



MANUFACTURER OF SAFETY MATERIAL
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DECLARATION OF CONFORMITY

This document is the conformity declaration concerning safety switches and relays, conform to the Directive 2004/108/CE.

DIGITAL SWITCHES AND LIGHTING

Range	Standards	Approvals	Life Time
KB100 serie	IEC 60335 (glow wire test) EN 1672-2:2005	CE	B10 = 100.10 ⁶ cycles In=200 mA at +25 °C TM = 20 years

This range of products is designed to replace mechanical push-button used for home, building or hospital.

All the products are designed and manufactured following UL/CSA regulation.

Products must be used following diagram and directives described in our data sheet.

Noisy le Grand, 5th Aug 2014

For BTI,
 Christophe PAYS

Technical datasheet KB100M

Thank you for your confidence in BTI products.
This product has been designed and manufactured under the highest quality standards.

1. Application field

The serie KB100M is a range of touch-sensitive buttons with LED light. The 100mm size has been developed to replace mechanical buttons and standard piezo in the industry. KAPIX is a technology 0 force and without mechanical actuation which meets the "zero-fatigue" criterias. "clic" effect for mechanical action simulated. The product is vandal resistant. The product can be mounted in a built-in box or a panel. It must be energised with 24 VDC and delivers two contacts (NO+NC) 8A. The sensitive surface is backlit with a fixed green light in OFF mode and blinking red in ON mode. Several types of pictograms are available upon request.

2. Mounting instructions

- Drill a 51mm diameter hole,
- Fix the mounting cover,
- Wire the terminal block according to the wiring diagram,
- Fix the sensitive surface with the cap on the mounting cover.

3. Operation mode : version 1O1C

Wire with up to 1,5 mm² section cable.
When it is energised, the product is in OFF position : NO contact open, NC closed, ring light illuminated in green.
Hand contact on the sensitive surface : NO contact closed, NC open, ring light blinking in red.

4. Operation mode : version 1OL

Same as §3 but : only one contact NO and two inputs PNP for illuminate the ring led (red input and green input).

5. Référence

KB100M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NR=décor noir JE=décor jaune RE=décor rouge
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M=momentané (ON/ON) T=bistable (ON/OFF) D1=arrêt différé 90s D2=marche différée 0,35s
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1O1C=1 contact ouvert+1 fermé 1OL=1 contact ouvert + commande des voyants externe
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VR=vert fixe(off) / rouge clignotant(on)

6. Help

- Replace a switch : choose "T" option
- Replace a push button : choose the "M" option
- Replacing a timer button : Select the "D1" option
- Avoid rubbing the trigger button : choose the "D2" option

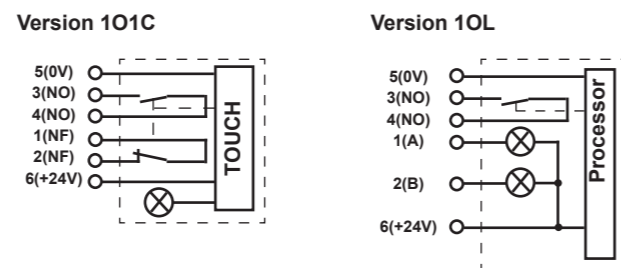
Standard times can be changed on request.
An indelible symbol can be printed on the face touch, please contact us for templates.

Note: When turned on, the system analyzes the environment and makes it a benchmark. If the finger is applied to the sensor surface prior to and during the power-up, it will be taken as a reference therefore will not be detected. If this happens, simply turn it off and on.

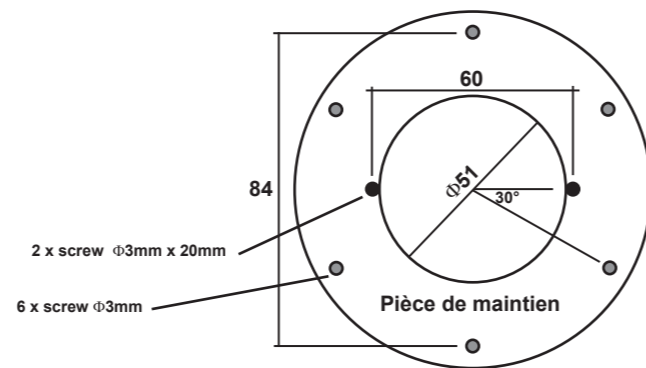
7. Technical datas

Power supply	24VDC +/- 15%
Consumption	3 W
Output contact	1NO+1NF : 8 A / 250 V
Wiring connector	1,5 mm ² max.
Protection	IP54
Size : diam x Hauteur	D100 x H24mm
Weight	75 g
Life time	10.10 ⁶
Ambiante temperature	-25 °C ~ +60 °C

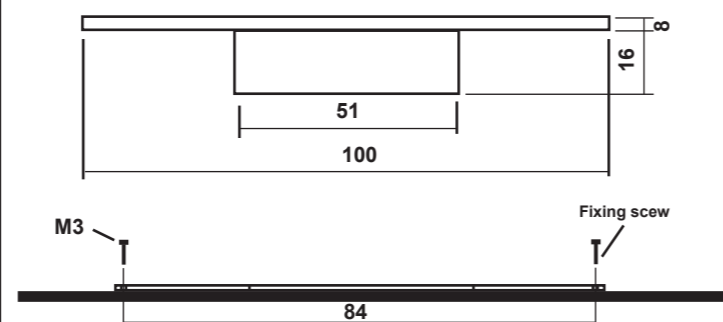
8. Wiring



9. Fixing the intermediate piece



10. Dimensions



SENSITIVE SURFACE TR 90 UV

Resistance to:

Ballpoint pen (scratch, no ink adherence)	very good
Scratch with a metallic object (ex. key)	good
Bubble gum	very good
Cigarette	very good
(960° glow wire test, which is the reason why this test is requested. Knowing that a cigarette burn is approx. 750 to 800°C according to the tobaccos).	
Pocket knife	good
Screwdriver	very good
Bottle cap	good
Cutter	good

HOUSING GRIVORY TS V0

Resistance to:

Ballpoint pen (scratch, no ink adherence)	good
Scratch with a metallic object (ex. key)	moyen
Bubble gum	very good
Cigarette	very good
(incandescent 860°C wire, always up to a cigarette temperature). Please note that all the plastic compounds will be burned by a cigarette, but this confirms that the product will not burn immediately after the contact with the cigarette).	
Pocket knife	medium
Screwdriver	medium
Bottle cap	medium
Cutter	medium

The GRILAMID TR 90 is very hard on the surface and is less subject to scratches than the standard polyamide compounds.
The TS V0 is a bit less resistant to the scratches.

Please note : the hotter the objects will be, the more hardness of the surface will be important.
On the other hand, rigidity will be increased but the parts will be more breakable.

In the cosmetic sector, the parts are varnished. It is a question of hardening the surface of the parts by the application of a more or less rigid varnish so as to reduce the impact of the objects.
Also, the visors of helmets motor bike are injected out of PC and undergo then a varnishing to increase their resistance to the scratches.

In a general way, the polyamides, with their strong elongation at fracture, will be with difficulty tranchables with a blade but they will be striped anyway.

Characteristics of the screwless terminal

Contrary to a screw connector, our choice was made on an anti-vibration model, thanks to special powerful springs. The maximum section of the wire is 1.5 mm², flexible or rigid.