

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 QL103	Green	10	0.025
LPC QL104	Red	10	0.025
LPC QL105	Yellow	10	0.025
LPC QL106	Blue	10	0.025
LPC QL107	Transparent	10	0.025
Extended (without mounting adapter). Push on-push off.			
LPC QL203	Green	10	0.027
LPC QL204	Red	10	0.027
LPC QL205	Yellow	10	0.027
LPC QL206	Blue	10	0.027
LPC QL207	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/1.6" (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/1.6" (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: 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
- Spring-return mushroom-head actuator: 5,000,000 cycles
- Latch mushroom-head actuators: 300,000 cycles.

Mounting adapter

See page 7-20.

Type: LPX AU120.

Actuators are installed through a Ø22mm/Ø0.87" drilling with a threaded fixing ring (Tmax = 2.3Nm/1.69lbf) 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 7-20, 7-23 or 7-24.

Type	Termination
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 7-27.

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 7-20.

Type: LPX C10A (1EM)

LPX C01 (1NC)

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 7-22 to 24.

Certifications and compliance

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

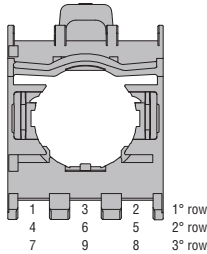
Mounting adapter



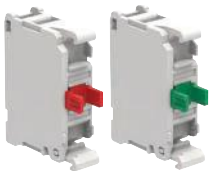
LPX AU120

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

Rear view
(reference for element installation)



Contact elements



LPX C...

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

Screw termination.
Without mounting adapter.

LPX C10 [⊕]	 NO [⊕]	10	0.011
LPX C10A	 EM [⊕]	10	0.011
LPX C01 [⊖]	 NC [⊖]	10	0.011
LPX C01D [⊕] ⊖	 LB [⊕] ⊖	10	0.011

Screw termination. Without mounting adapter.
Auto-monitor contact elements for non-illuminated latch mushroom-head pushbuttons.

LPX C01SM [⊕] ⊖	 1NC [⊕] ⊖	1	0.022
LPX C02SM [⊕] ⊖	 2NC [⊕] ⊖	1	0.033

Screw termination.
With mounting adapter.

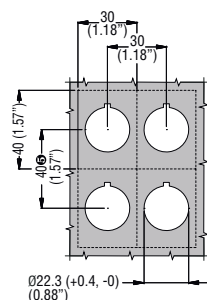
LPX E10 [⊕]	 NO [⊕]	10	0.029
LPX E01 [⊖]	 NC [⊖]	10	0.029

Faston termination.
Without mounting adapter.

LPX CF10 [⊕]	 NO [⊕]	10	0.012
LPX CF01 [⊖]	 NC [⊖]	10	0.012

- ① Use LPX C10A (EM) or LPX C01 (NC) type only with push-push actuators.
Not suitable for push-push actuators.
- ② Normally open contact with early-make operation and suitable for push-push actuators.
- ③ Direct (positive) opening action ⊖ in accordance with IEC/EN 60947-5-1.
- ④ Normally closed contact with late break operation.

Drillings - Minimum recommended distances



⑤ When using Faston, pitch is 85mm/3.35" minimum.

Operational characteristics

- Any mounting position allowed.
- 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 LPX...SM 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 C...SM types.
- Maximum tightening torque for screw terminals:
1Nm/0.74lbf
- Ambient conditions:
 - Operating temperature: -25...+70°C
 - Storage temperature: -40...+85°C
- Degree of protection:
 - 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/EN operational characteristics in AC15 category:

[V]	12	24	48	120	240	400	480	500	600
[A]	6	6	6	6	6	3	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

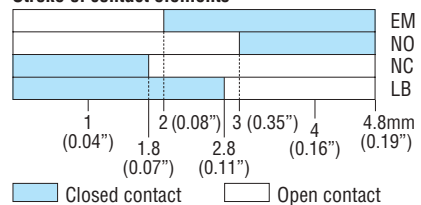
Short-circuit protection fuse: max calibre: 10A gG/SC.

Contact resistance: ≤20mΩ.

Terminals: Clamp screw with washer.

Faston 1x6.35mm(0.25") or 2x2.8mm(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/E10/01, LPX C01SM/02SM, 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, RINA.
Compliant with standard: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.