F/1N/1Q/1R/1S/1X               |
|                          |              |                          |  |                          |                          |   |   |
| <b>Standard Versions</b> |              |                          |  | <b>Standard Versions</b> |                          |   |   |
| 3ASH9/3ASH9R             | 3CSH9/3CSH9R | 3ESH9/3ESH9R             | 3FSH9/3FSH9R   | 3CTL6RAS                 | 3ETXX-X.XRAS             | 3FTL6RAS  | 3FTL600/20/40/60/80/<br>2040/8020/8040RAS |

Co-planarity = ≤ 0.05

DIMENSIONS (mm) Unless otherwise specified, all tolerances ± 0.2

## multimec® Cross Section



For updates of products and/or changes of specifications please see [www.mec.dk](http://www.mec.dk)

# multimec<sup>®</sup> 3C/3E

## Technical Data

- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:
  - low temp: -40/+115°C
  - high temp: -40/+160°C
- actuator:
  - in PPS: -40/+160°C
  - in polycarbonate: -40/+85°C



| Standard 3C               |                  | Variable heights 3E       |                  |
|---------------------------|------------------|---------------------------|------------------|
| Dimensions (through-hole) | Dimensions (SMD) | Dimensions (through-hole) | Dimensions (SMD) |
|                           |                  |                           |                  |
| PCB layout                | PCB layout       | PCB layout                | PCB layout       |
|                           |                  |                           |                  |

## How to order

|               |                          |                            |
|---------------|--------------------------|----------------------------|
| <b>3 C</b>    | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>Switch</b> | <b>Mounting</b>          | <b>L 6</b> low temp. white |
|               | <b>T</b> through-hole    | <b>L 9</b> low temp. black |
|               | <b>S</b> surface mount   | <b>H 9</b> high temp.      |

|               |                          |                          |                             |                          |                          |                                |
|---------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|--------------------------------|
| <b>3 E</b>    | <input type="checkbox"/> | <input type="checkbox"/> | <b>9</b>                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>       |
| <b>Switch</b> | <b>Mounting</b>          | <b>L</b> low temp.       | <b>Black</b>                |                          |                          | <b>Standard overall height</b> |
|               | <b>T</b> through-hole    | <b>H</b> high temp.      | <b>Actuator made of PPS</b> |                          |                          | <b>08.0</b>                    |
|               | <b>S</b> surface mount   |                          |                             |                          |                          | <b>09.5</b>                    |
|               |                          |                          |                             |                          |                          | <b>10.4</b>                    |
|               |                          |                          |                             |                          |                          | <b>11.0</b>                    |
|               |                          |                          |                             |                          |                          | <b>12.0</b>                    |
|               |                          |                          |                             |                          |                          | <b>15.0</b>                    |

## Custom heights:

3E is available in any height from 08.0 to 15.0mm.  
Min. order qty. for custom heights is 2.000 pcs.

|               |                       |                    |                                       |                          |                          |                                |
|---------------|-----------------------|--------------------|---------------------------------------|--------------------------|--------------------------|--------------------------------|
| <b>3 E</b>    | <b>T</b>              | <b>L</b>           | <input type="checkbox"/>              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>       |
| <b>Switch</b> | <b>Mounting</b>       | <b>L</b> low temp. | <b>20</b> blue                        |                          |                          | <b>Standard overall height</b> |
|               | <b>T</b> through-hole |                    | <b>23</b> grey                        |                          |                          | <b>08.0</b>                    |
|               |                       |                    | <b>24</b> yellow                      |                          |                          | <b>09.5</b>                    |
|               |                       |                    | <b>28</b> red                         |                          |                          | <b>10.4</b>                    |
|               |                       |                    | <b>29</b> black                       |                          |                          | <b>11.0</b>                    |
|               |                       |                    | <b>Actuator made of polycarbonate</b> |                          |                          | <b>12.0</b>                    |
|               |                       |                    |                                       |                          |                          | <b>15.0</b>                    |

Switch and 3E actuator can be delivered unassembled.

The actuators made of polycarbonate can also be used for high temperature switches, however they must be mounted after soldering and the temp. range will be reduced to 85°C.

**Ordering example:** 3CTL6 and 3ETL9-09.5 or 3ETL23-08.0

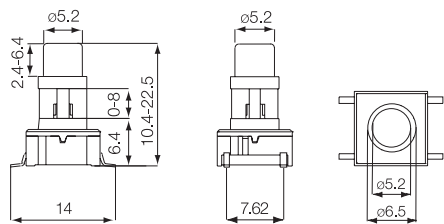
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### Technical Data

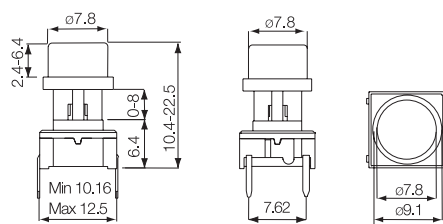
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range switch:  
low temp: -40/+115°C  
high temp: -40/+160 °C
- temperature range cap:  
-40/+160 °C



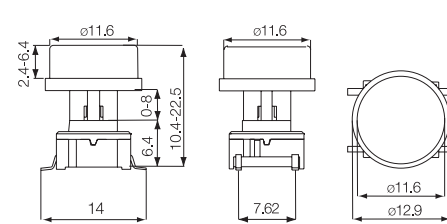
### Round ø5.2



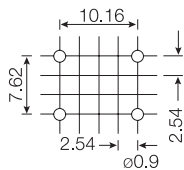
### Round ø7.8



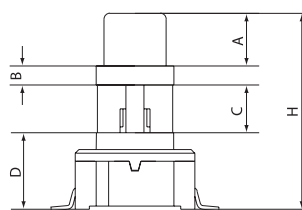
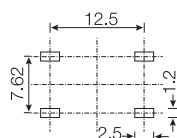
### Round ø11.6



### PCB Layout (through-hole)



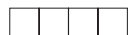
### PCB Layout (SMD)



### The Concept

- H** = Overall heights from 10.4-22.5
- A** = Variable height from 2.4 to 6.4
- A** cannot exceed **H** - 8.0
- B** = Fixed recess 1.6
- D** = Fixed switch 6.4
- C** = Variable from 0-8.1
- C = H - A - B - D**
- All measurements in mm

### How to order



Switch

**3ETL**  
**3ESH**  
**3ETH**



Shape and Size

**A** 5.2 Round  
**E** 7.8 Round  
**K** 11.6 Round



Colour Codes

**60** blue  
**63** grey  
**64** yellow  
**68** red  
**69** black



Overall Height  
**H**

**A** 10.4  
**B** 11.0  
**C** 12.0  
**D** 12.5  
**E** 13.0  
**F** 14.0  
**G** 15.0  
**H** 16.0  
**J** 19.0  
**K** 22.5



Height above recess  
**A**

**A** 2.4  
**B** 3.0  
**C** 3.5  
**D** 4.0  
**E** 4.5  
**F** 5.0  
**G** 5.6  
**H** 6.4



Tape\*

**R**

### Cap alone:

Instead of part no. for switch please use 3E- and then same as above

### Examples Switch and Cap:

3ETLE64CC = Switch 3ETL, 7.8 Round Cap, Yellow, Overall Height 12.0, Height above recess 3.5, (Height under recess 0.5).

### Example Cap Alone:

3E-E63FF = Cap, 7.8 Round, Grey, Overall Height with switch 14.0, Height above recess 5.0, (Height under recess 1.0).

Min. order is 2.000 pcs. per shape, size and heights for parts mentioned above.

For heights not mentioned in the list a start-up fee will apply.

\*Only overall height up to 12.5mm can be supplied on tape.

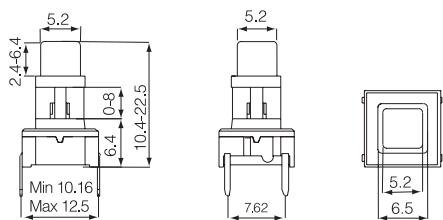
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### Technical Data

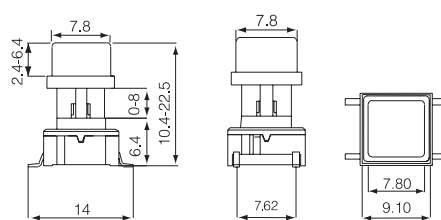
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- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range switch:  
low temp: -40/+115°C  
high temp: -40/+160°C
- temperature range cap:  
-40/+160°C



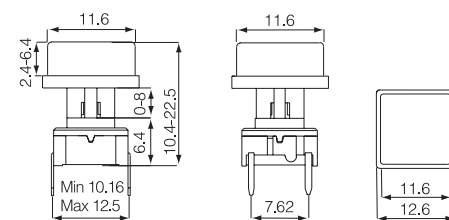
### Square 5.2



### Square 7.8



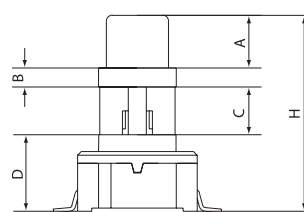
### Square 11.6



### PCB Layout (through-hole)



### PCB Layout (SMD)



### The Concept

- H** = Overall heights from 10.4 - 22.5
- A** = Variable height from 2.4 to 6.4
- A** cannot exceed **H** - 8.0
- B** = Fixed recess 1.6
- D** = Fixed switch 6.4
- C** = Variable from 0-8.1
- C = H - A - B - D**
- All measurements in mm

### How to order



Switch

**3ETL**  
**3ESH**  
**3ETH**



Shape and Size

**B** 5.2 Square  
**F** 7.8 Square  
**L** 11.6 Square



Colour Codes

**60** blue  
**63** grey  
**64** yellow  
**68** red  
**69** black



Overall Height  
**H**

**A** 10.4  
**B** 11.0  
**C** 12.0  
**D** 12.5  
**E** 13.0  
**F** 14.0  
**G** 15.0  
**H** 16.0  
**J** 19.0  
**K** 22.5



Height above recess  
**A**

**A** 2.4  
**B** 3.0  
**C** 3.5  
**D** 4.0  
**E** 4.5  
**F** 5.0  
**G** 5.6  
**H** 6.4



Tape\*

**R**

### Cap alone:

Instead of part no. for switch please use 3E- and then same as above

### Examples Switch and Cap:

3ESHB60AA = Switch 3ESH, 5.2 Square Cap, Blue, Overall Height 10.4, Height above recess 2.4, (Height under recess 0).

### Example Cap Alone:

3E-E63FF = Cap, 7.8 Square, Grey, Overall Height with switch 14.0, Height above recess 5.0, (Height under recess 1.0).

Min. order is 2.000 pcs. per shape, size and heights for parts mentioned above.

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