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BUTTON ACTUATORS Ø22mm
- Spring return flush, extended and shrouded
- Push-push flush and extended
- Mushroom-head
- Mechanical reset
- Illuminated.

Page 7-8 and 11
7-29 and 32

DOUBLE AND TRIPLE TOUCH ACTUATORS Ø22mm
- Double touch with or without indicator
- Triple touch.

Page 7-9 and 11
7-30 and 33

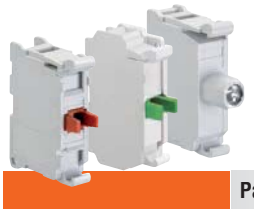
SELECTOR SWITCH ACTUATORS Ø22mm
- Knob
- Lever
- Key
- Illuminated.

Page 7-12 and 13

PILOT LIGHTS Ø22mm
- Monoblock LED

MONOBLOCK BUZZERS Ø22mm
- Pulse-tone.

COMMUNICATION INTERFACES Ø22mm
- USB
- RJ45.



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ADD-ON ELEMENTS, ACCESSORIES AND SPARE PARTS FOR PUSHBUTTONS AND SELECTOR SWITCHES
- Mounting adapter
- Contact elements
- LED integrated elements
- Lamp holders
- Labelling and label holders
- Bulbs.

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CONTROL STATIONS
- 1 to 6 way option without actuators
- Complete units with 1 button.

Page 7-34

METAL POTENTIOMETER DRIVES Ø22mm
- Graduated scale
- Variable index.

Page 7-35

METAL JOYSTICKS Ø22mm
- 2 directions
- 4 directions
- 2 directions with mechanical interlock
- 4 directions with mechanical interlock
- Complete with contact elements.

PUSHBUTTONS AND SELECTOR SWITCHES

- Simple and snap on installation
- Highly conductive contacts
- Robust for severe ambient conditions
- Contact operation: double breaking action, direct opening operation and self cleaning.

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PLatinum Ø22mm series

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QUALITY TOUCH!

LOW ACTUATOR PROFILE

The external actuator bezel has a low profile and reduced front thickness.

HIGH DEGREE OF PROTECTION

The actuators have been tested to guarantee a degree of protetection per IEC/EN IP66, IP67, IP69K and UL Type 4X, appropriate for use even in extreme ambient conditions.

CUSTOMISING CAPABILITY

To simplify stock management, the series includes actuators without cap or lens and separate caps and lenses for quick installation or replacement on spring return and push-push types; all these are sold as accessories.

QUICK AND EASY ACTUATOR INSTALLATION

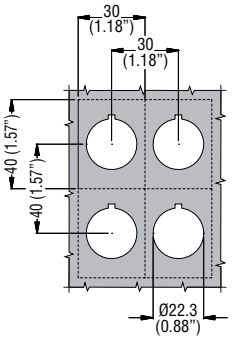
- Actuator fixing on the mounting surface, through a Ø22mm/Ø0.87" drilled hole, is obtained using its **threaded ring**, easily rotated by hand or by socket spanner/wrench.

- There is an **anti-rotation fastener**, duly sized to avoid actuator rotation on the mounting surface and to give an orientation reference point for users during panel installation and during contact fitting on the actuator.
- This anti-rotation fastener collapses inside the gasket to allow fitting also when drilled holes are round without reference index.
- The sealing gasket for the actuator mounting surface has a gripping action (suction effect) offering additional adhesion properties.

- The mounting adapter and the actuators each have **clearly visible reference** indications making the snap-on fitting between the two easy and intuitive.

- Electrical contacts and LED elements are **snapped onto** the mounting adapter.
- The activation of the middle contacts is standard supplied on all non-illuminated spring return and push-push button or selector switch actuators.

REDUCED DIMENSIONS AND INTERAXIS



Minimum pitch:
- 30x40mm (1.18x1.57") between drillings for two actuators on a mounting surface
- 30x55mm (1.18x1.97") between drillings for two double and triple-touch actuators or when spring clamp contacts are used.

- Total depth, from the external mounting surface to the end of the first contact element is just 43mm (1.69").

CONTACT ELEMENTS

- Miniaturised size
- High electric conductivity - 5V 1mA
- Up to 9 contact elements can be installed, 3 rows of 3 elements
- Available versions: Front and base mount with screw terminals while front-mount only with faston and spring-clamp terminals
- Contact operation: double breaking action, direct (positive) action operation and wiping effect.

HIGH-LUMINOSITY LED ELEMENTS

- Miniaturised size
- Long electrical life: 100,000h
- Versions for base mounting and with screw or spring-clamp terminals
- Overvoltage protection
- Withstand vibrations
- Protection against stray currents in wiring
- Flickering phenomenon reduction
- Steady and flashing light versions
- Supply voltages:
  - 12-30VAC/DC
  - 85-140VAC
  - 185-265VAC
- Test elements installed beside and connected with the relative LED element allow checking if all LED elements of the installation are working properly.

ELEGANT STYLE AND ERGONOMIC DESIGN
All the series elements have an ergonomic design and, at the same time, particular care has been given to minimum detail aesthetics.

LONG ACTUATOR MECHANICAL LIFE
High performance characteristics assure 5,000,000 cycle mechanical life for spring-return actuators, 1,000,000 for double and triple touch units and 300,000 for emergency-stop types.

MATERIALS RESISTANT TO OILS, SOLVENTS AND HYDROCARBONS

USAGE AT EXTREME TEMPERATURE CONDITIONS
Operation temperature range between -25° and +70°C.

UL LISTING FOR USA AND CANADA ALONG WITH EAC AND CCC CERTIFICATIONS.

DOUBLE AND TRIPLE TOUCH ACTUATORS

- IEC **IP66, IP67, IP69K** and UL **Type 4X** degree of protection
- Double touch button actuators, with 2 flush or 1 flush and 1 extended buttons
- Triple touch button actuators with 2 flush and middle extended butons
- Versions with or without indicator.

MECHANICAL RESET BUTTONS

- Rod adjustment directly on acutator front (1...4mm / 0.04...0.16")

- Up to 6 contact elements can be mounted.

EMERGENCY STOP ACTUATORS

- Actuator structure suitable to warrant direct opening operation with mechanical latching for emergency stopping per **ISO 13850** and **IEC/EN 60947-5-5**.
- Auto-monitor contact elements are available with functions to:
  - Constantly control the correct installation (mounting adapter and NC contact with the actuator) and proper operation of the NC contact
  - Open the circuit in the case of malfunctions (e.g. the contact detaches from the mounting adapter due to strong vibrations or shock).

- There is a green line around the actuator body to spot when the emergency stop is at rest or activated.
- Use of **Ronis keys**
- Various accessories available (e.g. yellow E-stop disks, padlockable protection and rubber actuator boots).

SELECTOR SWITCH ACTUATORS

- Knob design assures excellent grip

- **High visibility** on front or side and actuator inscription shows exact switch position

- Use of **Ronis keys**

- **Activation of the middle contacts is standard supplied** on 2 and 3 position selector switches.

EXTENSIVE CHOICE OF ACCESSORIES

- Pilot light heads and monoblock LED-integrated pilot lights (IP65).

- Monoblock buzzers (IP40).

- Communication interfaces (IP65) USB and RJ45 types for Ethernet and data transmission in both directions with equipment.

CONTROL STATIONS

- IEC/EN IP66, IP67 and IP69K and UL Type 1, 2, 3R, 4, 4X and 12K protection degrees
- Empty pushbutton stations with 1 to 6 way option and complete control stations with various mushroom-head stop buttons
- Quick installation and wiring ease with the relative base-mount contact and LED elements, snap in place on the base
- Installation of screw and spring-clamp terminal contact and LED elements also on the internal cover surface.

Pushbutton actuators, spring return

LPC B10…

LPC B20…

LPC B30…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Spring return.			
LPC B102	Black	10	0.025
LPC B103	Green	10	0.025
LPC B104	Red	10	0.025
LPC B105	Yellow	10	0.025
LPC B106	Blue	10	0.025
LPC B108	White	10	0.025
Extended (without mounting adapter). Spring return.			
LPC B202	Black	10	0.027
LPC B203	Green	10	0.027
LPC B204	Red	10	0.027
LPC B205	Yellow	1	0.027
LPC B206	Blue	1	0.027
LPC B208	White	1	0.027
Shrouded (without mounting adapter). Spring return.			
LPC B302	Black	10	0.027
LPC B303	Green	10	0.027
LPC B304	Red	10	0.027
LPC B305	Yellow	1	0.027
LPC B306	Blue	1	0.027
LPC B308	White	1	0.027

Push-push button actuators

LPC Q10…

LPC Q20…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Push on-push off.			
LPC Q102❶	Black	10	0.025
LPC Q103❶	Green	10	0.025
LPC Q104❶	Red	10	0.025
LPC Q105❶	Yellow	1	0.025
LPC Q106❶	Blue	1	0.025
LPC Q108❶	White	1	0.025
Extended (without mounting adapter). Push on-push off.			
LPC Q202❶	Black	10	0.027
LPC Q203❶	Green	10	0.027
LPC Q204❶	Red	10	0.027
LPC Q205❶	Yellow	1	0.027
LPC Q206❶	Blue	1	0.027
LPC Q208❶	White	1	0.027

❶ **Use contact elements LPX C10A (EM) and LPXC01 (NC) only.**
Contact elements LPX C10 (NO) and LPX C01D (LB) cannot be fitted on these actuators.

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life:
- Spring return actuators: 5,000,000 cycles
- Push-push actuators: 500,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements for spring-return button actuators
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). Up to 9 contacts can be fitted: 3 each on the left, middle and right, one behind the other. They can also be fitted internally on the cover surface of LPZ control stations, up to 3 elements per actuator.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPXCS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base mount types snap into LPZ control station base. See example on page 7-25. Up to 3 contacts can be fitted per control station actuator.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

Contact elements for push-push button actuators
See page 7-18.
Type: LPX C10A (1EM early make, screw terminals)
LPX C01 (1NC, screw terminals)
Contacts snap onto LPX AU120 adapter and also internally on the cover surface of LPZ control stations.
Up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind of the other; up to 3 elements per control station actuator.

All these actuators are standard supplied with action plug for middle contacts.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada, (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14

Mechanical reset buttons, complete unit, spring return

LPC R1196

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (5.2mm/0.2" stroke). Adjustable length 0-150mm/5.9". Complete with shaft (without mounting adapter). Spring return.			
LPC R1002	Black	10	0.038
LPC R1003	Green	10	0.038
LPC R1004	Red	10	0.038
LPC R1006	Blue	10	0.038
LPC R1196❶	Blue (RESET)	10	0.038
Extended (5.2mm/0.2" stroke). Adjustable length 0-150mm/5.9". Complete with shaft (without mounting adapter). Spring return.			
LPC R2004	Red	1	0.040

❶ With "RESET" caption on actuator.
N.B. Not suitable for LPZ control stations.

Pushbutton actuators, spring return, with symbol

LPC B11...

LPC B21...

Order code	Symbol	Colour	Qty per pkg	Wt
			n°	[kg]
Flush (without mounting adapter). Spring return.				
LPC B1102	O	Black	10	0.025
LPC B1104		Red	10	0.025
LPC B1113	I	Green	10	0.025
LPC B1118		White	10	0.025
LPC B1123	II	Green	1	0.025
LPC B1128		White	1	0.025
LPC B1132	STOP	Black	1	0.025
LPC B1134		Red	10	0.025
LPC B1142	←❶	Black	10	0.025
LPC B1148		White	10	0.025
LPC B1152	↑❷	Black	10	0.025
LPC B1158		White	10	0.025
LPC B1163	START	Green	10	0.025
LPC B1168		White	1	0.025
LPC B1176	R	Blue	1	0.025
LPC B1178		White	1	0.025
LPC B1196	RESET	Blue	10	0.025
LPC B1502	←|→	Black	10	0.025
LPC B1512	→|←	Black	10	0.025
Extended (without mounting adapter). Spring return.				
LPC B2102	O	Black	10	0.027
LPC B2104		Red	10	0.027
LPC B2132	STOP	Black	1	0.027
LPC B2134		Red	10	0.027

❶ Arrow symbol can be used to indicate right or left.
❷ Arrow symbol can be used to indicate up or down.

Operational characteristics
- Any mounting position allowed
- Fine rod adjustment (1-4mm/0.04-0.16") on front with screwdriver by removing actuator cap for mechanical reset buttons
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life: 5,000,000 cycles.

Mounting adapter
See page 7-12.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations except for LPC R... types.
The mounting adapter directly snaps onto the actuator; necessary for LPC R... types only when contact elements are fitted.

Contact elements for mechanical reset buttons
See page 7-18 or 7-21.

Type		Termination
Front mount types snap onto LPX AU120 mounting adapter (to purchase separately), if any contacts are needed. Up to 6 contacts can be fitted: 3 each on the left and right, one behind the other.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPX CS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw

Contact elements for spring-return button actuators
See pages 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). Up to 9 contacts can be fitted: 3 each on the left, middle and right; one behind the other. They can also be fitted internally on the cover surface of control stations LPZ, up to 3 elements per actuator.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPX CS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. Up to 3 contacts can be fitted per control station actuator.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

The LPC B... actuators are standard supplied with action plug for middle contacts.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada, (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14

Pushbutton actuators, spring return, with symbol

LPC B1253

Order code ❹❺	Symbol	Colour	Qty per pkg	Wt
			n°	[kg]
Spring return (without mounting adapter).				
LPCB**❶**2218**❸**	ϟ❻	❸	50	0.027
LPCB**❶**2228**❸**	↗	❸	50	0.027
LPCB**❶**2238**❸**	▭	❸	50	0.027
LPCB**❶**2258**❸**	+	❸	50	0.027
LPCB**❶**2268**❸**	–	❸	50	0.027
LPCB**❶**2278**❸**		❸	50	0.027
LPCB**❶**2288**❸**		❸	50	0.027
LPCB**❶**2298**❸**		❸	50	0.027
LPCB**❶**2308**❸**	ALTO	❸	50	0.027
LPCB**❶**2318**❸**	BASSO	❸	50	0.027
LPCB**❶**2328**❸**	SX	❸	50	0.027
LPCB**❶**2338**❸**	DX	❸	50	0.027
LPCB**❶**2348**❸**	MAN	❸	50	0.027
LPCB**❶**2358**❸**	AUTO	❸	50	0.027
LPCB**❶**2388**❸**	TRIP	❸	50	0.027
LPCB**❶**2398**❸**	TEST	❸	50	0.027
LPCB**❶**2408**❸**		❸	50	0.027
LPCB**❶**2418**❸**		❸	50	0.027
LPCB**❶**2428**❸**		❸	50	0.027
LPCB**❶**2438**❸**		❸	50	0.027
LPCB**❶**2448**❸**		❸	50	0.027
LPCB**❶**2458**❸**		❸	50	0.027
LPCB**❶**2468**❸**		❸	50	0.027
LPCB**❶**2478**❸**		❸	50	0.027
LPCB**❶**2488**❸**		❸	50	0.027
LPCB**❶**2498**❸**		❸	50	0.027
LPCB**❶**2528**❸**		❸	50	0.027
LPCB**❶**2538**❸**		❸	50	0.027
LPCB**❶**2548**❸**		❸	50	0.027
LPCB**❶**2558**❸**		❸	50	0.027
LPCB**❶**2568**❸**	START STOP	❸	50	0.027
LPCB**❶**2578**❸**	III	❸	50	0.027
LPCB**❶**2588**❸**	IV	❸	50	0.027
LPCB**❶**2598**❸**		❸	50	0.027
LPCB**❶**2608**❸**		❸	50	0.027
LPCB**❶**2618**❸**		❸	50	0.027
LPCB**❶**2628**❸**		❸	50	0.027
LPCB**❶**2638**❸**		❸	50	0.027
LPCB**❶**2648**❸**		❸	50	0.027
LPCB**❶**2658**❸**		❸	50	0.027
LPCB**❶**2668**❸**		❸	50	0.027
LPCB**❶**2678**❸**		❸	50	0.027
LPCB**❶**2688**❸**		❸	50	0.027
LPCB**❶**2698**❸**		❸	50	0.027

❶ Add letter "L" if illuminated type is required.
❷ For the type of actuator, add: 1 for flush or 2 for extended.
❸ Add the actuator colour: 2 black only for non-illuminated type; 3 green, 4 red, 5 yellow, 6 blue, 8 white or 7 transparent for illuminated version.
❹ Products available on specific request for a minimum multiple quantity of 50 pieces per type.
❺ Consult Customer Service for assistance; see contact details on inside front cover.
❻ Symbol indicating dangerous voltage /IEC 60417 5036-a).

Examples of complete order codes:
LPC B2 25 8 – extended non-illuminated white pushbutton with + symbol
LPC BL1 68 5 – flush illuminated yellow pushbutton actuator with ⚠ symbol.

Operational characteristics
– Any mounting position allowed
– Ambient conditions:
  • Operating temperature: -25...+70°C
  • Storage temperature: -40...+85°C
– Degree of protection:
  • Per IEC/EN: IP66, IP67 and IP69K
  • Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life: 5,000,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). Up to 9 contacts can be fitted: 3 each on the left, middle and right, one behind the other. They can also be fitted internally on the cover surface of LPZ control stations, up to 3 elements per actuator.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPX CS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. Up to 3 contacts can be fitted per control station actuator.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

All these actuators are standard supplied with action plug for middle contacts.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards, IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n°14.

Mushroom head pushbutton actuators

LPC B614...

LPC B616...

LPC B674...

LPC B6634

LPC B6644

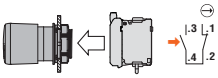
LPC B684...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
SPRING RETURN. Ø40mm/1.6" (without mounting adapter).			
LPC B6142	Black	10	0.033
LPC B6143	Green	10	0.033
LPC B6144	Red	10	0.033
LPC B6145	Yellow	10	0.033
LPC B6146	Blue	10	0.033
SPRING RETURN. Ø60mm/2.4" (without mounting adapter).			
LPC B6162	Black	10	0.038
LPC B6163	Green	10	0.038
LPC B6164	Red	10	0.038
LPC B6165	Yellow	10	0.038
LPC B6166	Blue	10	0.038
LATCH, PULL TO RELEASE Ø40mm/1.6" (without mounting adapter). For normal stopping.			
LPC B6742	Black	10	0.097
For emergency stopping, ISO 13850 compliant.			
LPC B6744	Red	10	0.097
LATCH, TURN TO RELEASE Ø40mm/1.6" (without mounting adapter). For normal stopping.			
LPC B6342	Black	10	0.046
LPC B6344	Red	10	0.046
Ø30mm/1.2" (without mounting adapter). For emergency stopping, ISO 13850 compliant.			
LPC B6634	Red	10	0.079
Ø40mm/1.6" (without mounting adapter). For emergency stopping, ISO 13850 compliant.			
LPC B6644	Red	10	0.079
LATCH, TURN KEY TO RELEASE Ø40mm/1.6" (without mounting adapter). Key code n° 455. For normal stopping.			
LPC B6842	Black	10	0.083
LPC B6842R❷	Black	1	0.083
For emergency stopping, ISO 13850 compliant.			
LPC B6844	Red	10	0.083
LPC B6844R❷	Red	1	0.083

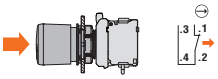
❷ Versions with different key codes.
Complete with the numeric code of the key.
The following versions are available: 421E, 458A, 520E, 3131A, 3433E.
Example of complete code: LPC B6844R 421E.

Normal operation of auto-monitor contact mounted on surface or on cover of control stations

With contact type LPX C01SM

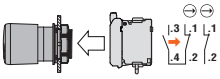


Contact .3-.4 closes when the LPX AU120 mounting adapter and LPX...SM contact are fitted correctly on the mushroom-head latch actuator.
Contact .1-.2 in series does not change state.

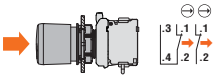


When the button is **fully pressed, contact .1-.2 opens** and remains in this state until the button is released.
Contact .3-.4 in series does not change state.

With contact type LPX C02SM



Contact .3-.4 closes when the LPX AU120 mounting adapter and LPX...SM contact are fitted correctly on the mushroom-head latch actuator.
Both contacts .1-.2 in series do not change state.

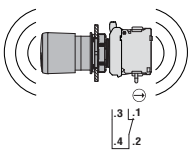


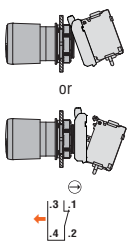
When the button is **fully pressed, both contacts .1-.2 open** and remain in this state until the button is released.
Contact .3-.4 in series does not change state.

In case of detachment of only the contact element and/or of the mounting adapter with contact element

With contact type LPX C01SM

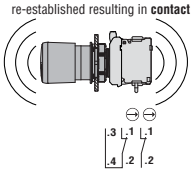
If the contact LPX C01SM detaches from the actuator due to **strong vibrations or shock,** the equipment can be restored to operating state only when proper mounting of the contact with the actuator is re-established resulting in **contact .3-.4 closing.**

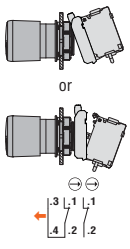




With contact type LPX C02SM

If the contact LPX C012SM detaches from the actuator due to **strong vibrations or shock,** the equipment can be restored to operating state only when proper mounting of the contact with the actuator is re-established resulting in **contact .3-.4 closing.**





Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life:
- Mushroom head spring return buttons: 5,000,000 cycles
- Mushroom head latch buttons: 300,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements for mushroom-head spring return and latch button actuators
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). For SPRING-RETURN types, up to 9 contacts can be fitted: 3 each on the left, middle and right, one behind the other. For LATCH types, up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other. They can also be fitted internally on the cover surface of LPZ control stations, up to 3 elements per actuator.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPXCS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. Up to 3 contacts can be fitted per control station actuator.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw
AUTO-MONITOR CONTACT with MUSHROOM-HEAD LATCH TYPES only: 2 elements max of this type can be mounted. Extra two contacts can be fitted on the right. Two elements per actuator can be fixed internally on the cover surface of LPZ control stations of which one auto-monitor type. No LED element can be installed.		
Auto-monitor 1NC	LPX C01SM	Screw (2 stacked in the middle - LPX AU120 pos.1/3-4/6)
1NO	LPX C10	Screw (2 stacked on the right)
	LPX CF10	Faston (2 stacked on the right)
1NC	LPX C01	Screw (2 stacked on the right)
	LPX CF01	Faston (2 stacked on the right)
AUTO-MONITOR CONTACT with MUSHROOM-HEAD LATCH TYPES only: 2 elements max of this type can be mounted. Only one of this type per actuator can be fixed internally on the cover surface of LPZ control stations. No LED element can be installed.		
Auto-monitor 2NC	LPX C02SM	Screw (2 stacked)
All these actuators are standard-supplied with action plug for middle contacts.		

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards, IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n°14.

Double-touch actuators, spring return

LPC B71...

LPC B72...

Order code	Colour	Symbols	Qty per pkg	Wt
			n°	[kg]
Two flush pushbuttons (without mounting adapter). Both spring return.				
LPC B7112	Black/Red	—	5	0.030
LPC B7113	Green/Red	—	5	0.030
LPC B7114	White/Black	—	5	0.030
LPC B7122	Black/Red	I-O	5	0.030
LPC B7123	Green/Red	I-O	5	0.030
LPC B7124	White/Black	I-O	5	0.030
LPC B7133	Green/Red	Start/Stop	5	0.030
One extended and one flush pushbuttons (without mounting adapter). Both spring return.				
LPC B7212	Black/Red	—	1	0.030
LPC B7213	Green/Red	—	5	0.030
LPC B7214	White/Black	—	1	0.030
LPC B7222	Black/Red	I-O	5	0.030
LPC B7223	Green/Red	I-O	5	0.030
LPC B7224	White/Black	I-O	1	0.030
LPC B7233	Green/Red	Start/Stop	5	0.030

Triple-touch actuators, spring return

LPC B73...

Order code	Symbols	Qty per pkg	Wt
		n°	[kg]
Two external flush and one middle extended buttons (without mounting adapter). Spring return.			
LPC B7345	STOP	5	0.030
LPC B7355	STOP	5	0.030
LPC B7365	STOP	5	0.030
LPC B7375	STOP	5	0.030

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life: 1,000,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). For DOUBLE-TOUCH actuators, up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other. For TRIPLE-TOUCH actuators, up to 9 contacts can be fitted: 3 each on the left, middle and right, one behind the other. They can also be fitted internally on the cover surface of LPZ control stations, up to 3 elements per actuator.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPXCS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. For DOUBLE-TOUCH actuators, 2 contacts need to be fitted, one on the left and one on the right. For TRIPLE-TOUCH actuators, 3 contacts need to be fitted: one each on the left, middle and right.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Selector switch actuators knob

LPC S1...

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
LPC S120		10	0.037
LPC S121		10	0.037
3 position (without mounting adapter).			
LPC S130		10	0.037
LPC S131		10	0.037
LPC S132		10	0.037
LPC S133		10	0.037

Selector switch actuators lever

LPC S2...

new

Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
LPC S220		10	0.040
LPC S221		10	0.040
3 position (without mounting adapter).			
LPC S230		10	0.040
LPC S231		10	0.040
LPC S232		10	0.040
LPC S233		10	0.040

Selector switch actuators key

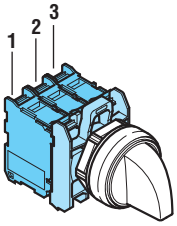
LPC S3...

Order code	Type of position	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
LPC S320		10	0.060
LPC S320R❶		1	0.060
LPC S321		10	0.060
LPC S321R❶		1	0.060
LPC S340		10	0.060
LPC S340R❶		1	0.060
3 position (without mounting adapter).			
LPC S330		10	0.060
LPC S330R❶		1	0.060
LPC S331		10	0.060
LPC S331R❶		1	0.060
LPC S332❷		10	0.060
LPC S332R❶❷		1	0.060
LPC S333❷		10	0.060
LPC S333R❶❷		1	0.060
LPC S350		10	0.060
LPC S350R❶		1	0.060
LPC S360		10	0.060
LPC S360R❶		1	0.060
LPC S370❷		10	0.060
LPC S370R❶❷		1	0.060
LPC S380❷		10	0.060
LPC S380R❶❷		1	0.060
LPC S390❷		10	0.060
LPC S390R❶❷		1	0.060

❶ Versions with different key codes.
Complete with the numeric code of the key.
The following versions are available: 421E, 458A, 520E, 3131A, 3433E.
Example of complete code: LPC S320R 421E.

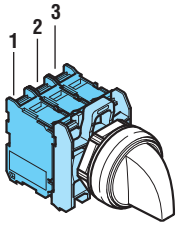
❷ Available only on specific request.

Contact activation of 2-position selector switch



	Contacts 1	2	3
A	—	—	—
B	●	●	●

Contact activiation of 3-position selector switch



	Contacts 1	2	3
A	●	●	—
B	—	—	—
C	—	●	●

Operational characteristics
- Any mounting position allowed
- Standard key types supplied with key code n° 455
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Mechanical life: 1,000,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements
See page 7-18, 7-21 or 7-22.

Type	Termination

Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). Up to 6 contacts can be fitted: 2 each on the left, middle and right or 3 each on the left and right, one behind the other.
They can also be fitted internally on the cover surface of LPZ control stations, up to 3 elements per actuator.

1NO	LPX C10	Screw
	LPX CF10	Faston
	LPXCS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw

Base-mount types snap into LPZ control station base.
See example on page 7-25.
Up to 3 contacts can be fitted per control station actuator.

1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

Activation of the middle contacts is coupled to the side contacts; the relative mechanism pins are standard supplied.

The middle contact activation, with respect to the right and left side contact, can be changed by the user, if required, by removing one or both mechanism pins.
Consult the relative instructions available online in the Downloads section in www.LovatoElectric.com.

Type of position
- Maintained position.
- Spring return position.
- • Key extraction position.

Rotation angles
2 position

3 position

Special versions
Versions with coloured keys are available upon request. Consult Customer Service; see contact details on inside front cover.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA for all; cULus, EAC, CCC for LPC S2... types.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

7

Illuminated button actuators, spring return

LPC BL10…

LPC BL20…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Spring return.			
LPC BL103	Green	10	0.025
LPC BL104	Red	10	0.025
LPC BL105	Yellow	10	0.025
LPC BL106	Blue	10	0.025
LPC BL107	Transparent	10	0.025
Extended (without mounting adapter). Spring return.			
LPC BL203	Green	10	0.027
LPC BL204	Red	10	0.027
LPC BL205	Yellow	10	0.027
LPC BL206	Blue	10	0.027
LPC BL207	Transparent	10	0.027

Illuminated push-push button actuators

LPC QL10…

LPC QL20…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Push on-push off.			
LPC QL103❶	Green	10	0.025
LPC QL104❶	Red	10	0.025
LPC QL105❶	Yellow	10	0.025
LPC QL106❶	Blue	10	0.025
LPC QL107❶	Transparent	10	0.025
Extended (without mounting adapter). Push on-push off.			
LPC QL203❶	Green	10	0.027
LPC QL204❶	Red	10	0.027
LPC QL205❶	Yellow	10	0.027
LPC QL206❶	Blue	10	0.027
LPC QL207❶	Transparent	10	0.027

❶ **Use contact elements LPX C10A (EM) and LPXC01 (NC) only.**
Contact elements LPX C10 (NO) and LPX C01D (LB) cannot be fitted on these actuators.

Illuminated mushroom head button actuators

LPC BL614…

LPC BL664…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
SPRING RETURN. Ø40mm/1.6in (without mounting adapter).			
LPC BL6143	Green	10	0.035
LPC BL6144	Red	10	0.035
LPC BL6145	Yellow	10	0.035
LPC BL6146	Blue	10	0.035
LPC BL6148	White	1	0.035
LATCH, TURN TO RELEASE. Ø40mm/1.6in (without mounting adapter). For normal stopping.			
LPC BL6643	Green	1	0.040
LPC BL6645	Yellow	1	0.040
LPC BL6646	Blue	1	0.040
For emergency stopping, ISO 13850 compliant.			
LPC BL6644	Red	10	0.040

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life:
- Spring-return actuators (flush, extended, mushroom head): 5,000,000 cycles
- Push-push actuators: 500,000 cycles
- Latch mushroom-head actuators: 300,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements for illuminated spring-return and mushroom-head latch actuators
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). For TYPES LPC BL1/BL2/BL61…up to 6 contacts can be fitted: 3 each on the left and right, one behind the other. For TYPES LPC BL66…up to 4 contacts can be fitted: 2 each on the left and right, one behind the other of which 3 NO contacts max only. They can also be fitted internally on the cover surface of LPZ control stations, up to 2 elements per actuator in addition to the LED element in the middle position.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPXCS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. Up to 2 contacts can be fitted per control station actuator in addition to the LED element in the middle position.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

Contact elements for illuminated push-push button actuators
See page 7-18.
Type: LPX C10A (1EM early make, screw terminals)
LPX C01 (1NC, screw terminals)
Contacts snap onto LPX AU120 adapter and also internally on the cover surface of LPZ control stations.
Up to 4 contacts can be fitted: 2 each on the left and right, one behind the other; up to 2 elements per control station actuator in addition to the LED element in the middle position.

LED light elements
See pages 7-20 to 22.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Double-touch actuators, spring return, white indicator

LPC BL71...

LPC BL72...

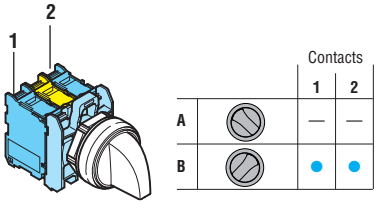
Order code	Colour	Symbol	Qty per pkg	Wt
			n°	[kg]
Two flush pushbuttons (without mounting adapter). Both spring return.				
LPC BL7112	Black/Red	—	5	0.030
LPC BL7113	Green/Red	—	5	0.030
LPC BL7114	White/Black	—	1	0.030
LPC BL7122	Black/Red	I-O	5	0.030
LPC BL7123	Green/Red	I-O	5	0.030
LPC BL7124	White/Black	I-O	5	0.030
LPC BL7133	Green/Red	Start/Stop	5	0.030
One extended and one flush pushbuttons (without mounting adapter). Both spring return.				
LPC BL7212	Black/Red	—	1	0.030
LPC BL7213	Green/Red	—	5	0.030
LPC BL7214	White/Black	—	1	0.030
LPC BL7222	Black/Red	I-O	1	0.030
LPC BL7223	Green/Red	I-O	5	0.030
LPC BL7224	White/Black	I-O	5	0.030
LPC BL7233	Green/Red	Start/Stop	5	0.030

Illuminated selector switch actuators

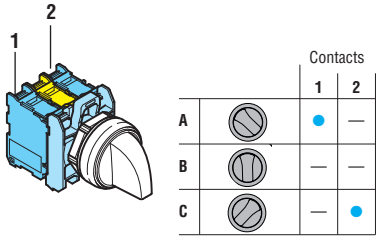
LPC SL1...

Order code	Colour	Type of positions	Qty per pkg	Wt
			n°	[kg]
2 position (without mounting adapter).				
LPC SL1203	Green		10	0.025
LPC SL1204	Red		10	0.025
LPC SL1205	Yellow		10	0.025
LPC SL1206	Blue		10	0.025
LPC SL1208	White		10	0.025
LPC SL1213	Green		10	0.025
LPC SL1214	Red		1	0.025
LPC SL1215	Yellow		1	0.025
LPC SL1216	Blue		1	0.025
LPC SL1218	White		10	0.025
3 position (without mounting adapter).				
LPC SL1303	Green		10	0.025
LPC SL1304	Red		10	0.025
LPC SL1305	Yellow		10	0.025
LPC SL1306	Blue		10	0.025
LPC SL1308	White		10	0.025
LPC SL1313	Green		10	0.025
LPC SL1314	Red		1	0.025
LPC SL1315	Yellow		1	0.025
LPC SL1316	Blue		1	0.025
LPC SL1318	White		10	0.025
LPC SL1323	Green		10	0.025
LPC SL1324	Red		1	0.025
LPC SL1325	Yellow		1	0.025
LPC SL1326	Blue		1	0.025
LPC SL1328	White		10	0.025
LPC SL1333	Green		10	0.025
LPC SL1334	Red		1	0.025
LPC SL1335	Yellow		1	0.025
LPC SL1336	Blue		1	0.025
LPC SL1338	White		10	0.025

Contact activation of 2-position selector switch



Contact activation of 3-position selector switch



Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mechanical endurance
Operating force: <0.5kg / 1.1lb (actuator).
Mechanical life: 1,000,000 cycles.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Actuators are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

Contact elements
See page 7-18, 7-21 or 7-22.

Type		Termination
Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately). For DOUBLE-TOUCH TYPES, up to 6 contacts can be fitted: 3 each on the left and right, one behind the other. For SELECTOR SWITCHES, up to 4 contacts can be fitted: 2 each on the left and right, one behind the other. They can also be fitted internally on the cover surface of LPZ control stations, up to 2 elements per actuator in addition to the LED element in the middle position.		
1NO	LPX C10	Screw
	LPX CF10	Faston
	LPX CS10	Spring clamp
1EM	LPX C10A	Screw
1NC	LPX C01	Screw
	LPX CF01	Faston
	LPX CS01	Spring clamp
1LB	LPX C01D	Screw
Base-mount types snap into LPZ control station base. See example on page 7-25. Up to 2 contacts can be fitted per control station actuator in addition to the LED element in the middle position.		
1NO	LPX CB10	Screw
1NC	LPX CB01	Screw

Selector switch type of positions
Maintained position.
Spring return position.

Selector switch rotation angles
2 position

3 position

LED light elements
See pages 7-20 to 7-22.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

7

Pilot light heads

LPL...

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Without mounting adapter.			
LPL 3	Green	10	0.024
LPL 4	Red	10	0.024
LPL 5	Yellow	10	0.024
LPL 6	Blue	10	0.024
LPL 7	Transparent	10	0.024
LPL 1187	Transparent ϟ ❶	10	0.024

❶ With symbol indicating dangerous voltage (IEC/EN 60417 5036-a).

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K.

Materials
Polyamide.

Mounting adapter
See page 7-18.
Type: LPX AU120.
Pilot light heads are installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations.
The mounting adapter directly snaps onto the actuator.

LED light elements
See pages 7-20 to 7-22.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

LED integrated monoblock pilot lights steady light

8 LP2T IL...P

Order code	Rated auxiliary supply voltage	LED colour	Qty per pkg	Wt
			n°	[kg]
8 LP2T IL A3P	12VAC/DC	Green	10	0.021
8 LP2T IL A4P		Red	10	0.021
8 LP2T IL A5P		Yellow	10	0.021
8 LP2T IL A6P		Blue	10	0.021
8 LP2T IL A8P		White	10	0.021
8 LP2T IL B3P	24VAC/DC	Green	10	0.021
8 LP2T IL B4P		Red	10	0.021
8 LP2T IL B5P		Yellow	10	0.021
8 LP2T IL B6P		Blue	10	0.021
8 LP2T IL B8P		White	10	0.021
8 LP2T IL E3P	110VAC	Green	10	0.024
8 LP2T IL E4P		Red	10	0.024
8 LP2T IL E5P		Yellow	10	0.024
8 LP2T IL E6P		Blue	10	0.024
8 LP2T IL E8P		White	10	0.024
8 LP2T IL M3P	230VAC	Green	10	0.024
8 LP2T IL M4P		Red	10	0.024
8 LP2T IL M5P		Yellow	10	0.024
8 LP2T IL M6P		Blue	10	0.024
8 LP2T IL M8P		White	10	0.024

Operational characteristics
- Rated auxiliary supply voltage: 12VAC/DC, 24VAC/DC, 110VAC, 230VAC (-15% to +10%)
- Consumption: ≤20mA
- Installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on cover of LPZ control stations
- Electrical life: >30,000 hours
- Screw termination
- Maximum tightening torque: 0.8Nm / 0.59lbft
- Side cable entry
- Ambient conditions:
  - Operating temperature: -5...+40°C
- Degree of protection per IEC/EN:
  - IP65 on front
  - IP20 at rear.

Materials
Polyamide and polycarbonate.

Maximum conductor cross section
1 or 2 1.5mm² or AWG16 cables.

Wiring diagram

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93602), as Motor Controllers - Accessory, indicator; EAC, CCC.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

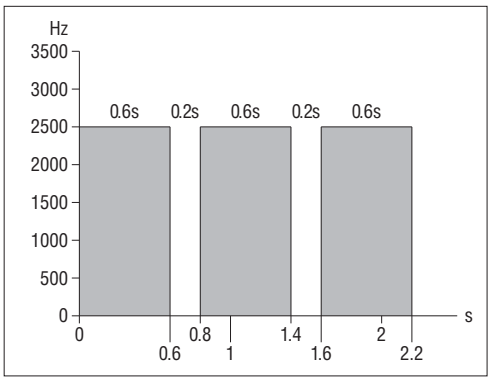
Monoblock buzzers

8 LP2T ZG...

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

❶ Value measured at a distance of 10cm (3.94in).

Pulse-tone sound graph



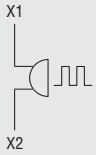
General characteristics
Monoblock buzzers are used as sound indicators in automation systems and on-board machinery in the production processes,
Long life, low consumption values and compact size are the main features of this product.

Operational characteristics
- Rated auxiliary supply voltage: 24VAC/DC; 110VAC/DC; 230VAC (±10%)
- Rated frequency: 50-60Hz
- Consumption: <20mA
- Installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations
- Service life: 30,000 hours (permanently powered)
- Screw termination
- Maximum tightening torque: 0.8Nm / 0.59lbft
- Side cable entry
- Ambient conditions:
  - Operational temperature: -25...+55°C
  - Storage temperature: -25...+55°C
- Degree of protection per IEC/EN:
  - IP40 on front
  - IP20 at rear.

Materials
Polyamide and polycarbonate.

Maximum conductor cross section
1 or 2 2.5mm² or AWG12 cables.

Wiring diagram



Certifications and compliance
Certifications obtained: EAC.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, IEC/EN 61000-6-1, IEC/EN 61000-6-3.

USB and RJ45 communication interfaces

LPX S00

LPX S01

LPX S02

Order code	Description	Qty per pkh	Wt
		n°	[kg]
LPX S00	USB interface, A-A connection type	1	0,018
LPX S01	USB interface, A-B connection type	1	0,018
LPX S02	RJ45 interface, Ethernet connection type	1	0,026

General characteristics
USB and RJ45 communication interface connectors are used in industrial environments, which in recent years have seen an increase in the number of connections between machines, production lines, equipment and measuring instruments. These interfaces provide the transmission of data in both directions between the various devices.

Operational characteristics
- Transmission characteristics:
  - USB: Universal Serial Bus Spec. Rev. 2.0 25-40Mb/s
  - RJ45: 10 Gigabit Ethernet IEEE 802.3an-2006.
- Installed through a Ø22mm/Ø0.89" drilling with a threaded fixing ring (Tmax = 2.3Nm / 1.69lbft) also on the cover of LPZ control stations
- Ambient conditions:
  - Operating temperature: -40°...+70°C
  - Storage temperature: -40°...+85°C
- Degree of protection IEC/EN:
  - IP65 with cap mounted
  - IP20 without cap.

Materials
Polyamide and polycarbonate.

Certifications and compliance
Certifications obtained: EAC.
Compliant with standards: IEC 61076-3-107 (USB), IEC 60603-7-51 (RJ45).

Accessories and spare parts

LPX A130

LPX A140

LPX AU00

LPX P01

LPX B0

LPX B104

LPX B203

LPX BL105

LPX BL206

Order code	Description	Qty per pkg	Wt
		n°	[kg]
LPX A127	Transparent diffuser for double-touch buttons	10	0.001
LPX A130	Threaded plug for unused drilled holes (grey)	10	0.007
LPX A140	Action plug for centre contact	50	0.001
LPX A150	Rod for mechanical reset button (l =150mm/5.91in)	10	0.006
LPX A170	Spare standard key set for selector switches or mushroom-head buttons, key code n° 455	10	0.008
LPX A170R❶	Spare key set for selector switches or mushroom head buttons, LPC.. R type	1	0.008
LPX AU00	Threaded ring for actuator fixing	20	0.002
LPX P01	M20 cable gland with threaded ring for LPZ control stations	50	0.012
LPX B0	Flush-extended spring return actuator with no cap or lens	10	0.013
LPX B3	Shrouded spring return actuator with no cap or lens	10	0.014
LPX Q0	Flush-extended push-push actuator with no cap	10	0.013
LPX QL0	Illuminated flush-extended push-push actuator with no lens	10	0.013
Flush cap for spring-return actuators.			
LPX B102	Black	10	0.002
LPX B103	Green	10	0.002
LPX B104	Red	10	0.002
LPX B105	Yellow	10	0.002
LPX B106	Blue	10	0.002
LPX B108	White	10	0.002
Extended cap for spring-return actuators.			
LPX B202	Black	10	0.003
LPX B203	Green	10	0.003
LPX B204	Red	10	0.003
LPX B205	Yellow	10	0.003
LPX B206	Blue	10	0.003
LPX B208	White	10	0.003
Flush lens for illuminated spring-return actuators.			
LPX BL103	Green	10	0.002
LPX BL104	Red	10	0.002
LPX BL105	Yellow	10	0.002
LPX BL106	Blue	10	0.002
LPX BL107	Transparent	10	0.002
Extended lens for illuminated spring-return actuators.			
LPX BL203	Green	10	0.003
LPX BL204	Red	10	0.003
LPX BL205	Yellow	10	0.003
LPX BL206	Blue	10	0.003
LPX BL207	Transparent	10	0.003

❶ Versions with different key code. Complete with the numeric code of the key. The following versions are available: 421E, 458A, 520E, 3131A, 3433E. Example of complete code: LPX A170R421E.

Accessories and spare parts

LPX AU100

LPX AU105

LPX AU108
LPX AU109

LPX AU158

8 LM2T A185

Order code	Description	Qty per pkg	Wt
		n°	[kg]
LPX AU100	Label holder for blank or engraved plastic LPX AU109 label	50	0.001
LPX AU109	Engravable silver plastic label to use with LPX AU100 holder	50	0.002
LPX AU105	Label holder for blank or engraved LPX AU108 label	50	0.003
LPX AU108	Engravable silver plastic label to use with LPX AU105 holder	50	0.002
LPX AU13❶❷	Rubber boot for flush button LPC B1/BL1/R1...	10	0.006
LPX AU14❶❷	Rubber boot for buttons LPC B2/B3/BL2/R2...	10	0.009
LPX AU157	Rubber boot for double and triple-touch buttons, transparent	10	0.007
LPX AU167❷❸	Rubber boot for mush-room head buttons, LPC B63/B66/B67/BL66... transparent	10	0.012
LPX AU158❷❹	Padlockable protection, Ø5-8mm/0.2-0.31" locks for buttons LPC B66/B67/B68/BL66...; for LPC B34... Ø5-6mm/ 0.2-0.24" locks only	10	0.005
Other accessories.			
8 LM2T A161	Ø30mm/1.2" hole size adapter set for 22mm/ 0.87" (use 2 per hole)	10	0.002
8 LM2T A185	Selector protection shroud for knob type only	10	0.004
8 LM2T A200	Socket spanner/wrench for fixing ring fitting, metal	1	0.184

❶ For flush and extended push buttons, comple the order code by adding 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).

❷ Cannot be used when LPX AU100 or LPX AU105 is fitted.

❸ Cannot be used when LPX AU158 is fitted.

❹ Cannot be used when LPX AU167 is fitted.

Dimensions
page 7-38

Labels with text for LPX 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 printing❶	1❷	0.005
8 LM2T AU208❸	Sheet with 108 laser-printed labels❶	1❷	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

❶ Recommended use with LPX AU109 blank label.
❷ Sheet with 108 adhesive labels.
❸ Complete code with required label text.

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

Special versions
Labels in different languages are available.
Consult Customer Service; see contact details on inside front cover.

Plastic disk for mushroom head pushbuttons

LPX AU113

LPX AU115

LPX AU110

Order code	Text	Qty per pkg	Wt
		n°	[kg]
LPX AU113	EMERGENCY/STOP Ø90mm / 3.5”	10	0.005
LPX AU115	EMERGENCY/STOP Ø60mm / 2.4”	10	0.003
LPX AU118	ARRET D’URGENCE / NOT-AUS/ PARO EMERGENCIA Ø60mm / 2.4”	10	0.003
LPX AU110	EMERGENCY STOP adhesive label, size 34.5x65mm/1.36x2.56”	12	0.001

General characteristics
The disks are made of non-adhesive plastic except LPX AU110.
Plastic disks cannot be used with LPX AU158 padlockable protection.

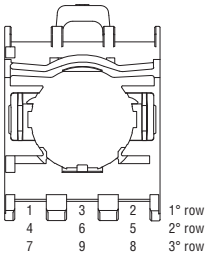
7

Mounting adapter

LPX AU120

Order code	Description	Qty per pkg	Wt
		n°	[kg]
LPX AU120	Mounting adapter	10	0.019

Rear view
(reference for element installation)



7

Contact elements

LPX C…

Order code	Function	Qty per pkg	Wt
	All SPST	n°	[kg]
Screw termination. Without mounting adapter.			
LPX C10❶	.3 .4 NO❶	10	0.011
LPX C10A	.7 .8 EM❷	10	0.011
LPX C01 ⊖	.1 .2 NC❸	10	0.011
LPX C01D❶ ⊖	.5 .6 LB❶❹	10	0.011
Screw termination. Without mounting adapter. Auto-monitor contact elements for non-illuminated latch mushroom-head pushbuttons.			
LPX C01SM❶ ⊖	.3 .1 .4 .2 1NC❶❸	1	0.022
LPX C02SM❶ ⊖	.3 .1 .1 .4 .2 .2 2NC❶❸	1	0.033
Screw termination. With mounting adapter.			
LPX E10❶	.3 .4 NO❶	10	0.029
LPX E01 ⊖	.1 .2 NC❸	10	0.029
Faston termination. Without mounting adapter.			
LPX CF10❶	.3 .4 NO❶	10	0.012
LPX CF01 ⊖	.1 .2 NC❸	10	0.012

LPX C01SM LPX C02SM

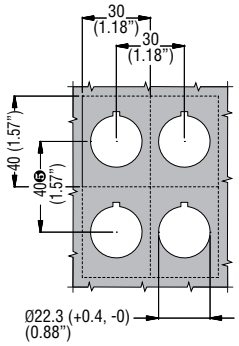
new

LPX E…

LPX CF01 LPX CF10

❶ **Use LPX C10A (EM) or LPX C01 (NC) type only with push-push actuators.** Not suitable for push-push actuators.
❷ **Normally open contact with early make operation.**
❸ Direct (positive) opening action ⊖ in accordance with IEC/EN 60947-5-1.
❹ Normally closed contact with late break operation.

Drillings - Minimum recommended distances



❺ When using Faston, pitch is 85mm / 3.35" minimum.

Operational characteristics
- Any mounting position allowed.
- LPX AU120 adapter directly snaps onto the actuator fixed on the mounting surface.
- All LPX C… types snap onto LPX AU120 mounting adapter:
  - See the combinations given under "Contact elements" in the right-hand column for each type of pushbutton and selector switch.
  - A maximum of 3 contacts or 2 contacts and 1 LED element (LPX L… mounted in the middle position) can be fixed internally on the cover surface of LPZ control stations.
- A maximum of 2 LPX C…SM contacts can be installed on LPX AU120 adapter exclusively on non-illuminated mushroom-head latch actuators:
  - In pos. 1-3 (on the left side only of LPX AU120; refer to REAR VIEW drawing), one only LPX C01SM or LPX C02SM element can be fitted.
  - One extra LPX…SM can be installed in pos. 4-6 (stacked behind the first on the LPX AU120).
  - With LPX C01SM, a maximum of two contacts LPX C0… or LPX C1… can be fitted on the right side in LPX AU120 pos. 2 and 5, one behind the other.
  - On the internal surface of LPZ control station covers, one only LPX C01SM or LPX C02SM contact can be mounted on LPX AU120 pos. 1 (on the left). With LPX C01SM, one extra element LPX C0… or LPX C1… can be fitted on the right (LPX AU120 pos. 2).
  - No LED element can be used with LPX…SM types.
- Maximum tightening torque for screw terminals: 1Nm / 0.74lbft.
- Ambient conditions:
  - Operating temperature: -25…+70°C
  - Storage temperature: -40…+85°C.
- Degree of protection per IEC/EN:
  - IP20 for screw termination
  - IP00 for Faston termination.

General characteristics of contact elements
Wiping effect, dual scraping-oscillating action
IEC rated insulation voltage: 690V
IEC rated thermal current Ith: 10A
Conductivity: 5V 1mA
UL/CSA and IEC/EN 60947-5-1 designation: A600 Q600.

IEC operational power in AC15:

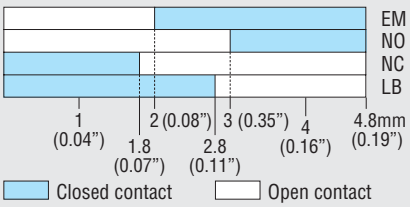
[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	3	1.9	1.5	1.4	1.2

IEC 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/SC.
Contact resistance: ≤20mΩ.
Terminals: Clamp screw with washer
Faston 1-6.35mm(0.25") or 2-2.8mm (0.11").

Stroke of contact elements



Maximum conductor cross section for screw terminals
1 or 2 2.5mm² or AWG14 cables.

Mechanical and electrical endurance
Operating force: ≤0.5kg / 1.1lb (auxiliary contacts).
Electrical life: 1,000,000 cycles for LPXC10/01/E10/E01, LPXC01SM/C02SM, LPXCF10/01; 600,000 cycles for LPXC10A/01D.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Test elements for steady-light LED elements

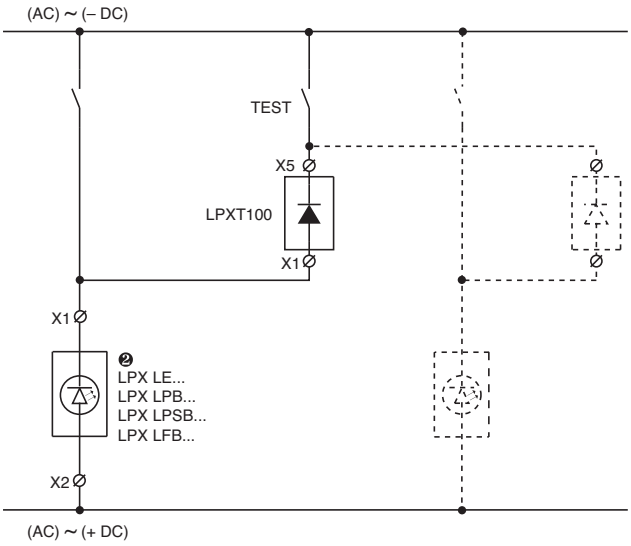
LPX T...

new

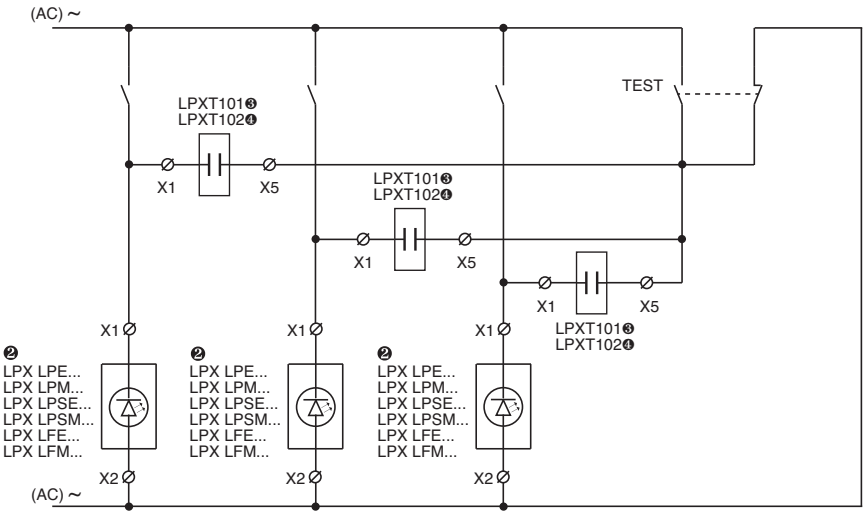
Order code	Description	Qty per pkg	Wt
		n°	[kg]
LPX T100❶❷	Use with LED elements in AC/DC, types LPX LE… (all), LPX LFB…, LPX LPB and LPSB…	10	0.011
LPX T101❷	Use with LED elements at 85-140VAC for types LPX LFE… LPX LPE… and LPX LPSE…	10	0.011
LPX T102❷	Use with LED elements at 185-265VAC for types LPX LFM…, LPX LPM… and e LPX LPSM…	10	0.011

❶ Whenever test circuits include illuminated actuators connected with paralleled load, use two LPX T100 for each LED element.
Refer to the wiring diagram below or online in the Downloads section at www.LovatoElectric.com
❷ With DC supply only for LPX T100 type, the LED element works at full voltage and brightness while with AC supply for all LPX T… types, the LED element works at half voltage so with reduced brightness level.

For LPX T100 test element



For LPX T101 and LPX T102 test elements



❸ Use with LPX LFE.., LPX LPE… or LPX LPSE… type.
❹ Use with LPX LFM…, LPX LPM… or LPX LPSM… type.

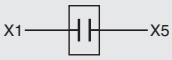
Operational characteristics
- Supply voltage:
  - LPX T100 test element:
    - 12...30VAC/DC for LPX LEB/LFB/LPB/LPSB...
    - 85...140VAC/DC for LPX LEE...
    - 185...265VAC/DC for LPX LEM...
  - LPX T101 test element: 85-120VAC
  - LPX T102 test element: 185-265VAC
- For use with LED elements LPX LPBB/LPBE/LPBM… types, consult Customer Service; see contact details on inside front cover
- Electrical life: 100,000 hours
- Snap onto LPX AU120 mounting adapter beside the LED element or stacked behind contact elements; also internally on the LPZ control station cover
- Any mounting position allowed
- Maximum tightening torque for screw terminals: 1Nm / 0.74lbft
- Ambient conditions:
  - Operating temperature: -25…+70°C
  - Storage temperature: -40…+85°C
- Degree of protection: IEC/EN IP20; UL/CSA Type 1.

Mounting adapter
See page 7.18.
Type: LPX AU120.
The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

Maximum conductor cross section
1 or 2 2.5mm² or AWG 12 cables.

Wiring Diagram
LPX T00 test element

LPX T101 – LPX T102 test elements



Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus – File E93601), as Auxiliary Devices, EAC; pending for CCC and RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 N°14.

7

LED elements steady light

LPX LP...

Total protection against overvoltages and stray currents in wiring, to reduce of flickering phenomenon and withstand vibrations.

Order code	Rated auxiliary supply voltage	LED colour	Qty per pkg	Wt
	[V]		n°	[kg]
Steady light, screw termination. Supplied without mounting adapter.				
LPX LP B3	12-30V AC/DC	Green	10	0.016
LPX LP B4		Red	10	0.016
LPX LP B5		Yellow	10	0.016
LPX LP B6		Blue	10	0.016
LPX LP B8		White	10	0.016
LPX LP E3	85-140VAC	Green	10	0.016
LPX LP E4		Red	10	0.016
LPX LP E5		Yellow	10	0.016
LPX LP E6		Blue	10	0.016
LPX LP E8		White	10	0.016
LPX LP M3	185-265VAC	Green	10	0.016
LPX LP M4		Red	10	0.016
LPX LP M5		Yellow	10	0.016
LPX LP M6		Blue	10	0.016
LPX LP M8		White	10	0.016

LPX LE...

Simple protection against overvoltages and to withstand vibrations.

Order code	Rated auxiliary supply voltage	LED colour	Qty per pkg	Wt
	[V]		n°	[kg]
Steady light, screw termination. Supplied without mounting adapter.				
LPX LE B3	12-30V AC/DC	Green	10	0.016
LPX LE B4		Red	10	0.016
LPX LE B5		Yellow	10	0.016
LPX LE B6		Blue	10	0.016
LPX LE B8		White	10	0.016
LPX LE E3	85-140V AC/DC	Green	10	0.016
LPX LE E4		Red	10	0.016
LPX LE E5		Yellow	10	0.016
LPX LE E6		Blue	10	0.016
LPX LE E8		White	10	0.016
LPX LE M3	185-265V AC/DC	Green	10	0.016
LPX LE M4		Red	10	0.016
LPX LE M5		Yellow	10	0.016
LPX LE M6		Blue	10	0.016
LPX LE M8		White	10	0.016

LED elements flashing light

LPX LF...

Total protection against overvoltages and stray currents in wiring, to reduce of flickering phenomenon and withstand vibrations.

Order code	Rated auxiliary supply voltage	LED colour	Qty per pkg	Wt
	[V]		n°	[kg]
Flashing light, screw termination. Supplied without mounting adapter.				
LPX LF B3	18-30V AC/DC	Green	10	0.016
LPX LF B4		Red	10	0.016
LPX LF B5		Yellow	10	0.016
LPX LF B6		Blue	10	0.016
LPX LF B8		White	10	0.016
LPX LF E3	85-140VAC	Green	10	0.016
LPX LF E4		Red	10	0.016
LPX LF E5		Yellow	10	0.016
LPX LF E6		Blue	10	0.016
LPX LF E8		White	10	0.016
LPX LF M3	185-265VAC	Green	10	0.016
LPX LF M4		Red	10	0.016
LPX LF M5		Yellow	10	0.016
LPX LF M6		Blue	10	0.016
LPX LF M8		White	10	0.016

Operational characteristics
- Auxiliary supply voltage:
  - LPX LP… with steady light 12-30VAC/DC; 85-140VAC; 180-265VAC
  - LPX LE… with steady light 12-30VAC/DC; 85-140VAC/DC; 180-265VAC/DC
  - LPX LF… flashing light 18-30VAC/DC; 85-140VAC; 180-265VAC
- Maximum consumption for:
  - LPX LP… steady light and LPX LF… flashing light: 17mA (12/18-30VAC/DC); 20mA (85-140VAC); 17mA (185-265VAC)
  - LPX LE… steady light: 11mA (12-30VAC/DC); 5mA (85-140VAC/DC); 3mA (185-265VAC/DC)
- Total protection for LPX LP… and LPX LF… types:
  - Against overvoltages
  - Against stray currents in wiring
  - To reduce flickering phenomenon
  - To withstand vibrations
- Simple protection for LPX LE… types:
  - Against overvoltages
  - To withstand vibrations
- Electrical life: 100,000 hours
- Snap onto LPX AU120 mounting adapter in the middle position for each illuminated actuator, also internally on the LPZ control station cover
- No other element can be stacked behind LED elements
- Any mounting position allowed
- Maximum tightening torque: 1Nm / 0.74lbft
- Ambient conditions:
  - Operating temperature: -25...+70°C (-25...+60°C for LPX LE...)
  - Storage temperature: -40...+85°C
- Degree of protection per IEC/EN: IP20.

Mounting adapter
See page 7.18.
Type: LPX AU120.
The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

Maximum conductor cross section
1 o 2 2.5mm² or AWG12 cables.

Wiring diagram

Certifications and compliance
Certifications obtained: UL listed for USA and Canada (cULus - File E93601), as Auxiliary Devices; EAC, CCC.
Pending at time of catalogue printing: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Contact elements with spring-clamp terminals

LPX CS01 LPX CS10

new

Order code	Function	Q.ty per pkg	Wt
		n°	[kg]
Spring-clamp termination. Without mounting adapter.			
LPX CS10❶	13 14 NO❶	10	0.010
LPX CS01 ⊖	11 12 ⊖ NC❷	10	0.010

❶ **Not suitable for push-push actuators.**
❷ Direct (positive) opening action ⊖ in accordance with IEC/EN 60947-5-1.

LED elements steady light with spring-clamp terminals

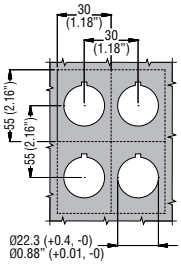
LPX LPS...

new

Order code	Rated auxiliary supply voltage	LED colour	Q.ty per pkg	Wt
	[V]		n°	[kg]
Steady light, with screw-clamp termination. Without mounting adapter.				
LPX LPS B3	12-30VAC/DC	Green	10	0.015
LPX LPS B4		Red	10	0.015
LPX LPS B5		Yellow	10	0.015
LPX LPS B6		Blue	10	0.015
LPX LPS B8		White	10	0.015
LPX LPS E3	85-140VAC	Green	10	0,015
LPX LPS E4		Red	10	0.015
LPX LPS E5		Yellow	10	0.015
LPX LPS E6		Blue	10	0.015
LPX LPS E8		White	10	0.015
LPX LPS M3	185-265VAC	Green	10	0.015
LPX LPS M4		Red	10	0.015
LPX LPS M5		Yellow	10	0.015
LPX LPS M6		Blue	10	0.015
LPX LPS M8		White	10	0.015

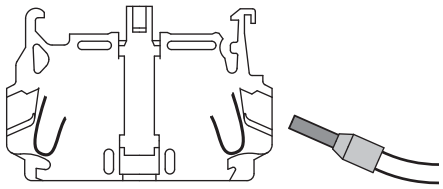
Total protection against overvoltages and stray currents in wiring, to reduce flickering phenomenon and withstand vibrations.

Drillings - Minimum recommended distances

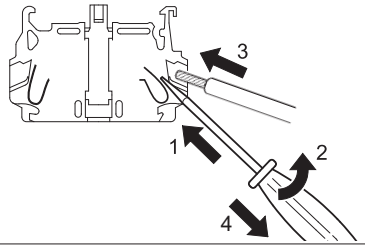


Push-in wiring technology for rigid cables or with ferrules only - no screwdriver needed
Cable retaining force guaranteed over time even in presence of vibrations and/or impacts

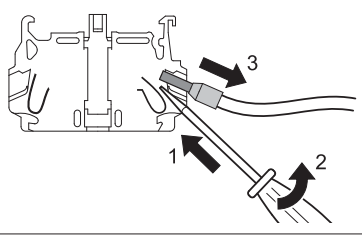
Push-in technology



Wiring with flat-blade screwdriver
(for flexible bare cable without terminal)



Cable removal
(always using flat-blade screwdriver)



Operational characteristics
- Any mounting position allowed
- Elements snap onto LPX AU120 adapter, also internally on LPZ control station cover with maximum of 3 LPX CS... contact or 2 LPX CS... contact and 1 LPX LPS... LED elements (in middle position) per actuator
- Suitable for applications with vibration and/or impact work conditions; cable retaining force guaranteed over time in these conditions
- Wiring also possible after installation with stacked contacts
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection IEC/EN: IP20.

Mounting adapter
See page 7-18.
Type: LPX AU120.
The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

General characteristics
CONTACT ELEMENTS
Wiping action and dual scaping-oscillating effect
IEC rated insulation voltage: 690V
IEC rated thermal current Ith: 10A
Conductivity: 1mA 5V
UL/CSA and IEC/EN 60947-5-1 designation: A600 Q600

IEC/EN operational characteristics in AC15 category:

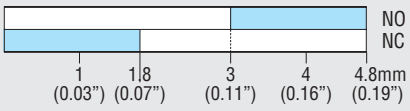
[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	3	1.9	1.5	1.4	1.2

IEC/EN operational characteristics in DC13 category:

[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/SC
Contact resistance: ≤20mΩ
Terminals: Spring clamps.

Stroke of contact elements



Mechanical and electrical endurance of contact elements
Opening force: ≤0.5kg / 1.1lb
Electrical life: 1.000.000 cycles for LPX CS10/CS01.

LED ELEMENTS
- Supply voltage: 12-30VAC/DC; 85-140VAC; 185-265VAC
- Maximum consumption: 17mA (12-30VAC/DC); 20mA (85-140VAC); 17mA (185-265VAC)
- Total protection:
  - Against overvoltages
  - Against stray currents in wiring
  - To withstand vibrations
  - To reduce flickering phenomenon
- Electrical life: 100,000 hours.

Wiring diagram for LED elements

Maximum conductor cross section
1 or 2 2.5mm² or AWG14 cables.
For 2.5mm² section, use rounded cable terminal with metal end at least 10mm / 0.39in long.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus – File E93601), as Auxiliary Devices; EAC,CCC; pending for RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n°14.

Contact elements, base mount on LPZ control stations

LPX CB…

Order code	Function	Q.ty per pkg	Wt
		n°	[kg]
Screw termination. Direct snap-in mounting on LPZ control station base.			
LPX CB10❶	.3 / .4 NO❶	10	0.012
LPX CB01 ⊖	.1 / .2 ⊖ NC❷	10	0.012

❶ **Not suitable for push-push actuators.**
❷ Direct opening operation ⊖ in accordance with IEC/EN 60947-5-1.

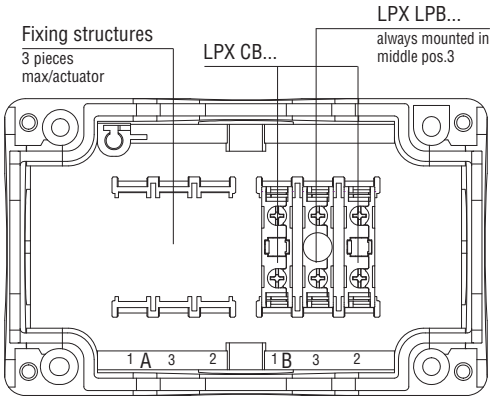
LED elements, steady light base mount on LPZ control stations

LPX LPB…

Order code	Rated auxiliary supply voltage	LED colour	Q.ty per pkg	Wt
	[V]		n°	[kg]
Screw termination. Steady light. Direct snap-on mounting on LPZ… control station base.				
LPX LPB B3	12-30VAC/DC	Green	10	0.016
LPX LPB B4		Red	10	0.016
LPX LPB B5		Yellow	10	0.016
LPX LPB B6		Blue	10	0.016
LPX LPB B8		White	10	0.016
LPX LPB E3	85-140VAC	Green	10	0.016
LPX LPB E4		Red	10	0.016
LPX LPB E5		Yellow	10	0.016
LPX LPB E6		Blue	10	0.016
LPX LPB E8		White	10	0.016
LPX LPB M3	185-265VAC	Green	10	0.016
LPX LPB M4		Red	10	0.016
LPX LPB M5		Yellow	10	0.016
LPX LPB M6		Blue	10	0.016
LPX LPB M8		White	10	0.016

Total protection against overvoltages and stray currents in wiring, to reduce flickering phenomenon and withstand vibrations.

Mounting position on the LPZ control station base



Operational characteristics
- Any mounting position allowed
- Snap mount into fixing structures of LPZ control station base
- Maximum of 3 LPX CB… contact or 2 LPX CB… contact and 1 LPX LPB… LED elements (in middle pos. 3) for each actuator of LPZ control stations
- Wiring done directly in the base, so there is none with or directly in the cover
- Tightening torque Tmax: 1Nm/9lbin
- Ambient conditions:
  - Operating temperature: -25…+70°C
  - Storage temperature: -40…+85°C
- Degree of protection IEC/EN IP20.

General characteristics

CONTACT ELEMENTS
Wiping action and dual scaping-oscillating effect
IEC rated insulation voltage: 690V
IEC rated thermal current Ith: 10A
Conductivity: 1mA 5V
UL/CSA and IEC/EN 60947-5-1 designation: A600 Q600

IEC/EN operational characteristics in AC15 category:

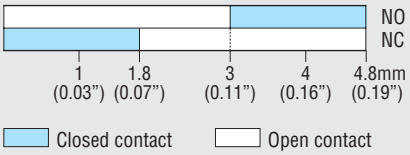
[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	3	1.9	1.5	1.4	1.2

IEC/EN operational characteristics in DC13 category:

[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/SC
Contact resistance: ≤20mΩ
Terminals: Clamp screw and washer.

Stroke of contact elements



Mechanical and electrical endurance of contact elements
Opening force: ≤0.5kg / 1.1lb
Electrical life: 1,000,000 cycles for LPX CB10/CB01.

LED ELEMENTS
- Supply voltage:
  12-30VAC/DC; 85-140VAC; 185-265VAC
- Maximum consumption: 17mA (12-30VAC/DC); 20mA (85-140VAC); 17mA (185-265VAC)
- Total protection:
  - Against overvoltages
  - Against stray currents in wiring
  - To reduce flickering phenomenon
  - To withstand vibrations
- Electrical life: 100,000 hours.

Wiring diagram for LED elements

Maximum conductor cross section
1 or 2 2.5mm² or AWG14 cables.

Certifications and compliance
Certifications obtained: UL Listed for USA and Canada (cULus – File E93601), as Auxiliary Devices.; EAC, CCC; pending: RINA.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n°14.

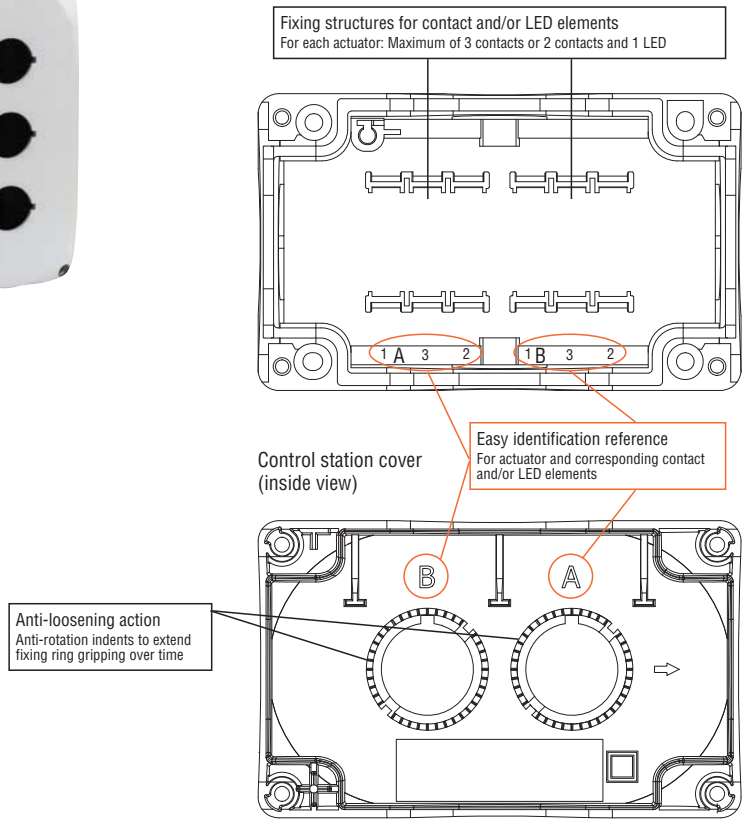
Without actuators

LPZ P1 A5

LPZ P3 A8

Order code	Description	Cover colour	Q.ty per pkg	Wt
			n°	[kg]
LPZ P1 A5	For 1 actuator	Yellow	1	0.107
LPZ P1 A8	For 1 actuator	Grey	1	0.107
LPZ P2 A8	For 2 actuators	Grey	1	0.152
LPZ P3 A8	For 3 actuators	Grey	1	0.187
LPZ P4 A8	For 4 actuators	Grey	1	0.200
LPZ P5 A8	For 5 actuators	Grey	1	0.240
LPZ P6 A8	For 6 actuators	Grey	1	0.290

Control station base



With one actuator

LPZ P1 B8 02

LPZ P1 B5 03

Order code	Control station description	Actuator description	Q.ty per pkg	Wt
			n°	[kg]
LPZ P1 B8 01	Grey, 1 way LPZ P1 A8	Mushroom-head button LPC B6744 with STOP legend	1	0.150
LPZ P1 B8 02	Grey, 1 way LPZ P1 A8	Mushroom-head button LPC B6344 with STOP legend	1	0.135
LPZ P1 B5 02	Yellow, 1 way LPZ P1 A5	Emergency stop button LPC B6344	1	0.135
LPZ P1 B5 03❶	Yellow, 1 way LPZ P1 A5	Emergency stop button LPC B6644	1	0.150

❶ Version with red emergency stop, turn to release and yellow cover compliant with ISO 13840.

General characteristics

CONTROL STATIONS WITHOUT ACTUATOR
- 1 to 6 ways
- Compact dimensions
- Easy wiring for base-mount contact and LED elements; possible use of screw and spring-clamp terminal contact or LED elements on the inside surface of the cover using LPX AU120 mounting adapter
- Numerous cable entries.

CONTROL STATIONS WITH ACTUATOR
Standard supplied with actuator, label holder and STOP legend label excluding types with yellow cover, and one base-mount NC contact.

Operational characteristics

- Cable entry:
  - LPZ P1… knockouts:
    - M16/PG11 (1 at rear and 1 on left side)
    - M20/M25/PG13.5/M20 (1 each on top and bottom)
  - LPZ P2 A8 knockouts:
    - M16/PG11 (2 at rear)
    - M20/PG13.5 (1 on each side)
    - M20/M25/PG13.5/M20 (1 each on top and bottom)
  - LPZ P3/P4/P5/P6 A8 knockouts:
    - M16/PG11 (2 at rear)
    - M20/PG13.5 (2 on each side)
    - M20/M25/PG13.5/M20 (1 each on top and bottom)
- Any mounting position allowed
- Tightening torque of cover screws Tmax: 1.8Nm/16lbin
- Ambient conditions:
  - Operating temperature: -25…+70°C
  - Storage temperature: -40…+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K
  - Per UL/CSA: Type 1, 2, 3R, 4 4X, 12, 12K.

Materials

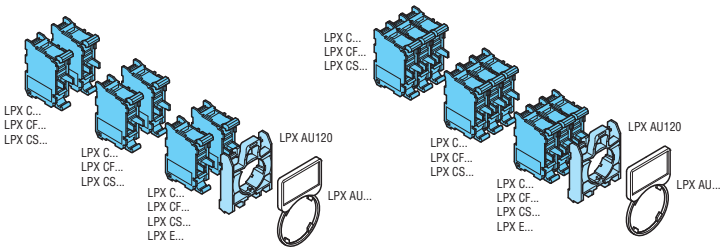
Polycarbonate.

Certifications and compliance

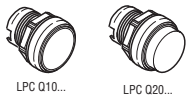
Certifications obtained: EAC,CCC; UL Listed for USA and Canada (cULus – File E93601), as Auxiliary Devices; pending at time of catalogue printing: cULus for LPZP6A8 and RINA for all types.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508A for types without actuators / UL508 for types complete with actuator, CSA C22.2 n° 14.

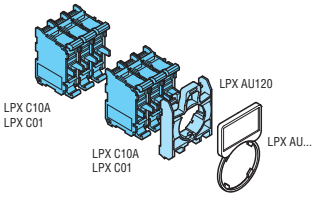
COMBINATIONS FOR PUSHBUTTONS AND SELECTOR SWITCHES

SPRING-RETURN BUTTONS

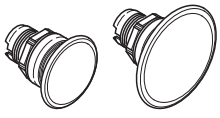


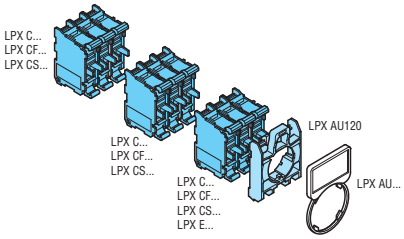
PUSH-PUSH BUTTONS



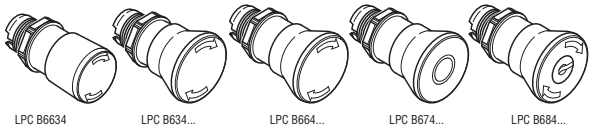


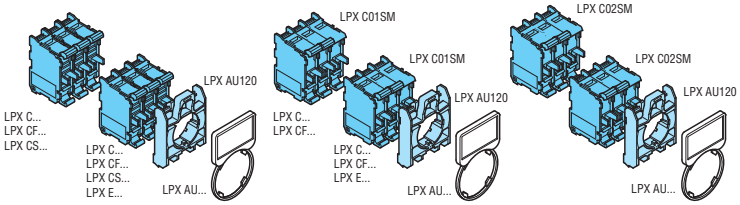
MUSHROOM-HEAD SPRING-RETURN BUTTONS



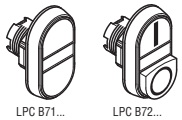


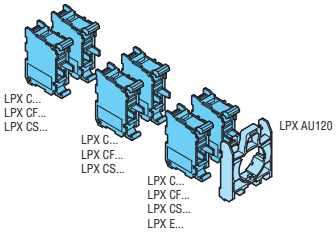
MUSHROOM-HEAD LATCH BUTTONS



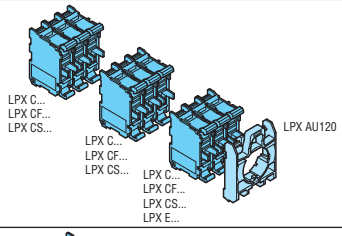


DOUBLE-TOUCH BUTTONS

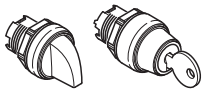


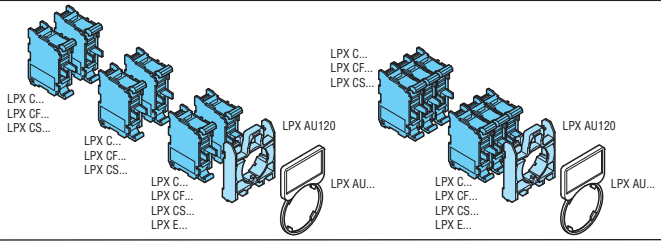


TRIPLE-TOUCH BUTTONS

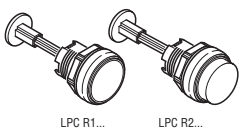


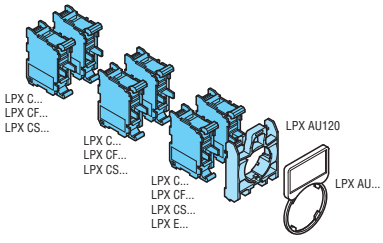
SELECTOR SWITCHES





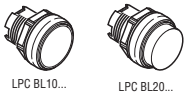
MECHANICAL SPRING-RETURN RESET BUTTONS

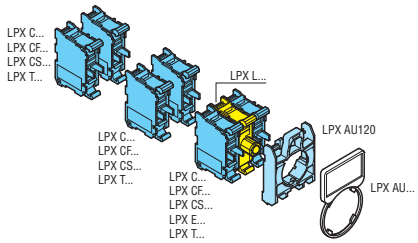




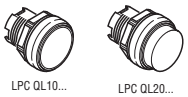
COMBINATIONS FOR ILLUMINATED PUSHBUTTONS AND SELECTOR SWITCHES

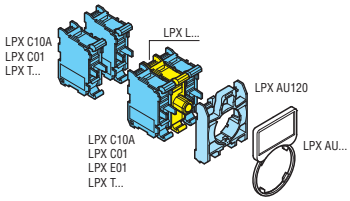
SPRING-RETURN BUTTONS



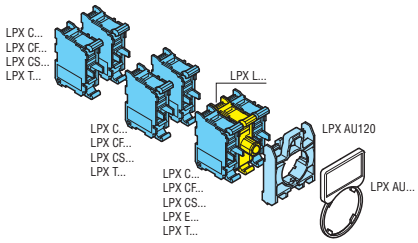


PUSH-PUSH BUTTONS

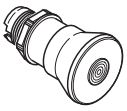


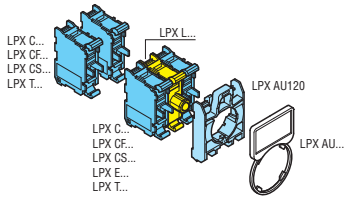


MUSHROOM-HEAD SPRING-RETURN BUTTON

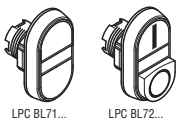


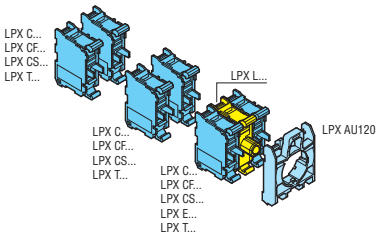
MUSHROOM-HEAD LATCH BUTTON



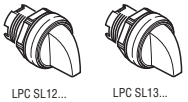


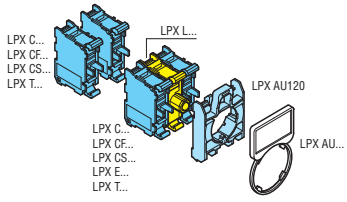
DOUBLE-TOUCH BUTTONS





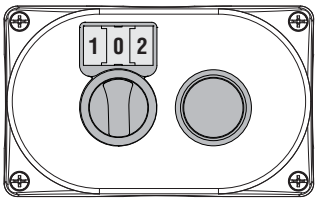
2 AND 3 POSITION SELECTOR SWITCHES

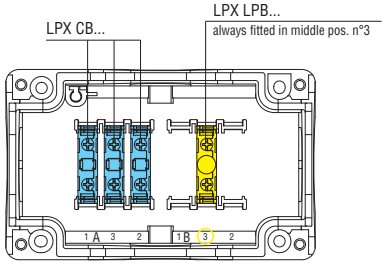




CONTROL STATIONS

Example of 2 way control station equipped with selector switch, label holder and label along with pilot light





Pushbutton 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-push button actuators

8 LM2T Q10…

8 LM2T Q20…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (without mounting adapter). Push on-push off.			
8 LM2T Q102❶	Black	10	0.033
8 LM2T Q103❶	Green	10	0.033
8 LM2T Q104❶	Red	10	0.033
8 LM2T Q105❶	Yellow	10	0.033
8 LM2T Q106❶	Blue	10	0.033
8 LM2T Q108❶	White	10	0.033
Extended (without mounting adapter). Push on-push off.			
8 LM2T Q202❶	Black	10	0.035
8 LM2T Q203❶	Green	10	0.035
8 LM2T Q204❶	Red	10	0.035
8 LM2T Q205❶	Yellow	10	0.035
8 LM2T Q206❶	Blue	10	0.035
8 LM2T Q208❶	White	10	0.035

❶ **Use contact elements EM (8 LM2T C10A) and NC (8LM2T C01) only.** Contact elements NO (8LM2T C10) and LB (8LM2T C01D) cannot be fitted on these actuators. For the number of contact elements, refer to indications in the right-hand column.

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL/CSA: 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 / 1.7lb (actuator).
Mechanical life:
- Spring-return actuators: 1,000,000 cycles
- Push-push actuators: 500,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm /0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements for spring-return actuators
See page 39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)
Contact elements snap onto the mounting adapter.
Up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other.
Up to 2 contacts per actuator in addition to the LED element in the middle position can be internally fitted on the cover surface of LPZ control stations.
To use contact elements in the middle position, install the action plug LM2T A140 on the actuator; see page 7-36.

Contact elements for push-push button actuators
See page 7-39.
Type: LM2T C10A (1EM)
LM2T C01 (1NC)
Contact elements snap onto the mounting adapter.
Up to 2 contacts can be fitted: 1 each on the right and left.
Up to 2 contacts per actuator in addition to the LED element in the middle position can be internally fitted on the cover surface of LPZ control stations.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed, for USA and Canada (File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Mechanical reset button, complete unit, spring return

8 LM2T R1196

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush (5.2mm/0.2" stroke). Adjustable length 0-140mm/5.5". Spring return (complete with shaft and mounting adapter).			
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 R1196❶	Blue (RESET)	10	0.065
Extended (5.2mm/0.2" stroke). Adjustable length 0-140mm/ Spring return (complete with shaft and mounting adapter).			
8 LM2T R2004	Red	10	0.067

❶ With "RESET"caption on actuator.
❷ No contact elements can be fitted. Not suitable for use with LPZ control stations.

Pushbutton 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	←❶	Black	10	0.033
8 LM2T B1148		White	10	0.033
8 LM2T B1152	↑❷	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

❶ Arrow symbol can be used to indicate right or left.
❷ Arrow symbol can be used to indicate up or down.

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL/CSA: 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 / 1.7lb (actuator)
Mechanical life: 1,000,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation.

Contact elements for spring-return actuators
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)
Contact elements snap onto the mounting adapter.
Up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other.
Up to 3 contacts per actuator can be internally fitted on the cover surface of LPZ control stations.
To use contact elements in the middle position, install the action plug LM2T A140 on the actuator; see page 7-36.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed, for USA and Canada (File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Mushroom head pushbutton actuators

8 LM2T B614…

8 LM2T B616…

8 LM2T B624…

8 LM2T B634…

8 LM2T B6644

8 LM2T B654…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
SPRING RETURN. Ø40mm/1.6in (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
SPRING RETURN. Ø60mm/2.4in (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
LATCH, PULL TO RELEASE. Ø40mm/1.6in (without mounting adapter). For normal stopping.			
8 LM2T B6242	Black	10	0.105
8 LM2T B6244	Red	10	0.105
LATCH, TURN TO RELEASE. Ø40mm/1.6in (without mounting adapter). For normal stopping.			
8 LM2T B6342	Black	10	0.054
8 LM2T B6344	Red	10	0.054
LATCH, TURN TO RELEASE. Ø40mm/1.6in (without mounting adapter). For emergency stopping, ISO 13850 compliant.			
8 LM2T B6644	Red	10	0.087
LATCH, TURN KEY TO RELEASE. Ø40mm/1.6in (without mounting adapter). For normal stopping.			
8 LM2T B6542	Black	10	0.091
8 LM2T B6542G❷		1	0.091
8 LM2T B6544	Red	10	0.091
8 LM2T B6544G❷		1	0.091

❷ 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
– Any mounting position allowed
– Ambient conditions:
  • Operating temperature: -25...+60°C
  • Storage temperature: -40...+70°C
– Degree of protection:
  • Per IEC/EN: IP65 for push-push and LM2T B654 actuators; IP66 for others.
  • Per UL/CSA: 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 / 1.7lb (actuator).
Mechanical life:
– Mushroom head spring return buttons: 1,000,000 cycles
– Mushroom head latch buttons: 300,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)

FOR SPRING-RETURN MUSHROOM-HEAD BUTTONS
Up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other.
Up to 3 contacts per actuator can be internally fitted the cover surface of LPZ control stations.
To use contact elements in the middle position, install on the action plug LM2T A140 on the actuator; see page 7-36.

FOR LATCH MUSHROOM-HEAD BUTTONS
For LM2T B624… and LM2T B6644 types, up to 4 contacts can be fitted: 2 each on the left and right, one behind the other.
Up to 2 contacts per actuator can be internally fitted on the cover surface of LPZ control stations, 1 each on the left and right.
For all others, up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other.
Up to 3 contacts per actuator can be internally fitted on the cover surface of LPZ control stations.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed, for USA and Canada (File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

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	STOP	5	0.044
8 LM2T B7355	STOP	5	0.044
8 LM2T B7365	STOP	5	0.044
8 LM2T B7375	STOP	5	0.044

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP40.
  - Per UL/CSA: 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 / 1.7lb (actuator)
Mechanical life: 1,000,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (LB)
Contact elements snap onto the mounting adapter.

FOR DOUBLE-TOUCH BUTTONS
Up to 4 contacts can be fitted: 2 each on the left and right, one behind the other.
Up to 2 contacts per actuator can be internally fitted on the cover surface of LPZ control stations, 1 on the left and right.

FOR TRIPLE-TOUCH BUTTONS
Up to 6 contacts can be fitted: 2 each on the left, middle and right, one behind the other.
Up to 3 contacts per actuator can be internally fitted on the cover surface of LPZ control stations.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed, for USA and Canada (File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Selector switch actuators knob

8 LM2T S1...

Order code	Type of position	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 switch actuators lever

8 LM2T S2...

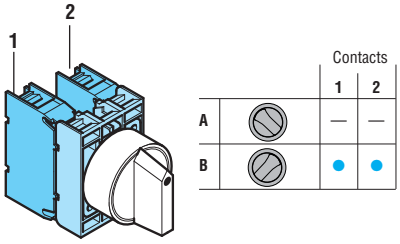
Order code	Type of position	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
8 LM2T S220		10	0.050
8 LM2T S221		10	0.050
3 position (without mounting adapter).			
8 LM2T S230		10	0.050
8 LM2T S231		10	0.050
8 LM2T S232		10	0.050
8 LM2T S233		10	0.050

Selector switch actuators key

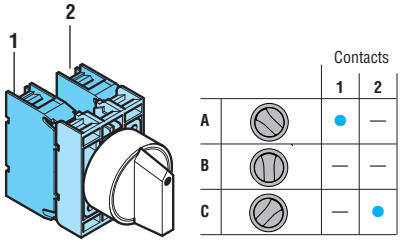
8 LM2T S3...

Order code	Type of position	Qty per pkg	Wt
		n°	[kg]
2 position (without mounting adapter).			
8 LM2T S320		10	0.079
8 LM2T S320G❶		1	0.079
8 LM2T S321		10	0.079
8 LM2T S321G❶		1	0.079
8 LM2T S340		10	0.079
8 LM2T S340G❶		1	0.079
3 position (without mounting adapter).			
8 LM2T S330		10	0.080
8 LM2T S330G❶		1	0.080
8 LM2T S331		10	0.080
8 LM2T S331G❶		1	0.080
8 LM2T S332❷		10	0.080
8 LM2T S332G❶❷		1	0.080
8 LM2T S333❷		10	0.080
8 LM2T S333G❶❷		1	0.080
8 LM2T S350		10	0.080
8 LM2T S350G❶		1	0.080
8 LM2T S360		10	0.080
8 LM2T S360G❶		1	0.080
8 LM2T S370❷		10	0.080
8 LM2T S370G❶❷		1	0.080
8 LM2T S380❷		10	0.080
8 LM2T S380G❶❷		1	0.080
8 LM2T S390❷		10	0.080
8 LM2T S390G❶❷		1	0.080

Contact activation for 2-position selector switch



Contact activation of 3-position selector switch



Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL/CSA: 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 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm / 0.59in).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)
Contact elements snap onto the mounting adapter.
Up to 4 contacts can be fitted: 2 each on the left and right, one behind the other. For more, consult Customer Service for advice; see contact details on inide front cover.
Up to 2 contacts per actuator can be internally fitted on the cover surface of LPZ control stations, 1 on the left and right.

Type of positions
- Maintained position.
- Spring return position.
- • Key extraction position.

Rotation angles
2 position

3 position

Special versions
Versions with coloured keys are available upon request. Consult our Customer Service; see contact details on inside front cover.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed for USA and Canada)(cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

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 LM2T S320G505.
❷ Available only on specific request.

Illuminated button actuators, spring return

8 LM2T BL10…

8 LM2T BL20…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
Flush with side visibility (without mounting adapter). Spring return.			
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 with side visibility (without mounting adapter). Push on-push off.			
8 LM2T QL103❶	Green	10	0.033
8 LM2T QL104❶	Red	10	0.033
8 LM2T QL105❶	Yellow	10	0.033
8 LM2T QL106❶	Blue	10	0.033
8 LM2T QL107❶	Transparent	10	0.033
Extended (without mounting adapter). Push on-push off.			
8 LM2T QL203❶	Green	10	0.035
8 LM2T QL204❶	Red	10	0.035
8 LM2T QL205❶	Yellow	10	0.035
8 LM2T QL206❶	Blue	10	0.035
8 LM2T QL207❶	Transparent	10	0.035

❶ **Use contact elements EM (8LM2T C10A early make) and NC (8LM2T C01) only.**
Contact elements NO (8LM2T C10) and LB (8LM2T C01D late break) cannot be used with these actuators. For the number of contact elements, refer to the right-hand column.

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL/CSA: 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 / 1.7lb (actuator).
Mechanical life:
- Spring return buttons: 1,000,000 cycles
- Push-push buttons: 500,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements for illuminated spring-return buttons
See page 39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (LB)
Contact elements snap onto the mounting adapter.
Up to 4 contacts can be fitted, 2 each on the left and right one behind the other, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.
Instead when using lamp-holder LM2T XL, LM2T YL, LM2TFL or LM2T GL…, up to 2 contacts only can be fitted one behind the other.
On the cover of LPZ control stations, up to 2 contacts per actuator can be internally fitted, 1 each on the right and/or left, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.

Contact elements for illuminated push-push buttons
See page 7-39.
Type: LM2T C10A (EM)
LM2T C01 (1NC)
Contact elements snap onto the mounting adapter.
Up to 2 contact elements can be fitted 1 each on the left and right along with one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… in the middle position; also internally on LPZ control station covers for each actuator.

Lamp-holder elements
See page 7-40 and 41.

Lamps
Maximum recommended power: 1.2W.
See page 7-36.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Illuminated mushroom head button actuators

8 LM2T BL614…

8 LM2T BL624…

Order code	Colour	Qty per pkg	Wt
		n°	[kg]
SPRING RETURN. Ø40mm (without mounting adapter).			
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. Ø40mm (without mounting adapter).			
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

Double touch actuators, spring return, white indicator

8 LM2T BL71…

8 LM2T BL72…

Order code	Colour	Symbol	Qty per pkg	Wt
			n°	[kg]
Two flush pushbuttons (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 pushbuttons (without mounting adapter). Both spring return.				
8 LM2T BL7212	Black/Red	—	5	0.044
8 LM2T BL7213	Green/Red	—	5	0.044
8 LM2T BL7214	White/Black	—	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
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65 for mushroom-head actuators; IP40 for double-touch actuators.
  - Per UL/CSA: Type 1, 2, 3R, 4, 4X, 12, 12K except for 8 LM2T BL7... 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 / 1.7lb (actuator).
Mechanical life: 1,000,000 cycles for spring return types while for latch, 300,000 cycles only.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)
Contact elements snap onto the mounting adapter.

MUSHROOM-HEAD BUTTONS
On LM2T BL61… actuators, the following can be fitted:
Up to 4 contacts, 2 each on the left and right, one behind the other, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.
Instead when using lamp-holder LM2T XL, LM2T YL, LM2TFL or LM2T GL…, up to 2 contacts only can be fitted one behind the other.
On the cover of LPZ control station, up to 2 contacts per actuator can be internally fitted, 1 each on the right and/or left, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.
On LM2T BL62… actuators, the following can be fitted:
Up to 2 contacts, 1 each on the left and right, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230,
LM2T L… or LM2T M… is used in the middle position.
Instead when using lamp-holder LM2T XL, LM2T YL, LM2TFL or LM2T GL…, up to 2 contacts can be fitted one behind the other.
On the cover of LPZ control stations, up to 2 contacts per actuator can be internally fitted, 1 each on the right and/or left, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.

DOUBLE-TOUCH BUTTONS
Up to 4 contacts can be fitted: 2 each on the left and right, one behind the other, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.
Up to 2 contacts per actuator can be internally fitted on the cover of LPZ control stations, 1 each on the right and/or left when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L… or LM2T M… is used in the middle position.

Lamp-holder elements
See page 7-40 and 41.

Lamps
Maximum recommended power: 1.2W.
See page 7-36.

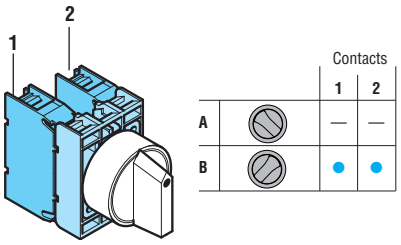
Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Illuminated selector switch actuators

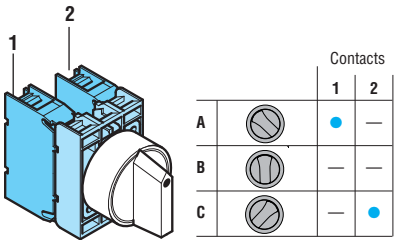
8 LM2T SL1...

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

Contact activiation of 2-position selector switch



Contact activation of 3-position selector switch



Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
    IP40 for double-touch actuators.
  - Per UL/CSA: 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.

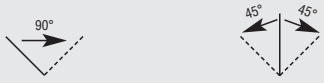
Mechanical endurance
Operating force: 0.8kg / 1.7lb (double touch actuator).
Mechanical life: 300,000 cycles.

Mounting adapter
See page 7-39.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Actuators latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations.

Contact elements
See page 7-39.
Type: LM2T C10 (1NO)
LM2T CF10 (1NO Faston)
LM2T C10A (1EM)
LM2T C01 (1NC)
LM2T CF01 (1NC Faston)
LM2T C01D (1LB)
Contact elements snap onto the mounting adapter.
Up to 4 contacts, 2 each on the left and right, one behind the other, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... is used in the middle position.
Instead when using lamp-holder LM2T XL, LM2T YL, LM2TFL or LM2T GL..., up to 2 contacts only can be fitted one behind the other.
On the cover of LPZ control station, up to 2 contacts per actuator can be internally fitted, 1 each on the right and/or left, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... is used in the middle position.
On 3-position selector versions, the following can be fitted:
Up to 4 contacts, 2 each on the left and right, one behind the other, when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... is used in the middle position.
Up to 2 contacts per actuator can be internally fitted on the cover of LPZ control stations, 1 each on the right and/or left when one of the lamp-holders type LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LM2T M... is used in the middle position
NOTE: No lamp-holder type LM2T XL..., LM2T YL..., LM2T FL... or LM2T GL... can be used with 3-position versions.

Selector switch type of positions
Maintained position.
Spring return position.

Selector switch rotation angles
2 position
3 position



Lamp-holder elements
See page 7-40 and 41.

Lamps
Maximum recommended power: 1.2W.
See page 7-36.

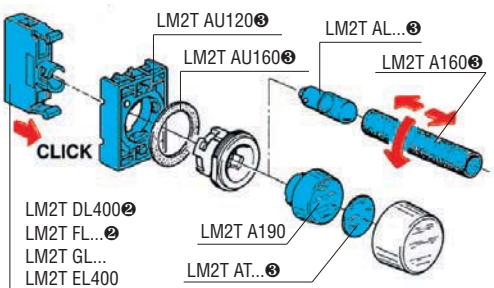
Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Pilot light heads

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 ϟ ❶	10	0.024

❶ With symbol indicating dangerous voltage (IEC/EN 60417 5036-a).



LM2T DL400❷
LM2T FL...❷
LM2T GL...
LM2T EL400
LM2T VL230❷
LM2T ZL230
LM2T T100
LM2T YL...
LM2T XL...❷
LM2T L...
LM2T M...

❷ The mounting adapter is standard supplied so there is no need to purchase it as a separate accessory.
❸ Can be purchased separately. Refer to page 7-37.

Operational characteristics
- Any mounting position allowed
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - Per IEC/EN: IP65
  - Per UL/CSA: 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 7-28.
Type: LM2T AU120.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
Pilot light heads latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations and exclusively with one of the following lamp-holders, internally mounted in the middle position: LM2T DL400, LM2T VL230, LM2T EL400, LM2T ZL230, LM2T L... or LMQT M... for each light head.

Lamp-holder elements
See page 7-40 and 41.

Lamps
Maximum recommended power: 1.2W.
See page 7-36.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Potentiometer drives

8 LM2T P100

8 LM2T P110

Order code	Characteristics	Qty per pkg	Wt
		n°	[kg]
Complete with mounting adapter.			
8 LM2T P100❹	With graduated scale	10	0.070
8 LM2T P110❹	With variable index	10	0.070

❹ Potenziometro non fornito.

Operational characteristics
- Any mounting position allowed
- Suitable for potentiometers with 6-6.3mm/0.24-0.25" diameter shaft
- Minimum 40mm/1.6in shaft length
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- 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
See page 7-39.
Standard supply with actuator.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
The potentiometer drives latch onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling; not suitable for LPZ control stations.

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

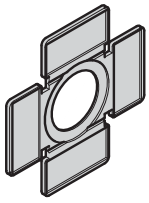
Joysticks

8 LM2T J...
(without mechanical interlock)

8 LM2T J...
(with mechanical interlock)

Order code	Type of positions	N° contact elements	Qty per pkg	Wt
		NO	n°	[kg]
Without mechanical interlock. Label holder excluded. Complete with contact elements.				
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 contact elements.				
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

Accessories



8 LM2T AU101

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

Operational characteristics
- Any mounting position allowed
- LM2T J2... types can be used with LPZ control stations
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection:
  - IEC IP20 / UL/CSA Type 1 for contact elements
  On front:
  - Per IEC/EN: IP65
  - Per UL/CSA 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 contact elements
Wiping action and dual scraping-oscillating effect
IEC rated insulation voltage: 690V
IEC rated thermal current Ith: 10A
UL/CSA and IEC/EN 60947-5-1 designation: A300 Q300
IEC operational power in AC15:

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

IEC operational power in DC13:

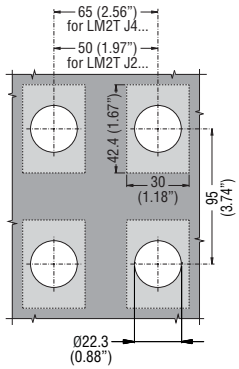
[V]	12	24	48	125	250
[A]	0.55	0.55	0.55	0.55	0.27

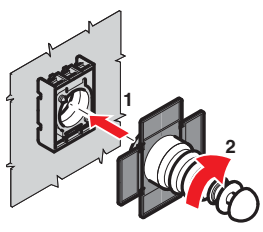
Short circuit protection fuse: max calibre 10A gG/SC
Contact resistance: ≤20mΩ
Terminals: Clamp screw with washer
Maximum tightening torque: 1Nm / 0.74lbft.

Mounting adapter and contact elements
The joystick is standard supplied with the mounting adapter and contact elements.
The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft).
The joystick latches onto the mounting adapter by simple rotation through a Ø22mm/0.89" drilling also on the cover of LPZ control stations. The mounting adapter and contact elements of LM2T J2… types can be internally mounted on LPZ control stations covers.
Contact elements snap onto the mounting adapter.
Two LM2T CJ... contacts are mounted with LM2T J2... types while four with LM2T J4... versions.

Certifications and compliance
Certifications obtained: CCC, EAC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

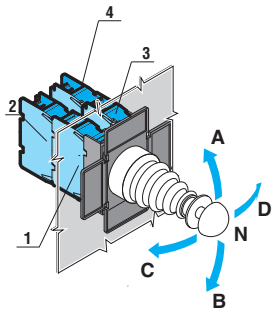
Drillings - Minimum recommended distances



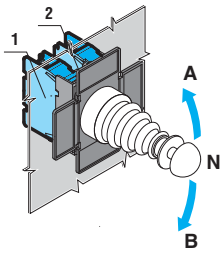


Joystick positions and contact activation

2 instable — 2 stable
4 instable — 4 stable

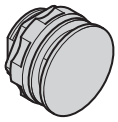


		A	B	C	D	N
LM2TCJ10	1	●				
LM2TCJ01	2		●			
LM2TCJ10	3				●	
LM2TCJ01	4			●		

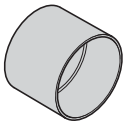


		A	B	N
LM2TCJ10	1	●		
	2		●	

Accessories and spare parts


8 LM2T A130

8 LM2T A140


8 LM2T A185

8 LM2T AL...

Order code	Description	Qty per pkg	Wt
		n°	[kg]
8 LM2T A12❶	Coloured diffuser for double touch buttons	10	0.001
8 LM2T A130	Threaded plug for unused drilled holes	10	0.007
8 LM2T A140	Action plug for centre contact	50	0.001
8 LM2T A150	Rod for mechanical reset button (l=140mm/5.5in max)	10	0.006
8 LM2T A160	BA9s bulb extractor	10	0.004
8 LM2T A161	30mm/1.2in hole size adapter set for 22mm/ 0.87in (use 2 per hole)	10	0.002
8 LM2T A170	Spare key set for selector or mushroom head button	1	0.008
8 LM2T A170G❷	Spare key set for G series selector or mushroom-head button	1	0.008
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, size 10x28mm/0.4x1.1in	50	0.002
8 LM2T ALB024	Filament bulb BA9s 24VAC/DC 2W, size 10x28mm/0.4x1.1in	50	0.003
8 LM2T ALB048	Filament bulb BA9s 48VAC/DC 2W, size 10x28mm/0.4x1.1in	50	0.003
8 LM2T ALB130	Filament bulb BA9s 130VAC/DC 2W, size 10x28mm/0.4x1.1in	50	0.003
8 LM2T ALL006❸	MultiLED bulb BA9s 6VAC/DC 10x28mm	10	0.003
8 LM2T ALL024❸	MultiLED bulb BA9s 24VAC/DC 10x28mm	10	0.003
8 LM2T ALL048❸	MultiLED bulb BA9s 48VAC/DC 10x28mm	10	0.003
8 LM2T ALN130❹	Neon bulb ❺ BA9s 110/125VAC 10x28mm	50	0.003
8 LM2T ALN250❹	Neon bulb ❺ BA9s 220/250VAC 10x28mm	50	0.003
8 LM2T ALP130❹	Neon bulb ❻ BA9s 110/125VAC 10x28mm	50	0.003
8 LM2T ALP250❹	Neon bulb ❻ BA9s 220/250VAC 10x28mm	50	0.003

❶ Complete the order coide by adding the digit of the selected colour: 3 (green); 4 (red); 5 (yellow); 6 (blue); 7 (transparent); 8 (white).
❷ 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; consult Customer Service; see contact details on inside front cover.
❸ Add the digit of the selected colour: 3 (green); 4 (red); 5 (yellow).
Bulb size: 0.4x1.1in.
It is advisable to use the same colour of bulb as of the actuator to obtain adequate light emission.
Not suitable for resistor-diode lamp holders.
❹ Neon bulbs emit an amber light and may not be suitable for use with green or blue pilot lights and illuminated actuators. Bulb size: 0.4x1.1in.
❺ Glass with diffuser lens.
❻ 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...❶	Printed label to be inserted in pilot lights and illuminated pushbuttons	50	0.001
8 LM2T AU100❷	Legend holder	50	0.001
8 LM2T AU105❷	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 AU13❸	IP66 boot for pushbuttons LM2T B1/BL1/R1...	10	0.006
8 LM2T AU14❸	IP66 boot for extended pushbuttons LM2T B2/BL2/B3/R2...	10	0.009
8 LM2T AU157	IP66 boot for double and triple buttons (transparent)	10	0.007
8 LM2T AU167	IP66 protective boot for mushroom head buttons LM2T B624... and LM2T B634... (transparent)	10	0.012
8 LM2T AU170	Actuator gasket	10	0.006

❶ Available only on specific request, consult Customer Service; see contact details on inside front cover.
❷ To preserve actuators degree of protection (IEC IP65 / UL Type 4X), place their gasket between legend holder and mounting surface.
❸ For flush and extended push-buttons, complete the order code by adding 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).

Labels with text for LM2T AU100 legend holder

8 LM2T AGB230

Order 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 printing❶	1❷	0.005
8 LM2T AU208❸	Sheet with 108 laser-printed labels❶	1❷	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 pushbuttons.			
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

❶ Recommended use with LM2T AU206 blank label.
❷ Sheet with 108 adhesive labels.
❸ 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.
Consult Customer Service; see contact details on inside front cover.

Plastic disk for mushroom head pushbuttons

Ordering code	Text	Qty per pkg	Wt
		n°	[kg]
8 LM2T AU113	EMERGENCY STOP Ø90mm / 3.5in	10	0.005
8 LM2T AU115	EMERGENCY STOP Ø60mm / 2.4in	10	0.005
8 LM2T AU118	NOT AUS / ARRET D'URGENCE / PARO EMERGENCIA Ø60mm / 2.4in	10	0.005

General characteristics
The disks are made of non-adhesive plastic.
There is a 2x2mm / 0.08x0.08in index.

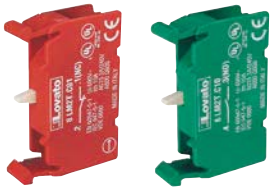
Special versions
The disk text in different languages is available.
Consult Customer Service; see contact details on inside front cover.

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

Contact elements



8 LM2T C...

8 LM2T E...

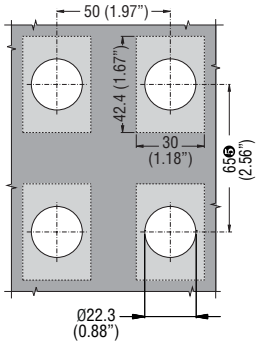
8 LM2T CF01

8 LM2T CF10

Order code	Function	Qty per pkg	Wt
	All SPST	n°	[kg]
Screw termination. Without mounting adapter.			
8 LM2T C10❶	.3 .4 NO❶	10	0.011
8 LM2T C10A	.7 .8 EM❷	10	0.011
8 LM2T C01 ⊖	.1 .2 ⊖ NC❸	10	0.011
8 LM2T C01D❶	.5 .6 LB❶❹	10	0.011
Screw termination. With mounting adapter for metal series LM2T actuators.			
8 LM2T E10❶	.3 .4 NO❶	10	0.029
8 LM2T E01 ⊖	.1 .2 ⊖ NC❸	10	0.029
Faston termination Without mounting adapter.			
8 LM2T CF10❶	.3 .4 NO❶	10	0.012
8 LM2T CF01 ⊖	.1 .2 ⊖ NC❸	10	0.012

❶ **Not suitable for push-push actuators.** Use LM2T C10A (EM) or LM2T C01 (NC) type only with push-push actuators.
❷ Normally open contact with early make operation.
❸ Direct (positive) opening action ⊖ in accordance with IEC/EN 60947-5-1.
❹ Normally closed contact with late break operation.

Drillings - Minimum recommended distances



❺ When using Faston, pitch is 90mm/3.5" minimum.

Operational characteristics
- Any mounting position allowed
- The adapter is fixed to the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft) also internally on LPZ control stations covers
- Contact elements snap onto the adapter
- Tightening torque: 1Nm/1.57lbft max (except Faston)
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection per IEC/EN:
  - IP20 for contacts elements with screw termination
  - IP00 for contact elements with Faston termination

General characteristics of contact elements
Wiping action and dual scraping and oscillating effect,
IEC rated insulation voltage: 690V
IEC rated thermal current Ith: 10A
Conductivity: 5V 10mA.
UL/CSA and IEC/EN 60947-5-1 designation: A600 Q600

IEC operational power in AC15:

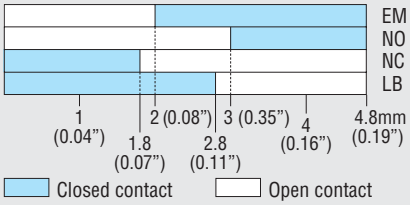
[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	3	1.9	1.5	1.4	1.2

IEC 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/SC
Contact resistance: ≤20mΩ
Terminals: Clamp screw with washer
Faston 1-6.35mm/0.25" or 2-2.8mm/0.11".

Stroke of contact elements



Maximum conductor cross section for screw terminals
1 o 2 2.5mm² or AWG12 cables.

Mechanical and electric endurance
Operating force: 0.5kg / 1.1lb (contact elements).

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
	LM2T C01D	600,000 cycles.

Certifications and compliance
Certifications obtained: RINA, LROS, EAC, CCC, UL Listed, for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

Lamp-holders elements without mounting adapter

8 LM2T EL400
8 LM2T ZL230

8 LM2T YL...
8 LM2T GL...

Order code	Rated auxiliary supply voltage	Type of bulb supplied	Qty per pkg	Wt
	[V] 50/60Hz		n°	[kg]
Direct supply.				
8 LM2T EL400❶	≤415VAC/DC	No	10	0.011
With resistor and diode.				
8 LM2T ZL230❹	230VAC	Yes 130V, 2W	10	0.015
With transformer❽.				
8 LM2T YL110❷	110-120VAC	Yes 24V, 1.2W	1	0.086
8 LM2T YL230❷	220-240VAC	Yes 24V, 1.2W	1	0.084
8 LM2T YL400❷	380-415VAC	Yes 24V, 1.2W	1	0.087
Flashing❽.				
8 LM2T GL048❷❸	24-48VAC	No	1	0.027
8 LM2T GL230❷❸	110-230VAC	No	1	0.027

Lamp-holders elements 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
	[V] 50/60Hz		n°	[kg]
Direct supply.				
8 LM2T DL400❶	≤415VAC/DC	No	10	0.029
With resistor and diode.				
8 LM2T VL230❹	230VAC	Yes 130V, 2W	10	0.032
With transformer❽.				
8 LM2T XL110❷	110-120VAC	Yes 24V, 1.2W	1	0.105
8 LM2T XL230❷	220-240VAC	Yes 24V, 1.2W	1	0.103
8 LM2T XL400❷	380-415VAC	Yes 24V, 1.2W	1	0.106
Flashing❽.				
8 LM2T FL048❷❸	24-48VAC	No	1	0.046
8 LM2T FL230❷❸	110-230VAC	No	1	0.046

Test element for lamp-holders without mounting adapter

8 LM2T T100

Order code	Description	Qty per pkg	Wt
		n°	[kg]
Test element for lamp-holders.			
8 LM2T T100	Test element ❺❻❼	10	0.011

❶ Filament bulb, BA9s U≤130VAC/DC max 2.6W (not supplied); maximum dimensions 11x28 mm (0.4x1.1"). For higher voltages, use neon bulbs.
❷ Not suitable for 3-position selectors.
❸ Filament bulb, BA9s (not supplied); maximum dimensions 11x28mm (0.4x1.1"). 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.
❹ MultiLED bulbs must not be fitted.
❺ 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 consult Customer Service; see contact details on inside front cover.
❻ In case of neon bulbs, consult Customer Service; see contact details on inside front cover.
❼ Only use with lamp-holder elements:
- With direct supply
- With resistor and diode
- LED LM2T LB... and LM2T MB... types.

❽ Not suitable for use with test element.

Operational characteristics
- Operating supply voltage limits for all types: -15...+10% Ue
- Any mounting position allowed
- Lamp-holder elements snap onto the adapter
- Only lamp-holder elements LM2T DL400, LM2T VL230, LM2T EL400 and LM2T ZL230 can be used with LPZ control stations
- Maximum tightening torque: 1Nm/1.57lbft
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection per IEC/EN: IP20.

Mounting adapter
See page 7-39.
Type: 8 LM2T AU120.
The adapter is fixed on the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft) also internally on LPZ control station covers.

Maximum conductor cross section
1 o 2 2.5mm² or AWG 12 cables.

Wiring diagrams
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: RINA, LROS, GOST, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

LED elements steady light

8 LM2T L...

Order code	Supply voltage	LED colour	Qty per pkg	Wt
	[V]		n°	[kg]
Screw termination. Supplied without mounting adapter.				
8 LM2T LB3❶	18-30VAC/DC	Green	10	0.016
8 LM2T LB4❶		Red	10	0.016
8 LM2T LB5❶		Yellow	10	0.016
8 LM2T LB6❶		Blue	10	0.016
8 LM2T LB8❶		White	10	0.016
8 LM2T LE3	85-140VAC	Green	10	0.016
8 LM2T LE4		Red	10	0.016
8 LM2T LE5		Yellow	10	0.016
8 LM2T LE6		Blue	10	0.016
8 LM2T LE8		White	10	0.016
8 LM2T LM3	187-265VAC	Green	10	0.016
8 LM2T LM4		Red	10	0.016
8 LM2T LM5		Yellow	10	0.016
8 LM2T LM6		Blue	10	0.016
8 LM2T LM8		White	10	0.016

❶ Only LM2T LB... type is suitable for use with LM2T T100 test element.

LED elements flashing light

8 LM2T M...

Order code	Supply voltage	LED colour	Qty per pkg	Wt
	[V]		n°	[kg]
Screw termination. Supplied without mounting adapter.				
8 LM2T MB3❷	18-30VAC/DC	Green	10	0.016
8 LM2T MB4❷		Red	10	0.016
8 LM2T MB5❷		Yellow	10	0.016
8 LM2T MB6❷		Blue	10	0.016
8 LM2T MB8❷		White	10	0.016
8 LM2T ME3	85-140VAC	Green	10	0.016
8 LM2T ME4		Red	10	0.016
8 LM2T ME5		Yellow	10	0.016
8 LM2T ME6		Blue	10	0.016
8 LM2T ME8		White	10	0.016
8 LM2T MM3	187-265VAC	Green	10	0.016
8 LM2T MM4		Red	10	0.016
8 LM2T MM5		Yellow	10	0.016
8 LM2T MM6		Blue	10	0.016
8 LM2T MM8		White	10	0.016

❷ Only LM2T MB... type is suitable for use with LM2T T100 test element.

Operational characteristics
- Supply voltage:
  - 8 LM2T L... types: 12-30VAC/DC; 85-140VAC; 187-265VAC
  - 8 LM2T M... types: 18-30VAC/DC; 85-140VAC; 187-265VAC
- Maximum consumption: 17mA (12-30 / 18-30VAC/DC); 20mA (85-140VAC); 17mA (185-265VAC)
- Protection:
  - Against overvoltages
  - Against stray currents in wiring
  - To reduce flickering phenomenon
  - To withstand vibrations
- Electrical life: 100,000 hours
- Snap onto LPX AU120 mounting adapter in the middle position for each illuminated actuator, also internally on the LPZ control station cover
- No other element can be stacked behind LED elements
- Any mounting position allowed
- Maximum tightening torque: 1Nm/1.57lbft
- Ambient conditions:
  - Operating temperature: -25...+60°C
  - Storage temperature: -40...+70°C
- Degree of protection: IP20.

Mounting adapter
See page 7-39.
Type: 8 LM2T AU120.
The adapter is fixed on the mounting surface by means of incorporated screws (Tmax = 0.8Nm/0.59lbft) also internally on LPZ control station covers.

Maximum conductor cross section
1 o 2 2.5mm² or AWG12 cables.

Wiring diagram

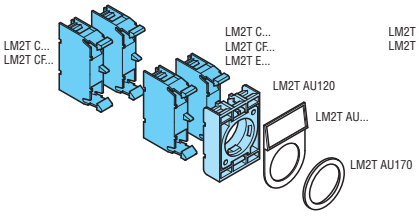
Certifications and compliance
Certifications obtained: EAC, CCC, UL Listed for USA and Canada (cULus - File E93601), as Auxiliary Devices.
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14-95.

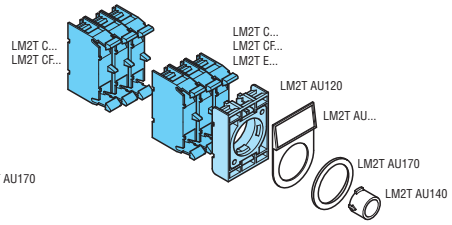
7

7

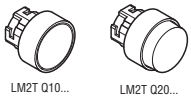
COMBINATIONS FOR METAL SERIES PUSHBUTTONS AND SELECTOR SWITCHES

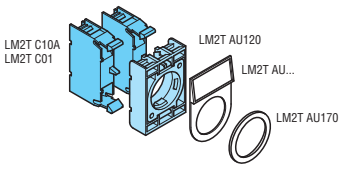
SPRING-RETURN BUTTONS



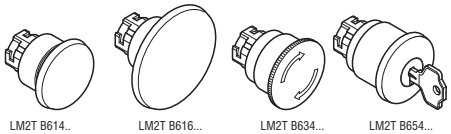


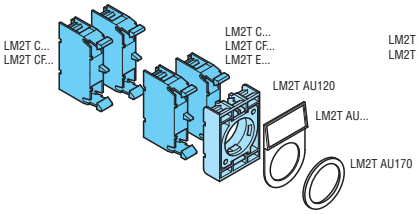
PUSH-PUSH BUTTONS

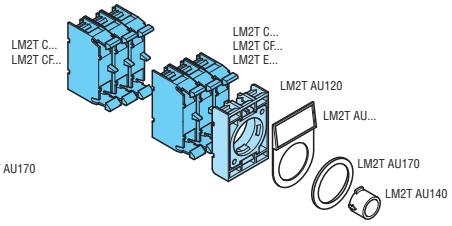




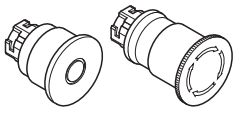
NORMAL STOPPING MUSHROOM-HEAD BUTTONS

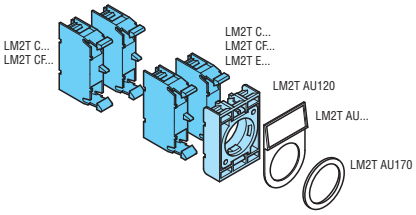




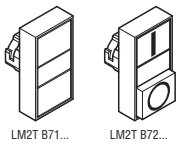


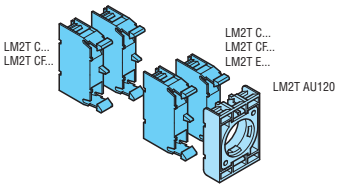
MUSHROOM-HEAD LATCH BUTTONS



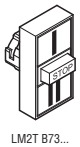


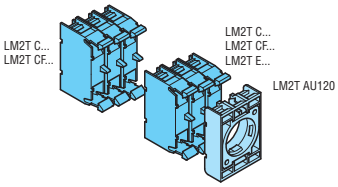
DOUBLE-TOUCH BUTTONS



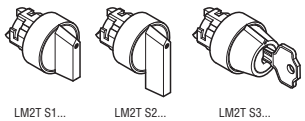


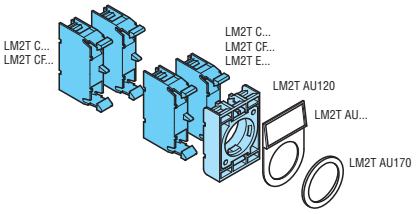
TRIPLE-TOUCH BUTTONS





SELECTOR SWITCHES



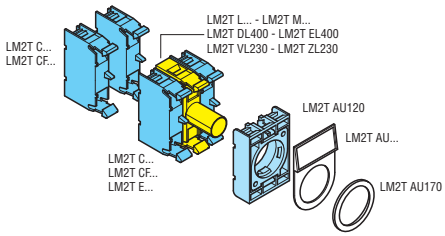


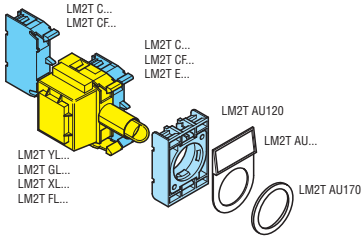
COMBINATION FOR METAL SERIES ILLUMINATED PUSHBUTTONS AND SELECTOR SWITCHES

SPRING-RETURN BUTTONS

LM2T BL10...

LM2T BL20...

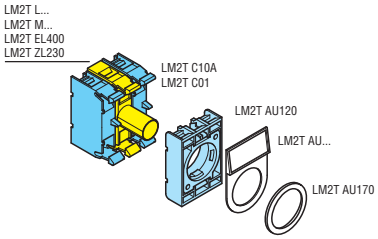


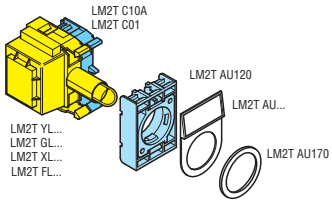


PUSH-PUSH BUTTONS

LM2T QL10...

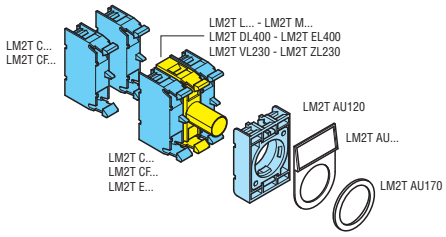
LM2T QL20...

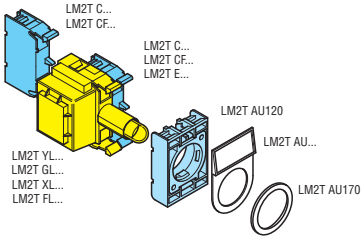




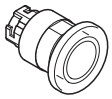
MUSHROOM-HEAD SPRING-RETURN BUTTON

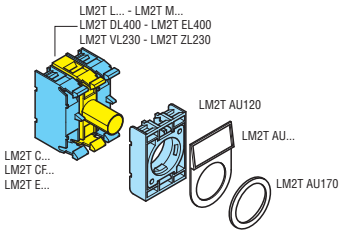
LM2T BL614...

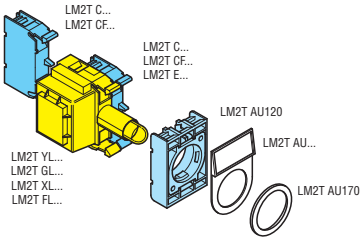




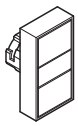
MUSHROOM-HEAD LATCH BUTTON

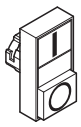

LM2T BL624...

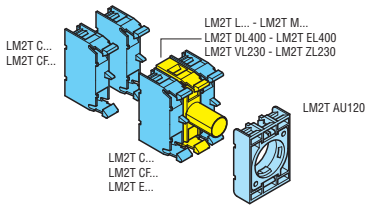




DOUBLE-TOUCH BUTTONS

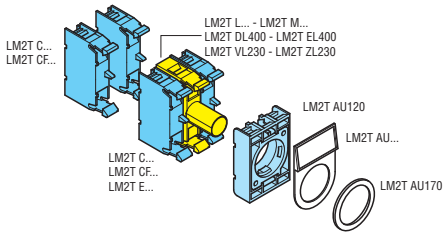

LM2T BL71...

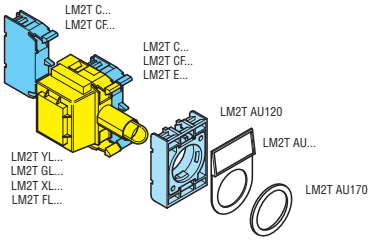

LM2T BL72...



2-POSITION SELECTOR SWITCHES

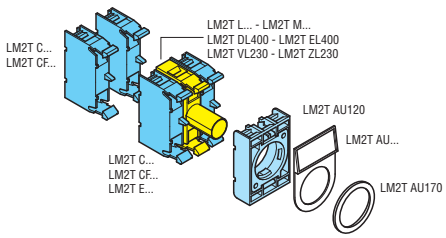
LM2T SL12...





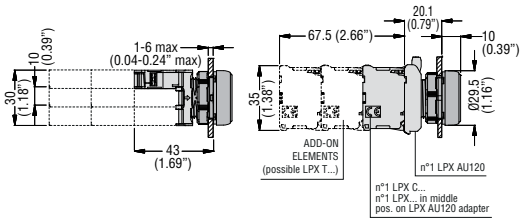
3-POSITION SELECTOR SWITCHES

LM2T SL13...

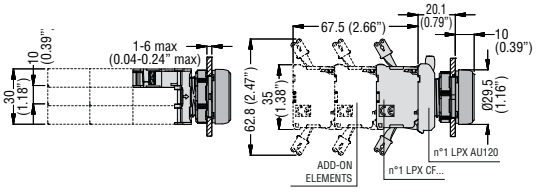


PLATINUM SERIES PUSHBUTTONS AND SELECTOR SWITCHES

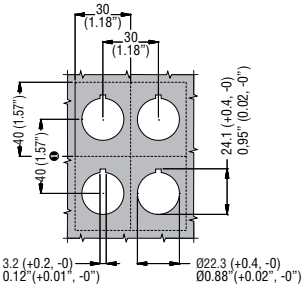
Flush pushbutton with screw terminal contact or LED or test elements



Flush pushbutton with Faston contact elements



Drillings - Minimum recommended distances

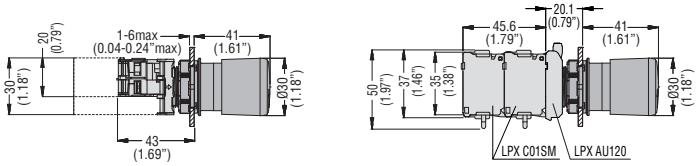


❶ When Faston contacts are used, the vertical pitch must be 85mm(3.35") minimum.

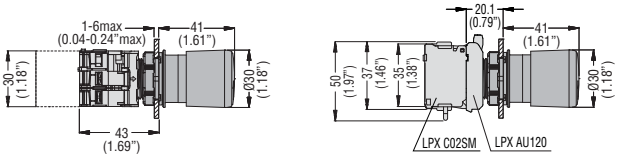
7

Mushroom-head pushbutton with auto-monitor contacts

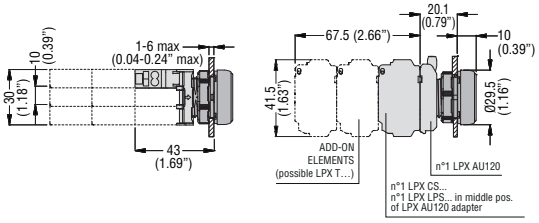
LPX C01SM



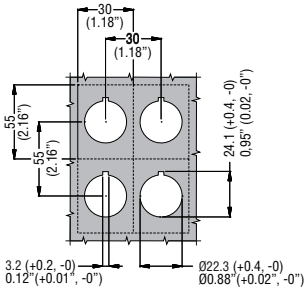
LPX C02SM



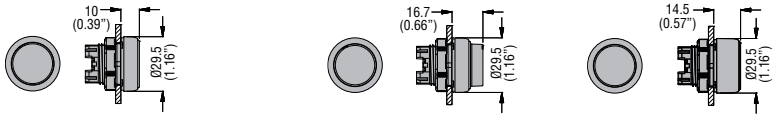
Flush pushbutton with test element and spring-clamp terminal contact or LED elements **LPX CS... - LPX LPS...**



Drillings – Minimum recommended distances with spring-clamp terminal contact or LED elements



Pushbutton actuators



Flush
LPC B1...
Illuminated flush
LPC BL1...
LPX B0❷

Push-push
LPC Q1...
LPX Q0❷
Illuminated push-push
LPC QL1...

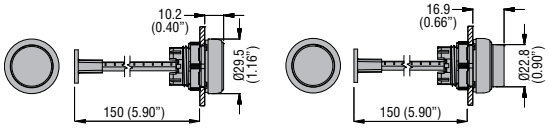
Extended
LPC B2...
Illuminated extended
LPC BL2...

Push-push
LPC Q2...
Illuminated push-push
LPC QL2...
LPX QL0❷

Shrouded
LPC B30...
LPX B3❷

❷ Complete with cap or lens.

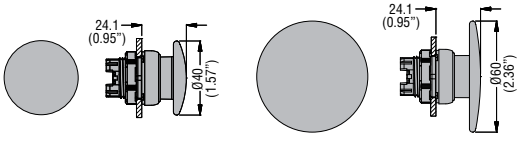
Reset button (complete unit)



Flush
LPC R1...

Extended
LPC R2004

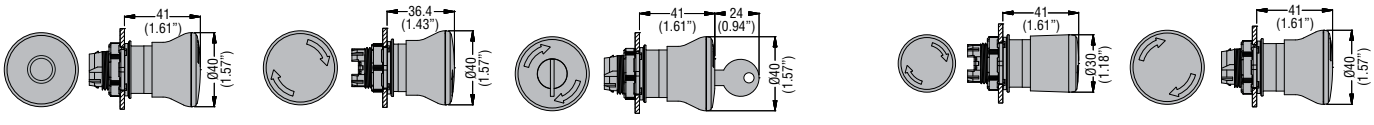
Mushroom-head button actuators



Spring return
LPC B614...
Illuminated spring return
LPC BL614...

Spring return
LPC B616...

Mushroom-head latch button actuators



Push-pull
LPC B674...

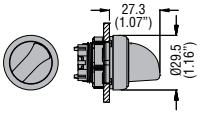
Turn to release
LPC B634...

Turn key to release
LPC B684...

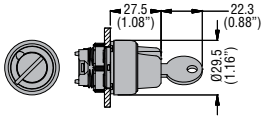
Turn to release
LPC B6634

Turn to release
LPC B6644
Illuminated turn to release
LPC BL664...

Selector switch actuators

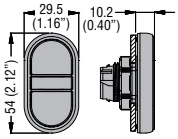


Knob
LPC S1...
Illuminated knob
LPC SL1...



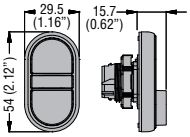
Key
LPC S3...

Double-touch actuators with or without indicator 2 flush buttons



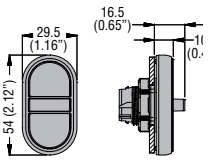
LPC B71... - LPC BL71...

Double-touch actuators with or without indicator 1 flush and 1 extended buttons



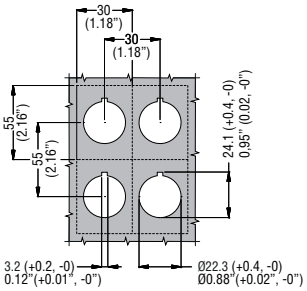
LPC B72... - LPC BL72...

Triple-touch actuators with middle extended button

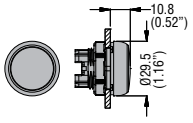


LPC B73...

Drillings - Minimum recommended distances

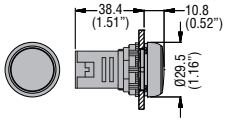


Pilot light head



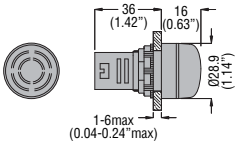
LPL...

LED-integrated monoblock pilot lights - steady light



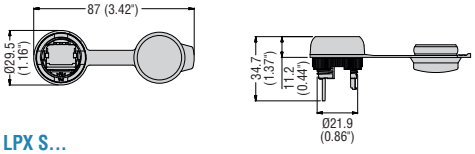
8 LP2T IL...P

Monoblock buzzers



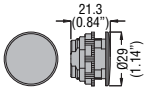
LP2T ZG...

Interface connectors



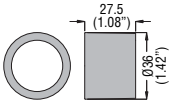
LPX S...

Threaded plug for unused drilled holes



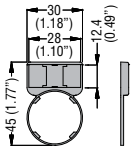
LPX A130

Knob selector switch protection



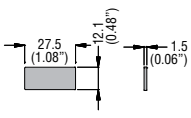
LM2T AU185

Label holder



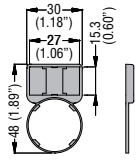
LPX AU100

Label



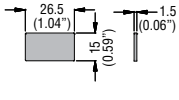
LPX AU109
LM2T A...2...

Label holder



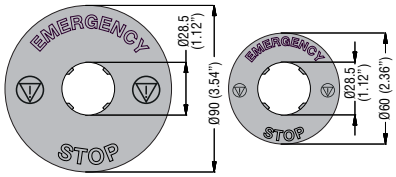
LPX AU105

Label



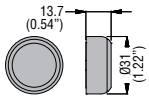
LPX AU108

Plastick disk for mushroom-head pushbuttons



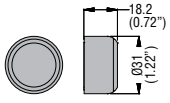
LPX AU112
LPX AU113
LPX AU114
LPX AU115
LPX AU118

Rubber boot for flush buttons



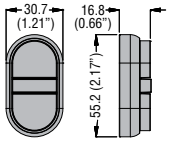
LPX AU13...

Rubber boot for extended buttons



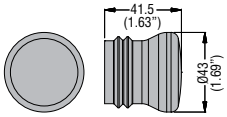
LPX AU14...

Double/triple button boot



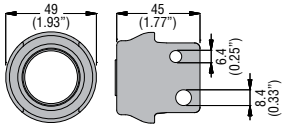
LPX AU157

Rubber boot for mushroom-head buttons



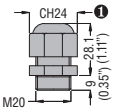
LPX AU167

Padlockable protection for mushroom-head latch buttons except LPC B634...



LPX AU158

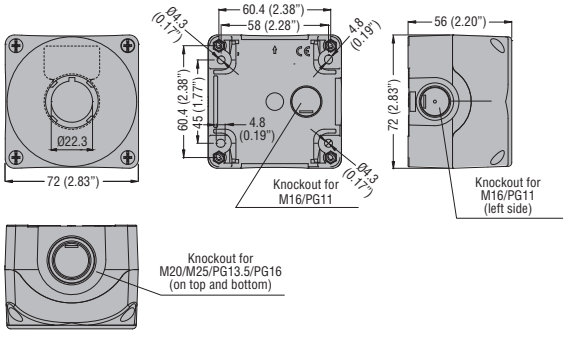
Cable gland



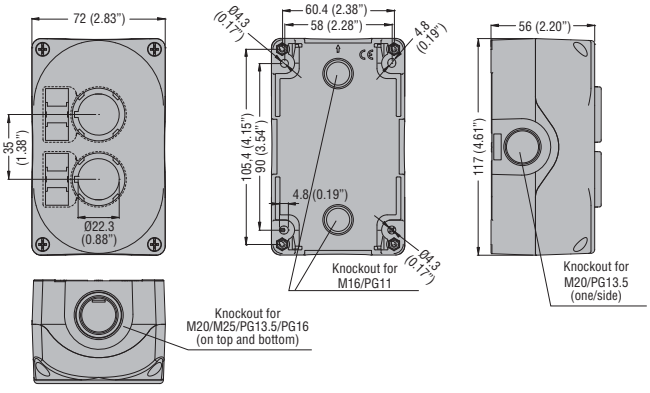
LPX P01

CONTROL STATIONS WITHOUT ACTUATORS

LPZ P1 A8



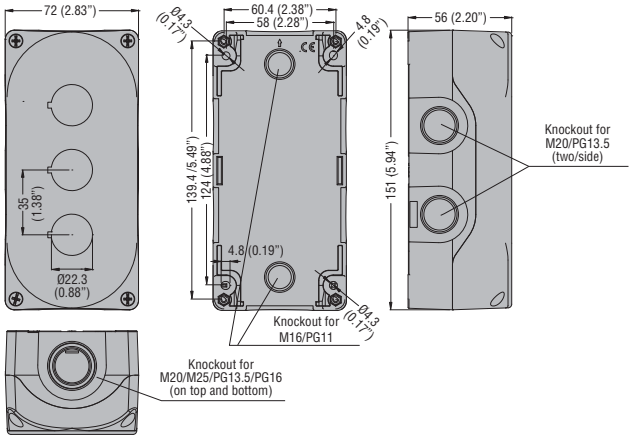
LPZ P2 A8



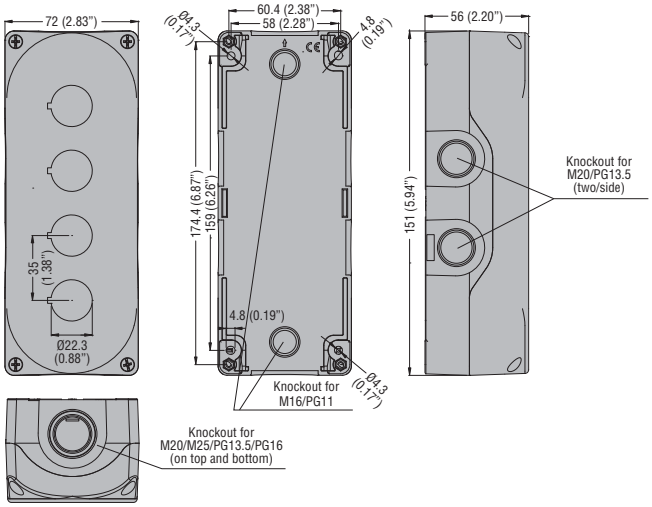
❶ CH24 = Spanner/Wrench size 24

CONTROL STATIONS WITHOUT ACTUATORS

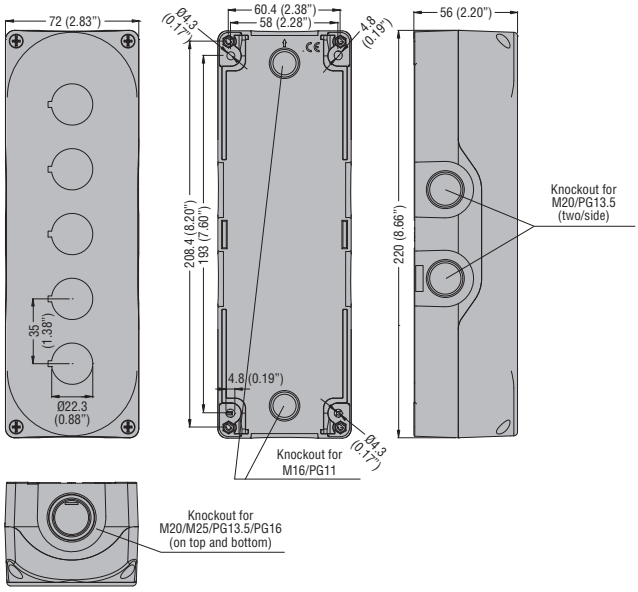
LPZ P3 A8



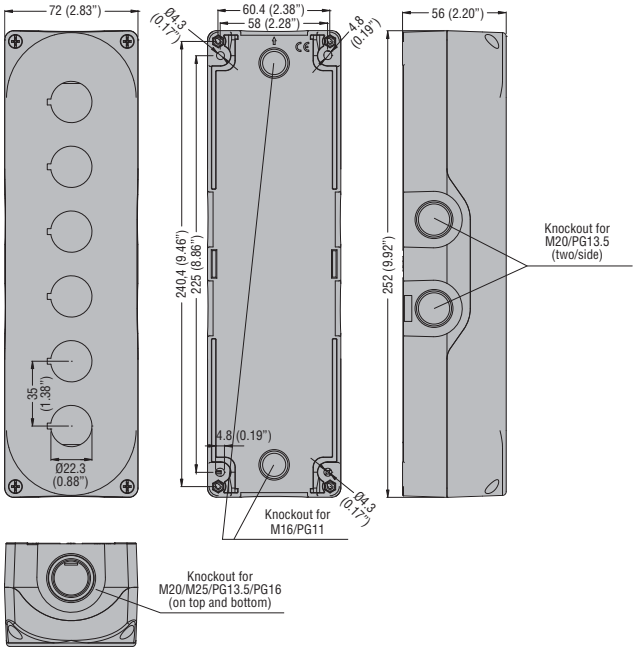
LPZ P4 A8



LPZ P5 A8

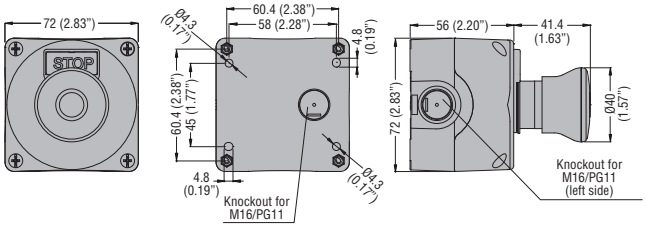


LPZ P6 A8

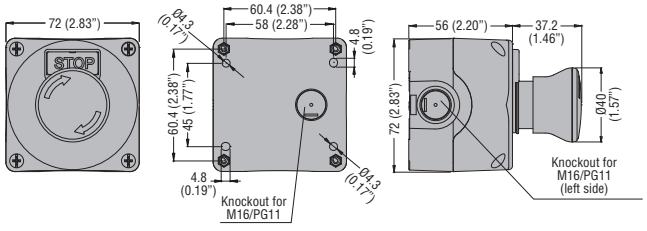


CONTROL STATIONS WITH ONE ACTUATOR

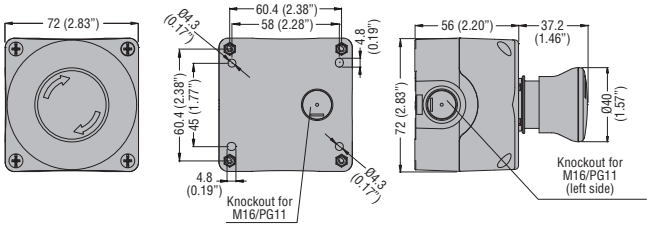
LPZ P1 B8 01



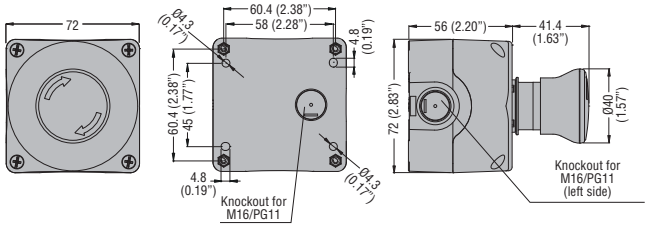
LPZ P1 B8 02



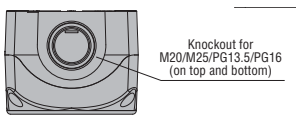
LPZ P1 B5 02



LPZ P1 B5 03

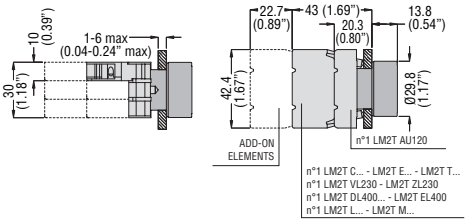


Top view for all **LPZ P1…**

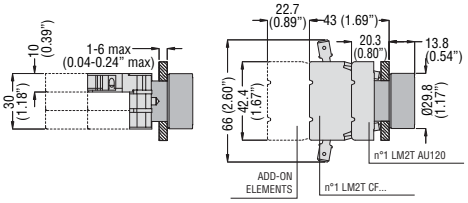


METAL PUSHBUTTONS AND SELECTOR SWITCHES

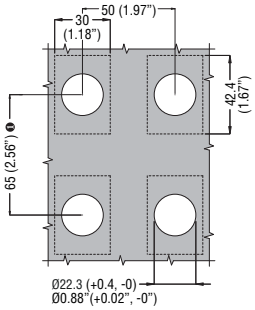
Flush pushbutton with contact or lamp-holder elements (direct or resistor-diode type) or test element



Flush pushbutton with Faston contact elements



Drillings - Minimum recommended distances



❶ When Faston contacts are used, the vertical pitch must be 90mm (3.54") minimum.

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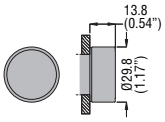
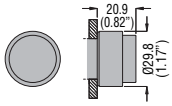
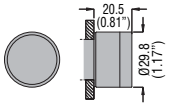
Pushbutton actuators



Flush
LM2T B1...
Push-push
LM2T Q1...

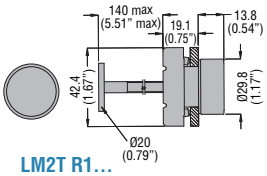


Extended
LM2T B2...
Push-push
LM2T Q2...
Illuminated extended
LM2T BL2...
Illuminated push-push
LM2T QL2...

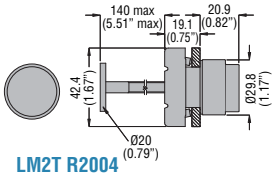


Shrouded
LM2T B30...
Illuminated flush
LM2T BL1...
Illuminated push-push
LM2T QL1...

Reset button (complete unit)

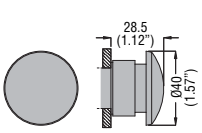


LM2T R1...

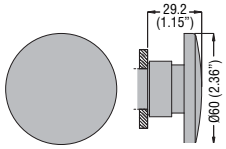


LM2T R2004

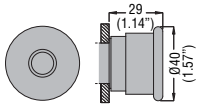
Mushroom-head button actuators



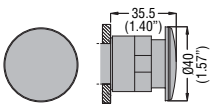
Spring return
LM2T B614...
Illuminated spring return
LM2T BL614...



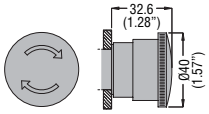
Spring return
LM2T B616...



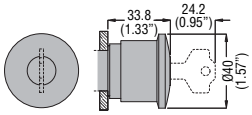
Push-pull
L2T B624...



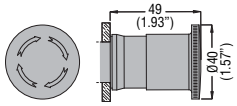
Illuminated push-pull
LM2T BL624...



Turn to release
LM2T B634...

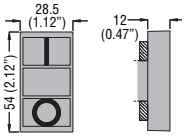


Turn key to release
LM2T B654...



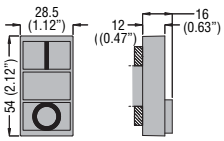
Turn to release
LM2T B6644

Double-touch actuators with or without indicator 2 flush buttons



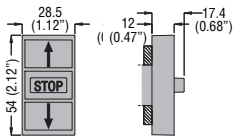
LM2T B71...
LM2T BL71...

Double-touch actuators with or without indicator 1 flush and 1 extended buttons



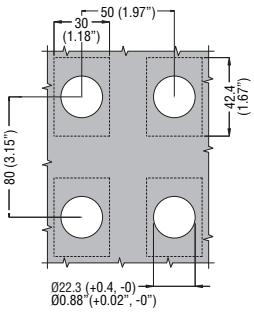
LM2T B72... -
LM2T BL72...

Triple-touch actuators with middle extended button

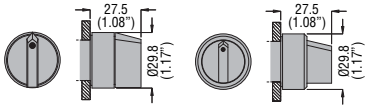


LM2T B73...

Drillings - Minimum recommended distances



Selector switch actuators



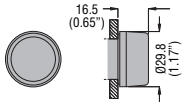
Knob
LM2T S1…

Illuminated knob
LM2T SL1…

Lever
LM2T S2…

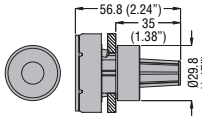
Key
LM2T S3…

Pilot light head



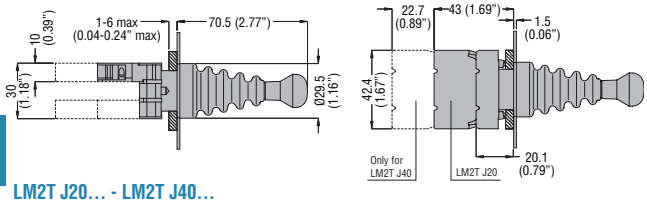
LM2T IL1…

Potentiometer drive



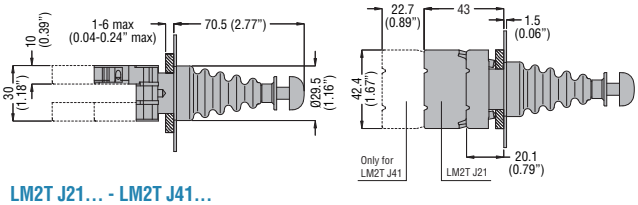
LM2T P100
LM2T P110

Joystick with free actuation lever



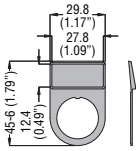
LM2T J20… - LM2T J40…

Joystick with mechanical latch lever



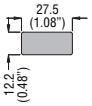
LM2T J21… - LM2T J41…

Label holder



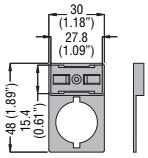
LM2T AU100

Label



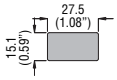
LM2T A…

Label holder



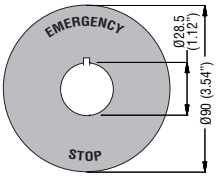
LM2T AU105

Label

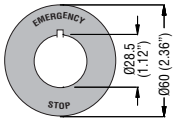


LM2T AU10…

Plastic disk for mushroom-head pushbuttons

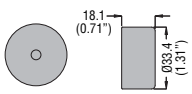


LM2T AU113



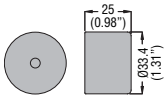
LM2T AU115
LM2T AU118

IP66 boot for flush and illumined flush buttons



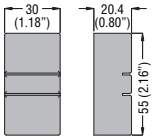
LM2T AU13…

IP66 boot for extended and illuminated extended buttons



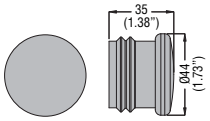
LM2T AU14…

IP66 boot for double/triple touch buttons



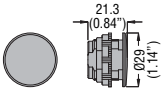
LM2T AU157

IP66 boot for mushroom-head buttons



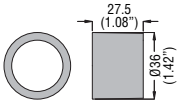
LM2T AU167

Threaded plug for unused drilled holes



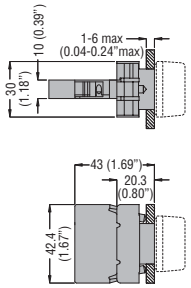
LM2T A130

Knob selector switch protection



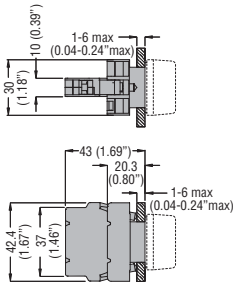
LM2T AU185

Lamp-holder elements with direct supply or resistor and diode



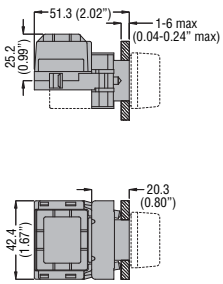
LM2T EL400
LM2T DL400
LM2T ZL230
LM2T VL230

LED steady or flashing light element



LM2T L… - LM2T M…

Transformer or flashing lamp holder element



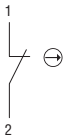
LM2T YL… - LM2T GL…
LM2T XL… - LM2T FL…

FOR PUSHBUTTONS AND SELECTOR SWITCHES

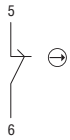
LPX C10 - LPX E10 - LPX CF10
LPX CS10 - LPX CB10
LM2T C10 - LM2T E10

LPX C10A
LM2T C10A

LPX C01 - LPX E01 - LPX CF01
LPX CS01 - LPX CB01
LPZ P1 B... - LM2T C01



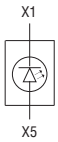
LPX C01D
LM2T C01D



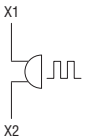
LPX C01SM

LPX C02SM

LP2T IL...P
LPX L...



LP2T ZG...

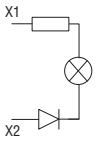


LPX T100

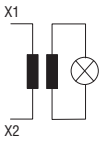
LPX T101
LPX T102

LM2T EL400
LM2T DL400

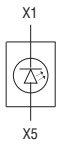
LM2T ZL230
LM2T VL230



LM2T YL...
LM2T XL...



LM2T GL...
LM2T FL...

LM2T T100

LM2T L...
LM2T M...