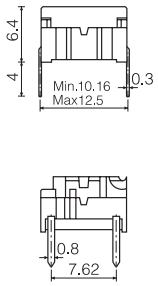
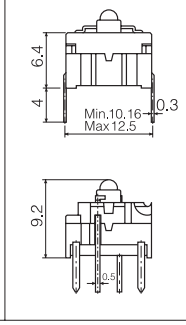
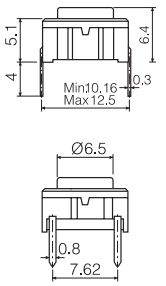
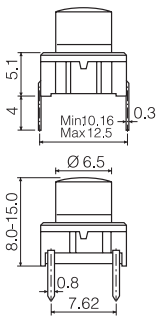
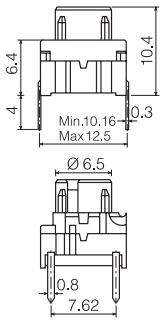
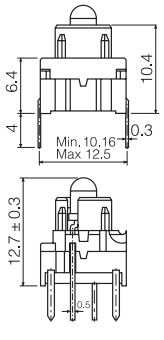
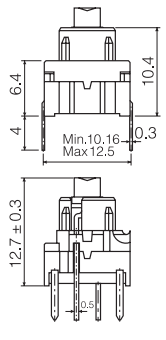
multimec® basic switch modules

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
						

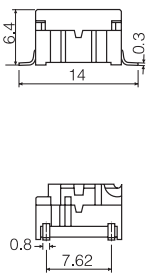
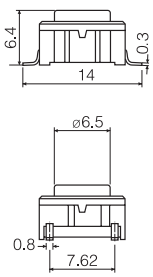
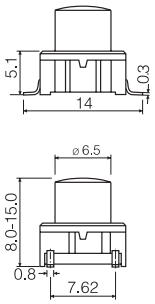
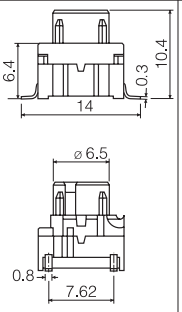
Standard Versions

3ATL6 3ATH9	3ATL600/20/40/80	3CTL6/3CTL9 3CTH9	3ETLXX-H* 3ETHXX-H*	3FTL6 3FTH9	3FTL600/20/40/60/80/ 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

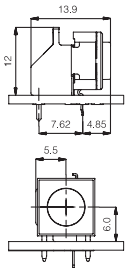
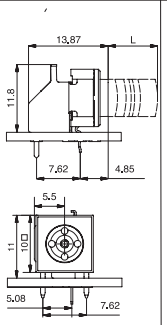
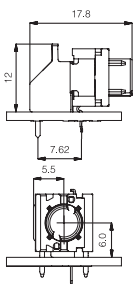
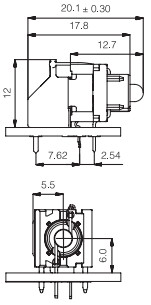
Surface Mount Versions

3A	3C	3E	3F
For 1A/1B/1M/1ZA/1ZB		For 3E actuators/ Varimec	For 1D/1K/1N/1P/1S/1T/ 1U/1V/WA/1WD/1WP/ 1X/1ZC/1GA/1GC
			

Standard Versions

3ASH9/3ASH9R	3CSH9/3CSH9R	3ESH9/3ESH9R	3FSH9/3FSH9R

Right Angle Versions

3C	3E	3F	3F w/LED
	For 3E actuators/ Varimec	For 1D/1K/1N/1P/1S/1T/ 1U/1V/1W/1WA/1WD/ 1WP1X/1ZC/1GA/1GC	For 1D/1E/1F/1N/1Q/ 1R/1S/1X
			

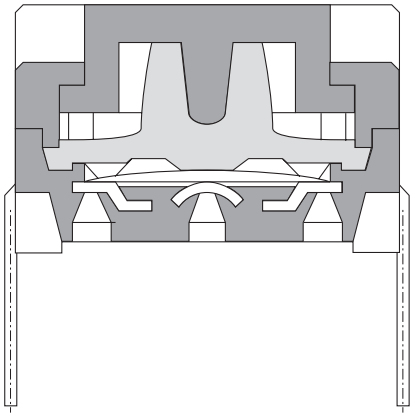
Standard Versions

3CTL6RAS	3ETXX-X.XRAS	3FTL6RAS	3FTL600/20/40/60/80/ 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**

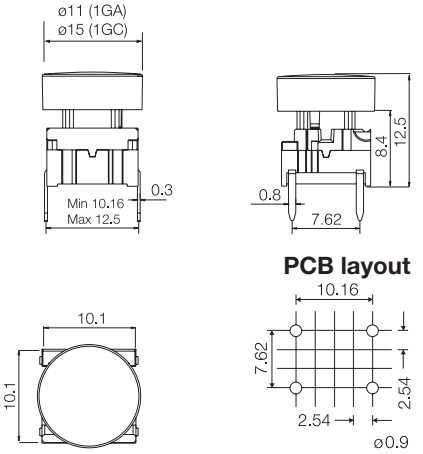
multimec® 3F + 1GA/1GC

Technical Data

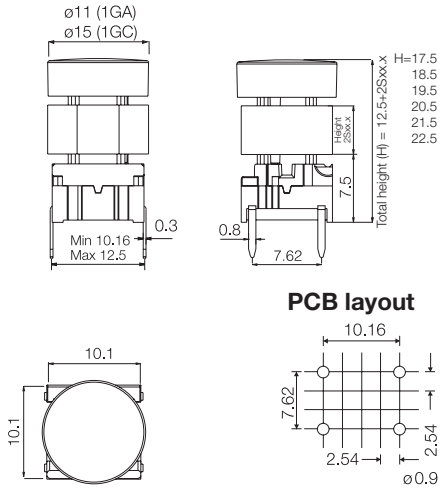
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:
  low temp: -40/+115°C
  high temp: -40/+160°C



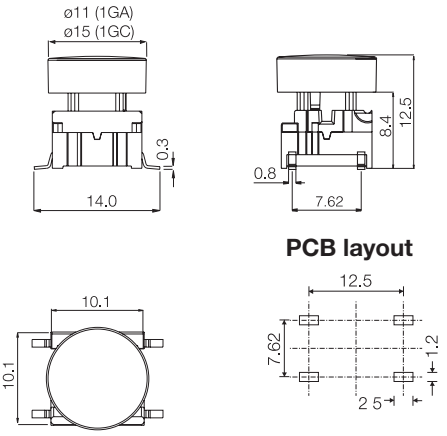
Dimensions (through-hole)



Dimensions (w/extender)



Dimensions (SMD)



How to order

3 F	☐	☐☐	+	1 G A 0 9	+	2 S 0 9 - ☐☐ . 0
Switch	**Mounting** **T** through-hole **S** surface mount	**L 6** low temp. **H 9** high temp.		**Cap black**		**Extender black**



1 G C 0 9

Cap black



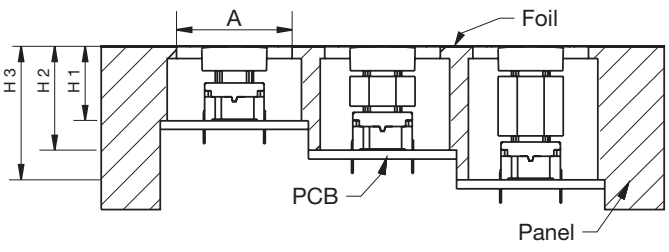


(Optional)
Adds 5-10 mm
to total height.

Height
05.0
06.0
07.0
08.0
09.0
10.0

Keycap	Variable Extender	H (height) mm	Example
1GA/1GC		12.5	H 1
1GA/1GC	2S09-05.0	17.5	H 2
	2S09-06.0	18.5	
	2S09-07.0	19.5	
	2S09-08.0	20.5	
	2S09-09.0	21.5	
	2S09-10.0	22.5	H 3

H = Overall height



Overall heights below 12.5 mm - Please see Multimec® versions 3C and 3E.
All 2S09 extenders are stackable giving the possibility to match most overall heights.
A = We recommend you to allocate enough space for travel of the foil and leave the area free from adhesive.
Switch travel = 1 mm.
H = We recommend you to calculate this dimension from the top of the PCB to the inner top of the panel.

Ordering example: 3FTL6 + 1GA09 or 3FTL6 + 2S09-07.0 + 1GC09

For updates of products and/or changes of specifications please see **www.mec.dk**

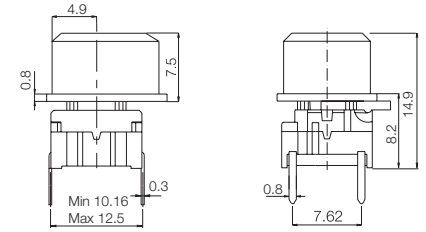
multimec® 3F + 1N

Technical Data

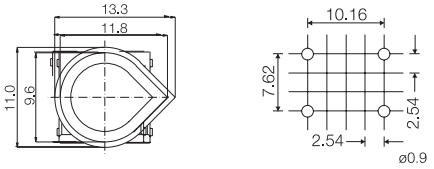
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:
  low temp: -40/+115°C
  high temp: -40/+160°C



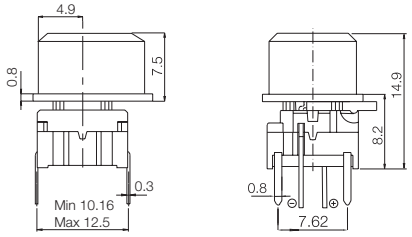
Dimensions (through-hole)



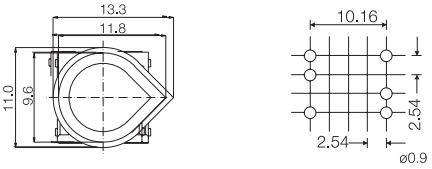
PCB layout



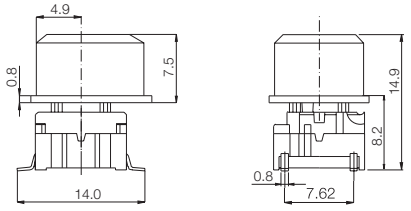
Dimensions (w/LED)



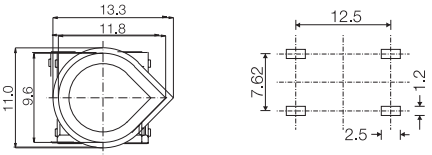
PCB layout (top view)



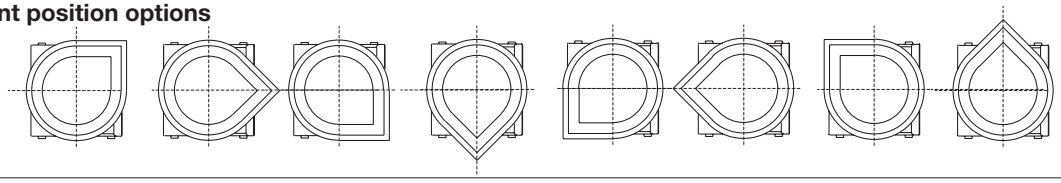
Dimensions (SMD)



PCB layout



8 different position options



How to order

3 F			+	1 N	
Switch	**Mounting** **T** through-hole **S** surface mount	**L 6** low temp. **H 9** high temp.		**Cap**	**00** blue **03** grey **04** yellow **08** red **09** black

3 F	T			+	1 N	
Switch	**Mounting** **T** through-hole	**L 6** low temp. **H 9** high temp.	**LED** **00** blue **20** green **40** yellow **60** white **80** red **2040** green/yellow **8020** red/green **8040** red/yellow		**Cap**	**10** frosted blue **12** frosted green **14** frosted yellow **16** frosted white **18** frosted red

Keycaps shown on this page can also be used on
illumec™ switch 4F - see page 13

Ordering example: 3FTL6 + 1N09 or 3FTL680 + 1N18

For updates of products and/or changes of specifications please see **www.mec.dk**

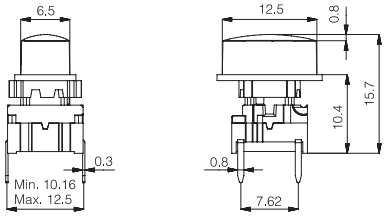
multimec® 3F + 1WA/1WD/1WP

Technical Data

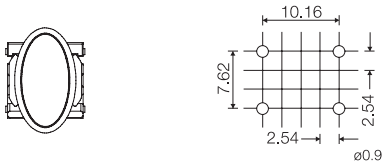
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:
  low temp: -40/+115°C
  high temp: -40/+160°C



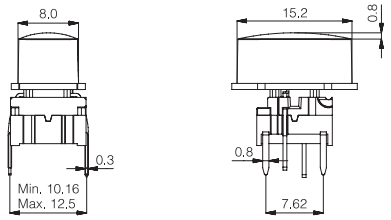
Dimensions (through-hole) 1WA



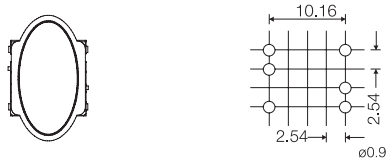
PCB layout



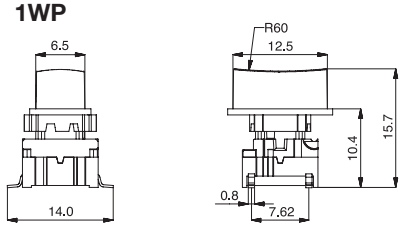
Dimensions (w/LED) 1WD



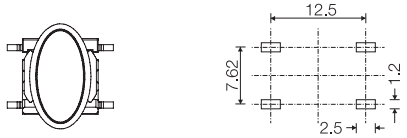
PCB layout (top view)



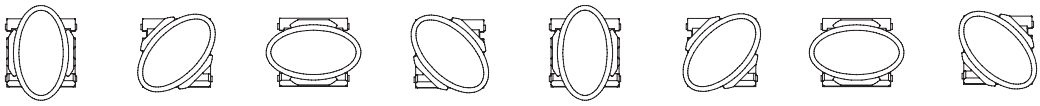
Dimensions (SMD) 1WP



PCB layout



8 different position options



How to order

3 F	☐	☐☐	+	☐☐☐	☐☐
Switch	**Mounting** **T** through-hole **S** surface mount	**L 6** low temp. **H 9** high temp.		**Cap** **1WA** **1WD** **1WP**	**00** blue **03** grey **08** red **09** black **30** ultra blue **40** pigeon blue **42** aqua blue **53** metal light grey **57** metal dark grey

3 F	T	☐☐	☐☐	+	☐☐☐	☐☐
Switch	**Mounting** **T** through-hole	**L 6** low temp. **H 9** high temp.	**LED** **23** green **45** yellow **88** red		**Cap** **1WA** **1WD** **1WP**	**16** frosted white

Keycaps shown on this page can also be used on
illumec™ switch 4F - see page 13

Ordering example: 3FTL6 + 1WA09 or 3FTL680 + 1WP16

For updates of products and/or changes of specifications please see **www.mec.dk**

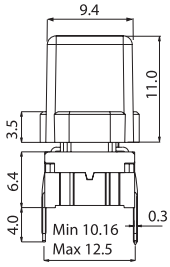
multimec® 3F + 1X

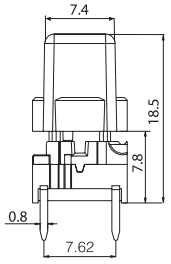
Technical Data

- 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

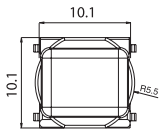


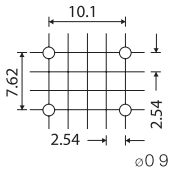
Dimensions (through-hole)



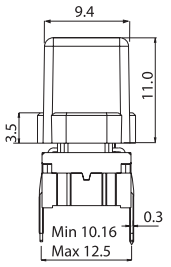


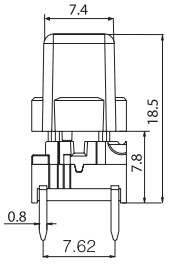
PCB layout



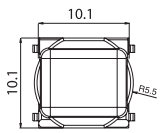


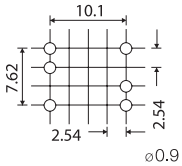
Dimensions (w/LED)



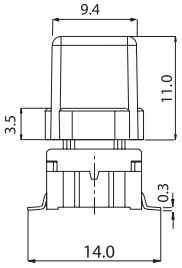


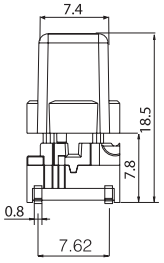
PCB layout (top view)



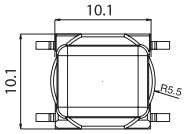


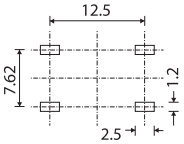
Dimensions (SMD)





PCB layout





How to order

3 F	☐	☐☐ +	1 X	☐☐
Switch	**Mounting** **T** through-hole **S** surface mount	**L 6** low temp. **H 9** high temp.	**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

3 F	T	☐☐	☐☐☐☐ +	1 X	☐☐
Switch	**Mounting** **T** through-hole	**L 6** low temp. **H 9** high temp.	**LED** **00** blue **20** green **40** yellow **60** white **80** red **2040** green/yellow **8020** red/green **8040** red/yellow	**Cap**	**11** transparent **16** frosted white



Keycaps shown on this page can also be used on
illumec™ switch 4F - see page 13

Ordering example: 3FTL6 + 1X09 or 3FTL680 + 1X11

For updates of products and/or changes of specifications please see **www.mec.dk**

multimec® Aquamec™

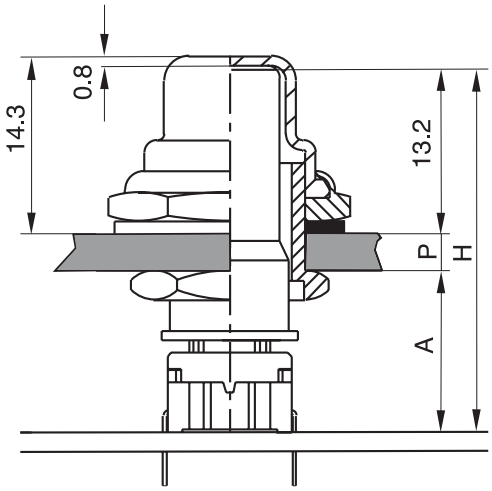


Specifications switches:

- 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

Specifications Sealing Boot:

- Operating temperature: -40/+85°C
- IP67 sealing
- sealing life time: 2.000.000 operations
- material: silicone



H= A+P+13.2

This leaves nominel 0.3 mm clearance between the top of the cap and the inner side of the sealing boot to accomplish assembly tolerances. **A** can be chosen between 10 -13 mm, we recommend 10 mm to reduce building height and optimize cap guidance.

A	P	CAP	H	BUSHING
10.0	1.0	AQCXX-24.2	24.2	AQN-0.5
10.0	2.0	AQCXX-25.2	25.2	AQN-0.5
10.0	3.0	AQCXX-26.2	26.2	AQN-2.5
10.0	4.0	AQCXX-27.2	27.2	AQN-2.5

Cap is available in black (09) or transparent (11).
The dimension H is the overall height of the switch+cap.
Bushing AQN-0.5 accepts panel thickness (P) 0.5-2.5 mm.
Bushing AQN-2.5 accepts panel thickness (P) 2.5-4.0 mm.
Panel cut out ø 12.0 ± 0.2.

How to order

3 F □ □□ + AQN - □·□ + AQC □□ - □□·□ + AQB01 □□

Switch

Mounting
T through-hole
S surface mount

L 6 low temp.
H 9 high temp.

Bushing



Panel
0.5
2.5

Cap
09 black
11 transparent



Overall Height
24.2
25.2
26.2
27.2

Sealing boot, incl. sealing ring
09 black
11 transparent



3 F T □□ □□□□ + AQN - □·□ + AQC □□ - □□·□ + AQB01 □□

Switch

Mounting
T through-hole

L 6 low temp.
H 9 high temp.

LED
00 blue
20 green
40 yellow
60 white
80 red
2040 green/yellow
8020 red/green
8040 red/yellow

Bushing



Panel
0.5
2.5

Cap
11 transparent



Overall Height
24.2
25.2
26.2
27.2

Sealing boot, incl. sealing ring
11 transparent

Keycaps shown on this page can also be used on
illumec™ switch 4F - see page 13

Ordering example: AQB0109 + AQC09-27.2 + AQN-2.5 + 3FTL6

For updates of products and/or changes of specifications please see **www.mec.dk**