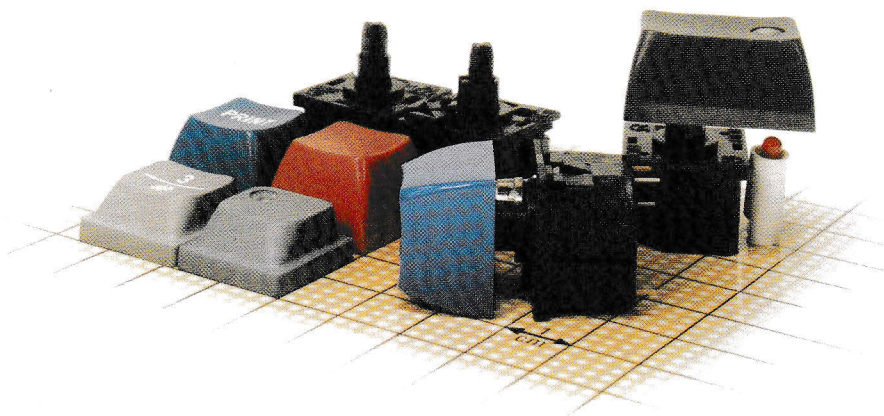


# Input Push-Button ETL 18



The Input Push-Button ETL 18 is a low-cost impulse button with a long operating life for use in keyboard-units.

- Ergonomic tuning of operating travel and force.
- Gold-plated connections on a 2,54 mm grid.
- Problem-free soldering into single or two-sided laminated PC boards with a 1,6 or 2 mm thickness.
- Switching diode for decoupling can be placed on the PC board under the key body.
- Different versions:
  - ETL 18** Standard. Impulse push-button with one make contact.
  - ETL 18 S** Impulse push-button with switching diode.
  - ETL 18 EE** Latching push-button with over travel release.
  - ETL 18 La** Impulse push-button with integrated LED.
  - ETL 18 Lb** Fixing device for the attachment of a separate LED.
  - ETL 18 SB** Accessories for space bar mounting (without spacebar button).

## 1.0 Construction

1.1 Function	Impulse
1.2 Contact arrangement	1 make contact
1.3 Distance between button centres, minimum	19,05 mm
1.4 Contacts	PC pins
1.5 Mounting	Snapped on to a chassis and soldered by PC pins. Centring via its cover

## 2.0 Electrical Data

2.1 Switching power	3,5 W max. AC/DC	0,02 mW min. DC
2.2 Switching voltage	28 V max. AC/DC	2 V min. DC
2.3 Switching current	125 mA max. AC/DC	10 µA min. DC
2.4 Voltage stability (50 Hz/1 min.)	≥ 1500 V	
2.5 Operating life without switching power	≥ 20 × 10 <sup>6</sup> operations, ≥ 5 × 10 <sup>6</sup> operations for EE- and La-versions	
Operating life with max. switching power	≥ 1 × 10 <sup>6</sup> operations, ≥ 5 × 10 <sup>5</sup> operations for EE- and La-versions	
Operating life with 5 V/1 mA	≥ 20 × 10 <sup>6</sup> operations, ≥ 5 × 10 <sup>5</sup> operations for EE- and La-versions	
2.6 Contact resistance (new)	≤ 50 mΩ	
After operating life with max. swit. power	≤ 1Ω after 10 <sup>6</sup> operations	
After operating life with min. swit. power	≤ 1Ω after 20 × 10 <sup>6</sup> operations	
2.7 Insulation resistance	≥ 10 <sup>9</sup> Ω	
2.8 Capacitance at open contacts (f = 10 kHz)	< 0,5 pF	
2.9 Contact bounce	≤ 5 ms	

## 3.0 Mechanical Data

	ETL 18	ETL 18 EE	ETL 18 SB
3.1 Overall travel/latching travel mm	3,5/-	3,5/2,5 ± 0,3	3,5/-
3.2 Switching travel mm	2 ± 0,3	1,7 - 0,3	2 ± 0,3
3.3 Operating force	Initial End of travel At switching point	50 ± 10 cN 50 ± 10 cN ≤ 100 cN	≤ 70 cN ≤ 100 cN ≤ 100 cN
3.4 Stop strength	≥ 100 N		
3.5 Density	Watertight up to 6 mm of housing height		

## 4.0 Further Specifications

4.1 Contact material	Au
4.2 Insulation material	Thermoplastic
4.3 Max. soldering time and temperature	5 s at 260 °C
4.4 Ambient temperature	- 25 to + 85 °C without button - 25 to + 70 °C with button

## Ordering Code

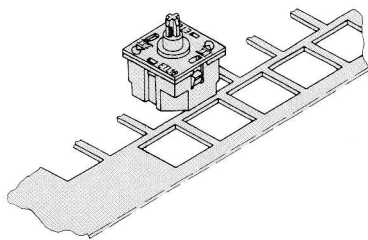
Type	ETL 18 - EE - La - Red
Latching function	
Integrated LED	
LED colour - red, green, yellow	

## Accessories

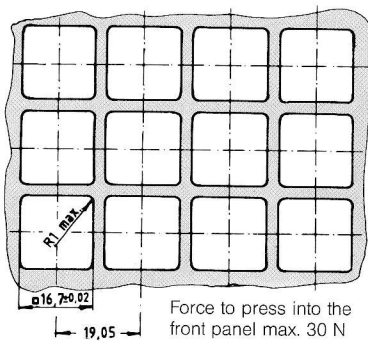
For separate LED	ETL 18 Lb
For space bar mounting	ETL 18 SB

## Combinations with LED

Latching push-button ETL 18 EE + La - integrated LED.  
Latching push-button ETL 18 EE + Lb - for separate LED mounting.

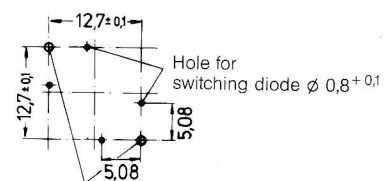
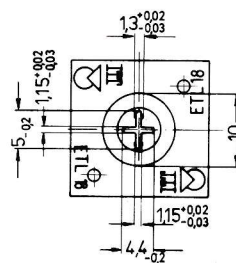
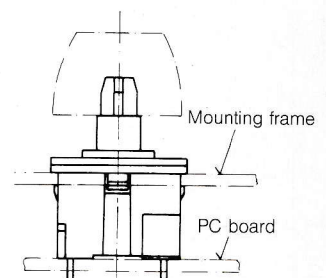
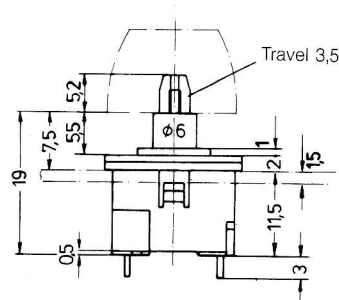
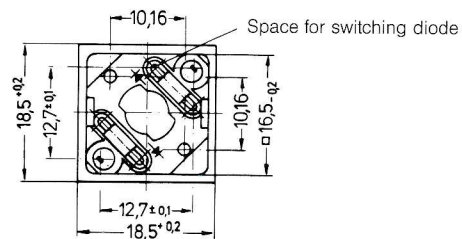


Button mounting

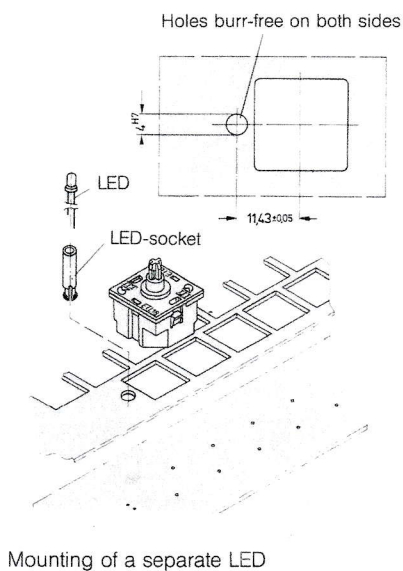


Mounting frame

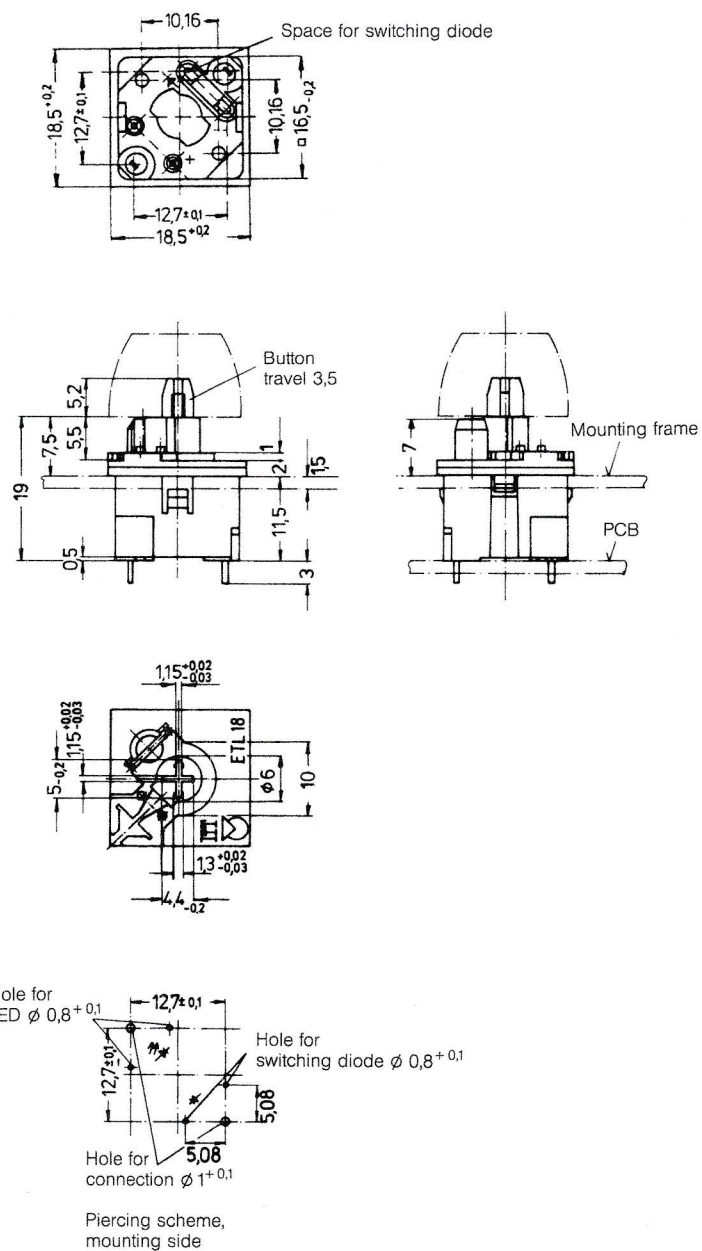
# Dimensional Drawings · Dimensions in mm



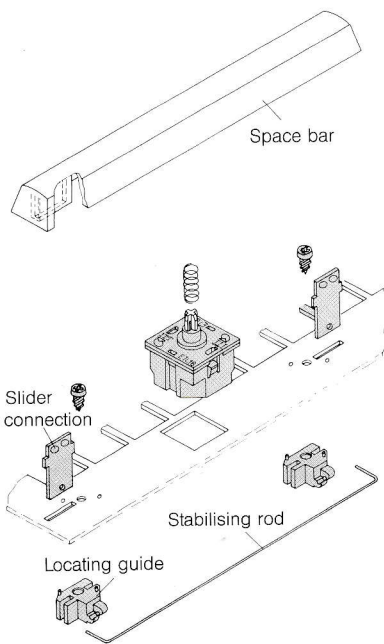
Hole for connection  $\varnothing 1 \pm 0,1$   
Piercing scheme,  
mounting side



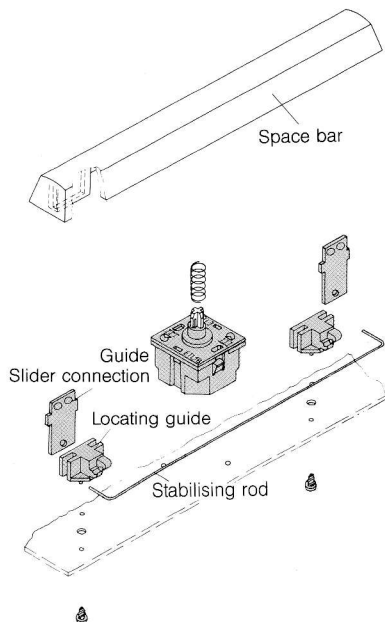
**Dimensional Drawings** · Dimensions in mm



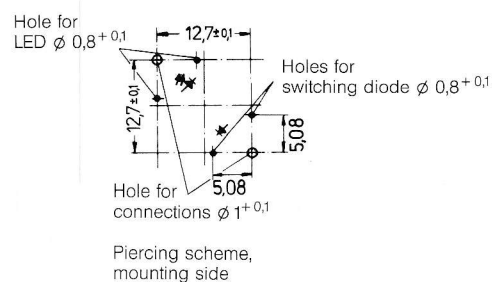
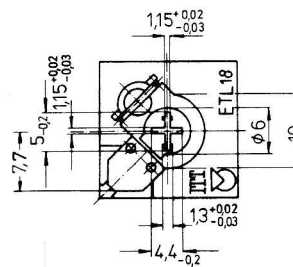
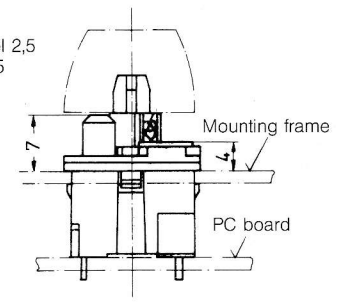
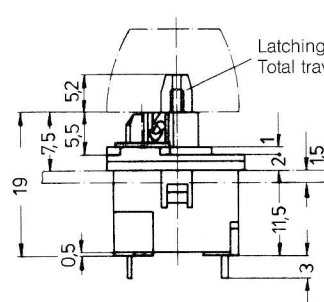
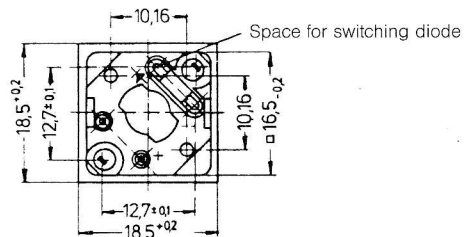
**Dimensional Drawings** · Dimensions in mm



Chassis mounting of a space bar (SB)

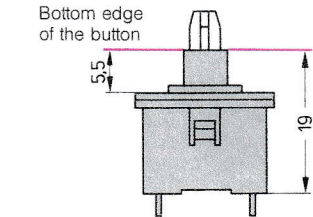


PC board mounting of a space bar (SB)

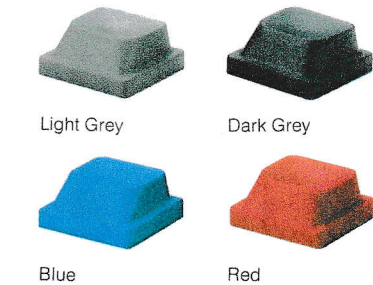


Latching push-button ETL18 EE





Mounting Dimensions



Standard Button Colours

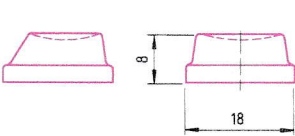
The different button styles allow the ergonomic construction of keyboards in a multitude of options.

All our buttons are coloured by dual shot mouldings and are therefore absolutely non-abrasive.

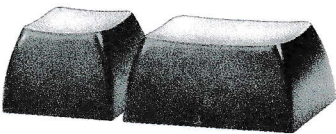
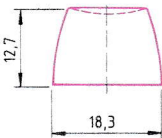
- **Button style F and H**  
Available in 4 standard colours: light grey, dark grey, blue and red <sup>1)</sup>.
- **Button style HT**  
Button colour black or white. Cap easily removable and with translucent window for graphic inserts. Other colours upon request.

<sup>1)</sup> Caps with LED and graphics as special colours on request.

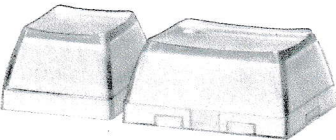
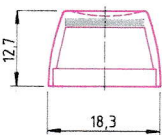
Button Styles and Sizes



**F Flat**  
Sizes: 1 × 1; 1 × 1,25; 1 × 1,5; 1 × 1,75; 1 × 2; 1 × 8



**H High**  
Sizes: 1 × 1; 1 × 1,25; 1 × 1,5; 1 × 1,75; 1 × 2; 1 × 8



**HT High**  
Translucent cap for graphic inserts  
Sizes: 1 × 1; 1 × 1,5; 1 × 2

Ordering Code

Button style F	F - 1 × 1,5 - Dark Grey - 96
Button sizes (e.g. 1 × 1,5))	
Button colour (e.g. dark grey)	
Graphics (e.g. "TAB" = No. 96)	

Standard buttons with graphics  
in negative white

