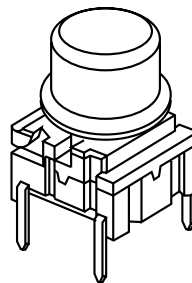


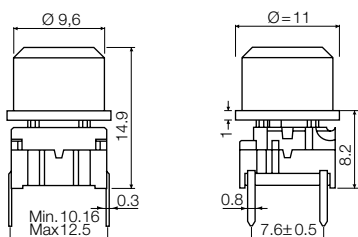
# multimec® 3F + 1D/1E/1F



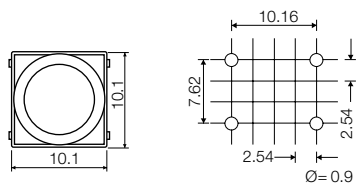
## Technical Data:

- 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

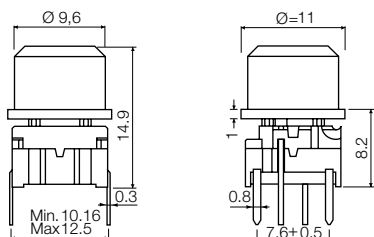
## Dimensions (through-hole)



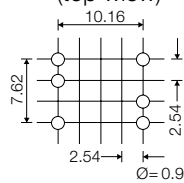
## PCB layout



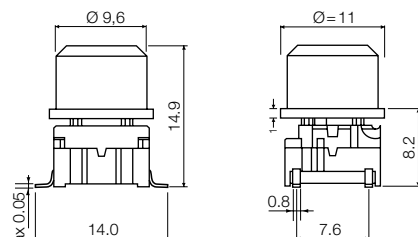
## Dimensions (w/LED)



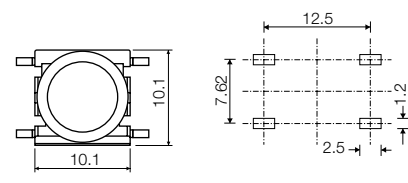
## PCB layout (top view)



## Dimensions (SMD)



## PCB layout



## HOW TO ORDER

**3 F**

**Switch**



**Mounting**

**T** through-hole

**S** surface mount



**L 6** low temp.

**H 9** high temp.



**1 D**

**Cap**



**00** blue

**02** green

**03** grey

**04** yellow

**06** white

**08** red

**09** black

**30** ultra blue

**40** dusty blue

**42** aqua blue

**32** mint green

**33** tele grey

**34** melon

**38** noble red

**50** metal dark blue

**53** metal light grey

**57** metal dark grey

**58** metal bordeaux

## Standard versions:

3FTL6  
3FTH9  
3FSH9  
3FSH9R

**3 F**

**Switch**



**Mounting**

**T** through-hole



**L 6** low temp.

**H 9** high temp.



**LED**

**00** blue

**20** green

**40** yellow

**80** red

**2040** green/yellow

**8020** red/green

**8040** red/yellow



**Cap 1D**



**Cap 1E**



**Cap 1F**



**1 1**

transparent



**Lens**

## Standard versions:

3FTL600  
3FTL620  
3FTL640  
3FTL680  
3FTL62040  
3FTL68020  
3FTL68040

**00** blue

**02** green

**03** grey

**04** yellow

**06** white

**08** red

**09** black

**1** transparent

**2** green

**4** yellow

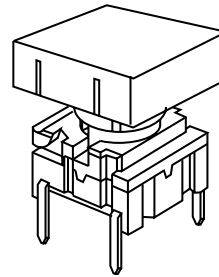
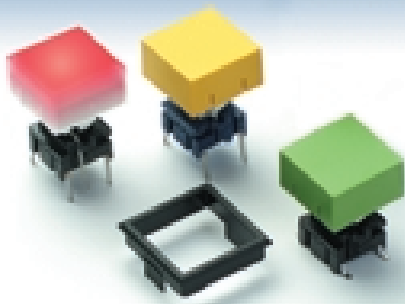
**8** red

**Ordering example:** 3FTL620 + 1E032

**mec** · Industriparken 23 · P.o. Box 26 · DK-2750 Ballerup · Denmark

Tel.: +45 44 97 33 66 · Fax: +45 44 68 15 14 · Web: [www.mec.dk](http://www.mec.dk) · E-mail: [danmec@mec.dk](mailto:danmec@mec.dk)

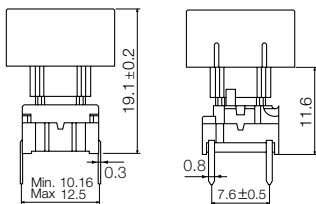
# multimec® 3F + 1K + 2K



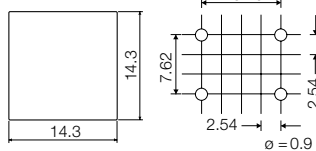
## Technical Data:

- 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

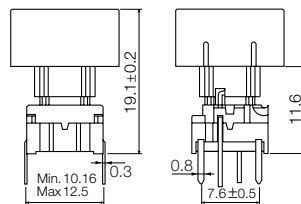
## Dimensions (through-hole)



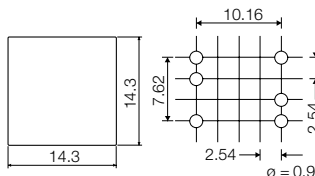
### PCB layout



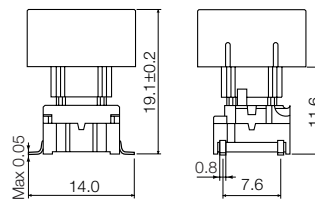
## Dimensions (w/LED)



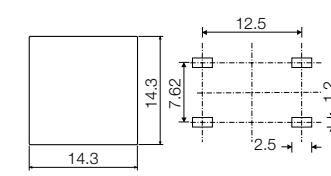
### PCB layout (top view)



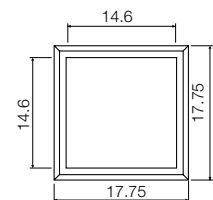
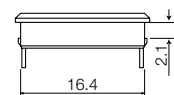
## Dimensions (SMD)



### PCB layout



## Dimensions (Bezel) (Optional)



## HOW TO ORDER

|               |                                                 |                                               |   |                                                                                                                                |   |                                                                       |
|---------------|-------------------------------------------------|-----------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------|
| <b>3 F</b>    | <b>□</b>                                        | <b>□ □</b>                                    | + | <b>1 K</b> <b>1 6</b>                                                                                                          | + | <b>2 K</b> <b>□ □</b>                                                 |
| <b>Switch</b> | <b>Mounting</b>                                 | <b>L 6</b> low temp.<br><b>H 9</b> high temp. |   | <b>Cap</b>                                                                                                                     |   | <b>Bezel</b>                                                          |
|               | <b>T</b> through-hole<br><b>S</b> surface mount |                                               |   | <b>00</b> blue<br><b>02</b> green<br><b>03</b> grey<br><b>04</b> yellow<br><b>06</b> white<br><b>08</b> red<br><b>09</b> black |   | <b>03</b> grey<br><b>06</b> white<br><b>08</b> red<br><b>09</b> black |

## Standard versions:

3FTL6  
3FTH9  
3FSH9  
3FSH9R

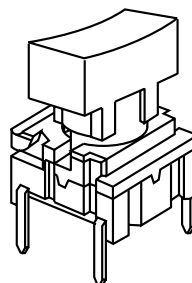
|               |                       |                                               |   |                        |   |                                                                       |
|---------------|-----------------------|-----------------------------------------------|---|------------------------|---|-----------------------------------------------------------------------|
| <b>3 F</b>    | <b>T</b>              | <b>□ □</b>                                    | + | <b>1 K 1 1 1 6</b>     | + | <b>2 K</b> <b>□ □</b>                                                 |
| <b>Switch</b> | <b>Mounting</b>       | <b>L 6</b> low temp.<br><b>H 9</b> high temp. |   | <b>Cap</b> transparent |   | <b>Bezel</b>                                                          |
|               | <b>T</b> through-hole |                                               |   |                        |   | <b>03</b> grey<br><b>06</b> white<br><b>08</b> red<br><b>09</b> black |

## Standard versions:

3FTL622  
3FTL644  
3FTL688

**Ordering example:** 3FTL688 + 1K1116

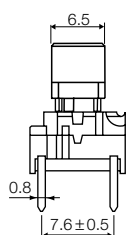
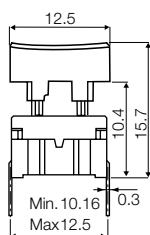
# multimec® 3F + 1P/1Q/1R



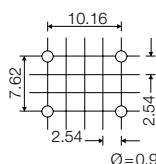
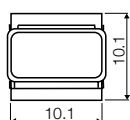
## Technical Data:

- 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

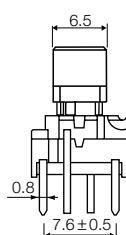
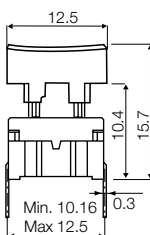
## Dimensions (through-hole)



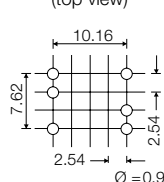
## PCB layout



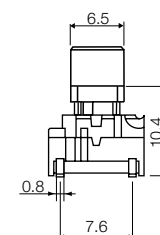
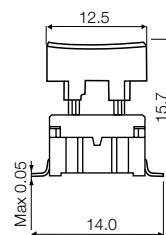
## Dimensions (w/LED)



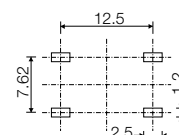
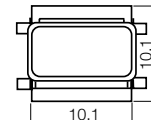
## PCB layout (top view)



## Dimensions (SMD)



## PCB layout



## How to order

**3 F**

**Switch**



**Mounting**

**T** through-hole

**S** surface mount



**L 6** low temp.  
**H 9** high temp.

+

**1 P**

**Cap**



**00** blue  
**02** green  
**03** grey  
**04** yellow  
**06** white  
**08** red  
**09** black

## Standard versions:

3FTL6  
3FTH9  
3FSH9  
3FSH9R

**3 F**

**Switch**

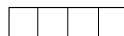


**Mounting**

**T** through-hole



**L 6** low temp.  
**H 9** high temp.



**LED**

**00** blue  
**20** green  
**40** yellow  
**80** red  
**2040** green/yellow  
**8020** red/green  
**8040** red/yellow

+



**1Q**



**1R**



**00** blue  
**03** grey  
**08** red  
**09** black

**1**

**Lens**

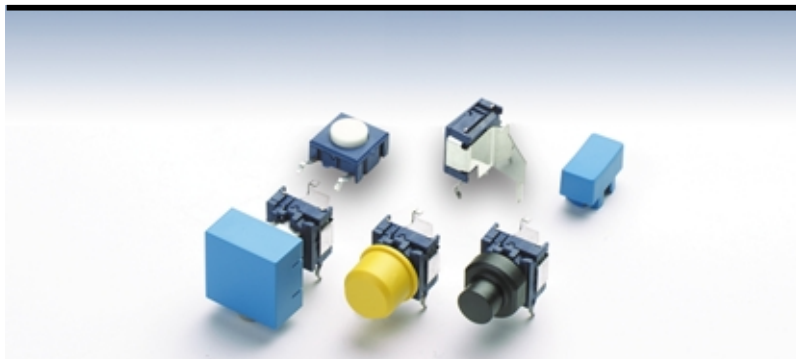
**1** transparent

## Standard versions:

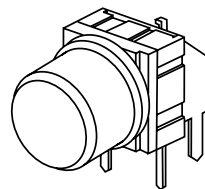
3FTL600  
3FTL620  
3FTL640  
3FTL680  
3FTL62040  
3FTL68020  
3FTL68040

**Ordering example:** 3 FTL680 + 1Q091

# multimec® RAS + 1D/1K/1P/1S

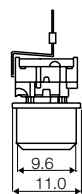
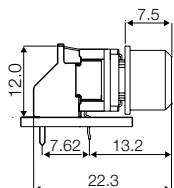
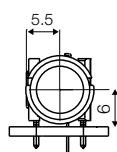


## Technical Data:

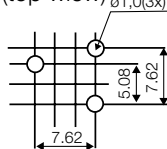


- through-hole only
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:  
low temp: -40/+115°C

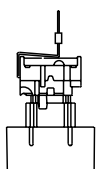
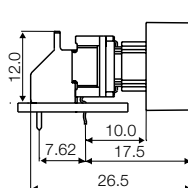
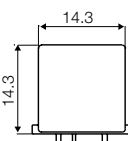
## Dimensions 1D



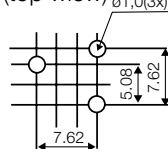
## PCB layout (top view)



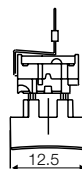
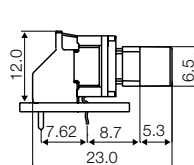
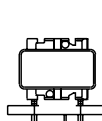
## Dimensions 1K



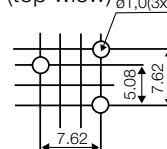
## PCB layout (top view)



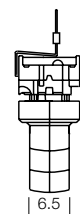
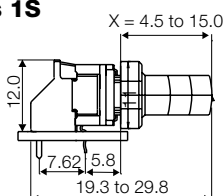
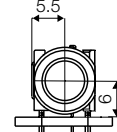
## Dimensions 1P



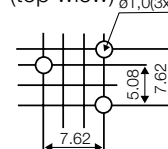
## PCB layout (top view)



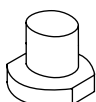
## Dimensions 1S



## PCB layout (top view)



## HOW TO ORDER

|               |                       |                      |                            |                |                                                                                     |                  |                      |                            |
|---------------|-----------------------|----------------------|----------------------------|----------------|-------------------------------------------------------------------------------------|------------------|----------------------|----------------------------|
| <b>3 F</b>    | <b>T</b>              | <b>L 6</b>           | <b>R A S</b> +             | <b>1 D</b>     | <b>Cap</b>                                                                          | <b>00</b> blue   | <b>30</b> ultra blue | <b>50</b> metal dark blue  |
| <b>Switch</b> | <b>Mounting</b>       | <b>L 6</b> low temp. | <b>Right angle support</b> |                |  | <b>02</b> green  | <b>40</b> dusty blue | <b>53</b> metal light grey |
|               | <b>T</b> through-hole |                      |                            |                |                                                                                     | <b>03</b> grey   | <b>42</b> aqua blue  | <b>57</b> metal dark grey  |
|               |                       |                      |                            |                |                                                                                     | <b>04</b> yellow | <b>32</b> mint green | <b>58</b> metal bordeaux   |
|               |                       |                      |                            |                |                                                                                     | <b>06</b> white  | <b>33</b> tele grey  |                            |
|               |                       |                      |                            |                |                                                                                     | <b>08</b> red    | <b>34</b> melon      |                            |
|               |                       |                      |                            |                |                                                                                     | <b>09</b> black  | <b>38</b> noble red  |                            |
|               |                       |                      |                            | <b>1 P</b>     | <b>Cap</b>                                                                          | <b>00</b> blue   |                      |                            |
|               |                       |                      |                            |                |  | <b>03</b> grey   |                      |                            |
|               |                       |                      |                            |                |                                                                                     | <b>08</b> red    |                      |                            |
|               |                       |                      |                            |                |                                                                                     | <b>09</b> black  |                      |                            |
|               |                       |                      |                            | <b>1 K</b>     | <b>Cap</b>                                                                          | <b>00</b> blue   | <b>2 K</b>           | <b>Bezel</b>               |
|               |                       |                      |                            |                |  | <b>02</b> green  |                      | <b>03</b> grey             |
|               |                       |                      |                            |                |                                                                                     | <b>03</b> grey   |                      | <b>06</b> white            |
|               |                       |                      |                            |                |                                                                                     | <b>04</b> yellow |                      | <b>08</b> red              |
|               |                       |                      |                            |                |                                                                                     | <b>06</b> white  |                      | <b>09</b> black            |
|               |                       |                      |                            |                |                                                                                     | <b>08</b> red    |                      |                            |
|               |                       |                      |                            |                |                                                                                     | <b>09</b> black  |                      |                            |
|               |                       |                      |                            | <b>1 S 0 9</b> | <b>Cap black</b>                                                                    | <b>H</b>         | <b>X *</b>           |                            |
|               |                       |                      |                            |                |  | 16.0             | 8.5                  |                            |
|               |                       |                      |                            |                |                                                                                     | 19.0             | 11.5                 |                            |
|               |                       |                      |                            |                |                                                                                     | 22.5             | 15.0                 |                            |

## Standard versions:

3FTL6RAS, 3CTL6RAS,

\*Any cap height X from 8.5 to 15.0 mm is available. Please order 1S09-H, where H = X+7.5 mm  
Min. order Qty for custom heights is 2.000 pcs. A start-up charge will apply.  
3CTL6 also available as right angle switch 3CTL6RAS. Please see multimec basic switch modules.

**Ordering example:** 3FTL6RAS + 1K0016 + 2K03

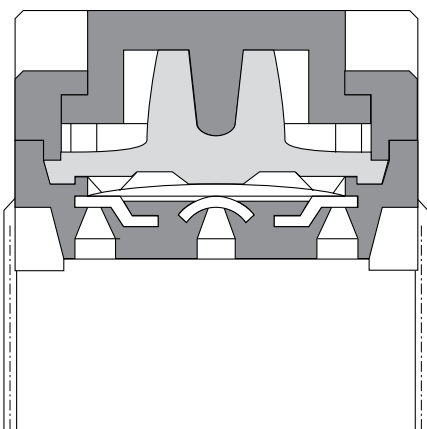
# multimec® basic switch modules

| Through-hole Version                                                                                                                             |                  |                      |                      |                                        |                                     |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|----------------------|----------------------------------------|-------------------------------------|---------------------------|
| 3A                                                                                                                                               |                  | 3C                   | 3E                   | 3F                                     |                                     |                           |
| For 1A/1B/1M                                                                                                                                     | w/LED for 1C/1H  |                      |                      | For 1D/1K/1N/1P/1S/1T/1U/1V/1X/1GA/1GC | w/LED for 1E/1F/1N/1Q/1R/1S/1X      | w/LED for 1K1116/1T/1U/1V |
|                                                                                                                                                  |                  |                      |                      |                                        |                                     |                           |
| Standard Versions                                                                                                                                |                  |                      |                      |                                        |                                     |                           |
| 3ATL6<br>3ATH9                                                                                                                                   | 3ATL600/20/40/80 | 3CTL6/3CTL9<br>3CTH9 | 3ETL9-H*<br>3ETH9-H* | 3FTL6<br>3FTH9                         | 3FTL600/20/40/80/<br>2040/8020/8040 | 3FTL623/44/88             |
| * 3E available in 6 standard heights: 08.0, 09.5, 10.4, 11.0, 12.0, 15.0 mm<br>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 |              |              |                                        |
|------------------------|--------------|--------------|----------------------------------------|
| 3A                     | 3C           | 3E           | 3F                                     |
|                        |              |              |                                        |
| 3ASH9/3ASH9R           | 3CSH9/3CSH9R | 3ESH9/3ESH9R | 3FSH9 / 3FSH9R                         |
| For 1A/1B/1M           |              |              | For 1D/1K/1N/1P/1S/1T/1U/1V/1X/1GA/1GC |

| Right Angle Versions |                 |
|----------------------|-----------------|
| 3C                   | 3F              |
|                      |                 |
| 3CTL6RAS             | 3FTL6RAS        |
|                      | For 1D/1K/1P/1S |

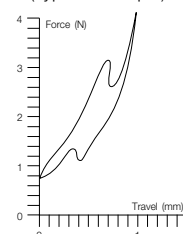
## multimec® Cross Section



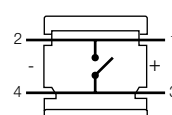
## Recommended PCB layout

|                                 |                                                 |                                                        |
|---------------------------------|-------------------------------------------------|--------------------------------------------------------|
| <b>MULTIMEC</b><br>top view<br> | <b>MULTIMEC</b><br>Surface-mount solder pad<br> | <b>MULTIMEC</b><br>Right Angle Version<br>top view<br> |
|---------------------------------|-------------------------------------------------|--------------------------------------------------------|

**Operating Force**  
(Typical example)



**Circuit diagram**



DIMENSIONS (mm) Unless otherwise specified, all tolerances  $\pm 0.2$

# multimec® technical specifications

|                                         | Low Temperature Versions                                            |                                  | High Temperature Versions                                     |                                  |
|-----------------------------------------|---------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------|----------------------------------|
|                                         | Silver                                                              | Gold                             | Silver                                                        | Gold                             |
| Electrical Specifications               |                                                                     |                                  |                                                               |                                  |
| Contact resistance                      | <30 m Ω - typically 10m Ω                                           |                                  |                                                               |                                  |
| Insulation resistance                   | >10M Ω                                                              |                                  |                                                               |                                  |
| Recommended load                        | 0.5-50mA 24VDC                                                      | 0.5μ-50mA 24VDC                  | 0.5-50mA 24VDC                                                | 0.5μ-50mA 24VDC                  |
| Contact bounce                          | <2mS - typically 0.5mS                                              |                                  |                                                               |                                  |
| Mechanical Specifications               |                                                                     |                                  |                                                               |                                  |
| Standard actuation force (switch)       | 3.0N typ.                                                           |                                  |                                                               |                                  |
| Max. actuation force without cap        | 100N for 10 sec.                                                    |                                  |                                                               |                                  |
| Key travel (switch)                     | 1 mm                                                                |                                  |                                                               |                                  |
| Life time (switch)                      | >10.000.000 cycles                                                  |                                  |                                                               |                                  |
| Temperature Range                       |                                                                     |                                  |                                                               |                                  |
| Working temperature                     | Min. -40°C Max. +115°C                                              |                                  | Min. -40°C Max. +160°C                                        |                                  |
| Storage temperature                     | Min. -40°C Max. +115°C                                              |                                  | Min. -40°C Max. +160°C                                        |                                  |
| Soldering IEC 68-2-20                   | Wave -max. 260°C for max. 10 sec., please refer to usage guidelines |                                  | Infrared, vapour phase, wave<br>- max. 260°C for max. 30 sec. |                                  |
|                                         | Soldering iron - max. 350°C for max. 3 sec. Flux tight.             |                                  | Soldering iron - max. 350°C for max. 3 sec. Flux tight.       |                                  |
| Environmental Endurance IEC-68-2-3      |                                                                     |                                  |                                                               |                                  |
| Temperature                             | +40°C                                                               |                                  |                                                               |                                  |
| Humidity                                | 93% RH                                                              |                                  |                                                               |                                  |
| Duration                                | 56 Days                                                             |                                  |                                                               |                                  |
| Temperature Cycling IEC 68-2-14         |                                                                     |                                  |                                                               |                                  |
| Temperature limit                       | Min. -55°C - Max. +85°C                                             |                                  |                                                               |                                  |
| Number of cycles                        | 200                                                                 |                                  |                                                               |                                  |
| Exposure time at each temperature       | 10 min.                                                             |                                  |                                                               |                                  |
| Recovery time before measurements       | 16 hrs.                                                             |                                  |                                                               |                                  |
| Sealing IEC 529                         | IP-67                                                               |                                  |                                                               |                                  |
| Cleaning                                | Standard methods such as freon and water                            |                                  |                                                               |                                  |
| Material Specifications - Switches      |                                                                     |                                  |                                                               |                                  |
| Housing                                 | PBT UL94VO                                                          |                                  | PPS UL94VO                                                    |                                  |
| Actuator                                | PBT UL94VO                                                          |                                  | PPS UL94VO                                                    |                                  |
| Sealing + spring                        | Silicone rubber                                                     |                                  |                                                               |                                  |
| Contact spring                          | Stainless steel<br>+ 3μAg                                           | Stainless steel<br>+ 3μAg + 1μAu | Stainless steel<br>+ 3μAg                                     | Stainless steel<br>+ 3μAg + 1μAu |
| Fixed Contacts                          | SnCu + 2μNI + 3μAg                                                  | SnCu + 2μNI + 3μAg+1μAu          | SnCu + 2μNI + 3μAg                                            | SnCu + 2μNI + 3μAg + 1μAu        |
| Terminals                               | SnCu + 2μNI + 3μSnPb                                                | SnCu + 2μNI + 3μSnPb             | SnCu + 2μNI + 3μSnPb                                          | SnCu + 2μNI + 3μSnPb             |
| Material Specifications - Caps & Bezels |                                                                     |                                  |                                                               |                                  |
| Material                                | Parts                                                               | Temp limit                       | UL rating                                                     |                                  |
| ABS Standard                            | Standard parts except the below mentioned                           | Max 65°C                         | UL94HB                                                        |                                  |
| Polycarbonate                           | All lenses                                                          | Max. 85°C                        | UL94V1                                                        |                                  |
| LCP                                     | Actuator of 3E                                                      | Max. 160°C                       | UL94VO                                                        |                                  |
| PPS                                     | 1S, 2S                                                              | Max. 160°C                       | UL94VO                                                        |                                  |
| Polyamide                               | Actuator of Varimec, 1GA/ 1GC                                       | Max. 160°C                       | UL94VO                                                        |                                  |
| Legends Adhesion                        | ISO Class.: 1/ ASTM Class.: 4B                                      |                                  |                                                               |                                  |
|                                         | DIN EN ISO 2409                                                     |                                  |                                                               |                                  |

Specifications are subject to change without notice

Existing and New Part Nos. for Lead Free, RoHS compatible and Proces compatible mec products

MULTIMEC

| Part No.    | Part Name                         | Lead Free | RoHS Comp. | Proces Comp. | New Part No. Comments | Lead Free | RoHS Comp. | Proces Comp. | UL |
|-------------|-----------------------------------|-----------|------------|--------------|-----------------------|-----------|------------|--------------|----|
| 3ASH9       | Switch Surface Ag/High Temp       | N         | N          | Y            | RA3ASH9               | Y         | Y          | Y            | V0 |
| 3AXXXG      | All 3A Switches with Au           | N         | N          | Y            | RA3AXXXG              | Y         | Y          | Y            | V0 |
| 3AXXXQ      | All 3A Quiet Switches             | N         | N          | Y            | RA3AXXXQ              | Y         | Y          | Y            | VO |
| 3ASH9R      | All 3A Switches delivered on Tape | N         | N          | Y            | RA3ASH9R              | Y         | Y          | Y            | V0 |
| 3ATH9       | Switch Th Ag/High Temp.           | N         | N          | Y            | RA3ATH9               | Y         | Y          | Y            | V0 |
| 3ATL6       | Switch Th Ag/White But/Low Temp.  | N         | N          | Y            | RA3ATL6               | Y         | Y          | Y            | V0 |
| 3ATL6 w/LED | Switch Th Ag/Low Temp w/LED       | N         | N          | Y            | RA3ATL6 w/LED         | Y         | Y          | Y            | V0 |
| 3CSH9       | Switch Surface Ag/High Temp.      | N         | N          | Y            | RA3CSH9               | Y         | Y          | Y            | V0 |
| 3CXXXG      | All 3C Switches with Au           | N         | N          | Y            | RA3CXXXG              | Y         | Y          | Y            | V0 |
| 3CXXXQ      | All 3C Quiet Switches             | N         | N          | Y            | RA3CXXXQ              | Y         | Y          | Y            | V0 |
| 3CSH9R      | All 3C Switches delivered on Tape | N         | N          | Y            | RA3CSH9R              | Y         | Y          | Y            | V0 |
| 3CTH9       | Switch Th Ag/High Temp            | N         | N          | Y            | RA3CTH9               | Y         | Y          | Y            | V0 |
| 3CTL6       | Switch Th/White But/Low Temp      | N         | N          | Y            | RA3CTL6               | Y         | Y          | Y            | V0 |
| 3CTL6-2SL   | Switch Low Temp. 2 Straight Legs  | N         | N          | Y            | RA3CTL6-2SL           | Y         | Y          | Y            | V0 |
| 3CTL6RAS    | Right Angle Switch Low Temp.      | N         | N          | Y            | RA3CTL6RAS            | Y         | Y          | Y            | V0 |
| 3CTL9       | Switch Th Ag/Black But/Low Temp   | N         | N          | Y            | RA3CTL9               | Y         | Y          | Y            | V0 |
| 3ESH9       | Switch Surface Ag High Temp.      | N         | N          | Y            | RA3ESH9               | Y         | Y          | Y            | V0 |
| 3ESH9-XX.X  | Switch Ag/High Temp./w Actuator   | N         | N          | Y            | RA3ESH9-XX.X          | Y         | Y          | Y            | V0 |
| 3EXXXG      | All 3E Switches with Au           | N         | N          | Y            | RA3EXXXG              | Y         | Y          | Y            | V0 |
| 3EXXXQ      | All 3E Quiet Switches             | N         | N          | Y            | RA3EXXXQ              | Y         | Y          | Y            | V0 |
| 3ESH9R      | All 3E Switches delivered on Tape | N         | N          | Y            | RA3ESH9R              | Y         | Y          | Y            | V0 |
| 3ETH9       | Switch Th Ag High Temp.           | N         | N          | Y            | RA3ETH9               | Y         | Y          | Y            | V0 |

|             |                                    |   |   |   |                           |   |   |   |    |
|-------------|------------------------------------|---|---|---|---------------------------|---|---|---|----|
| 3ETH9-XX.X  | Switch Th Ag/High Temp. w/Actuator | N | N | Y | RA3ETH9-XX.X              | Y | Y | Y | V0 |
| 3ETL9       | Switch Th Ag/Low Temp.             | N | N | Y | RA3ETL9                   | Y | Y | Y | V0 |
| 3ETL9-XX.X  | Switch Th Ag/Low Temp. w/Actuator  | N | N | Y | RA3ETL9-XX.X              | Y | Y | Y | V0 |
| 3FSH9       | Switch Surface Ag/High Temp.       | N | N | Y | RA3FSH9                   | Y | Y | Y | V0 |
| 3FXXXG      | All 3F Switches with Au            | N | N | Y | RA3FXXXG                  | Y | Y | Y | V0 |
| 3FXXXQ      | All 3F Quiet Switches              | N | N | Y | RA3FXXXQ                  | Y | Y | Y | V0 |
| 3FSH9R      | All 3F Switches delivered on Tape  | N | N | Y | RA3FSH9R                  | Y | Y | Y | V0 |
| 3FTH9       | Switch Th Ag/High Temp.            | N | N | Y | RA3FTH9                   | Y | Y | Y | V0 |
| 3FTH9 w/LED | Switch Th High Temp w/ LED         | N | N | Y | RA3FTH9 w/LED             | Y | Y | Y | V0 |
| 3FTL6       | Switch Th Ag/Low Temp.             | N | N | Y | RA3FTL6                   | Y | Y | Y | V0 |
| 3FTL6 w/LED | Switch Th Ag/Low Temp w/LED        | N | N | Y | RA3FTL6 w/LED             | Y | Y | Y | V0 |
| 3FTL6-2SL   | Switch Low Temp. 2 Straight Legs   | N | N | Y | RA3FTL6-2SL               | Y | Y | Y | V0 |
| 3FTL6RAS    | Right Angle Switch Low Temp.       | N | N | Y | RA3FTL6RAS                | Y | Y | Y | V0 |
| 1CXXXX      | Leds for 1C or 1H Button           | N | N | N | RA1CXXXX                  | Y | Y | Y |    |
| 2BXXXX      | Leds for 2B Bezel                  | N | N | N | RA2BXXXX                  | Y | Y | Y |    |
| 3FXXXXX     | Leds Bent for 3F                   | N | N | N | RA3FXXXXX                 | Y | Y | Y |    |
| 1AXX        | DI Buttons all colours for 3A      | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1BXX        | DI Buttons f. Bezels all colours   | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1CXXX       | DI Buttons w/Lens all colours      | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1DXX        | Lk Buttons all colours             | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1EXXX       | Lk Buttons w/Lens all colours      | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1FXXX       | Lk Buttons w/Lens all colours      | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1GA09       | Cap black 11                       | Y | Y | Y | No change                 |   |   |   | V0 |
| 1GC09       | Cap black 15                       | Y | Y | Y | No change                 |   |   |   | V0 |
| 1HXXX       | DI Buttons w/Lens all colours      | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1KXX        | Lk Lid all colours                 | Y | Y | N | No change, pls see note 1 |   |   |   | HB |
| 1KXX16      | Lid all colours/Lens/Reflector     | Y | Y | N | No change, pls see note 1 |   |   |   | HB |



|            |                                      |   |   |   |                           |  |  |    |
|------------|--------------------------------------|---|---|---|---------------------------|--|--|----|
| 1KXX1      | Lens Milky White For 1K Button       | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1KXXX6     | Reflector For 1K Button White        | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1MXX       | DI Button Double Width all colours   | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1NXX       | Teardrop Buttons all colours         | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1PXX       | Gf Buttons all colours               | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1QXXX      | 1P But. W/Square Hole, all colours   | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1RXXX      | 1P Button w/Round Hole, all colours  | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1S09-XX.X  | Lk Button Black, all heights         | Y | Y | Y | No change                 |  |  | V0 |
| 1S11-XX.X  | Lk Button Transparent, all heights   | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 1TXX       | Sq. Button, all colours              | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1UXX       | Round Button, all colours            | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1VXX       | Arrow Button, all colours            | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1X XX      | Rectangular Button, all colours      | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1ZAXX      | DL Button, all colours               | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1ZBXX      | Curved Button, all colours           | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1ZCXX      | Round Button, all colours            | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 3E-XX.X    | Actuator f. 3E Switch, all heights   | Y | Y | Y | No change                 |  |  | V0 |
| 3E-AXXXX   | Varimec cap 5.2 Round, all heights   | Y | Y | Y | No change                 |  |  | V0 |
| 3E-BXXXX   | Varimec cap 5.2 Square, all heights  | Y | Y | Y | No change                 |  |  | V0 |
| 3E-EXXXX   | Varimec cap 7.8 Round, all heights   | Y | Y | Y | No change                 |  |  | V0 |
| 3E-FXXXX   | Varimec cap 7.8 Square, all heights  | Y | Y | Y | No change                 |  |  | V0 |
| 3E-KXXXX   | Varimec cap 11.6 Round, all heights  | Y | Y | Y | No change                 |  |  | V0 |
| 3E-LXXXX   | Varimec cap 11.6 Square, all heights | Y | Y | Y | No change                 |  |  | V0 |
| AQB01XX    | Sealing Boot (incl. Sea.ring)        | Y | Y | Y | No change                 |  |  |    |
| AQB0111    | Sealing Boot Trans. (incl. Sea.ring) | Y | Y | Y | No change                 |  |  |    |
| AQC09-XX.X | Cap Black, all overall heights       | Y | Y | Y | No change                 |  |  | V0 |
| AQC11-XX.X | Cap Trans. all overall heights       | Y | Y | N | No change, pls see note 2 |  |  | V1 |

|            |                                       |   |   |   |                           |  |  |    |
|------------|---------------------------------------|---|---|---|---------------------------|--|--|----|
| AQN-X.X    | Bushing, all heights                  | Y | Y | Y | No change                 |  |  |    |
| 1CXXX      | Lens f. 1C/1H/1Q Buttons, all colours | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 1EXXX      | Lens f. 1E Buttons, all colours       | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 1FXXX      | Lens f. 1F Buttons, all colours       | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 1RXX1      | Round Transparent Lens For 1R         | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 2AXX       | DI Bezel, all colours                 | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 2BXXX      | Bezel/Lens, all colours               | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 2BXXX      | Lens f. 2B Bezel, all colours         | Y | Y | N | No change, pls see note 2 |  |  | V1 |
| 2KXX       | Lk Bezel f. 1K, all colours           | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 2RAS       | Right Angle Support.                  | Y | Y | Y | No change                 |  |  |    |
| 2S09-XX.X  | Extender, Black Pps, all heights      | Y | Y | Y | No change                 |  |  | V0 |
| 1A09XDXXX  | Button 1A Down/all legends            | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1A09XUXXX  | Button 1A Up/all legends              | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1B09XDXXX  | Button 1b Down/0                      | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1B09XUXXX  | Button 1B Up/all legends              | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1D09XXX    | Round Button/all legends              | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1F096XXX   | 1F Button/Inverse legends             | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1ZB09XDXXX | Button1ZB09 Down / all legends        | Y | Y | N | No change, pls see note 1 |  |  | HB |
| 1ZC09XXX   | Button 1ZC09 / all legends            | Y | Y | N | No change, pls see note 1 |  |  | HB |

**Note 1:**                **Complies with RoHS, however plastic material limited to 65°C.**  
**Accessories must be mounted after soldering.**

**Note 2:**                **Complies with RoHS, however plastic material is limited to 85°C,**  
**so excessive proces heat must be avoided.**

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