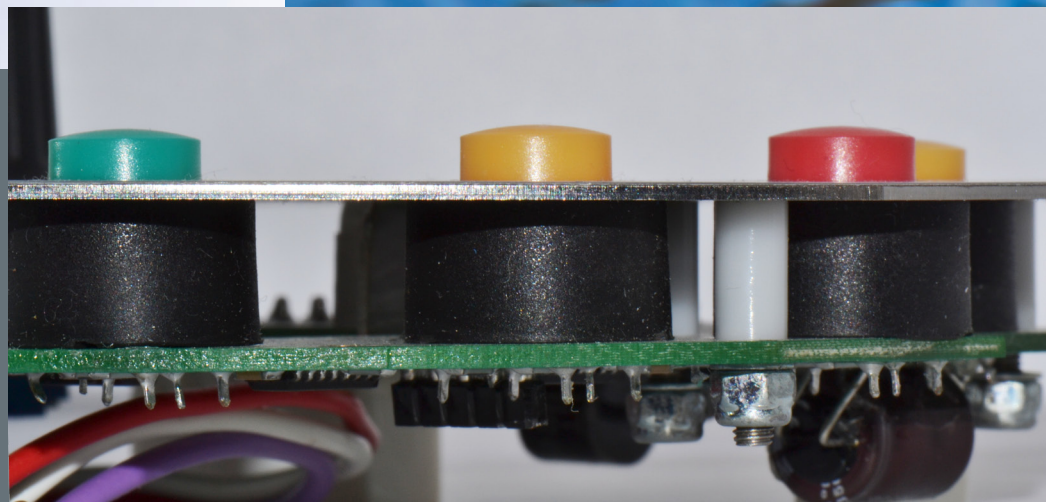




Panel sealed 1TS/1US/1VS



The sealings 1TW/1UW/1VW provide an opportunity of having the 1TS/1US/1VS caps with panel sealing.

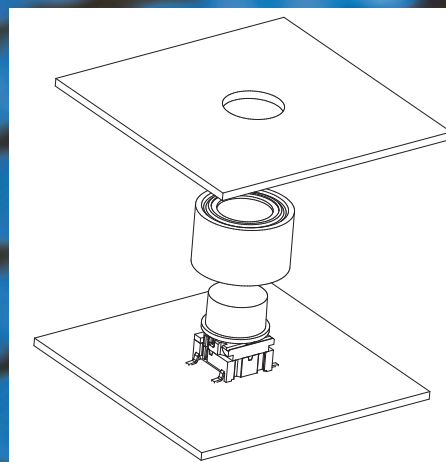
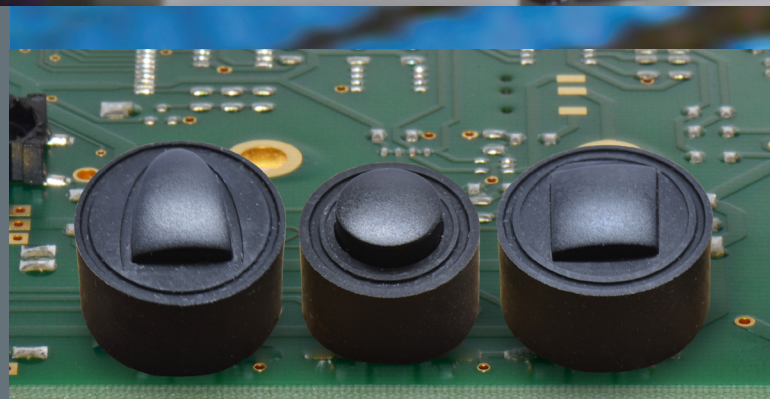
Level of sealing from front panel:

5G+1TS+1TW = IP67

5G+1US+1UW = IP67

5G+1VS+1VW = IP65

The solution is excellent for rough environment, designed for outdoor, dusty and humid applications.



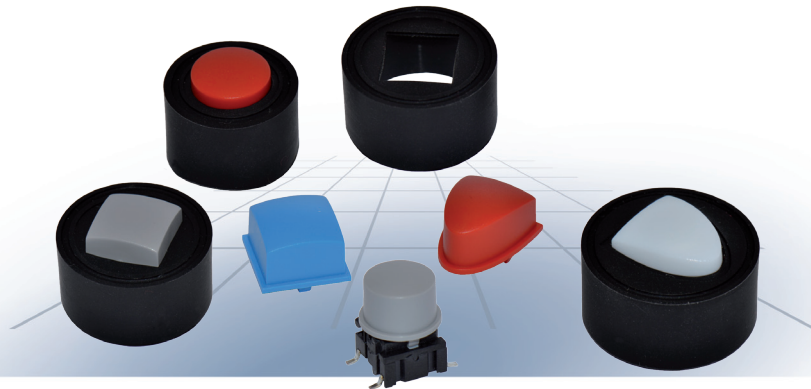
Distributor:

multimec®

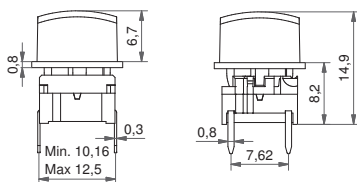
5G+1TS/1US/1VS+1TW/1UW/1VW

Technical Data:

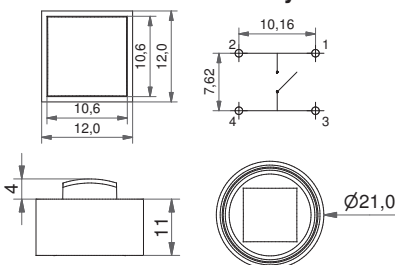
- through-hole or surface mount
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations lifetime
- Switch: IP67 sealing
- temp. range: switch: -40/+160°C
LED: -30/+85°C
solid keycap: -40/+65°C
transparent keycap: -40/+85°C
- actuation force: 2.0, 3.5, 6.5 N



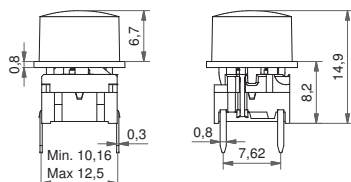
Dimensions (TH) 1TS+1TW



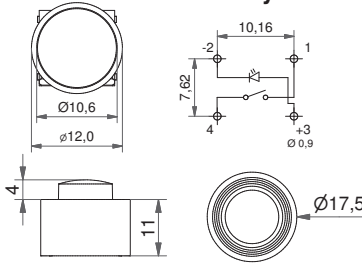
PCB layout



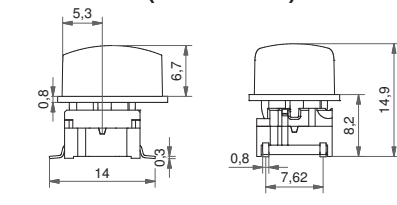
Dimensions (TH w/LED) 1US+1UW



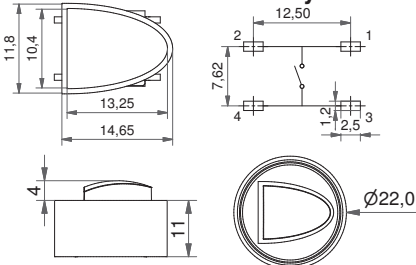
PCB layout



Dimensions (SMD w/LED) 1VS+1VW

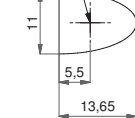


PCB layout

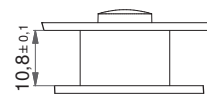


Recommended panel cut-out

1TS - 11x11mm
 1US - Ø11mm
 1VS



Distance between PCB and front panel



HOW TO ORDER illuminated

5 G	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
Switch	Mounting	Actuation force	LED		Cap	Colour code		Sealing
	TH9 through-hole SH9 surface mount	20 35 65 Q*	01 blue 22 green 42 yellow 61 white 82 red 2242 green/yellow 8222 red/green 8242 red/yellow		1TS 1US 1VS	16 frosted white		1TW 1UW 1VW

HOW TO ORDER non-illuminated

5 G	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>	<input type="checkbox"/>	+	<input type="checkbox"/>
Switch	Mounting	Actuation force		Cap	Colour code		Sealing
	TH9 through-hole SH9 surface mount	20 35 65 Q*		1TS 1US 1VS	00 blue 03 grey 08 red 09 black		1TW 1UW 1VW

mec

switches

1ZW

“with panel seal”



Controlmec TM is a five position integrated switch solution, designed for outdoor, dusty and humid applications, to control a unit, navigate in a display, operate auxiliary equipment on a vehicle, boat or similar. The Controlmec is sealed to IP67, and exist of:

- One complete solid cap, with recess on the back site for the seal efficiency
- The unit panel plate (customers design)
- A gasket to seal between the cap, and the panel.
- A support ring to ensure the right position of sealing behind the front plate
- And then the PCB including the switches

The PCB with the switches, shall be assembled according to the MEC datasheet, and mounted to the back side of the front panel by bolts, to ensure the right pressure for the sealing efficiency.

The Controlmec is an extension of the Navimec system which includes the Multimec switches, of excellent high quality and long lifetime. Configurations can be made with through hole or SMD switch versions, provided they are accurately positioned.

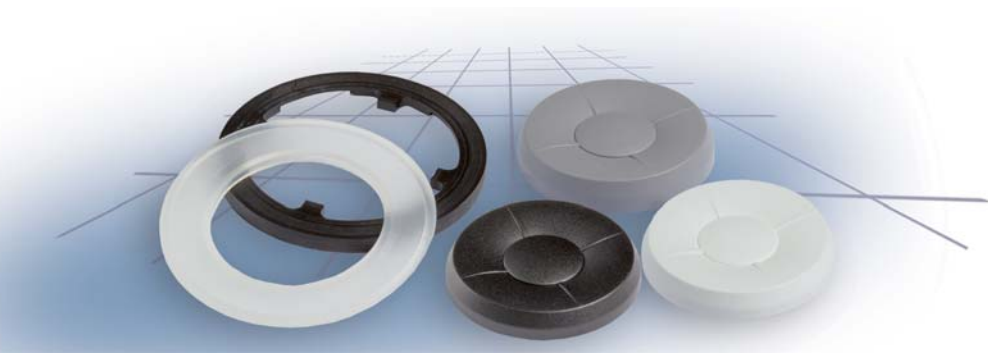


Distributor:

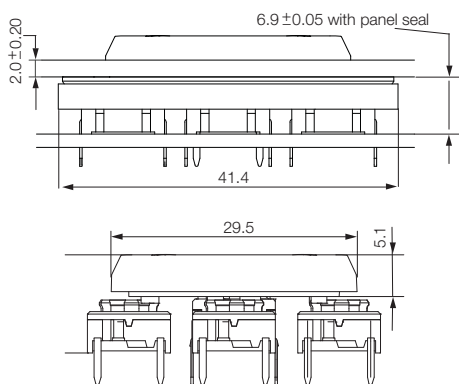
controlmec® 1ZW "sealed"

Technical Data

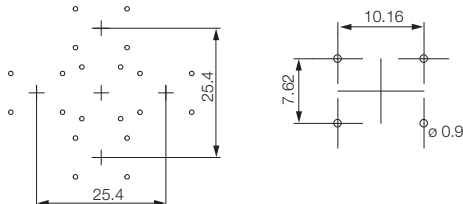
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations life time
- IP67 sealing
- temperature range:
LED: -40/+85°C
solid cap +65°C
transparent +85°C
- actuation force: 2.0, 3.5, 6.5 N



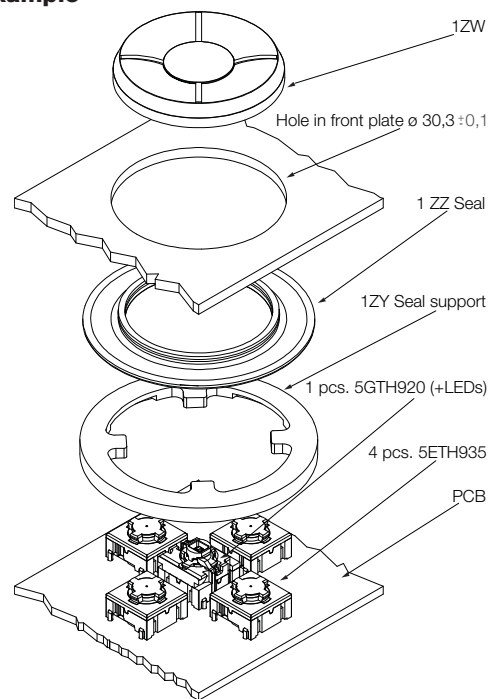
Dimensions 1ZW



Recommended PCB layout



Mounting example



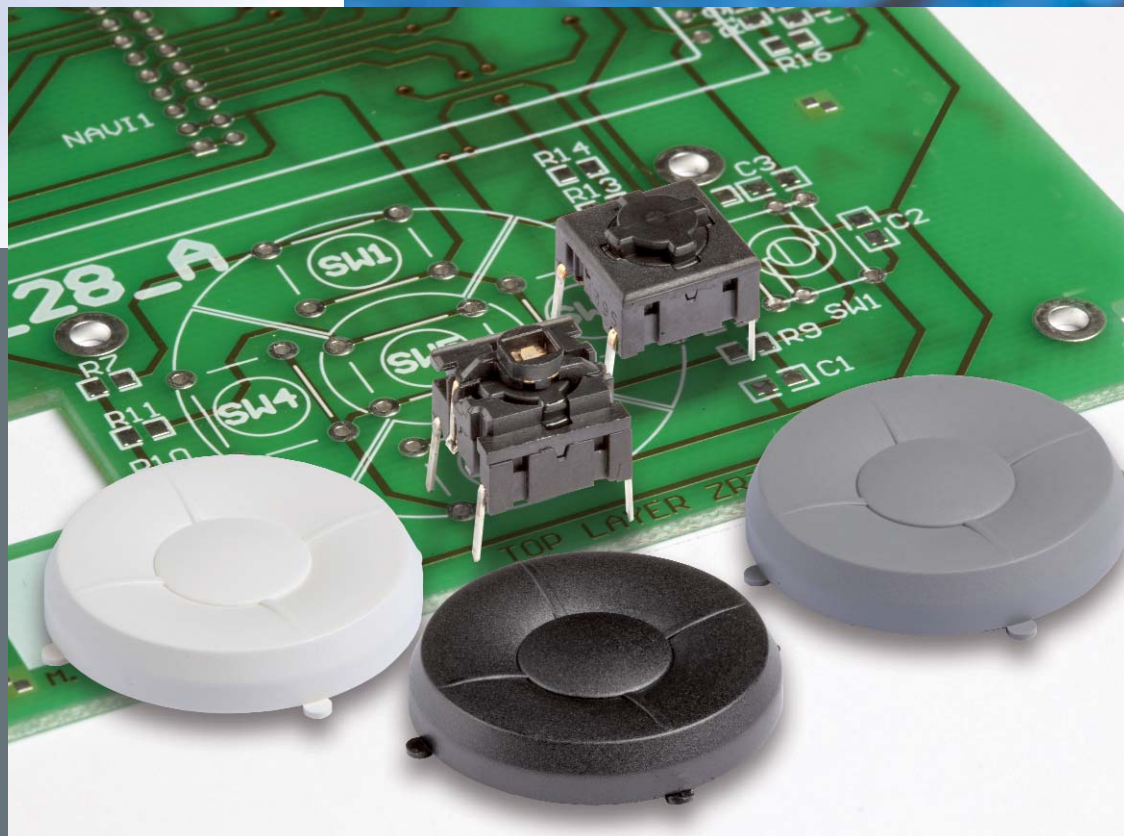
HOW TO ORDER

Switch	Mounting	Actuation force	LED	Cap for seal	Colour code	Seal	Seal support
5 G	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
TH9	through-hole	20	01 blue	1ZW	00 blue	1ZZ	1ZY
SH9	surface mount	35	22 green		02 green		
		65	42 yellow		03 grey		
			61 white		04 yellow		
			82 red		06 white		
			2242 green/yellow		08 red		
			8222 red/green		09 black		
			8242 red/yellow		11 transparent		
					16 frosted white		

Switch	Mounting	Actuation force
5 E	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
TH9	through-hole	20
SH9	surface mount	35
		65

mec
switches

12 “without panel seal”



Controlmec™ is a five position integrated switch solution, designed for easy activations for indoor and non-dusty applications, to control a unit, navigate in a display, operate auxiliary equipment indoor on a vehicle, boat or similar. The Controlmec can also be supplied as an IP67 sealed solution. The Controlmec exist of:

- One complete solid cap
- The unit panel plate (customers design)
- The PCB including the switches

The PCB with the switches, shall be assembled according to the MEC datasheet, and mounted to the back side of the front panel.

The Controlmec is an extension of the Navimec system which includes the Multimec switches, of excellent high quality and long lifetime. Configurations can be made with through hole or SMD switch versions, provided they are accurately positioned.



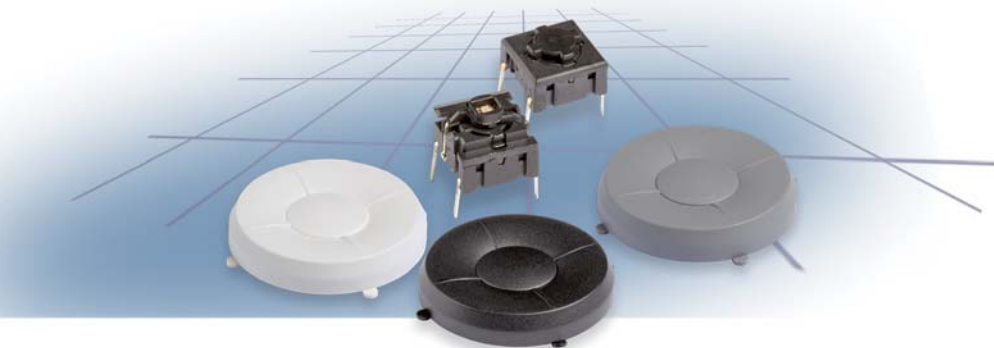
Distributor:

controlmec®

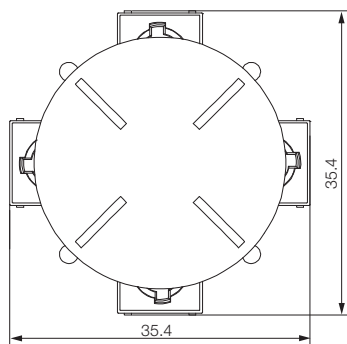
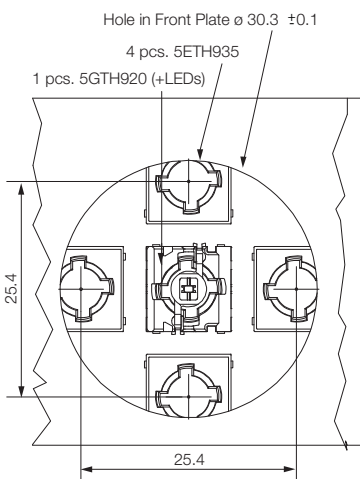
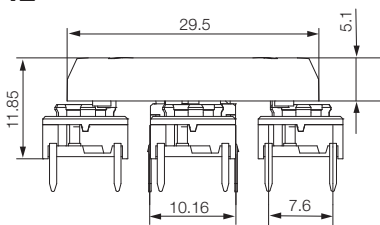
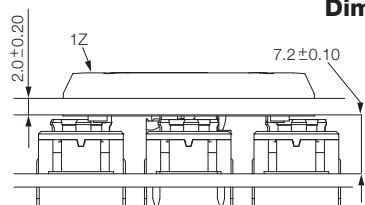
1Z "without sealing"

Technical Data

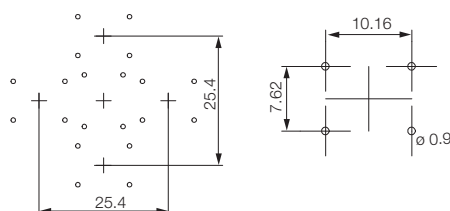
- through-hole or SMD
- 50mA/24VDC
- single pole/momentary
- 10,000,000 operations life time
- IP67 sealing
- temperature range:
LED: -40/+85°C
solid cap +65°C
transparent +85°C
- actuation force: 2.0, 3.5, 6.5 N



Dimensions 1Z



Recommended PCB layout



HOW TO ORDER

5 G

Switch Mounting
TH9 through-hole
SH9 surface mount

Actuation force
20
35
65

LED
01 blue
22 green
42 yellow
61 white
82 red
2242 green/yellow
8222 red/green
8242 red/yellow

Cap
1Z

Colour code
00 blue
02 green
03 grey
04 yellow
06 white
08 red
09 black
11 transparent
16 frosted white

5 E

Switch Mounting
TH9 through-hole
SH9 surface mount

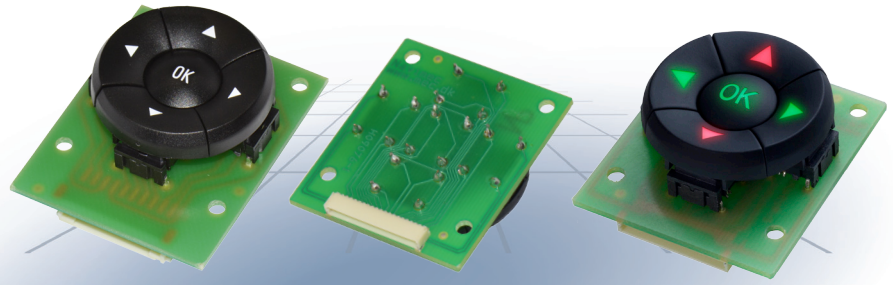
Actuation force
20
35



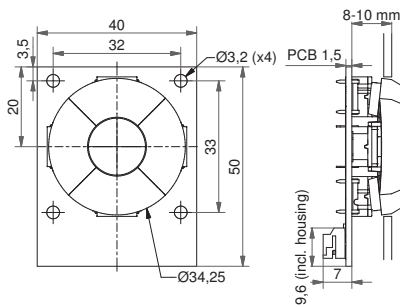
Navimec Module standard and illuminated

Technical Data:

- module should be attached to the front plate with bolts (bolts not supplied by MEC)
- 50mA/24VDC
- single pole/momentary
- 10.000.000 operations lifetime
- switches sealed to IP67
- temperature range:
switch body: -40/+160°C
LED: -30/+85°C
- actuation force: 2.0, 3.5, 6.5 N

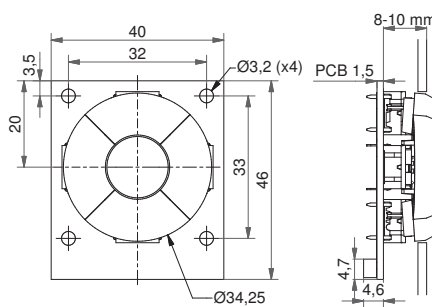


Dimensions Standard Navimec module



*When the 1ZB is activated the diameter changes from 34,25mm to 35,0mm

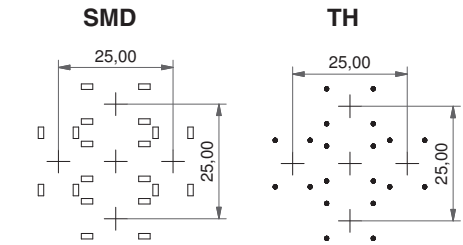
Dimensions illuminated Navimec module



Recommended panel cut-out:

ø = 35,0 - 35,5 Depending on application

PCB layout for Navimec solution



HOW TO ORDER

Navimec Module ordering options:

- Navimec Module excl. keycaps
- Navimec Module incl. keycaps
- Navimec Module incl. keycaps with legends
- illuminated Navimec Module excl. keycaps
- illuminated Navimec Module incl. keycaps with legends

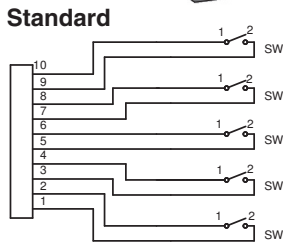
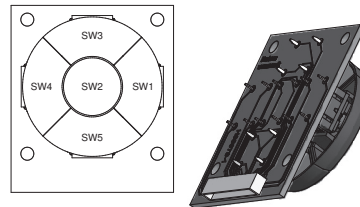
Part no. 9810120 - PCB and connector for Navimec Module
 Part no. 9810125 - PCB and connector for illuminated Navimec Module

Part no. for switches and caps:
 Navimec Module has many customisation options regarding actuation force, cap and LED colours and legends. Because of that ordering is based on part numbers of separate parts instead of one specific part number. MEC has the switches mounted on the module before delivery, which is included in the module price.
 See the other side for information on switch and cap options as well as the examples below.

For example:

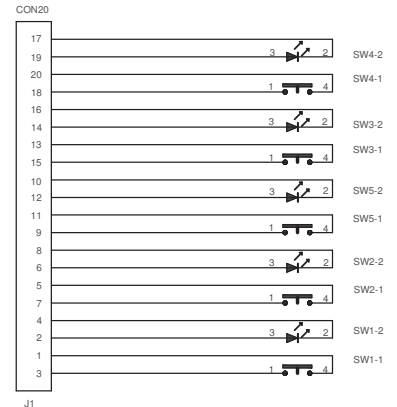
9810120 + 4x 5GTH920 + 1x 5GTH920 (without caps)
 9810120 + 4x 5GTH965+1ZB42 + 1x 5GTH965+1ZCS42 (with caps)
 9810125 + 4x 5GTH93501+1ZB16LM136 + 1x 5GTH93501 +1ZCS16LM118 (painted caps with laser engraved legends)

Circuit diagram Navimec module



The connector on the standard Navimec module is JST SMT S108-PH-SM3-TB or similar. We recommend using:
Cable socket: JST PHR-10 or similar
Contact: JST SPH-002T-P0.5S or similar

illuminated



The connector on the illuminated Navimec module is C1120M1H or similar. We recommend using:
Cable socket: Cvilux C1120S0000 or similar
Contact: Cvilux C111T011PP0 or similar

Distributor:

