Order code

**LPC S220** 

LPC S221

**LPC S230** 

**LPC S231** 

**LPC S232** 

**LPC S233** 

# **Selector switch actuators**

PLatinum Ø22mm series



Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without	mounting adapter).		
LPC \$120		10	0.037
LPC \$121	$\nabla$	10	0.037
3 position (without	mounting adapter).		
LPC \$130	$\vee$	10	0.037
LPC \$131	$\oplus$	10	0.037
LPC \$132	$\Box$	10	0.037
LPC S133	T)	10	0.037

Qty

10

10

10

10

10

10

per pkg

Wt

[kg]

0.040

0.040

0.040

0.040

0.040

0.040

Type of

2 position (without mounting adapter).

3 position (without mounting adapter).

positions

### **Selector switch actuators** long lever



## **Selector switch actuators** kev

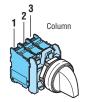


Order code	Type of positions	Qty per pkg	Wt
		n°	[kg]
2 position (without	mounting adapter).		
LPC S320	• ,	10	0.060
LPC S320R€		1	0.060
LPC \$321	• •	10	0.060
LPC S321RO		1	0.060
LPC \$340	•	10	0.060
LPC S340RO	· ·	1	0.060
3 position (without	mounting adapter).		
LPC S330	•	10	0.060
LPC S330R€	$\bigvee$	1	0.060
LPC S331	• • •	10	0.060
LPC S331R€		1	0.060
LPC S332@	• 17	10	0.060
LPC \$332R@@		1	0.060
LPC S333@	•	10	0.060
LPC S333RO❷		1	0.060
LPC S350	CÎ.	10	0.060
LPC S350R€	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1	0.060
LPC \$360	•	10	0.060
LPC S360R€	1	1	0.060
LPC \$370@	<₽	10	0.060
LPC S370R⊕@	<u>\</u>	1	0.060
LPC S380@	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	10	0.060
LPC S380R⊕@	\\	1	0.060
LPC S390@	•	10	0.060
LPC S390R⊕@		1	0.060

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 S320 R421E.

Available only on specific request

Contact activation of 2-position selector switch



	Contacts			
	1	2	3	
A	_	-	_	
В	•	•	•	

Contact activiation of 3-position selector switch

3		C	ontact	S
1 Column		1	2	3
	A	•	•	_
	В	_	_	_
	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: Type 1, 2, 3R, 4, 4X, 12, 12K.

### **Materials**

Polyamide.

### Mechanical endurance

Mechanical life: 1,000,000 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/1.69lbft) also on the cover of LPZ control stations.

The mounting adapter directly snaps onto the actuator.

### **Contact elements**

See page 7-20, 7-23 or 7-24.

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 7-27.

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 at 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 Technical support; see contact details on inside front

### 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.

## **Pushbuttons and selector switches**

### PLatinum Ø22mm series



### **Mounting adapter**

**Contact elements** 

LPX CO2SM



LPX AU120

LPX C..

LPX C01SM

LPX E...

LPX CF01

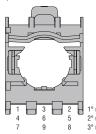
7-20

LPX CF10

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

#### Rear view

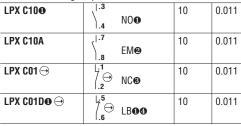
(reference for element installation)



,	3	Ü	5 10W		
Order	code		Function	Qty per pkg	Wt
				n°	[kg]

Screw termination.

Without mounting adapter



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

musimooni neud pusiibattons.					
LPX C01SM⊕	O	1	0.022		
LPX CO2SM⊕		1	0.033		

Screw termination.
With mounting adapte

With mounting adapter.					
LPX E10€	\ .3 \ .4 NO <b>⊕</b>	10	0.029		
LPX E01⊖	L.1 / ⊕ NC❸	10	0.029		

Faston termination.	
Without mounting adapter	

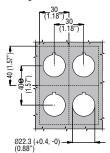
LPX CF100	.3    .4 NO <b>①</b>	10	0.012
LPX CF01 →	L:1 ∕.2 → NC❸	10	0.012

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

  Not suitable for push-push actuators.

  Normally open contact with early-make operation and suitable for
- Direct (positive) opening action 
   in accordance with IEC/EN 60947-5-1. Normally closed contact with late break operation.

### Drillings - Minimum recommended distances



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 CO... 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 CO ... 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/0.74lbft
- 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:

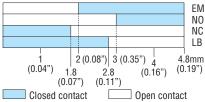
[V]	12	24	48	120	240	400	480	500	600	
[A]	6	6	6	6	6	3	1.5	1.4	1.2	
IEC/EN operational characteristics in DC13 category:										
[V]	12	24		48	125	250	440	500	600	
[A]	3	3		1.5	0.55	0.27	0.15	0.13	0.1	

Short-circuit protection fuse: max calibre: 10A gG/SC. Contact resistance: ≤20mΩ.

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 2.5mm<sup>2</sup> 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 I PXC10A/01D

### **Certifications and compliance**

Certifications obtained: UL Listed for USA and Canada, (cULus - File E93601), as Auxiliary Devices; EAC, CCC,

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

