Keypad
TF

GESSMANN

The TF keypad is a CAN bus operating unit with freely selectable push-button symbols.
It is available in three versions:
- TF1: Pushbuttons with insert symbols
- TF2: Pushbuttons with predefined symbols
- TF3: Pushbuttons with continuous front foil

The keypad is available in 2x3, 2x4, 2x5 and 4x5 sizes and can be integrated into our control panels or used individually for a wide range of applications. Each pushbutton has RGB lighting with up to 16 preset lighting scenarios.

Technical data

Operating temperature TF1/TF2	-40°C to +85°C
Operating temperature TF3	-20°C to +70°C
Degree of protection:	
Electronic TF1/TF2/TF3	IP67
Keypad (mechanic) TF1/TF2	IP4X
Keypad (mechanic) TF3	IP65
Keypad TF1/TF2/TF3 Protection class for installation housing	IP4X
Functional safety	PLd compatible (EN ISO 13849, complies SIL2 to DIN EN IEC 61508)

Example

	TF1	-23	-H	-E317	-S...
Basic unit					
TF1 Keypad, pushbuttons with insert symbols					
TF2 Keypad, pushbuttons with predefined symbols					
TF3 Keypad, push-buttons with continuous front foil					
Size					
23 2x3 buttons					
24 2x4 buttons					
25 2x5 buttons					
45 4x5 buttons					
Installation position / symbol arrangement					
H Horizontal					
V Vertical					
Interface					
CAN				E317	
Supply voltage	9-32 V DC				
Idle current consumption	50 mA (24V DC, excl. lighting)				
Protocol	CANopen CiA DS 301 or SAE J1939 (based on)				
Baud rate	20 KBit/s to 1 Mbit/s (standard 250KBit/s)				
Wiring	CAN cable 300 mm without plug				
CAN Safety Interface				E417	
Supply voltage	9-32 V DC				
Idle current consumption	50 mA (24V DC, excl. lighting)				
Protocol	CANopen Safety EN50325-5 or J1939-76				
Baud rate	20 KBit/s to 1 Mbit/s (standard 250KBit/s)				
Wiring	CAN cable 300 mm without plug				
Plug					
S... Standard plug (see page 129)					
Special model					
X... Special / customer specified					

Technical details may vary based on configuration or application! Technical data subject to change without notice!

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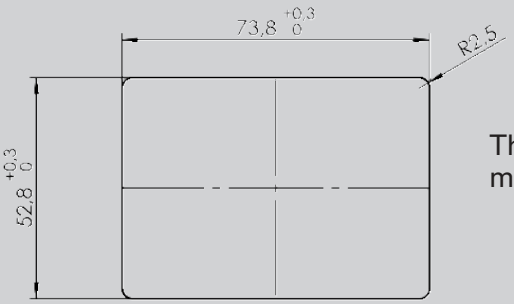
Keypad size 2x3

23H: 2x3 horizontal

1	2	3
4	5	6

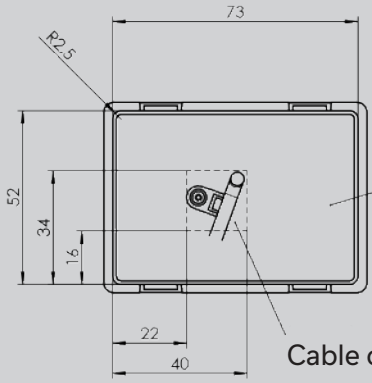
Installation opening



Thickness of the mounting plate: 2-4

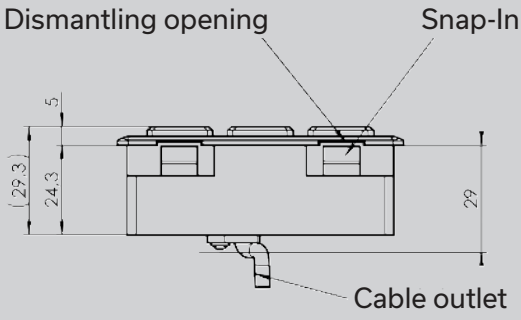
23V: 2x3 vertical

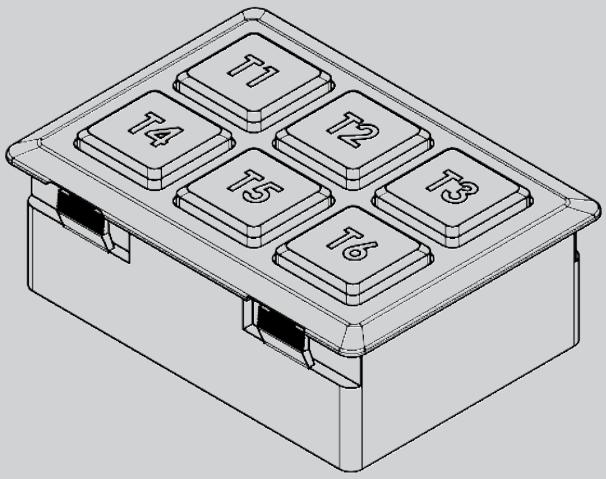
4	1
5	2
6	3

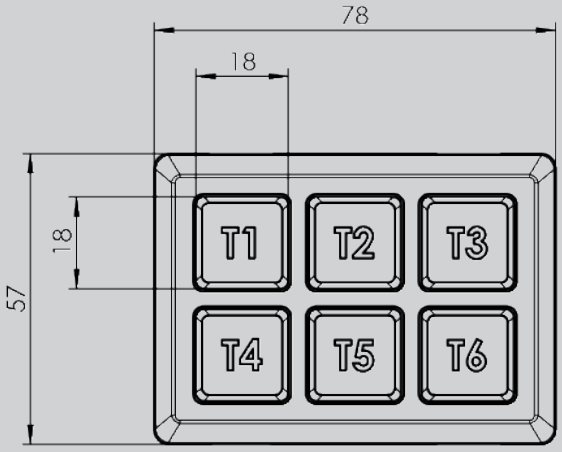


Electronics completely encapsulated

Keypad TF1-23...







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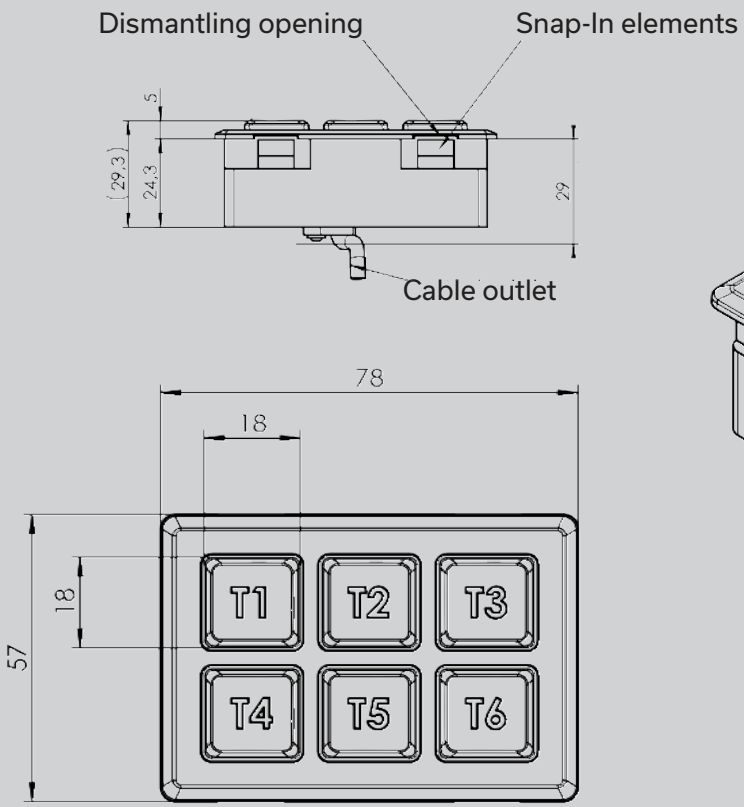
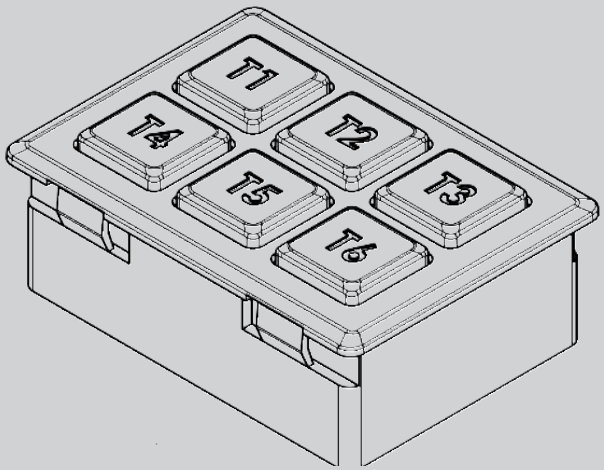
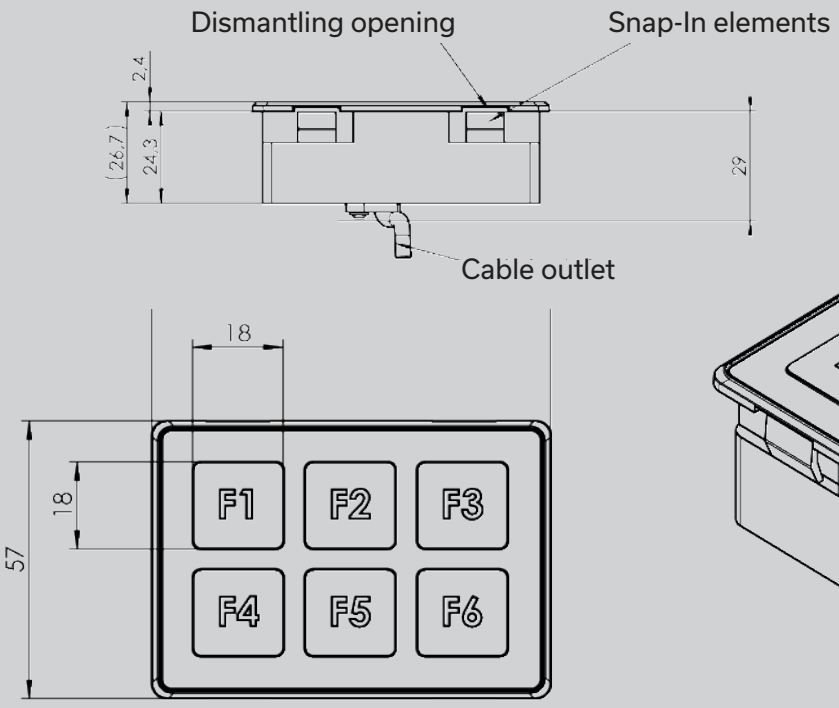
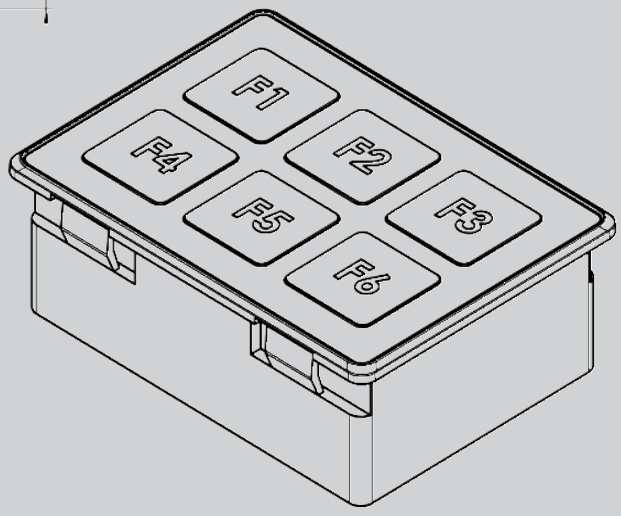
Keypad TF2-23...





Keypad TF3-23...





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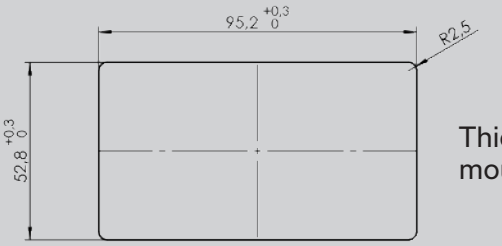
Keypad size 2x4

24H: 2x4 horizontal

1	2	3	4
5	6	7	8

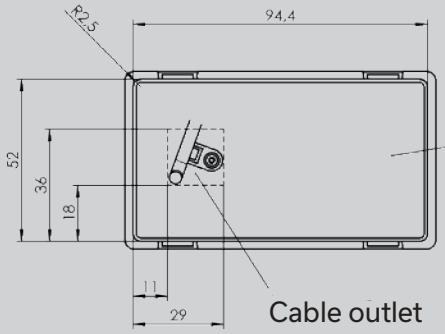
Installation opening



Thickness of the mounting plate: 2-4

24V: 2x4 vertical

5	1
6	2
7	3
8	4



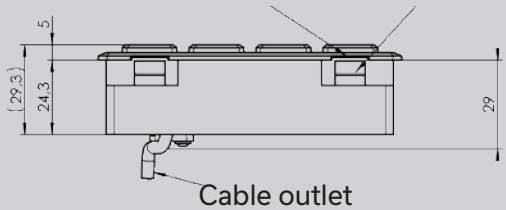
electronics completely en capsulated

Cable outlet

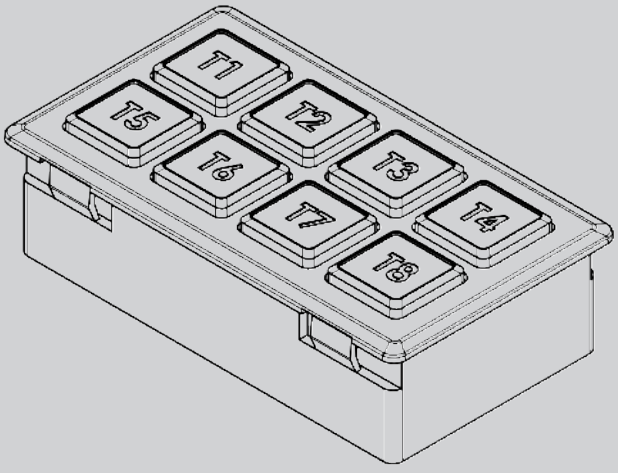
Keypad TF1-24...

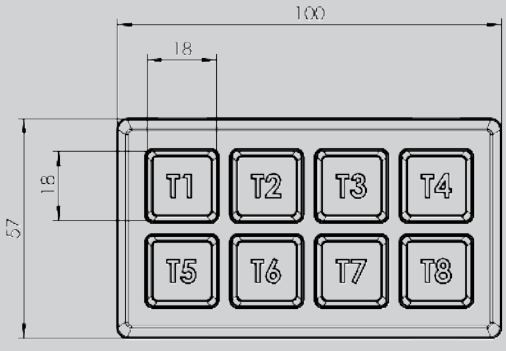
Dismantling opening

Snap-In elements



Cable outlet





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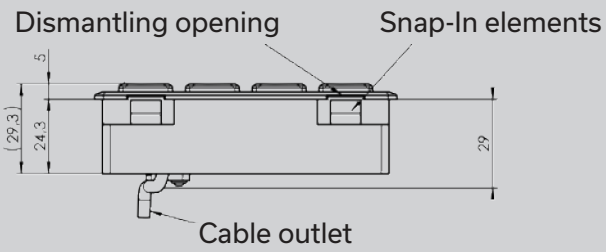
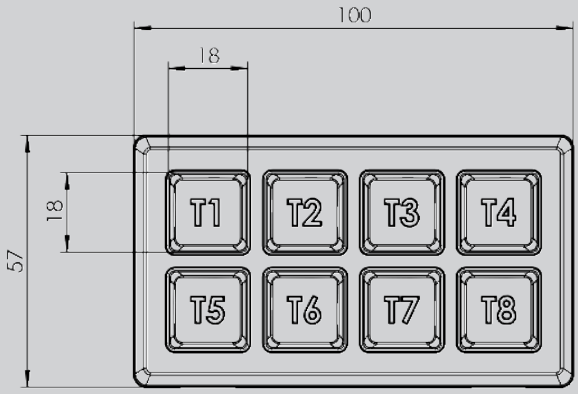
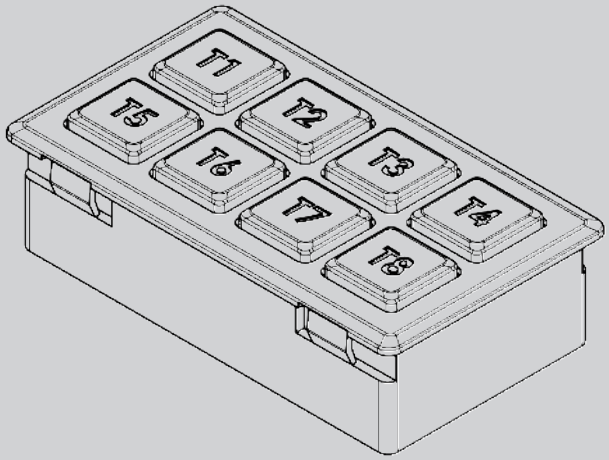
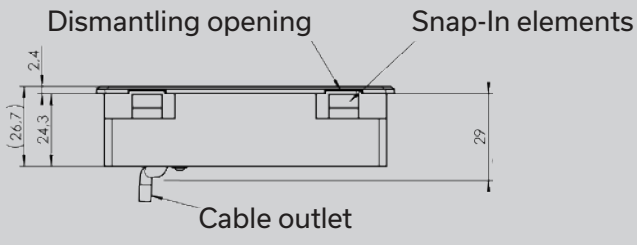
Keypad TF2-24...

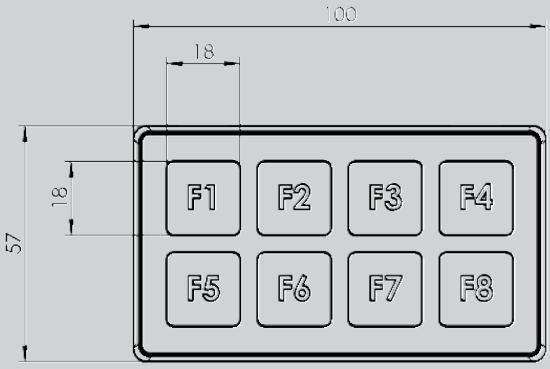


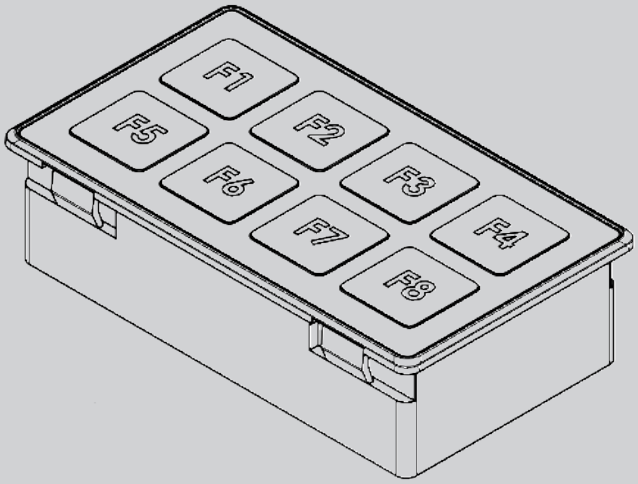




Keypad TF3-24...







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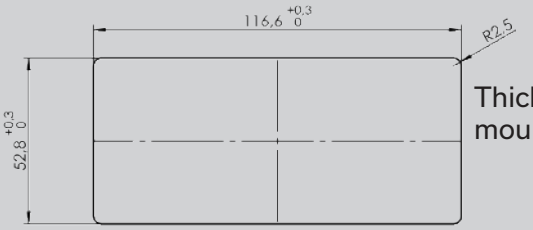
Keypad size 2x5

25H: 2x5 horizontal

1	2	3	4	5
6	7	8	9	10

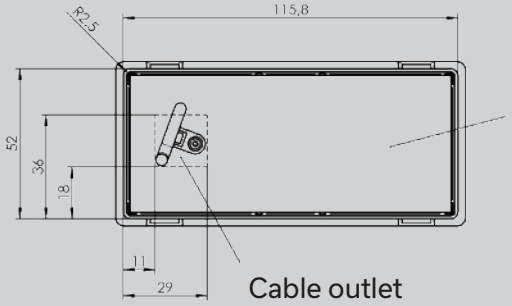
Installation opening



Thickness of the mounting plate: 2-4

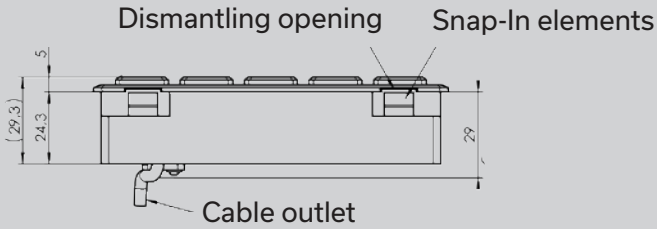
25V: 2x5 vertical

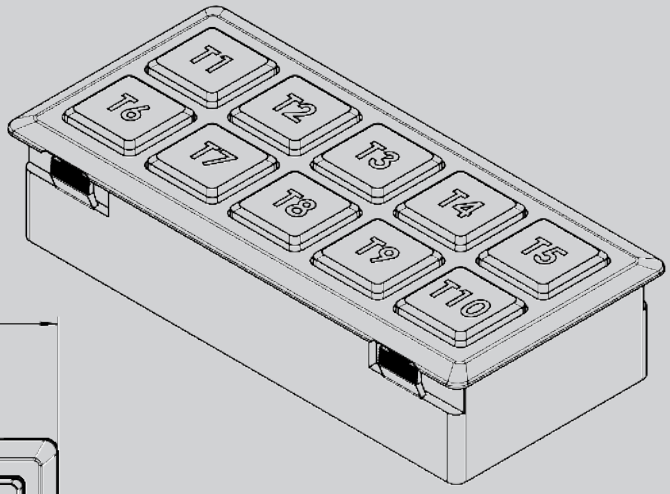
6	1
7	2
8	3
9	4
10	5

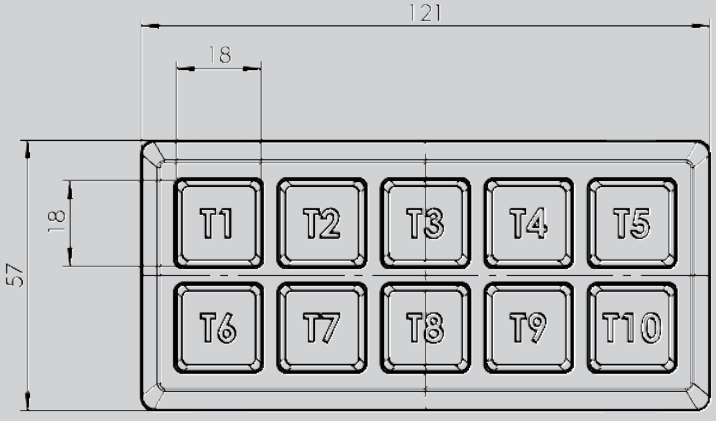


electronics completely en capsulated

Keypad TF1-25...







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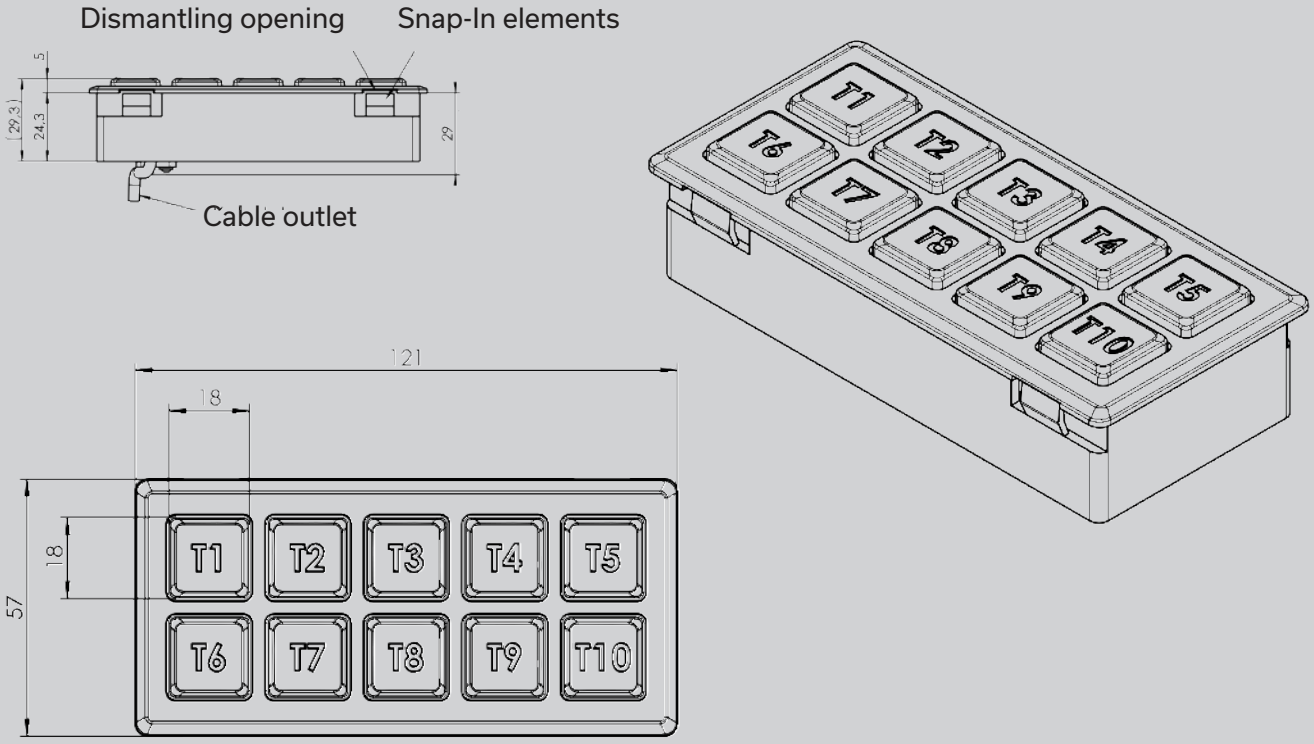
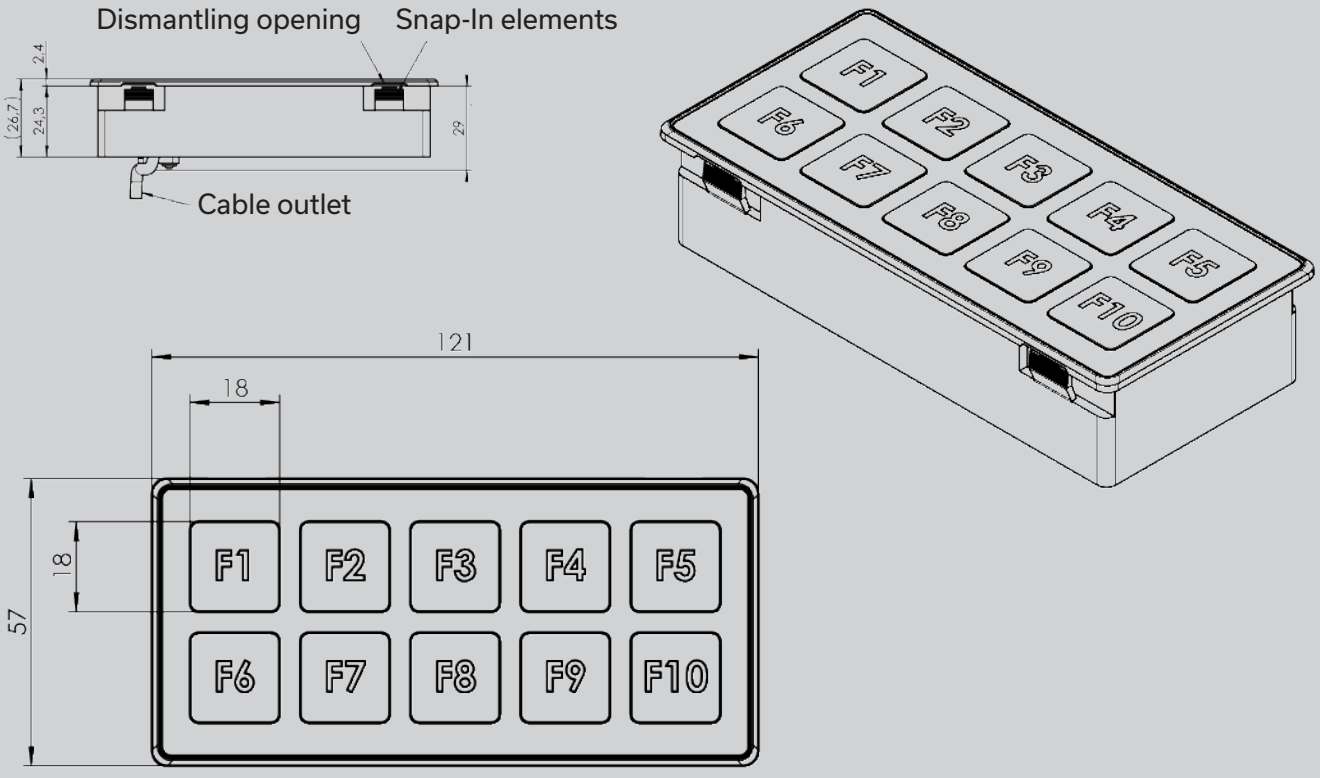
Keypad TF2-25...



Keypad TF3-25...



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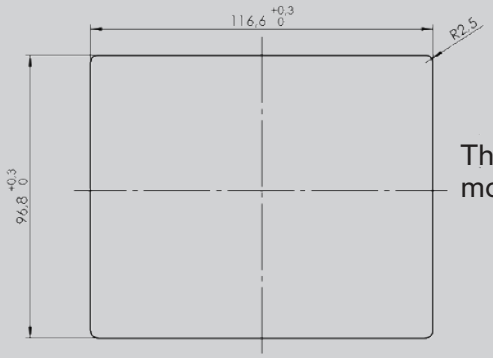
Keypad size 4x5

45H: 4x5 horizontal

16	11	6	1
17	12	7	2
18	13	8	3
19	14	9	4
20	15	10	5

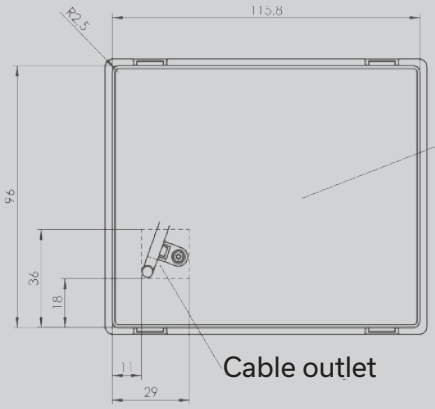
Installation opening



Thickness of the mounting plate:2-4

45V: 4x5 vertical

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20



electronics completely en capsulated

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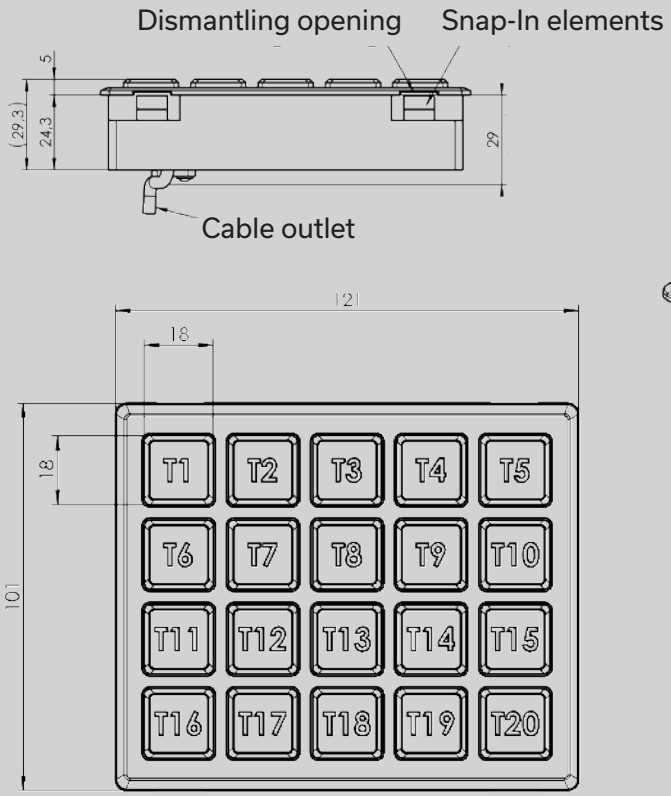
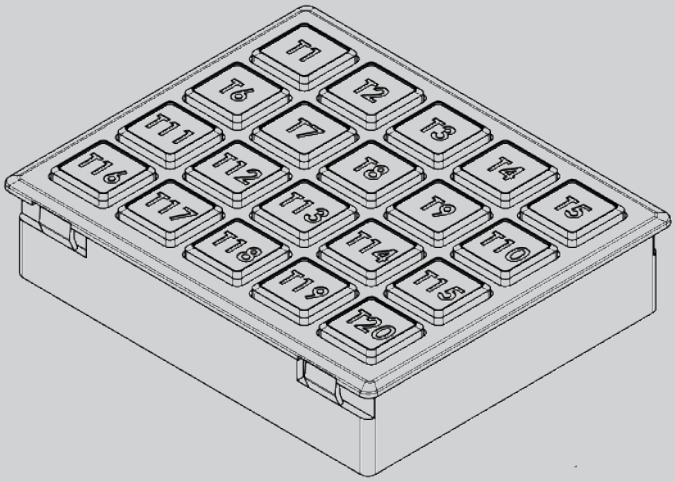
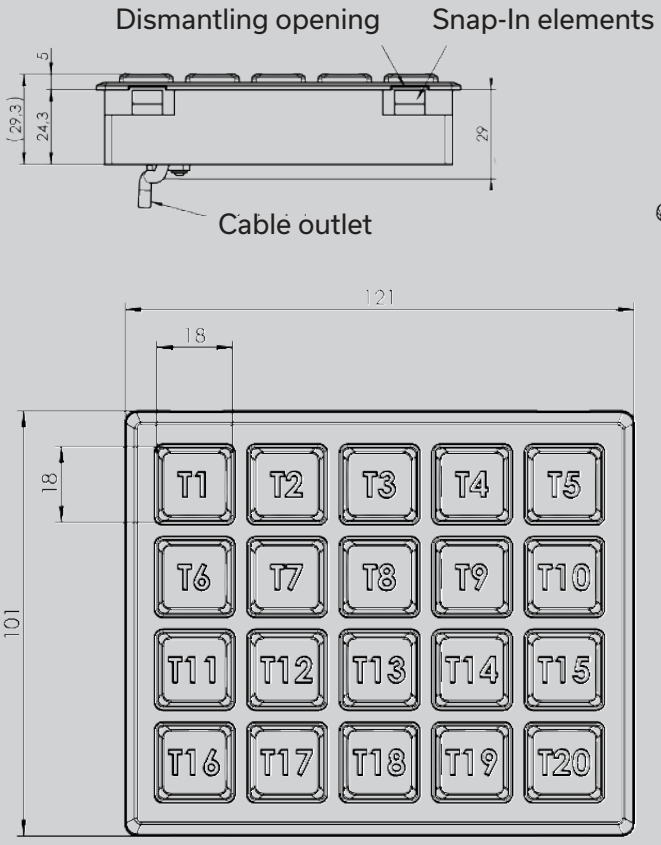
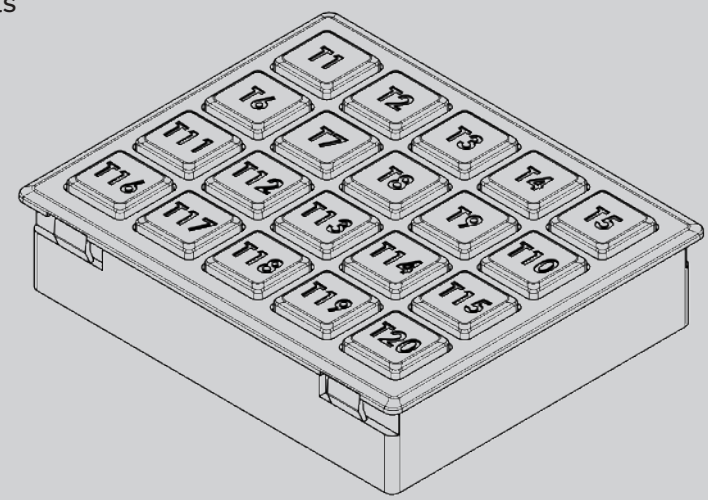
Keypad TF1-45...





Keypad TF2-45...





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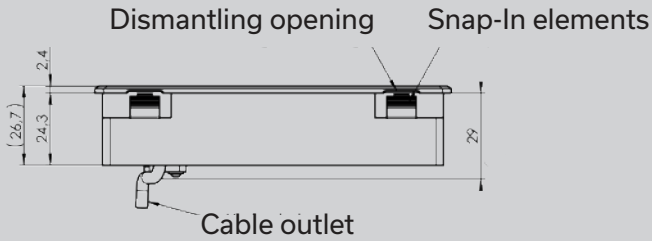
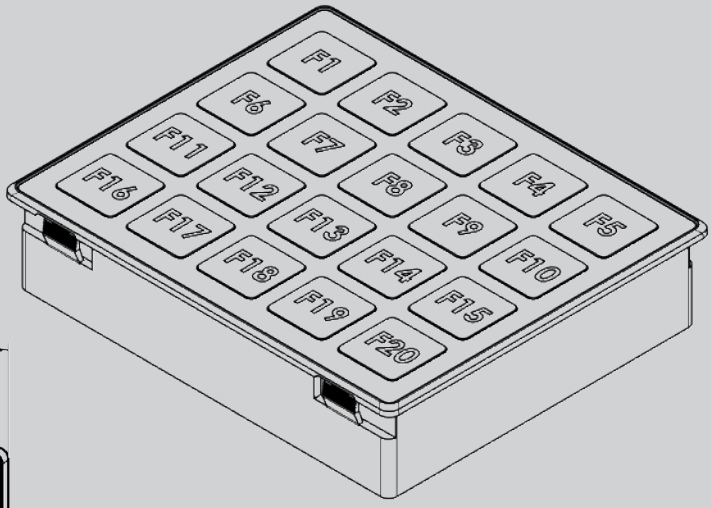
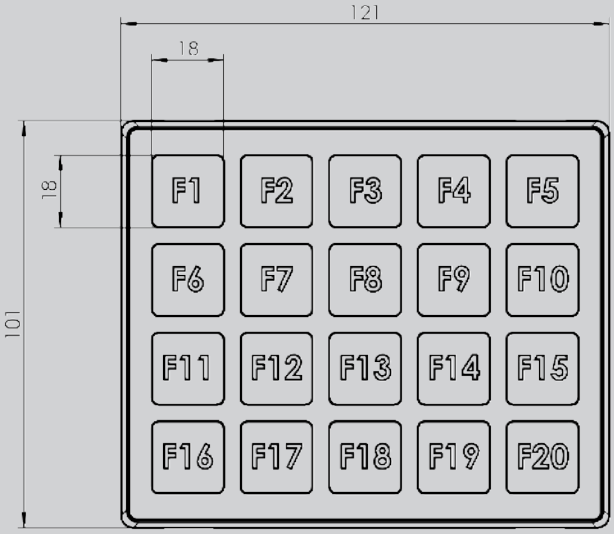
Keypad TF3-45...







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