

PAGES 6-2 TO 6  
PAGES 6-10 TO 14

**BUTTON ACTUATORS Ø22mm**

- Spring return flush, extended and shrouded
- Push-push flush and extended
- Mushroom-head
- Mechanical reset
- Illuminated.



PAGES 6-4 AND 7  
PAGES 6-12 AND 15

**DOUBLE AND TRIPLE TOUCH ACTUATORS Ø22mm**

- Double touch with or without indicator
- Triple touch.



PAGES 6-5 AND 7  
PAGES 6-13 AND 15

**SELECTOR ACTUATORS Ø22mm**

- Knob
- Lever
- Key
- Illuminated.



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**METAL POTENTIOMETER DRIVES Ø22mm**

- Graduated scale
- Variable index.



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**METAL JOYSTICKS Ø22mm**

- 2 directions
- 4 directions
- 2 directions with mechanical interlock
- 4 directions with mechanical interlock
- Complete with auxiliary contacts.



PAGE 6-16 AND 6-17

**PILOT LIGHTS Ø22mm**

- Monoblock LED
  - Conventional monoblock.
- MONOBLOCK BUZZERS Ø22mm**
- Pulse-tone.



PAGES 6-17

**CONTROL STATIONS**

- 1 to 5 positions without actuators
- Complete units with 1 button.



PAGES 6-18 TO 23

**ADD-ON ELEMENTS, ACCESSORIES AND SPARE PARTS FOR ACTUATORS AND SELECTORS**

- Mounting adapter
- Contact elements
- Lamp holders
- LED integrated lamp holders
- Labelling and label holders
- Bulbs.



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**SIGNAL TOWERS AND BEACONS**

- Signal towers Ø70mm
- Signal beacons Ø62mm
- Steady, blinking light or flash modules
- Sound modules
- Incandescent and LED bulbs.

**Push buttons and selector switches**

- ◆ Metal and plastic, with quick installation by simple rotation
- ◆ Standard IP65 front degree of protection
- ◆ Highly conductive contacts
- ◆ Contact operation: double breaking action, direct opening operation and self cleaning action.

**Signal towers Ø70mm**

- ◆ Modular and combinations up to 7 modules
- ◆ Steady or blinking light, pulsed or continuous sound modules.

**Signal beacons Ø62mm**

- ◆ Steady or blinking light, pulsed or continuous sound modules.



PLANET - SWITCH

**Metal button and selector actuators Ø22mm**

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**Signal towers and beacons**

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### Push-button actuators, spring return



8 LM2T B10...



8 LM2T B20...



8 LM2T B30...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Spring return.			
8 LM2T B102	Black	10	0.033
8 LM2T B103	Green	10	0.033
8 LM2T B104	Red	10	0.033
8 LM2T B105	Yellow	10	0.033
8 LM2T B106	Blue	10	0.033
8 LM2T B108	White	10	0.033
Extended (without mounting adapter). Spring return.			
8 LM2T B202	Black	10	0.035
8 LM2T B203	Green	10	0.035
8 LM2T B204	Red	10	0.035
8 LM2T B205	Yellow	10	0.035
8 LM2T B206	Blue	10	0.035
8 LM2T B208	White	10	0.035
Shrouded (without mounting adapter). Spring return.			
8 LM2T B302	Black	10	0.035
8 LM2T B303	Green	10	0.035
8 LM2T B304	Red	10	0.035
8 LM2T B305	Yellow	10	0.035
8 LM2T B306	Blue	10	0.035
8 LM2T B308	White	10	0.035

### Push-button actuators, spring return, with symbol



8 LM2T B11...



8 LM2T B21...

Order code	Symbol	Colour	Qty per pkg	Wt
			n°	[kg]
Flush (without mounting adapter). Spring return.				
8 LM2T B1102	O	Black	10	0.033
8 LM2T B1104		Red	10	0.033
8 LM2T B1113	I	Green	10	0.033
8 LM2T B1118		White	10	0.033
8 LM2T B1123	II	Green	10	0.033
8 LM2T B1128		White	10	0.033
8 LM2T B1132	STOP	Black	10	0.033
8 LM2T B1134		Red	10	0.033
8 LM2T B1142	← ①	Black	10	0.033
8 LM2T B1148		White	10	0.033
8 LM2T B1152	↑ ②	Black	10	0.033
8 LM2T B1158		White	10	0.033
8 LM2T B1163	START	Green	10	0.033
8 LM2T B1168		White	10	0.033
8 LM2T B1176	R	Blue	10	0.033
8 LM2T B1178		White	10	0.033
8 LM2T B1196	RESET	Blue	10	0.033
8 LM2T B1502	↔	Black	10	0.033
8 LM2T B1512	↔	Black	10	0.033
Extended (without mounting adapter). Spring return.				
8 LM2T B2102	O	Black	10	0.035
8 LM2T B2104		Red	10	0.035
8 LM2T B2132	STOP	Black	10	0.035
8 LM2T B2134		Red	10	0.035

① Arrow symbol can be used to indicate right or left.  
 ② Arrow symbol can be used to indicate up or down.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator).  
 Mechanical life: 1,000,000 cycles.

#### Mounting adapter

See page 6-18.  
 Type: LM2T AU120.  
 Actuators latch onto the mounting adapter by simple rotation.  
 The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

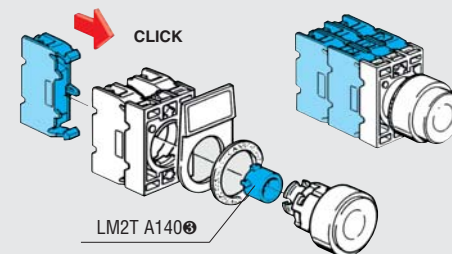
#### Auxiliary contacts

See page 6-17.

Type:

- LM2T C10 (1NO)
- LM2T CF10 (1NO Faston)
- LM2T C10A (EM)
- LM2T C01 (1NC)
- LM2T CF01 (1NC Faston)
- LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter. Up to 6 auxiliary contacts can be fitted on the mounting adapter: 2 on the left, 2 at the centre and 2 on the right. To mount the auxiliary contacts in the centre position, use the accessory: LM2T A140 (see page 6-22).



③ The action plug LM2T A140 for the centre position is not standard supplied and must be purchased separately.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Push-push button actuators



Order code	Colour	Qty per pkg	Wt [kg]
		n°	[kg]
Flush (without mounting adapter). Push on-push off.			
8 LM2T Q102	Black	10	0.033
8 LM2T Q103	Green	10	0.033
8 LM2T Q104	Red	10	0.033
8 LM2T Q105	Yellow	10	0.033
8 LM2T Q106	Blue	10	0.033
8 LM2T Q108	White	10	0.033
Extended (without mounting adapter). Push on-push off.			
8 LM2T Q202	Black	10	0.035
8 LM2T Q203	Green	10	0.035
8 LM2T Q204	Red	10	0.035
8 LM2T Q205	Yellow	10	0.035
8 LM2T Q206	Blue	10	0.035
8 LM2T Q208	White	10	0.035

① Use the early-make type, LM2T C10A only.  
No normally open contact element, LM2T C10, must be used with this type of button actuators.  
A maximum of 2 contact elements can be mounted only.

### Mushroom head push-button actuators



Order code	Colour	Qty per pkg	Wt [kg]
		n°	[kg]
Spring return. Ø 40mm (without mounting adapter).			
8 LM2T B6142	Black	10	0.037
8 LM2T B6143	Green	10	0.037
8 LM2T B6144	Red	10	0.037
8 LM2T B6145	Yellow	10	0.037
8 LM2T B6146	Blue	10	0.037

Order code	Colour	Qty per pkg	Wt [kg]
Spring return. Ø 60mm (without mounting adapter).			
8 LM2T B6162	Black	10	0.043
8 LM2T B6163	Green	10	0.043
8 LM2T B6164	Red	10	0.043
8 LM2T B6165	Yellow	10	0.043
8 LM2T B6166	Blue	10	0.043

Order code	Colour	Qty per pkg	Wt [kg]
Latch, pull to release. Ø 40mm (without mounting adapter).			
8 LM2T B6242	Black	10	0.105
8 LM2T B6244	Red	10	0.105

Order code	Colour	Qty per pkg	Wt [kg]
Latch, turn to release. Ø 40mm (without mounting adapter).			
8 LM2T B6342	Black	10	0.054
8 LM2T B6344	Red	10	0.054

Order code	Colour	Qty per pkg	Wt [kg]
Latch, turn key to release. Ø 40mm (without mounting adapter).			
8 LM2T B6542	Black	10	0.091
8 LM2T B6542G		1	0.091
8 LM2T B6544	Red	10	0.091
8 LM2T B6544G		1	0.091

Order code	Colour	Qty per pkg	Wt [kg]
Latch, turn to release, ISO 13850 (ex EN418) compliant. Ø 40mm (without mounting adapter).			
8 LM2T B6644	Red	10	0.087

② Versions with different key codes.  
Complete with the numeric code of the key. The following versions are available: 501, 502, 503, 504, 505, 506, 507, 508, 509, 510.  
Example of complete code: 8 LM2T B6542G505.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 for push-push and LM2T B654 actuators; IP66 for others.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K except for 8 LM2T B616 which is type 1, 2, 3R, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

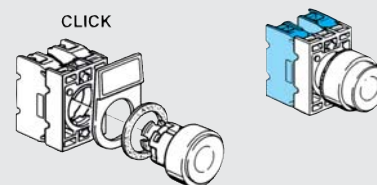
- Operating force: 0.8kg (actuator).
- Mechanical life:
  - Push-push actuators: 500,000 cycles
  - Mushroom head buttons: 1,000,000 cycles
  - Mushroom head latch buttons: 300,000 cycles.

#### Mounting adapter

See page 6-18.  
Type: LM2T AU120.  
Actuators latch onto the mounting adapter by simple rotation.  
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Auxiliary contacts for push-push button actuators

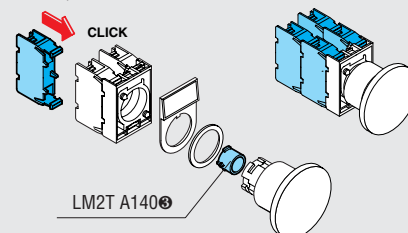
See page 6-18.  
Type: LM2T C10A (EM)  
LM2T C01 (1NC)  
Auxiliary contacts snap onto the mounting adapter.  
Up to 2 auxiliary contacts can be fitted on the mounting adapter: 1 each on the right and left.



#### Auxiliary contacts for mushroom-head button actuators

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.  
Up to 4 auxiliary contacts can be fitted on the mounting adapter with LM2T B624... and LM2T B6644 types: 2 on the right and 2 on the left only.  
Up to 6 auxiliary contacts can be fitted on the mounting adapter with all the other types: 2 on the left, 2 at the centre 2 on the right. To mount the auxiliary contacts in the centre position, use the accessory LM2T A140 (see page 6-22).



③ The action plug LM2T A140 for the centre position is not standard supplied and must be purchased separately.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Mechanical reset buttons, complete unit, spring return



8 LM2T R1196

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (5.2mm stroke). Spring return. Adjustable length 0-123mm.			
8 LM2T R1002	Black	10	0.065
8 LM2T R1003	Green	10	0.065
8 LM2T R1004	Red	10	0.065
8 LM2T R1006	Blue	10	0.065
8 LM2T R1196	Blue (RESET)	10	0.065
Extended (5.2mm stroke). Spring return. Adjustable length 0-123mm.			
8 LM2T R2004	Red	10	0.067

Complete with mounting adapter as well as the rod.

● With "RESET" caption on actuator.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 for mechanical reset buttons; IP40 for double and triple-touch actuators.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K for 8 LM2T R...; for 8 LM2T B71... and 8 LM2T B72... type 1.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator)  
Mechanical life: 1,000,000 cycles

#### Mounting adapter

See page 6-18.

Type: LM2T AU120.

Actuators latch onto the mounting adapter by simple rotation.

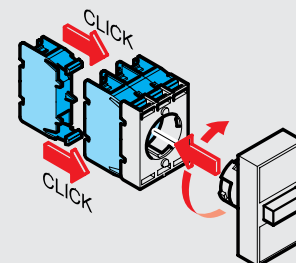
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Auxiliary contacts for touch actuators

See page 6-18.

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.



#### DOUBLE-TOUCH ACTUATORS

Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right.

#### TRIPLE-TOUCH ACTUATORS

Up to 6 auxiliary contacts can be fitted on the mounting adapter: 2 on the left, 2 in the centre and 2 on the right.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### 6 Double-touch actuators, spring return



8 LM2T B71...



8 LM2T B72...

Order code	Colour	Symbols	Qty per pkg	Wt
			n°	[kg]
Two flush push-buttons (without mounting adapter). Both spring return.				
8 LM2T B7112	Black/Red	none	5	0.044
8 LM2T B7113	Green/Red	none	5	0.044
8 LM2T B7114	White/Black	none	5	0.044
8 LM2T B7122	Black/Red	I-O	5	0.044
8 LM2T B7123	Green/Red	I-O	5	0.044
8 LM2T B7124	White/Black	I-O	5	0.044
8 LM2T B7133	Green/Red	Start/Stop	5	0.044
One extended and one flush push-buttons (without mounting adapter). Both spring return.				
8 LM2T B7212	Black/Red	none	5	0.044
8 LM2T B7213	Green/Red	none	5	0.044
8 LM2T B7214	White/Black	none	5	0.044
8 LM2T B7222	Black/Red	I-O	5	0.044
8 LM2T B7223	Green/Red	I-O	5	0.044
8 LM2T B7224	White/Black	I-O	5	0.044
8 LM2T B7233	Green/Red	Start/Stop	5	0.044

### Triple-touch actuators, spring return



8 LM2T B73...

Order code	Symbols	Qty per pkg	Wt
		n°	[kg]
Two external flush and one middle extended buttons (without mounting adapter). All spring return.			
8 LM2T B7345		5	0.044
8 LM2T B7355		5	0.044
8 LM2T B7365		5	0.044
8 LM2T B7375		5	0.044

### Selector actuators knob



8 LM2T S1...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
8 LM2T S120		10	0.049
8 LM2T S121		10	0.049
3 position (without mounting adapter).			
8 LM2T S130		10	0.049
8 LM2T S131		10	0.049
8 LM2T S132		10	0.049
8 LM2T S133		10	0.049

### Selector actuators lever



8 LM2T S2...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
8 LM2T S220		10	0.050
8 LM2T S221		10	0.050
3 position (without mounting adapter).			
8 LM2T S230		10	0.050
8 LM2T S231		10	0.050
8 LM2T S232		10	0.050
8 LM2T S233		10	0.050

### Selector actuators key



8 LM2T S3...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
8 LM2T S320		10	0.079
8 LM2T S320GⓈ		1	0.079
8 LM2T S321		10	0.079
8 LM2T S321GⓈ		1	0.079
8 LM2T S340		10	0.079
8 LM2T S340GⓈ		1	0.079
3 position (without mounting adapter).			
8 LM2T S330		10	0.080
8 LM2T S330GⓈ		1	0.080
8 LM2T S331		10	0.080
8 LM2T S331GⓈ		1	0.080
8 LM2T S332Ⓢ		10	0.080
8 LM2T S332GⓈⓈ		1	0.080
8 LM2T S333Ⓢ		10	0.080
8 LM2T S333GⓈⓈ		1	0.080
8 LM2T S350		10	0.080
8 LM2T S350GⓈ		1	0.080
8 LM2T S360		10	0.080
8 LM2T S360GⓈ		1	0.080
8 LM2T S370Ⓢ		10	0.080
8 LM2T S370GⓈⓈ		1	0.080
8 LM2T S380Ⓢ		10	0.080
8 LM2T S380GⓈⓈ		1	0.080
8 LM2T S390Ⓢ		10	0.080
8 LM2T S390GⓈⓈ		1	0.080

Ⓢ Versions with different key codes.  
Complete with the numeric code of the key. The following versions are available: 501, 502, 503, 504, 505, 506, 507, 508, 509, 510.  
Example of complete code: 8 LM2T S320G505.  
Ⓢ Available only on specific request.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

Mechanical life: 300,000 cycles.

#### Mounting adapter

See page 6-18.

Type: LM2T AU120.

Actuators latch onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

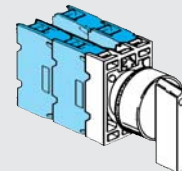
#### Auxiliary contacts

See page 6-18.

Type:

- LM2T C10 (1NO)
- LM2T CF10 (1NO Faston)
- LM2T C10A (EM)
- LM2T C01 (1NC)
- LM2T CF01 (1NC Faston)
- LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter. Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right. For more, contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com) for advice.



#### Positions

- Stay put position.
- Spring return position.
- Key extraction position.

#### Angles

2 position



3 position



#### Special versions

Versions with coloured keys are available upon request. Contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC. Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Illuminated button actuators, spring return



8 LM2T BL10...



8 LM2T BL20...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (with side visibility). Spring return. (without mounting adapter).			
8 LM2T BL103	Green	10	0.033
8 LM2T BL104	Red	10	0.033
8 LM2T BL105	Yellow	10	0.033
8 LM2T BL106	Blue	10	0.033
8 LM2T BL107	Transparent	10	0.033
Extended (without mounting adapter). Spring return.			
8 LM2T BL203	Green	10	0.035
8 LM2T BL204	Red	10	0.035
8 LM2T BL205	Yellow	10	0.035
8 LM2T BL206	Blue	10	0.035
8 LM2T BL207	Transparent	10	0.035

### Push-push button actuators



8 LM2T QL10...



8 LM2T QL20...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Push on-push off.			
8 LM2T QL103	Green	10	0.033
8 LM2T QL104	Red	10	0.033
8 LM2T QL105	Yellow	10	0.033
8 LM2T QL106	Blue	10	0.033
8 LM2T QL107	Transparent	10	0.033
Extended (without mounting adapter). Push on-push off.			
8 LM2T QL203	Green	10	0.035
8 LM2T QL204	Red	10	0.035
8 LM2T QL205	Yellow	10	0.035
8 LM2T QL206	Blue	10	0.035
8 LM2T QL207	Transparent	10	0.035

① Use only the early-make type, LM2T C10A.  
No normally open contact element, LM2T C10, must be used with this type of button actuators.  
A maximum of 2 contact elements can be mounted only.

### Illuminated mushroom head button actuators



8 LM2T BL614...



8 LM2T BL624...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Spring return. Ø 40mm (without mounting adapter).②			
8 LM2T BL6143	Green	10	0.043
8 LM2T BL6144	Red	10	0.043
8 LM2T BL6145	Yellow	10	0.043
8 LM2T BL6146	Blue	10	0.043
8 LM2T BL6148	White	10	0.043
Latch, pull to release. Ø 40mm (without mounting adapter).③			
8 LM2T BL6243	Green	10	0.105
8 LM2T BL6244	Red	10	0.105
8 LM2T BL6245	Yellow	10	0.105
8 LM2T BL6246	Blue	10	0.105
8 LM2T BL6248	White	10	0.105

② The number of auxiliary contacts to be mounted is given in the side notes.

③ A maximum of 2 auxiliary contacts can be mounted only.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

- Operating force: 0.8kg (actuator).  
Mechanical life:
- Push-push actuators: 500,000 cycles
  - Mushroom head latch buttons: 300,000 cycles
  - All others: 1,000,000 cycles.

#### Mounting adapter

See page 6-18.  
Type: LM2T AU120.  
Actuators latch onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Auxiliary contacts for illuminated push-push actuators:

See page 6-18.

Type: LM2T C10A (EM)  
LM2T C01 (1NC)

Auxiliary contacts snap onto the mounting adapter.

Up to 2 auxiliary contacts can be fitted on the mounting adapter in a row, 1 each on the right and left, along with the lamp-holder in the centre position, of which LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).

With lamp-holder LM2T XL..., LM2T YL..., LM2T FL... or LM2T GL..., one auxiliary contact can be mounted only.

#### Auxiliary contacts for illuminated button or mushroom-head actuators:

See page 6-18.

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

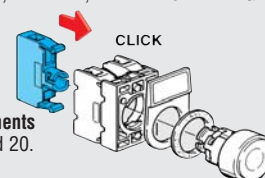
Auxiliary contacts snap onto the mounting adapter.

On LM2T BL1, LM2T BL2 or LM2T BL61 actuators, the following can be fitted on the mounting adapter:

- Up to 4 contacts, 2 each on the left and right, when one of the following lamp-holders is used: LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L or LM2T M (see page 6-19).
- Up to 2 contacts, one on top of the other of the same type only, when one of the following lamp-holders is used: LM2T XL, LM2T YL, LM2T FL or LM2T GL (see page 6-19).

On LM2T BL62... actuator, the following can be fitted on the mounting adapter:

- Up to 2 contacts, 1 each on the right and left, when one of the following lamp-holders is used: LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L or LM2T M (see page 6-19)
- Up to 2 contacts, one on top of the other of the same type only, when one of the following lamp-holders is used: LM2T XL, LM2T YL, LM2T FL or LM2T GL (see page 6-19).



#### Lamp-holder elements

See page 6-19 and 20.

#### Bulbs

Maximum recommended power: 1.2W. See page 6-22.

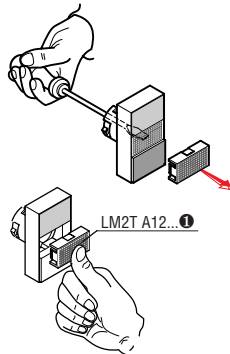
#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Double touch actuators, spring return, white indicator



8 LM2T BL711... 8 LM2T BL721...



① The actuator is standard supplied with a white diffuser. Coloured diffusers LM2T A12... can be purchased separately. Refer to page 6-20.

Order code	Colour	Symbol	Qty per pkg	Wt
			n°	[kg]

Two flush push-buttons (without mounting adapter).  
Both spring return.

8 LM2T BL7112	Black/Red	none	5	0.044
8 LM2T BL7113	Green/Red	none	5	0.044
8 LM2T BL7114	White/Black	none	5	0.044
8 LM2T BL7122	Black/Red	I-O	5	0.044
8 LM2T BL7123	Green/Red	I-O	5	0.044
8 LM2T BL7124	White/Black	I-O	5	0.044
8 LM2T BL7133	Green/Red	Start/Stop	5	0.044

One extended and one flush push-buttons (without mounting adapter).  
Both spring return.

8 LM2T BL7212	Black/Red	none	5	0.044
8 LM2T BL7213	Green/Red	none	5	0.044
8 LM2T BL7214	White/Black	none	5	0.044
8 LM2T BL7222	Black/Red	I-O	5	0.044
8 LM2T BL7223	Green/Red	I-O	5	0.044
8 LM2T BL7224	White/Black	I-O	5	0.044
8 LM2T BL7233	Green/Red	Start/Stop	5	0.044

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 for selectors; IP40 for double-touch actuators.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K except for 8 LM2T BL71... and 8 LM2T BL72... which are type 1.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (double touch actuator).  
Mechanical life: 300,000 cycles for selectors; 1,000,000 cycles for double-touch actuators.

#### Mounting adapter

See page 6-18.

Type: LM2T AU120.

Actuators latch onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Auxiliary contacts

See page 6-18.

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.

#### DOUBLE-TOUCH ACTUATORS

Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right.

#### SELECTOR ACTUATORS

On 2-position illuminated selectors, the following can be fitted on the mounting adapter:

- Up to 4 auxiliary contacts when the following types of lamp-holders are used: LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).

- Up to 2 auxiliary contacts when the following types of lamp-holders are used: LM2T XL..., LM2T YL..., LM2T FL... or LM2T GL... (see page 6-19).

On 3-position illuminated selectors, the following can be fitted on the mounting adapter:

- Up to 4 auxiliary contacts when the following types of lamp-holders are used: LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).

NOTE: The following lamp-holders cannot be mounted: LM2T XL..., LM2T YL..., LM2T FL... or LM2T GL...

#### Selector positions

- ✓ Stay put position.
- ∇ Spring return position.

#### Selector angles

2 position



3 position



#### Lamp-holder elements for selector actuators

See page 6-19 and 20.

#### Lamp-holder elements for double-touch actuators

Use lamp-holder type LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L... or LM2T M...  
See page 6-19.

#### Bulbs

Maximum recommended power: 1.2W.  
See page 6-22.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Illuminated selector actuators



8 LM2T SL1...

Order code	Colour	Type of positions	Qty per pkg	Wt
			n°	[kg]

2 position (without mounting adapter).

8 LM2T SL1203	Green	∇	10	0.025
8 LM2T SL1204	Red		10	0.025
8 LM2T SL1205	Yellow		10	0.025
8 LM2T SL1206	Blue		10	0.025
8 LM2T SL1208	White		10	0.025
8 LM2T SL1213	Green	∇	10	0.025
8 LM2T SL1214	Red		10	0.025
8 LM2T SL1215	Yellow		10	0.025
8 LM2T SL1216	Blue		10	0.025
8 LM2T SL1218	White		10	0.025

3 position (without mounting adapter).

8 LM2T SL1303	Green	∇	10	0.025	
8 LM2T SL1304	Red		10	0.025	
8 LM2T SL1305	Yellow		10	0.025	
8 LM2T SL1306	Blue		10	0.025	
8 LM2T SL1308	White		10	0.025	
8 LM2T SL1313	Green	∇	10	0.025	
8 LM2T SL1314	Red		10	0.025	
8 LM2T SL1315	Yellow		10	0.025	
8 LM2T SL1316	Blue		10	0.025	
8 LM2T SL1318	White		10	0.025	
8 LM2T SL1323	Green		∇	10	0.025
8 LM2T SL1324	Red	10		0.025	
8 LM2T SL1325	Yellow	10		0.025	
8 LM2T SL1326	Blue	10		0.025	
8 LM2T SL1328	White	10		0.025	
8 LM2T SL1333	Green	∇		10	0.025
8 LM2T SL1334	Red			10	0.025
8 LM2T SL1335	Yellow		10	0.025	
8 LM2T SL1336	Blue		10	0.025	
8 LM2T SL1338	White		10	0.025	

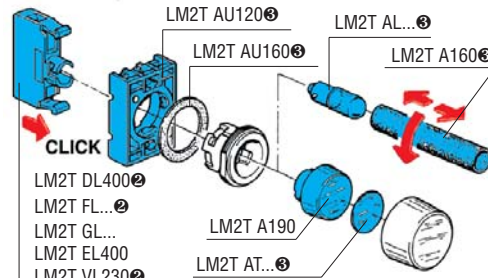
### Pilot light head



8 LM2T IL10...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Without mounting adapter.			
8 LM2T IL103	Green	10	0.024
8 LM2T IL104	Red	10	0.024
8 LM2T IL105	Yellow	10	0.024
8 LM2T IL106	Blue	10	0.024
8 LM2T IL107	Transparent	10	0.024
8 LM2T IL1187	Transparent ⚡ ①	10	0.024

① With symbol indicating dangerous voltage (IEC 60417 5036-a).



LM2T DL400 ②  
 LM2T FL... ②  
 LM2T GL...  
 LM2T EL400  
 LM2T VL230 ②  
 LM2T ZL230  
 LM2T T100  
 LM2T YL...  
 LM2T XL... ②  
 LM2T L...  
 LM2T M...

② The mounting adapter is standard supplied so there is no need to purchase it as a separate accessory.

③ Can be purchased separately. Refer to pages 6-21 and 23.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mounting adapter

See page 6-18.

Type: LM2T AU120.

Actuators latch onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Lamp-holder elements

See page 6-19 and 20.

#### Bulbs

Maximum recommended power: 1.2W.

See page 6-22.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Potentiometer drive



8 LM2T P100  
 (complete with mounting adapter)



8 LM2T P110  
 (complete with mounting adapter)

Order code	Characteristics	Qty per pkg	Wt
		n°	[kg]
8 LM2T P100 ②	With graduated scale	10	0.070
8 LM2T P110 ②	With variable index	10	0.070

② Potentiometer not included, for assembly by the user.

#### Operational characteristics

- Suitable for potentiometers with 6-6.3mm diameter shaft
- Minimum 40mm shaft length
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection: IP65 (warranted by potentiometers with a cylindrical shaft).

#### Materials

An aluminium and zinc alloy (zama) is used for the metal part whereas plastic parts are made of polyamide and polycarbonate.

#### Mechanical endurance

Mechanical life: 300,000 cycles.

#### Mounting adapter

Standard supply with actuator.

Actuators latch onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

#### Certifications and compliance

Certifications obtained: GOST and CCC.  
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1.



### Joysticks



8 LM2T J...  
without mechanical interlock



8 LM2T J...  
with mechanical interlock

Order code	Type of positions	N° auxiliary contacts	Qty per pkg	Wt [kg]
		NO	n°	[kg]

Without mechanical interlock. Label holder excluded. Complete with auxiliary contacts.

8 LM2T J200		2	1	0.082
8 LM2T J201		2	1	0.082
8 LM2T J400		4	1	0.104
8 LM2T J401		4	1	0.104

With mechanical interlock in centre position. Label holder excluded. Complete with auxiliary contacts.

8 LM2T J210		2	1	0.082
8 LM2T J211		2	1	0.082
8 LM2T J410		4	1	0.104
8 LM2T J411		4	1	0.104

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - IP20 for contact elements
  - On front:
    - Per IEC/EN: IP65
    - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

An aluminium and zinc alloy (zama) is used for the metal parts whereas plastic parts are made of polyamide and polycarbonate.

The sealing boot is made of NBR rubber.

#### Mechanical endurance

Mechanical life: 1,000,000 cycles

#### General characteristics of auxiliary contacts

Self-cleaning with dual effect, scraping and oscillating

Rated insulation voltage: 690V

Rated thermal current Ith: 10A.

Designation according to IEC 60947-5-1 - A300 Q300.

Operational power in AC15:

[V]	12	24	48	120	240
[A]	6	6	6	6	3

Operational power in DC13:

[V]	12	24	48	125	250
[A]	0.55	0.55	0.55	0.55	0.27

Short circuit protection fuse: max calibre 10A gG

Contact resistance: ≤20mΩ

Terminals: Clamp screw with washer

Maximum tightening torque: 1Nm

#### Mounting adapter and auxiliary contacts

The joystick is standard supplied with the mounting adapter and auxiliary contacts.

The joystick latches onto the mounting adapter by simple rotation.

The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm).

Auxiliary contacts snap onto the mounting adapter.

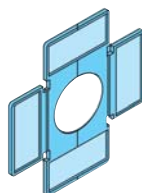
Two LM2T CJ... contacts are mounted with the LM2T J2... types while four on the LM2T J4... versions.

#### Certifications and compliance

Certifications obtained: GOST, CCC; cULus for auxiliary contacts.

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508 and CSA C22.2 n° 14-95 for contacts only.

### Accessories



8 LM2T AU101

Order code	Description	Qty per pkg	Wt [kg]
		n°	[kg]
8 LM2T AU101	2-4 directional holder for adhesive legends	10	0.004

**Joystick positions and contact engraving**

2 instable    2 stable  
 4 instable    4 stable

	1	2	3	4	A	B	C	D	N
LM2TCJ10		•							
LM2TCJ01			•						
LM2TCJ10				•					
LM2TCJ01						•			

	1	2	A	B	N
LM2TCJ10		•			
LM2TCJ10			•		

### Push-button actuators, spring return



8 LP2T B10...



8 LP2T B20...

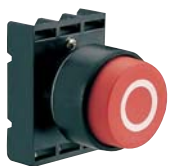


8 LP2T B30...

### Push-button actuators, spring return with symbol



8 LP2T B11...



8 LP2T B21...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (complete with mounting adapter). Spring return.			
8 LP2T B102	Black	10	0.025
8 LP2T B103	Green	10	0.025
8 LP2T B104	Red	10	0.025
8 LP2T B105	Yellow	10	0.025
8 LP2T B106	Blue	10	0.025
8 LP2T B108	White	10	0.025
Extended (complete with mounting adapter). Spring return.			
8 LP2T B202	Black	10	0.027
8 LP2T B203	Green	10	0.027
8 LP2T B204	Red	10	0.027
8 LP2T B205	Yellow	10	0.027
8 LP2T B206	Blue	10	0.027
8 LP2T B208	White	10	0.027
Shrouded (complete with mounting adapter). Spring return.			
8 LP2T B302	Black	10	0.027
8 LP2T B303	Green	10	0.027
8 LP2T B304	Red	10	0.027
8 LP2T B305	Yellow	10	0.027
8 LP2T B306	Blue	10	0.027
8 LP2T B308	White	10	0.027

Order code	Symbol	Colour	Qty per pkg	Wt
			n°	[kg]
Flush (complete with mounting adapter). Spring return.				
8 LP2T B1102	O	Black	10	0.025
8 LP2T B1104		Red	10	0.025
8 LP2T B1113	I	Green	10	0.025
8 LP2T B1118		White	10	0.025
8 LP2T B1123	II	Green	10	0.025
8 LP2T B1128		White	10	0.025
8 LP2T B1132	STOP	Black	10	0.025
8 LP2T B1134		Red	10	0.025
8 LP2T B1142		Black	10	0.025
8 LP2T B1148	← ①	White	10	0.025
8 LP2T B1152		Black	10	0.025
8 LP2T B1158	↑ ②	White	10	0.025
8 LP2T B1163	START	Green	10	0.025
8 LP2T B1168		White	10	0.025
8 LP2T B1176	R	Blue	10	0.025
8 LP2T B1178		White	10	0.025
8 LP2T B1196	RESET	Blue	10	0.025
8 LP2T B1502	↔	Black	10	0.025
8 LP2T B1512	↔	Black	10	0.025
Extended (complete with mounting adapter). Spring return.				
8 LP2T B2102	O	Black	10	0.027
8 LP2T B2104		Red	10	0.027
8 LP2T B2132	STOP	Black	10	0.027
8 LP2T B2134		Red	10	0.027

① Arrow symbol can be used to indicate right or left.  
 ② Arrow symbol can be used to indicate up or down.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

Polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator).  
 Mechanical life: 1,000,000 cycles.

#### Mounting adapter

Standard supply with the actuator.  
 Actuators latch onto the mounting adapter by simple rotation.  
 The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm).

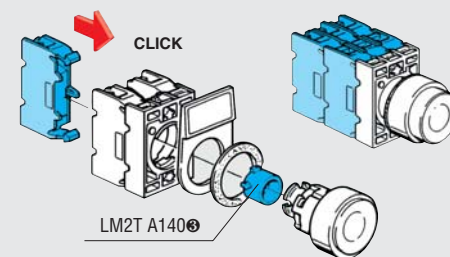
#### Auxiliary contacts

See page 6-18.

Type:

- LM2T C10 (1NO)
- LM2T CF10 (1NO Faston)
- LM2T C10A (EM)
- LM2T C01 (1NC)
- LM2T CF01 (1NC Faston)
- LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.  
 Up to 6 auxiliary contacts can be fitted on the mounting adapter: 2 on the left, 2 at the centre and 2 on the right.  
 To mount the auxiliary contacts in the centre position, use the accessory: LM2T A140 (see page 6-22).



⑤ The action plug LM2T A140 for the centre position is not standard supplied and must be purchased separately.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
 Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Push-push button actuators



8 LP2T Q10...



8 LP2T Q20...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]

Flush (complete with mounting adapter).  
Push on-push off.

8 LP2T Q102	Black	10	0.025
8 LP2T Q103	Green	10	0.025
8 LP2T Q104	Red	10	0.025
8 LP2T Q105	Yellow	10	0.025
8 LP2T Q106	Blue	10	0.025
8 LP2T Q108	White	10	0.025

Extended (complete with mounting adapter).  
Push on-push off.

8 LP2T Q202	Black	10	0.027
8 LP2T Q203	Green	10	0.027
8 LP2T Q204	Red	10	0.027
8 LP2T Q205	Yellow	10	0.027
8 LP2T Q206	Blue	10	0.027
8 LP2T Q208	White	10	0.027

Ⓢ Use the early-make type, LM2T C10A only.  
No normally open contact element, 8 LM2T C10, must be used with this type of button actuators.  
A maximum of 2 contact elements can be mounted only.

### Mushroom head push-button actuators



8 LP2T B614...



8 LP2T B616...



8 LP2T B624...



8 LP2T B634...



8 LP2T B654...



8 LP2T B664

Order code	Colour	Qty per pkg	Wt
		n°	[kg]

Spring return. Ø 40mm  
(complete with mounting adapter).

8 LP2T B6142	Black	10	0.033
8 LP2T B6143	Green	10	0.033
8 LP2T B6144	Red	10	0.033
8 LP2T B6145	Yellow	10	0.033
8 LP2T B6146	Blue	10	0.033

Spring return. Ø 60mm  
(complete with mounting adapter).

8 LP2T B6162	Black	10	0.038
8 LP2T B6163	Green	10	0.038
8 LP2T B6164	Red	10	0.038
8 LP2T B6165	Yellow	10	0.038
8 LP2T B6166	Blue	10	0.038

Latch, pull to release. Ø 40mm  
(complete with mounting adapter).

8 LP2T B6242	Black	10	0.097
8 LP2T B6244	Red	10	0.097

Latch, turn to release. Ø 40mm  
(complete with mounting adapter).

8 LP2T B6342	Black	10	0.046
8 LP2T B6344	Red	10	0.046

Latch, turn key to release. Ø 40mm  
(complete with mounting adapter).

8 LP2T B6542	Black	10	0.083
8 LP2T B6542G		1	0.083
8 LP2T B6544	Red	10	0.083
8 LP2T B6544G		1	0.083

Latch, turn to release, ISO 13850 (ex EN418) compliant  
Ø 40mm (complete with mounting adapter).

8 LP2T B6644	Red	10	0.079
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Ⓢ Versions with different key codes  
Complete with the numeric code of the key. The following versions are available: 501, 502, 503, 504, 505, 506, 507, 508, 509, 510.  
Example of complete code: 8 LM2T B6542 G505.

### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 for push-push and LP2T B654... actuators; IP66 for others.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

### Materials

Polyamide and polycarbonate.

### Mechanical endurance

- Operating force: 0.8 kg (actuator).  
Mechanical life:
- Push-push actuators: 500,000 cycles
  - Mushroom head buttons: 1,000,000 cycles
  - Mushroom head latch buttons: 300,000 cycles.

### Mounting adapter

Standard supply with the actuator.  
Actuators latch onto the mounting adapter by simple rotation.

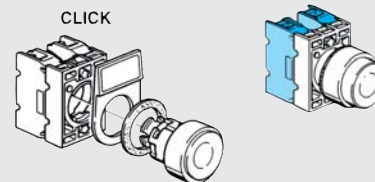
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm)

### Auxiliary contacts for push-push button actuators

See page 6-18.

Type: LM2T C10A (EM)  
LM2T C01 (1NC)

Auxiliary contacts snap onto the mounting adapter.  
Up to 2 auxiliary contacts can be fitted on the mounting adapter: 1 each on the right and left.



### Auxiliary contacts for mushroom-head button actuators

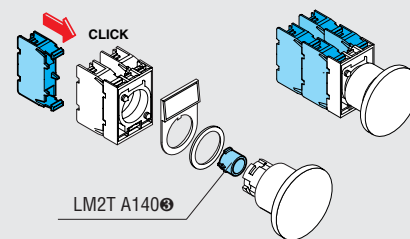
See page 6-18.

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter  
Up to 4 auxiliary contacts can be fitted on the mounting adapter with the LP2T B624... and LP2T B6644 types, 2 on the right and 2 on the left only.

Up to 6 auxiliary contacts can be fitted on the mounting adapter with all the rest: 2 on the right, 2 at the centre and 2 on the left.

To mount the auxiliary contacts in the centre position use the accessory: LM2T A140 (see page 6-22).



Ⓢ The action plug LM2T A140 for the centre position is not standard supplied and must be purchased separately.

### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Mechanical reset buttons, complete unit, spring return



8 LP2T R1196

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (5.2mm stroke). Spring return. Adjustable length 0-123mm.			
8 LP2T R1002	Black	10	0.038
8 LP2T R1003	Green	10	0.038
8 LP2T R1004	Red	10	0.038
8 LP2T R1006	Blue	10	0.038
8 LP2T R1196	Blue (RESET)	10	0.038
Extended (5.2mm stroke). Spring return. Adjustable length 0-123mm.			
8 LP2T R2004	Red	10	0.040

① With "RESET" caption on the actuator

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed.
- Degree of protection:
  - Per IEC/EN: IP65 for mechanical reset buttons; IP40 for double and triple-touch actuators.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K for 8 LP2T R...; for 8 LP2T B71... and 8 LP2T B72... type 1.

#### Materials

Polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator).  
Mechanical life: 1,000,000 cycles.

#### Mounting adapter

Standard supply with the actuator.  
Actuators latch onto the mounting adapter by simple rotation.  
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm).

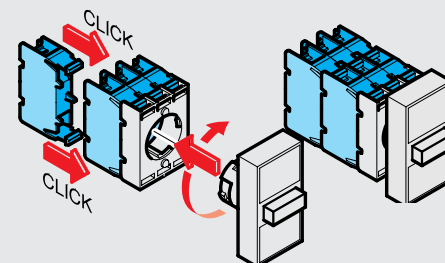
#### Auxiliary contacts for touch actuators

See page 6-18.

Type:

- LM2T C10 (1NO)
- LM2T CF10 (1NO Faston)
- LM2T C10A (EM)
- LM2T C01 (1NC)
- LM2T CF01 (1NC Faston)
- LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.



#### DOUBLE-TOUCH ACTUATORS

Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right.

#### TRIPLE-TOUCH ACTUATORS

Up to 6 auxiliary contacts can be fitted on the mounting adapter: 2 on the left, 2 in the centre and 2 on the right.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### 6 Double-touch actuators, spring return



8 LP2T B71...



8 LP2T B72...

Order code	Colour	Symbols	Qty per pkg	Wt
			n°	[kg]
Two flush push buttons (complete with mounting adapter). Both spring return.				
8 LP2T B7112	Black/Red	none	5	0.030
8 LP2T B7113	Green/Red	none	5	0.030
8 LP2T B7114	White/Black	none	5	0.030
8 LP2T B7122	Black/Red	I-O	5	0.030
8 LP2T B7123	Green/Red	I-O	5	0.030
8 LP2T B7124	White/Black	I-O	5	0.030
8 LP2T B7133	Green/Red	Start/Stop	5	0.030
One extended and one flush push buttons (complete with mounting adapter). Both spring return.				
8 LP2T B7212	Black/Red	none	5	0.030
8 LP2T B7213	Green/Red	none	5	0.030
8 LP2T B7214	White/Black	none	5	0.030
8 LP2T B7222	Black/Red	I-O	5	0.030
8 LP2T B7223	Green/Red	I-O	5	0.030
8 LP2T B7224	White/Black	I-O	5	0.030
8 LP2T B7233	Green/Red	Start/Stop	5	0.030

### Triple-touch actuators, spring return



8 LP2T B73...

Order code	Symbols	Qty per pkg	Wt
		n°	[kg]
Two external flush and one middle extended buttons. All spring return. Complete with mounting adapter.			
8 LP2T B7345		5	0.028
8 LP2T B7355		5	0.028
8 LP2T B7365		5	0.028
8 LP2T B7375		5	0.028

### Selector actuators knob



8 LP2T S1...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (complete with mounting adapter).			
8 LP2T S120		10	0.037
8 LP2T S121		10	0.037
3 position (complete with mounting adapter).			
8 LP2T S130		10	0.037
8 LP2T S131		10	0.037
8 LP2T S132		10	0.037
8 LP2T S133		10	0.037

### Selector actuators lever



8 LP2T S2...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (complete with mounting adapter).			
8 LP2T S220		10	0.037
8 LP2T S221		10	0.037
3 position (complete with mounting adapter).			
8 LP2T S230		10	0.037
8 LP2T S231		10	0.037
8 LP2T S232		10	0.037
8 LP2T S233		10	0.037

### Selector actuators key



8 LP2T S3...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (complete with mounting adapter).			
8 LP2T S320		10	0.060
8 LP2T S320G❶		1	0.060
8 LP2T S321		10	0.060
8 LP2T S321G❶		1	0.060
8 LP2T S340		10	0.060
8 LP2T S340G❶		1	0.060
3 position (complete with mounting adapter).			
8 LP2T S330		10	0.060
8 LP2T S330G❶		1	0.060
8 LP2T S331		10	0.060
8 LP2T S331G❶		1	0.060
8 LP2T S332❷		10	0.060
8 LP2T S332G❶❷		1	0.060
8 LP2T S333❷		10	0.060
8 LP2T S333G❶❷		1	0.060
8 LP2T S350		10	0.060
8 LP2T S350G❶		1	0.060
8 LP2T S360		10	0.060
8 LP2T S360G❶		1	0.060
8 LP2T S370❷		10	0.060
8 LP2T S370G❶❷		1	0.060
8 LP2T S380❷		10	0.060
8 LP2T S380G❶❷		1	0.060
8 LP2T S390❷		10	0.060
8 LP2T S390G❶❷		1	0.060

❶ Versions with different key codes.  
Complete with the numeric code of the key. The following versions are available: 501, 502, 503, 504, 505, 506, 507, 508, 509, 510.  
Example of complete code: 8 LP2T S320 G505.

❷ Available only on specific request.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

Polyamide and polycarbonate.

#### Mechanical endurance

Mechanical life: 300,000 cycles.

#### Mounting adapter

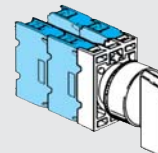
Standard supply with the actuator.  
Actuators latch onto the mounting adapter by simple rotation.  
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm).

#### Auxiliary contacts

See page 6-18.

- Type:
- LM2T C10 (1NO)
  - LM2T CF10 (1NO Faston)
  - LM2T C10A (EM)
  - LM2T C01 (1NC)
  - LM2T CF01 (1NC Faston)
  - LM2T C01D (LB)

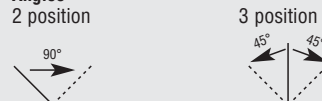
Auxiliary contacts snap onto the mounting adapter.  
Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right. For more, contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com) for advice.



#### Positions

- Stay put position.
- Spring return position.
- Key extraction position.

#### Angles



#### Special versions

Versions with coloured keys are available upon request.  
Contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Illuminated button actuators, spring return



8 LP2T BL10...



8 LP2T BL20...

### Push-push button actuators



8 LP2T QL10...



8 LP2T QL20...

### Illuminated mushroom head button actuators



8 LP2T BL614...



8 LP2T BL624...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]

Flush (with side visibility) (complete with mounting adapter).  
Spring return.

8 LP2T BL103	Green	10	0.025
8 LP2T BL104	Red	10	0.025
8 LP2T BL105	Yellow	10	0.025
8 LP2T BL106	Blue	10	0.025
8 LP2T BL107	Transparent	10	0.025

Extended (complete with mounting adapter).  
Spring return.

8 LP2T BL203	Green	10	0.027
8 LP2T BL204	Red	10	0.027
8 LP2T BL205	Yellow	10	0.027
8 LP2T BL206	Blue	10	0.027
8 LP2T BL207	Transparent	10	0.027

Order code	Colour	Qty per pkg	Wt
		n°	[kg]

Flush (complete with mounting adapter).  
Push on-push off.

8 LP2T QL103	Green	10	0.025
8 LP2T QL104	Red	10	0.025
8 LP2T QL105	Yellow	10	0.025
8 LP2T QL106	Blue	10	0.025
8 LP2T QL107	Transparent	10	0.025

Extended (complete with mounting adapter).  
Push on-push off.

8 LP2T QL203	Green	10	0.027
8 LP2T QL204	Red	10	0.027
8 LP2T QL205	Yellow	10	0.027
8 LP2T QL206	Blue	10	0.027
8 LP2T QL207	Transparent	10	0.027

① Use the early-make type, LM2T C10A only.  
No normally open contact element, 8 LM2T C10, must be used with this type of button actuators.  
A maximum of 2 contact elements can be mounted only.

Order code	Colour	Qty per pkg	Wt
		n°	[kg]

Spring return. Ø 40mm (complete with mounting adapter) ②.

8 LP2T BL6143	Green	10	0.035
8 LP2T BL6144	Red	10	0.035
8 LP2T BL6145	Yellow	10	0.035
8 LP2T BL6146	Blue	10	0.035
8 LP2T BL6148	White	10	0.035

Latch, pull to release Ø 40mm (complete with mounting adapter) ③.

8 LP2T BL6243	Green	10	0.040
8 LP2T BL6244	Red	10	0.040
8 LP2T BL6245	Yellow	10	0.040
8 LP2T BL6246	Blue	10	0.040
8 LP2T BL6248	White	10	0.040

② The number of auxiliary contacts to be mounted is given in the side notes.

③ A maximum of 2 auxiliary contacts can be mounted only.

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

Polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator).  
Mechanical life: 500,000 cycles for push-push actuators; 1,000,000 cycles for others.

#### Mounting adapter

Standard supply with the actuator.  
Actuators latch onto the mounting adapter by simple rotation.  
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm).

#### Auxiliary contacts for illuminated push-push actuators:

See page 6-18.

Type: LM2T C10A (EM)  
LM2T C01 (1NC)

Auxiliary contacts snap onto the mounting adapter.  
Up to 2 auxiliary contacts can be fitted on the mounting adapter in a row, 1 each on the right and left, along with the lamp-holder in the centre position, of which LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).  
With lamp-holder LM2T YL... or LM2T GL..., one auxiliary contact can be mounted only (see page 6-19).

#### Auxiliary contacts for illuminated button or mushroom-head actuators

See page 6-18.

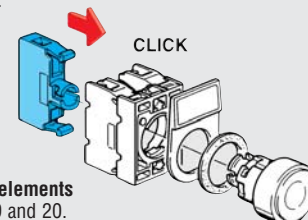
Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

Auxiliary contacts snap onto the mounting adapter.  
On LP2T BL1, LP2T BL2 or LP2T BL61 actuators, the following can be fitted on the mounting adapter:

- Up to 4 contacts, 2 each on the left and right, when one of the following lamp-holders is used: LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L or LM2T M (see page 6-19).
- Up to 2 contacts, one on top of the other of the same type only, when one of the following lamp-holders is used: LM2T XL, LM2T YL, LM2T FL or LM2T GL (see page 6-19).

On LP2T BL62... actuator, the following can be fitted on the mounting adapter:

- Up to 2 contacts, 1 each on the right and left, when one of the following lamp-holders is used: LM2T DL400, LM2T EL400, LM2T VL230, LM2T ZL230, LM2T L or LM2T M (see page 6-19)
- Up to 2 contacts, one on top of the other of the same type only, when one of the following lamp-holders is used: LM2T XL, LM2T YL, LM2T FL or LM2T GL (see page 6-19).



#### Lamp-holder elements

See page 6-19 and 20.

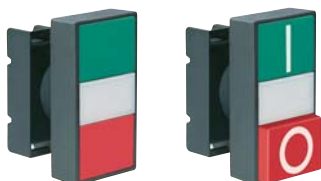
#### Bulbs

Maximum recommended power: 1.2W.  
See page 6-22.

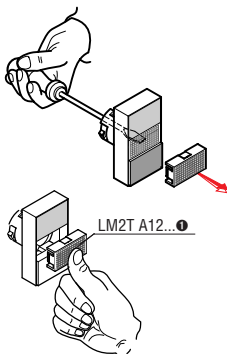
#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Double touch actuators, spring return with white indicator



8 LP2T BL711...      8 LP2T BL721...



❶ The actuator is standard supplied with a white diffuser. Coloured diffusers LM2T A12... can be purchased separately. Refer to page 6-20.

### Illuminated selector actuators



8 LP2T SL1...

Orde code	Colour	Symbol	Qty per pkg	Wt
			n°	[kg]

Two flush push-buttons (complete with mounting adapter). Both spring return.

8 LP2T BL7112	Black/Red	none	5	0.028
8 LP2T BL7113	Green/Red	none	5	0.028
8 LP2T BL7114	White/Black	none	5	0.028
8 LP2T BL7122	Black/Red	I-O	5	0.028
8 LP2T BL7123	Green/Red	I-O	5	0.028
8 LP2T BL7124	White/Black	I-O	5	0.028
8 LP2T BL7133	Green/Red	Start/Stop	5	0.028

One extended push-button (complete with mounting adapter). Both spring return.

8 LP2T BL7212	Black/Red	none	5	0.028
8 LP2T BL7213	Green/Red	none	5	0.028
8 LP2T BL7214	White/Black	none	5	0.028
8 LP2T BL7222	Black/Red	I-O	5	0.028
8 LP2T BL7223	Green/Red	I-O	5	0.028
8 LP2T BL7224	White/Black	I-O	5	0.028
8 LP2T BL7233	Green/Red	Start/Stop	5	0.028

Orde code	Colour	Type of positions	Qty per pkg	Wt
			n°	[kg]

2 position (complete with mounting adapter).

8 LP2T SL1203	Green	✓	10	0.025
8 LP2T SL1204	Red		10	0.025
8 LP2T SL1205	Yellow		10	0.025
8 LP2T SL1206	Blue		10	0.025
8 LP2T SL1208	White		10	0.025
8 LP2T SL1213	Green	∇	10	0.025
8 LP2T SL1214	Red		10	0.025
8 LP2T SL1215	Yellow		10	0.025
8 LP2T SL1216	Blue		10	0.025
8 LP2T SL1218	White		10	0.025

3 position (complete with mounting adapter).

8 LP2T SL1303	Green	∇	10	0.025
8 LP2T SL1304	Red		10	0.025
8 LP2T SL1305	Yellow		10	0.025
8 LP2T SL1306	Blue		10	0.025
8 LP2T SL1308	White		10	0.025
8 LP2T SL1313	Green	∇	10	0.025
8 LP2T SL1314	Red		10	0.025
8 LP2T SL1315	Yellow		10	0.025
8 LP2T SL1316	Blue		10	0.025
8 LP2T SL1318	White		10	0.025
8 LP2T SL1323	Green	∇	10	0.025
8 LP2T SL1324	Red		10	0.025
8 LP2T SL1325	Yellow		10	0.025
8 LP2T SL1326	Blue		10	0.025
8 LP2T SL1328	White		10	0.025
8 LP2T SL1333	Green	∇	10	0.025
8 LP2T SL1334	Red		10	0.025
8 LP2T SL1335	Yellow		10	0.025
8 LP2T SL1336	Blue		10	0.025
8 LP2T SL1338	White		10	0.025

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 for selectors; IP40 for double-touch actuators.
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K except for 8 LP2T BL71... and 8 LP2T BL72... which are type 1.

#### Materials

Polyamide and polycarbonate.

#### Mechanical endurance

Operating force: 0.8kg (actuator).  
Mechanical life for push-buttons: 1,000,000 cycles.

#### Mounting adapter of double-touch actuators

Standard supply with the actuator. Actuators latch onto the mounting adapter by simple rotation. The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.6Nm).

#### Auxiliary contacts

See page 6-18.

Type: LM2T C10 (1NO)  
LM2T CF10 (1NO Faston)  
LM2T C10A (EM)  
LM2T C01 (1NC)  
LM2T CF01 (1NC Faston)  
LM2T C01D (LB)

#### DOUBLE-TOUCH ACTUATORS

Up to 4 auxiliary contacts can be fitted on the mounting adapter: 2 on the left and 2 on the right.

#### SELECTOR ACTUATORS

On 2-position illuminated selectors, the following can be fitted on the mounting adapter:

- Up to 4 auxiliary contacts when the following types of lamp-holders are used: LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).
- Up to 2 auxiliary contacts when the following types of lamp-holders are used: LM2T YL... or LM2T GL... (see page 6-19).

On 3-position illuminated selectors, the following can be fitted on the mounting adapter:

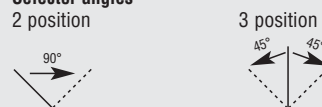
- Up to 4 auxiliary contacts when the types of lamp-holders are used: LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... (see page 6-19).

NOTE: The LM2T YL... or LM2T GL... lamp-holders cannot be mounted.

#### Selector positions

- ∇ Stay put position.
- ∇ Spring return position.

#### Selector angles



#### Lamp-holder elements for selectors

See page 6-19.

#### Lamp-holder elements for double touch actuators

Use lamp-holder type LM2T EL400, LM2T ZL230, LM2T L..., LM2T YL... or LM2T M... See page 6-19.

#### Bulbs

Maximum recommended power: 1.2W.  
See page 6-22.

#### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### LED integrated monoblock pilot lights, steady light



8 LP2T IL...

Order code	Rated auxiliary supply voltage	LED colour	Qty per pkg	Wt
			n°	[kg]
Screw terminals with protection. Lamp supplied.				
8 LP2T ILA3	12VAC/DC	Green	10	0.021
8 LP2T ILA4		Red	10	0.021
8 LP2T ILA5		Yellow	10	0.021
8 LP2T ILA6		Blue	10	0.021
8 LP2T ILA8		Transparent	10	0.021
8 LP2T ILB3	24VAC/DC	Green	10	0.021
8 LP2T ILB4		Red	10	0.021
8 LP2T ILB5		Yellow	10	0.021
8 LP2T ILB6		Blue	10	0.021
8 LP2T ILB8		Transparent	10	0.021
8 LP2T ILE3	110VAC	Green	10	0.024
8 LP2T ILE4		Red	10	0.024
8 LP2T ILE5		Yellow	10	0.024
8 LP2T ILE6		Blue	10	0.024
8 LP2T ILE8		Transparent	10	0.024
8 LP2T ILM3	230VAC	Green	10	0.024
8 LP2T ILM4		Red	10	0.024
8 LP2T ILM5		Yellow	10	0.024
8 LP2T ILM6		Blue	10	0.024
8 LP2T ILM8		Transparent	10	0.024

#### Operational characteristics

- Rated auxiliary supply voltage: 12VAC/DC, 24VAC/DC; 110VAC; 230VAC
- Electrical life: >30,000 hours
- Consumption: ≤20mA
- Screw termination
- Maximum tightening torque: 0.8Nm
- Side cable entry
- Ambient conditions:
  - Operating temperature: -5...+40°C
  - Degree of protection: IP65 on front; IP20 at rear.

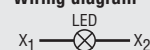
#### Materials

Polyamide and polycarbonate.

#### Maximum conductor cross section

1 or 2 1.5mm<sup>2</sup> or 16 AWG cables.

#### Wiring diagram



#### Certifications and compliance

Certifications obtained: cULus, GOST and CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Monoblock pilot lights (with diffuser)



8 LP2T IL21...



8 LP2T IL22...



8 LP2T IL23...

① LP2T IL23... pilot lights have Faston terminals, 1-6.35 or 2-2.8mm..

Order code	Colour	Lamp supplied	Qty per pkg	Wt
			n°	[kg]
Screw terminals without protection. Lamp not supplied.				
8 LP2T IL213	Green	no	10	0.023
8 LP2T IL214	Red	no	10	0.023
8 LP2T IL215	Yellow	no	10	0.023
8 LP2T IL216	Blue	no	10	0.023
8 LP2T IL217	Transparent	no	10	0.023
Screw terminals with protection. Lamp not supplied.				
8 LP2T IL223	Green	no	10	0.024
8 LP2T IL224	Red	no	10	0.024
8 LP2T IL225	Yellow	no	10	0.024
8 LP2T IL226	Blue	no	10	0.024
8 LP2T IL227	Transparent	no	10	0.024
Faston terminals without protection①. Lamp not supplied.				
8 LP2T IL233	Green	no	10	0.021
8 LP2T IL234	Red	no	10	0.021
8 LP2T IL235	Yellow	no	10	0.021
8 LP2T IL236	Blue	no	10	0.021
8 LP2T IL237	Transparent	no	10	0.021

#### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Degree of protection:
  - Per IEC/EN: IP65 on front; IP20 at rear
  - Per UL: type 1, 2, 3R, 4, 4X, 12, 12K.

#### Materials

Polyamide and polycarbonate.

#### Maximum conductor cross section

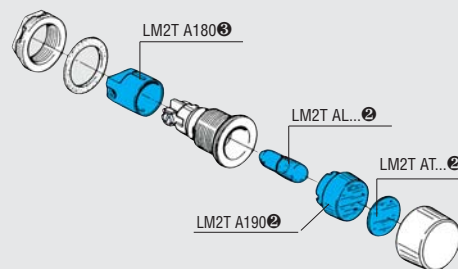
1 or 2 1.5mm<sup>2</sup> or AWG16 cables.

#### Wiring diagram



#### Bulbs

Max rated auxiliary supply voltage: 415VAC/DC  
Maximum recommended power: 2.6W. See page 6-22.



② Can be purchased separately.

Refer to pages 6-22 and 23.

③ Standard supplied with LP2T IL22... only..

#### Certifications and compliance

Certifications obtained: cULus, (8 LP2T IL23 UL Recognized), RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.



## Monoblock buzzers. Control stations

### Pulse-tone monoblock buzzers



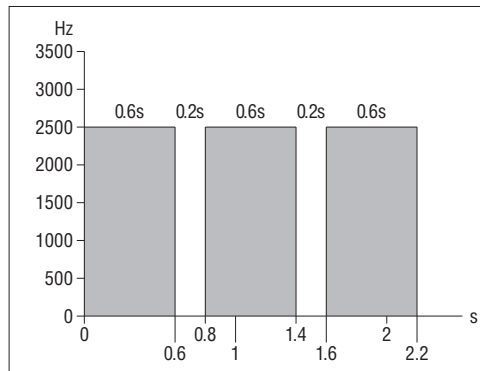
8 LP2T ZG...



Order code	Voltage	Sound intensity at 2500Hz	Qty per pkg	Weight
	[V]	[dB]	n°	[kg]
Pulse-tone.				
8 LP2T ZGB	24VAC/DC	80dB <sup>①</sup>	10	0.020
8 LP2T ZGE	110VAC/DC		10	0.020
8 LP2T ZGM	230VAC		10	0.020

① Value measured at a distance of 10cm.

#### Pulse-tone sound graph



#### General characteristics

Monoblock buzzers are used as sound indicators in automation systems and on-board machinery in the production processes. Long life, low consumption values and compact size are the main features of this product.

#### Operational characteristics

- Rated auxiliary supply voltage: 24VAC/DC; 110VAC/DC; 230VAC
- Operating voltage: 50-60Hz
- Consumption: <20mA
- Service life: 30,000 hours (permanently powered)
- Screw termination
- Maximum tightening torque: 0.8Nm
- Side cable entry
- Ambient conditions:
  - Operating temperature: -25...+55°C
  - Storage temperature: -25...+55°C
- Degree of protection:
  - IP40 on front
  - IP20 at rear.

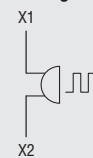
#### Materials

Polyamide and polycarbonate.

#### Maximum conductor cross section

1 or 2 2.5mm<sup>2</sup> or AWG12 cables.

#### Wiring diagram



#### Reference standards

Comply with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, IEC/EN 61000-6-1, IEC/EN 61000-6-3.

### Empty control station enclosures



8 L2PP 2A8

Order code	Description	Cover colour	Qty per pkg	Wt
			n°	[kg]
8 L2PP 1A5	For 1 actuator	Yellow	1	0.138
8 L2PP 1A8	For 1 actuator	White	1	0.138
8 L2PP 2A8	For 2 actuators	White	1	0.198
8 L2PP 3A8	For 3 actuators	White	1	0.213
8 L2PP 4A8	For 4 actuators	White	1	0.253
8 L2PP 5A8	For 5 actuators	White	1	0.275

#### General characteristics

Control stations have cable entry through the top or the bottom and come fitted with a conduit (21.3mm entry diameter).

#### Operational characteristics

- Degree of protection: IP65 using adequate cable glands, not included in the supply. IP52 for L2PP 5A8 only.
- Tightening torque of cover fixing screws: 0.8Nm.
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C

#### Materials

Self-extinguishing ABS plastic.

#### Certifications

Certifications obtained: cULus, GOST and CCC.

### Complete control stations



8 L2PP 160

① Red mushroom head, turn to release, yellow cover ISO13850 (ex EN418) compliant, no label and no label holder.

Order code	Description Enclosure + actuator	Qty per pkg	Wt
		n°	[kg]
8 L2PP 100	8 L2PP 1A8 + 8 LP2T B6244	1	0.264
8 L2PP 110	8 L2PP 1A8 + 8 LP2T B6344	1	0.213
8 L2PP 115	8 L2PP 1A5 + 8 LP2T B6344	1	0.213
8 L2PP 120	8 L2PP 1A8 + 8 LP2T B6544	1	0.250
8 L2PP 130 <sup>①</sup>	8 L2PP 1A5 + 8 LP2T B6644	1	0.244
8 L2PP 150	8 L2PP 1A8 + 8 LM2T B6244	1	0.291
8 L2PP 160	8 L2PP 1A8 + 8 LM2T B6344	1	0.240
8 L2PP 165	8 L2PP 1A5 + 8 LM2T B6344	1	0.240
8 L2PP 170	8 L2PP 1A8 + 8 LM2T B6544	1	0.277
8 L2PP 180 <sup>①</sup>	8 L2PP 1A5 + 8 LM2T B6644	1	0.271

#### General characteristics

Control stations are supplied assembled and complete with the indicated push-button actuator, mounting adapter, legend holder, "STOP" label (except for L2PP 115, L2PP 130, L2PP 165 and L2PP 180) and one NC auxiliary contact. Control stations have cable entry through the top of the bottom and come fitted with a conduit (21.3mm entry diameter).

#### Operational characteristics

- Degree of protection: IP65 using adequate cable glands, not included in the supply.
- Tightening torque of cover fixing screws: 0.8Nm.

#### Materials

Self-extinguishing ABS plastic.

#### Certifications

Certification obtained: GOST, CCC.

### Mounting adapter



8 LM2T AU120

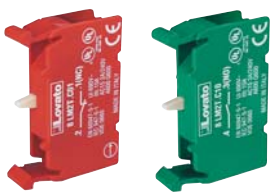
Order code	Description	Qty per pkg	Wt
		n°	[kg]

Only for metal series actuators.

8 LM2T AU120	Mounting adapter	10	0.019
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Metal series actuators are supplied without mounting adapter. Plastic series actuators are supplied complete with mounting adapter (type LP2T AU120).

### Contact elements



8 LM2T C...



8 LM2T E...



8 LM2T CF01



8 LM2T CF10

Order code	Function	Qty per pkg	Wt
		n°	[kg]

Screw termination.

Without mounting adapter.

8 LM2T C10Ⓢ		10	0.011
8 LM2T C10A		10	0.011
8 LM2T C01⊖		10	0.011
8 LM2T C01DⓈ		10	0.011

Screw termination.

With mounting adapter for actuators metal series LM2T... only.

8 LM2T E10Ⓢ		10	0.029
8 LM2T E01⊖		10	0.029

Faston termination.

Without mounting adapter.

8 LM2T CF10Ⓢ		10	0.012
8 LM2T CF01		10	0.012

Ⓢ Not suitable for push-push actuators. Use LM2T C10A (EM) or LM2T C01 (NC) type only with push-push actuators.

Ⓢ Normally open contact with early make operation.

⊖ Direct opening operation ⊖ in accordance with IEC/EN 60947-5-1.

Ⓢ Normally closed contact with late break operation.

### Operational characteristics

– Ambient conditions:

- Operating temperature: -25...+60°C
- Storage temperature: -40...+70°C

– Any mounting position is allowed

– Degree of protection:

- IP20 for contacts elements with screw termination
- IP00 for contact elements with Faston termination.

### General characteristics of the auxiliary contacts

Self-cleaning with dual effect, scraping and oscillating

Rated insulation voltage: 690V

Rated thermal current Ith: 10A

Designation according to IEC 60947-5-1: A600 Q600

Operational power in AC15:

[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	3	1.9	1.5	1.4	1.2

Operational power in DC13:

[V]	12	24	48	125	250	440	500	600
[A]	3	3	1.5	0.55	0.27	0.15	0.13	0.1

Short-circuit protection fuse: max. calibre 10A gG

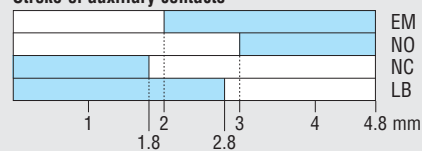
Contact resistance: ≤20mΩ

Terminals: Clamp screw with washer

Faston 1-6.35mm or 2-2.8mm

Maximum tightening torque: 1Nm (Faston excluded).

### Stroke of auxiliary contacts



Legend:  Closed contact  Open contact

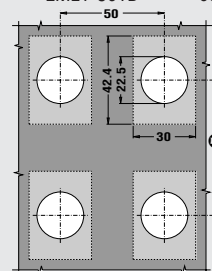
### Maximum conductor section for screw termination

1 or 2 2.5 mm<sup>2</sup> or AWG12 cables.

### Mechanical and electrical endurance

Operating force: 0.5 kg (auxiliary contacts).

Electrical life:	LM2T C10	1,000,000 cycles
	LM2T CF10	1,000,000 cycles
	LM2T C01	1,000,000 cycles
	LM2T CF01	1,000,000 cycles
	LM2T C10A	600,000 cycles
	LMET C01D	600,000 cycles



Ⓢ When using Faston, vertical interaxes is 90mm minimum.

### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Lamp-holders without mounting adapter



8 LM2T EL400    8 LM2T YL...  
8 LM2T ZL230    8 LM2T GL...



8 LM2T T100

Order code	Rated auxiliary supply voltage	Type of bulb supplied	Qty per pkg	Wt [kg]
	[V] 50/60Hz		n°	[kg]

For actuators of plastic and metal series.  
Supplied without mounting adapter. Direct supply.

8 LM2T EL400	≤415VAC/DC	No	10	0.011
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With resistor and diode.

8 LM2T ZL230	230VAC	Yes 130V, 2W	10	0.015
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With transformer.

8 LM2T YL110	110-120VAC	Yes 24V, 1.2W	1	0.086
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8 LM2T YL230	220-240VAC	Yes 24V, 1.2W	1	0.084
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8 LM2T YL400	380-415VAC	Yes 24V, 1.2W	1	0.087
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Flashing.

8 LM2T GL048	24-48VAC	No	1	0.027
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8 LM2T GL230	110-230VAC	No	1	0.027
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Test element for lamp-holders.

8 LM2T T100	Test element		10	0.011
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### Lamp-holders with mounting adapter



8 LM2T DL400 - 8 LM2T VL230



8 LM2T XL... - 8 LM2T FL...

Order code	Rated auxiliary supply voltage	Type of bulb supplied	Qty per pkg	Wt [kg]
	[V] 50/60Hz		n°	[kg]

Only for actuators of metal series.  
Supplied complete with mounting adapter. Direct supply.

8 LM2T DL400	≤415VAC/DC	No	10	0.029
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With resistor and diode.

8 LM2T VL230	230VAC	Yes 130V, 2W	10	0.032
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With transformer.

8 LM2T XL110	110-120VAC	Yes 24V, 1.2W	1	0.105
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8 LM2T XL230	220-240VAC	Yes 24V, 1.2W	1	0.103
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8 LM2T XL400	380-415VAC	Yes 24V, 1.2W	1	0.106
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Flashing.

8 LM2T FL048	24-48VAC	No	1	0.046
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8 LM2T FL230	110-230VAC	No	1	0.046
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- ① Filament bulb, BA9s U<sub>s</sub>≤130VAC/DC max 2.6W (not supplied); maximum dimensions 11x28 mm. For higher voltages, use neon bulbs.
- ② Not suitable for 3-position selectors.
- ③ Filament bulb, BA9s (not supplied); maximum dimensions 11x28mm. Suitable for AC duty only. Use bulbs with rated voltage equal to that of the power supply. E.g.: With LM2T FL230 use 110VAC bulbs if power supply is 110VAC and 230VAC bulbs if power supply 230VAC. 2.6W max bulb rating.
- ④ MultiLED bulbs must not be fitted.
- ⑤ In case of test circuits for lamp-holders having load in parallel, two LM2T T100 elements are required for each bulb. Refer to the wiring diagram attached to the product or contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).
- ⑥ In case of neon bulbs, contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).
- ⑦ Luminosity is reduced during testing of lamp-holder LM2T L... and LM2T M... types.

### Operational characteristics

- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Tightening torque: 1Nm
- Degree of protection: IP20.

### Maximum conductor section

1 or 2 2.5mm<sup>2</sup> or AWG12 cables.

### Wiring diagram

Direct supply

LM2T EL400  
LM2T DL400



With resistor and diode

LM2T ZL230  
LM2T VL230



With transformer

LM2T YL...  
LM2T XL...



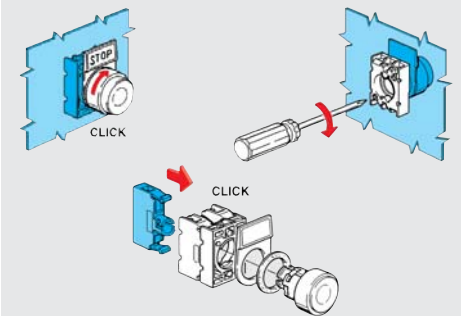
Flashing

LM2T GL...  
LM2T FL...



Test element

LM2T T100



### Certifications and compliance

Certifications obtained: cULus, RINA, LROS, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### LED integrated lamp-holder steady or flashing light



8 LM2T LM3

6

Order code for steady light	Order code for flashing light	Rated aux supply voltage <sup>①</sup> [V]	LED colour	Qty per pkg n°	Wt [kg]	
8 LM2T LB3	8 LM2T MB3	18-30V AC/DC	Green	10	0.016	
8 LM2T LB4	8 LM2T MB4		Red	10	0.016	
8 LM2T LB5	8 LM2T MB5		Yellow	10	0.016	
8 LM2T LB6	8 LM2T MB6		Blue	10	0.016	
8 LM2T LB8	8 LM2T MB8		White	10	0.016	
8 LM2T LE3	8 LM2T ME3		85-140V AC	Green	10	0.016
8 LM2T LE4	8 LM2T ME4			Red	10	0.016
8 LM2T LE5	8 LM2T ME5			Yellow	10	0.016
8 LM2T LE6	8 LM2T ME6	Blue		10	0.016	
8 LM2T LE8	8 LM2T ME8	White		10	0.016	
8 LM2T LM3	8 LM2T MM3	187-265V AC		Green	10	0.016
8 LM2T LM4	8 LM2T MM4			Red	10	0.016
8 LM2T LM5	8 LM2T MM5			Yellow	10	0.016
8 LM2T LM6	8 LM2T MM6		Blue	10	0.016	
8 LM2T LM8	8 LM2T MM8		White	10	0.016	

① Steady-light 9-15VAC/DC types are available on request; contact our Customer Service (Tel +39 035 4282422; email: service@LovatoElectric.com).

② Luminosity is reduced during test with test element LM2T T100

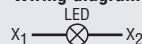
#### Operational characteristics

- Rated auxiliary supply voltage: 18-30VAC/DC; 85-140VAC; 187-265VAC
- Maximum consumption: 33mA for 18-30VAC/DC; 28mA for 85-140VAC; 25mA for 187-265VAC
- Electric life: 100,000 hours
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Any mounting position is allowed
- Tightening torque: 1Nm
- Degree of protection: IP20.

#### Maximum conductor section

1 or 2 2.5mm<sup>2</sup> or AWG12 cables.

#### Wiring diagram



#### Certifications and compliance

Certifications obtained: cULus, GOST, CCC.  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1; UL508; CSA C22.2 n° 14-95.

### Labels with text for LM2T AU100 legend holder



8 LM2T AGB230

Ordering code	Text	Qty per pkg	Wt
		n°	[kg]
General use.			
8 LM2T AU206	Blank for writing	50	0.001
8 LM2T AU207	Sheet with 108 labels for laser printing <sup>①</sup>	1 <sup>②</sup>	0.005
8 LM2T AU208 <sup>③</sup>	Sheet with 108 laser-printed labels <sup>①</sup>	1 <sup>②</sup>	0.005
8 LM2T AGB216	CLOSE	50	0.001
8 LM2T AGB220	EMERGENCY	50	0.001
8 LM2T AGB231	FAST	50	0.001
8 LM2T AGB263	FAULT	50	0.001
8 LM2T AGB215	FORWARD	50	0.001
8 LM2T AGB228	LEFT	50	0.001
8 LM2T AGB218	LOWER	50	0.001
8 LM2T AGB221	OFF	50	0.001
8 LM2T AGB223	ON	50	0.001
8 LM2T AGB211	OPEN	50	0.001
8 LM2T AGB229	POWER ON	50	0.001
8 LM2T AGB227	RAISE	50	0.001
8 LM2T AGB226	RESET	50	0.001
8 LM2T AGB222	REVERSE	50	0.001
8 LM2T AGB217	RIGHT	50	0.001
8 LM2T AGB241	RUNNING	50	0.001
8 LM2T AGB224	SLOW	50	0.001
8 LM2T AGB225	START	50	0.001
8 LM2T AGB230	STOP	50	0.001
8 LM2T AGB214	STOP RESET	50	0.001
8 LM2T AGB240	THERMAL FAULT	50	0.001
8 LM2T AGB237	TRIP	50	0.001
For selector switches.			
8 LM2T AI233	AUTO-MAN	50	0.001
8 LM2T AI234	AUTO-O-MAN	50	0.001
8 LM2T AI241	MAN-AUTO	50	0.001
8 LM2T AI242	MAN-O-AUTO	50	0.001
8 LM2T AGB235	FWD-O-REV	50	0.001
8 LM2T AGB236	OFF-ON	50	0.001
8 LM2T AGB232	STOP-START	50	0.001
International labels for push-buttons.			
8 LM2T AU200	O	50	0.001
8 LM2T AU201	I	50	0.001
8 LM2T AU202	II	50	0.001
International labels for selector switches.			
8 LM2T AU203	O-I	50	0.001
8 LM2T AU204	I-II	50	0.001
8 LM2T AU205	I-O-II	50	0.001

- ① Recommended use with LM2T AU206 blank label.
- ② Sheet with 108 adhesive labels.
- ③ Complete code with label text required.

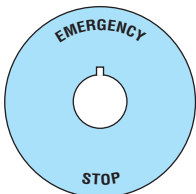
#### General characteristics

The labels have indelible scratch-proof black lettering on metalised grey polycarbonate background (adhesive).

#### Special versions

Labels in different languages are available. Contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

### Plastic disks for mushroom-head push-buttons



Ordering code	Text	Qty per pkg	Wt
		n°	[kg]
8 LM2T AU113	EMERGENCY STOP Ø 90mm	10	0.005
8 LM2T AU115	EMERGENCY STOP Ø 60mm	10	0.005

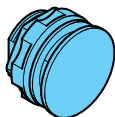
#### General characteristics

The disks are made of non-adhesive plastic. There is a 2x2mm index.

#### Special versions

The disk text in different languages is available. Contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

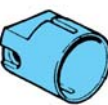
### Accessories and spare parts



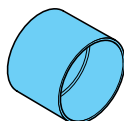
8 LM2T A130



8 LM2T A140



8 LM2T A180



8 LM2T A185



8 LM2T AL...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
8 LM2T A12①	Coloured diffuser for double push-buttons	10	0.001
8 LM2T A130	Threaded plug for unused holes	10	0.007
8 LM2T A140	Action plug for centre contact	50	0.001
8 LM2T A150	Rod for mechanical reset button (l=123mm)	10	0.006
8 LM2T A160	BA9s bulb extractor	10	0.004
8 LM2T A161	30mm hole size adapter for 22mm (2 per hole)	10	0.002
8 LM2T A170	Spare key set for selector or mushroom head button	1	0.008
8 LM2T A170G②	Spare key set for G series selector or mushroom-head button	1	0.008
8 LM2T A180	IP20 terminal protection for monoblock pilot light LP2T IL2...	10	0.002
8 LM2T A185	Selector protection shroud (for knob types only)	10	0.004
8 LM2T A190	Diffuser for pilot light	10	0.003
8 LM2T ALA024	Filament bulb BA9s 24VAC/DC - 1.2W 10x28mm	50	0.002
8 LM2T ALB024	Filament bulb BA9s 24VAC/DC - 2W 10x28mm	50	0.003
8 LM2T ALB048	Filament bulb BA9s 48VAC/DC - 2W 10x28mm	50	0.003
8 LM2T ALB130	Filament bulb BA9s 130VAC/DC - 2W 10x28mm	50	0.003
8 LM2T ALL006③	MultiLED bulb BA9s 6VAC/DC 10x28mm	10	0.003
8 LM2T ALL024③	MultiLED bulb BA9s 24VAC/DC 10x28mm	10	0.003
8 LM2T ALL048③	MultiLED bulb BA9s 48VAC/DC 10x28mm	10	0.003
8 LM2T ALN130④	Neon bulb ⑤ BA9s 110/125VAC 10x28mm	50	0.003
8 LM2T ALN250④	Neon bulb ⑤ BA9s 220/250VAC 10x28mm	50	0.003
8 LM2T ALN400④	Neon bulb ⑤ BA9s 380/400VAC 10x28mm	50	0.003
8 LM2T ALP130④	Neon bulb ⑥ BA9s 110/125VAC 10x28mm	50	0.003
8 LM2T ALP250④	Neon bulb ⑥ BA9s 220/250VAC 10x28mm	50	0.003
8 LM2T ALP400④	Neon bulb ⑥ BA9s 380/400VAC 10x28mm	50	0.003

① Add the digit of the selected colour: 3 (green); 4 (red); 5 (yellow); 6 (blue); 7 (transparent); 8 (white).

② Versions with different key code. Complete with the numeric code of the key. The following versions are available: 501, 502, 503, 504, 505, 506, 507, 508, 509, 510.

Example of complete code: 8 LM2T A170G505. Coloured key versions are available on request; contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).

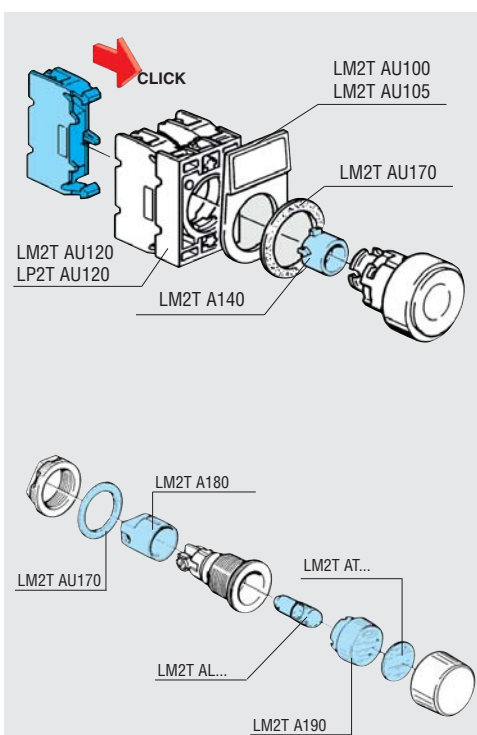
③ Add the digit of the selected colour: 3 (green); 4 (red); 5 (yellow).

It is advisable to use the same colour of bulb as of the actuator to obtain adequate light emission. Not suitable for resistance-diode lamp-holders.

④ Neon bulbs emit an amber light and may not be suitable for use with green or blue pilot lights and illuminated actuators.

⑤ Glass with diffuser lens.

⑥ Plastic neon bulb.



### Accessories and spare parts



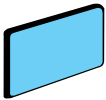
8 LM2T AT...



8 LM2T AU100



8 LM2T AU105



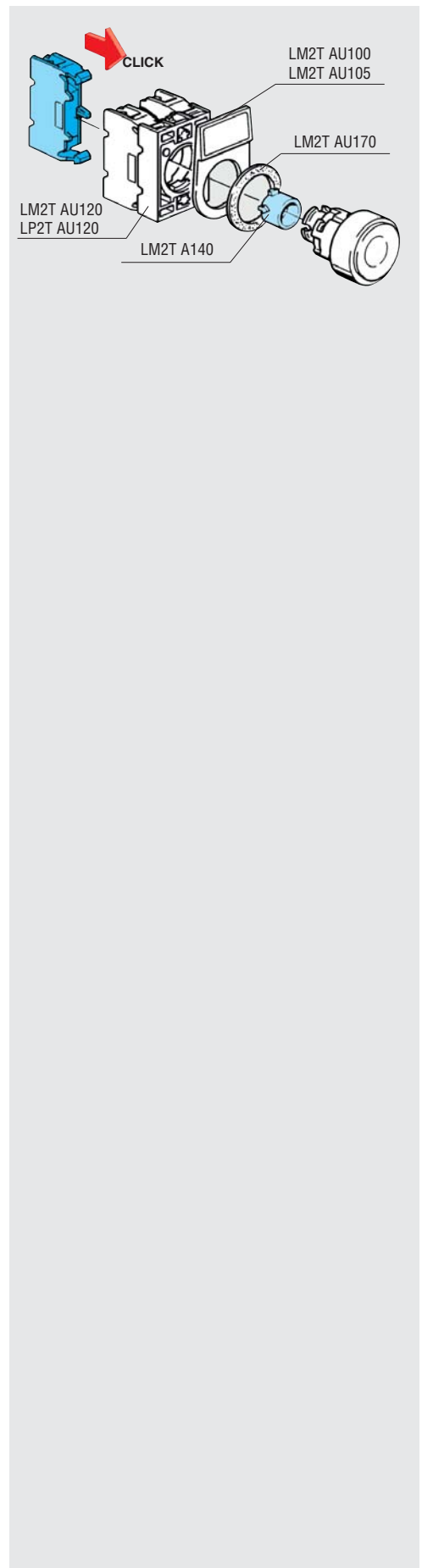
8 LM2T AU108  
8 LM2T AU106



8 LM2T AU170

Order code	Description	Qty per pkg	Wt
		n°	[kg]
8 LM2T AT... <sup>①</sup>	Printed label to be inserted in pilot lights and push-buttons	50	0.001
8 LM2T AU100 <sup>②</sup>	Legend holder	50	0.001
8 LM2T AU105 <sup>②</sup>	Legend holder (for 8 LM2T AU106 paper or 8 LM2T AU108 plastic labels)	50	0.003
8 LM2T AU106	Blank paper label for writing (for LM2T AU105)	50	0.002
8 LM2T AU107	Transparent protection for LM2T AU106 label	50	0.001
8 LM2T AU108	Blank plastic label for engraving (for LM2T AU105)	50	0.002
8 LM2T AU13 <sup>③</sup>	IP66 boot for flush push-buttons	10	0.006
8 LM2T AU14 <sup>③</sup>	IP66 boot for extended and illuminated push-buttons	10	0.009
8 LM2T AU157	IP66 boot for double push-buttons (transparent)	10	0.007
8 LM2T AU167	Transparent protective boot for L...2T B634... button	10	0.012
8 LM2T AU170	Actuator gasket	10	0.006

- ① Available only on specific request contact our Customer Service (Tel. +39 035 4282422; email: service@LovatoElectric.com).
- ② To preserve actuators degree of protection (IP65), place their gasket between legend holder and mounting surface.
- ③ For flush and extended push-buttons, add the digit of the required colour: 2 (black); 3 (green); 4 (red); 5 (yellow); 6 (blue); 7 (transparent); 8 (white). For illuminated push-buttons, add only digit 7 (transparent).



### Accessories and spare parts for LP2T (plastic) series only

Order code	Description	Qty per pkg	Wt
		n°	[kg]
8 LP2T AU120	Mounting adapter	10	0.012
8 LM2T A200	Socket spanner/wrench for monoblock pilot lights	1	0.003



### Signal towers Ø70mm



LT7 EL ...  
LT7 GL ...  
LT7 FL ...



LT7 S ...



LT7 CM 01  
LT7 CP 01

① 84.5dB for 8 LT7 S2 B.

② 82.6dB for 8 LT7 S2 B.

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Steady light modules BA15d fitting, direct supply. Bulb (8 LT7 ALB... and 8 LT7 ALL...) not included.			
8 LT7 EL1	Orange	1	0.082
8 LT7 EL3	Green	1	0.082
8 LT7 EL4	Red	1	0.082
8 LT7 EL5	Yellow	1	0.082
8 LT7 EL6	Blue	1	0.082
8 LT7 EL8	White	1	0.082

Blinking light modules. BA15d fitting. Bulb (8 LT7 ALB... and 8 LT7ALL...) not included.			
8 LT7 GL B1	Orange, 24VAC/DC	1	0.083
8 LT7 GL B3	Green, 24VAC/DC	1	0.083
8 LT7 GL B4	Red, 24VAC/DC	1	0.083
8 LT7 GL B5	Yellow, 24VAC/DC	1	0.083
8 LT7 GL B6	Blue, 24VAC/DC	1	0.083
8 LT7 GL B8	White, 24VAC/DC	1	0.083
8 LT7 GL E1	Orange, 110-120VAC	1	0.083
8 LT7 GL E3	Green, 110-120VAC	1	0.083
8 LT7 GL E4	Red, 110-120VAC	1	0.083
8 LT7 GL E5	Yellow, 110-120VAC	1	0.083
8 LT7 GL E6	Blue, 110-120VAC	1	0.083
8 LT7 GL E8	White, 110-120VAC	1	0.083
8 LT7 GL M1	Orange, 230-240VAC	1	0.083
8 LT7 GL M3	Green, 230-240VAC	1	0.083
8 LT7 GL M4	Red, 230-240VAC	1	0.083
8 LT7 GL M5	Yellow, 230-240VAC	1	0.083
8 LT7 GL M6	Blue, 230-240VAC	1	0.083
8 LT7 GL M8	White, 230-240VAC	1	0.083

Flash modules. With 4-Joule xenon bulb.			
8 LT7 FL B1	Orange, 24VAC/DC	1	0.092
8 LT7 FL B3	Green, 24VAC/DC	1	0.092
8 LT7 FL B4	Red, 24VAC/DC	1	0.092
8 LT7 FL B5	Yellow, 24VAC/DC	1	0.092
8 LT7 FL B6	Blue, 24VAC/DC	1	0.092
8 LT7 FL B8	White, 24VAC/DC	1	0.092
8 LT7 FL E1	Orange, 110-120VAC	1	0.092
8 LT7 FL E3	Green, 110-120VAC	1	0.092
8 LT7 FL E4	Red, 110-120VAC	1	0.092
8 LT7 FL E5	Yellow, 110-120VAC	1	0.092
8 LT7 FL E6	Blue, 110-120VAC	1	0.092
8 LT7 FL E8	White, 110-120VAC	1	0.092
8 LT7 FL M1	Orange, 230-240VAC	1	0.092
8 LT7 FL M3	Green, 230-240VAC	1	0.092
8 LT7 FL M4	Red, 230-240VAC	1	0.092
8 LT7 FL M5	Yellow, 230-240VAC	1	0.092
8 LT7 FL M6	Blue, 230-240VAC	1	0.092
8 LT7 FL M8	White, 230-240VAC	1	0.092

Pulsed or continuous sound modules complete with cover.			
8 LT7 S0 B	24VAC/DC, pulsed (90dB). IP54 protection	1	0.240
8 LT7 S1 B	24VAC/DC, 16 sound tones (80dB max). IP65 protection	1	0.240
8 LT7 S2 B	24VAC/DC pulsed (78dB)① or continuous (75dB)② sound	1	0.240
8 LT7 S2 E	110-120VAC	1	0.240
8 LT7 S2 M	230-240VAC IP65 protection	1	0.240

Connection modules complete with cover.			
8 LT7 CP 01	For plastic tubes, black colour, bottom entry	1	0.110
8 LT7 CM 01	For metal tubes, black colour, bottom entry	1	0.120

#### General characteristics

Signal towers are fundamental elements in manufacturing processes for the visual and audible signalling of the system status. The signal towers can be assembled by stacking up to 7 modules, in the following sequence, starting from the top: red, yellow, orange, blue, green and white. The sound module, if any, must always be positioned at the top of the signal tower.

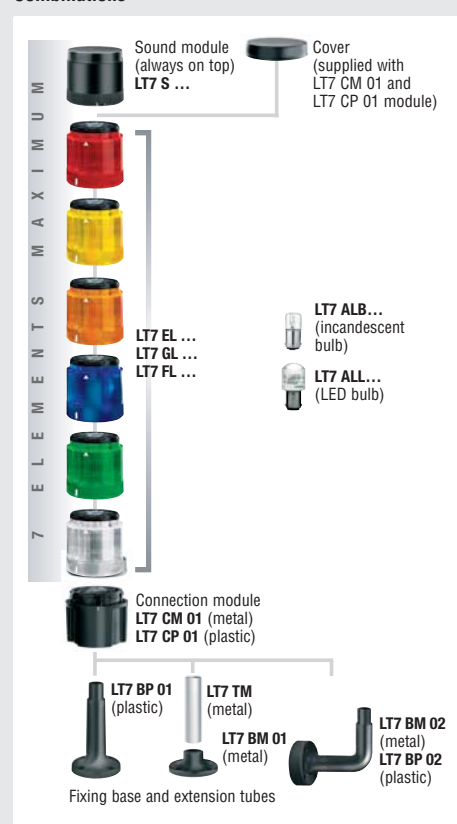
#### Technical characteristics

- Maximum operational voltage: 240VAC
- Consumption of flash and sound modules:
  - LT7 FL B... in AC: 135mA
  - LT7 FL B... in DC: 75mA
  - LT7 FL E...: 20mA
  - LT7 FL M...: 15mA
  - LT7 S0 B: 25mA
  - LT7 S1 B: 40mA
  - LT7 S2 B: 200mA
  - LT7 S2 E: 40mA
  - LT7 S2 M: 30mA
- Material: Polycarbonate or anodised aluminium
- Connections: Screw clamp terminals, maximum 1.5mm<sup>2</sup> conductor section
- Operating temperature: -20...+50°C; for 12VAC max up to +40°C
- Number of stackable elements: Seven.
- Degree of protection: IP65; IP54 for 8 LT7 S0B sound module.

#### Certifications and compliance

Certifications obtained: cULus, GOST.  
Compliant with standards: IEC/EN 60947-5-1; IEC/EN 60204-1; IEC/EN 60073; IEC/EN 60068-2-6; IEC/EN 60068-2-27; UL508; CSA C22.2 n° 14-95.

#### Combinations





### Signal beacons Ø62mm



LB6 EL ...  
LB6 GL ...  
LB6 S2...

Order code	Description	Qty per pkg	Wt
		n°	[kg]

Steady light modules.  
BA15d fitting, direct supply. Bulb not included.

8 LB6 EL1	Orange	1	0.060
8 LB6 EL3	Green	1	0.060
8 LB6 EL4	Red	1	0.060
8 LB6 EL5	Yellow	1	0.060
8 LB6 EL6	Blu2	1	0.060
8 LB6 EL8	White	1	0.060

Blinking or steady light modules.  
BA15d fitting. Bulb not included.

8 LB6 GL B1	Orange, 12-48VAC/DC	1	0.060
8 LB6 GL B3	Green, 12-48VAC/DC	1	0.060
8 LB6 GL B4	Red, 12-48VAC/DC	1	0.060
8 LB6 GL B5	Yellow, 12-48VAC/DC	1	0.060
8 LB6 GL B6	Blue, 12-48VAC/DC	1	0.060
8 LB6 GL B8	White, 12-48VAC/DC	1	0.060
8 LB6 GL M1	Orange, 24-230VAC	1	0.060
8 LB6 GL M3	Green, 24-230VAC	1	0.060
8 LB6 GL M4	Red, 24-230VAC	1	0.060
8 LB6 GL M5	Yellow, 24-230VAC	1	0.060
8 LB6 GL M6	Blue, 24-230VAC	1	0.060
8 LB6 GL M8	White, 24-230VAC	1	0.060

Sound-light pulsed or continuous modules. Bulb included.

8 LB6 S2 B1	Orange, 24VAC/DC (80dB)	1	0.060
8 LB6 S2 B3	Green, 24VAC/DC (80dB)	1	0.060
8 LB6 S2 B4	Red, 24VAC/DC (80dB)	1	0.060
8 LB6 S2 B5	Yellow, 24VAC/DC (80dB)	1	0.060
8 LB6 S2 B6	Blue, 24VAC/DC (80dB)	1	0.060
8 LB6 S2 B8	White, 24VAC/DC (80dB)	1	0.060

#### General characteristics

Signal beacons are fundamental elements in manufacturing processes for the visual and audible signalling of the system status.

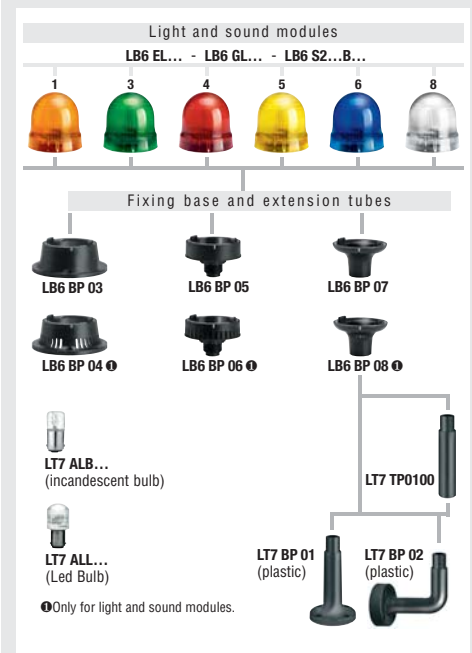
#### Technical characteristics

- Maximum operational voltage: 240VAC
- Consumption of sound modules: LB6 S2...: 150mA
- Material: Polycarbonate
- Connections: Screw clamp terminals, maximum 1.5mm<sup>2</sup> conductor section
- Operating temperature: -20...+40°C
- Degree of protection: IP54; IP30 if used with 8 LB6 BP 04, 8 LB6 BP 06 or 8 LB6 BP 08.

#### Reference standards

Compliant with standards: IEC/EN 60947-5-1, IEC/EN 60204-1, IEC/EN 60073, IEC/EN 60068-2-6, IEC/EN 60068-2-27.

#### Combinations



Visual code	Red	Yellow	Orange	Blue	Green	White
Meaning	Danger. Emergency.	Warning and Caution. Abnormal situation.		Mandatory command.	Normal situation. Regular operation.	No specific meaning.
Sound	Fast modulated repetition or high-pitch pulsing.	Continuous short sound.		Alternating sound at constant tone	Constant and prolonged sound after an alarm.	Other sounds.
Correlated actions	Immediate intervention to deal with dangerous situation.	Control intervention required.		Intervention needed for mandatory action.	No specific action.	Depending on the situation.

#### Interpretation of light and sound signals for signal towers and beacons

Light and sound signals are a fundamental element for the safety of a system. To avoid incorrect interpretations, an European standard has been introduced defining an unequivocal meaning to visual or audible signalling devices. Each colour or sound alarm corresponds to a specific state of operation of the connected system and various levels of warning, as given in the following table, according to EN 981/EN 60073 standards. The white coloured module does not have a specific meaning so it can be used as one may need.

### Accessories and spare parts for signal towers and beacons



LT7 BP 01






LT7 BP 02




LT7 ALB...



LT7 ALL...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Fixing bases.			
<b>8 LT7 BP 01</b>	Horizontal surface mount, plastic, black colour with 100mm extension	1	0.045
<b>8 LT7 BP 02</b>	Vertical wall mount, plastic, black colour	1	0.078
Extension tube for plastic base, stackable sections.			
<b>8 LT7 TP 0100</b>	100mm, black colour	1	0.029
Incandescent bulb, 5W, BA15d fitting.			
<b>8 LT7 ALB A</b>	12VAC/DC	10	0.006
<b>8 LT7 ALB B</b>	24VAC/DC	10	0.006
<b>8 LT7 ALB E</b>	130VAC/DC	10	0.006
<b>8 LT7 ALB M</b>	260VAC/DC	10	0.006
LED bulb, BA15d fitting.			
<b>8 LT7 ALL B3</b>	Green, 24VAC/DC	10	0.010
<b>8 LT7 ALL B4</b>	Red, 24VAC/DC	10	0.010
<b>8 LT7 ALL B5</b> 	Yellow/Orange, 24VAC/DC	10	0.010
<b>8 LT7 ALL B6</b>	Blue, 24VAC/DC	10	0.010
<b>8 LT7 ALL B8</b>	White, 24VAC/DC	10	0.010
<b>8 LT7 ALL E3</b>	Green, 110-120VAC	10	0.010
<b>8 LT7 ALL E4</b>	Red, 110-120VAC	10	0.010
<b>8 LT7 ALL E5</b> 	Yellow/Orange, 110-120VAC	10	0.010
<b>8 LT7 ALL E6</b>	Blue, 110-120VAC	10	0.010
<b>8 LT7 ALL E8</b>	White, 110-120VAC	10	0.010
<b>8 LT7 ALL M3</b>	Green, 230-240VAC	10	0.010
<b>8 LT7 ALL M4</b>	Red, 230-240VAC	10	0.010
<b>8 LT7 ALL M5</b> 	Yellow/Orange, 230-240VAC	10	0.010
<b>8 LT7 ALL M6</b>	Blue, 230-240VAC	10	0.010
<b>8 LT7 ALL M8</b>	White, 230-240VAC	10	0.010

 Used with yellow or orange light modules.

### Accessories and spare parts for signal towers Ø70mm only



LT7 BM 01



LT7 BM 02

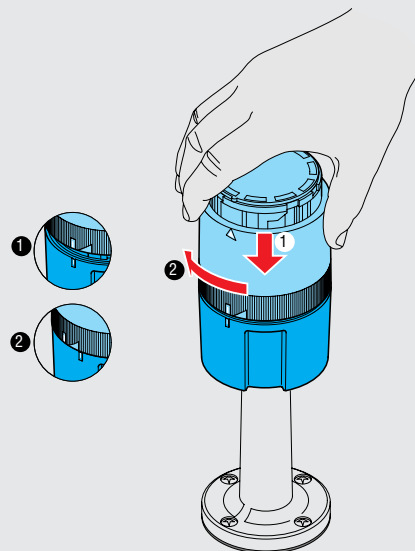


LT7 TM

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Fixing bases.			
<b>8 LT7 BM 01</b>	Horizontal surface mount, metal, black finish	1	0.099
<b>8 LT7 BM 02</b>	Vertical wall mount, metal	1	0.184
Extension tubes for metal base, anodised aluminium, fixed non-stackable sections.			
<b>8 LT7 TM 0100</b>	100mm	1	0.016
<b>8 LT7 TM 0150</b>	200mm	1	0.024
<b>8 LT7 TM 0300</b>	300mm	1	0.048
<b>8 LT7 TM 0400</b>	400mm	1	0.064
<b>8 LT7 TM 0500</b>	500mm	1	0.080
<b>8 LT7 TM 1000</b>	1000mm	1	0.160

#### General characteristics

The assembly operation of the signal towers is simple and fast and does not require the use of any tools. The fixing of each element on top of the other is obtained by the bayonet insert joint, with slight pressure and simple rotating movement. There are specific white inscriptions to indicate the correct alignment.



#### Technical characteristics

– Consumption of bulb fitted on light modules:

- LT7 ALB A: 420mA
- LT7 ALB B: 210mA
- LT7 ALB E: 43mA
- LT7 ALB M: 22mA
- LT7 ALL B...: <50mA
- LT7 ALL E...: <18mA
- LT7 ALL M...: <17mA.

#### Compliance

Compliant with standards: IEC/EN 60947-5-1; IEC/EN 60204-1; IEC/EN 60073; IEC/EN 60068-2-6; IEC/EN 60068-2-27; UL508; CSA C22.2 n° 14-95.

**Accessories and spare parts for signal beacons Ø62mm**



**LB6 BP03**



**LB6 BP05**



**LB6 BP07**



**LB6 BP04**



**LB6 BP06**



**LB6 BP08**

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Fixing bases for light modules.			
<b>8 LB6 BP 03</b>	Horizontal surface mount, plastic, black colour	1	0.040
<b>8 LB6 BP 05</b>	For Ø22mm hole type, plastic, black colour	1	0.040
<b>8 LB6 BP 07</b>	For extension connection, plastic, black colour	1	0.020
Fixing bases for sound modules.			
<b>8 LB6 BP 04</b>	Horizontal surface mount, plastic, black colour	1	0.040
<b>8 LB6 BP 06</b>	For Ø22mm hole type, plastic, black colour	1	0.040
<b>8 LB6 BP 08</b>	For extension connection, plastic, black colour	1	0.020

Use with fixing bases 8 LT7 BP 01 and 8 LT7 BP 02.

**General characteristics**

The assembly operation of the signal beacons is simple and fast and does not require the use of any tools. There are specific white inscriptions to indicate the correct alignment.

