

## 7 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
- Plastic and metal enclosure.

### PLatinum Ø22mm series

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#### **BUTTON ACTUATORS Ø22mm**

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



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7-31 and 34

#### **DOUBLE AND TRIPLE TOUCH ACTUATORS Ø22mm**

- Double touch with or without indicator
- Triple touch.



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#### **SELECTOR SWITCHES Ø22mm**

- Short lever
- Long lever
- Key
- Knob
- Illuminated.



Page 7-13 to 15

#### **PILOT LIGHTS Ø22mm**

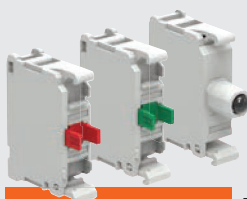
- Monoblock LED.

#### **MONOBLOCK BUZZERS Ø22mm**

- Continuous or 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.



Page 7-25

#### **CONTROL STATIONS**

- 1 to 6 holes option without actuators
- Complete units with 1 button.



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#### **POTENTIOMETERS Ø22mm**

- Potentiometer included in the product with graduated scale.
- Metal potentiometer drives with:
  - graduated scale
  - variable index.



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#### **METAL JOYSTICKS Ø22mm**

- 2 directions
- 4 directions
- 2 directions with mechanical interlock
- 4 directions with mechanical interlock
- Complete with contact elements.

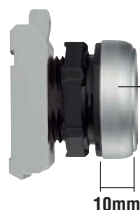


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#### **METAL CONTROL STATIONS**

- Without actuators (from 1 to 16 holes)
- Version without holes.

# QUALITY TOUCH!



## LOW ACTUATOR PROFILE

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



## 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.



## HIGH DEGREE OF PROTECTION IP66, IP67 and IP69K

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

## 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.

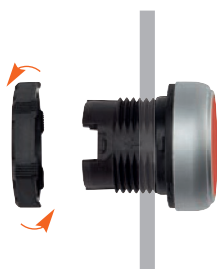
## MATERIALS RESISTANT TO OILS, SOLVENTS AND HYDROCARBONS

## USAGE AT EXTREME TEMPERATURE CONDITIONS

Operation temperature range between -25° and +70°C.

## cULus, EAC, RINA and CCC CERTIFICATIONS.

## QUICK AND EASY ACTUATOR INSTALLATION



- Actuator fixing on the mounting surface, through a Ø22mm/0.87" 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.

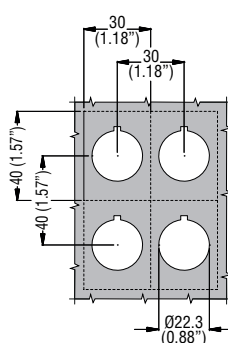


- The mounting adapter and the actuators each have **clearly visible reference** indications making the snap-on fitting between the two easy and intuitive.



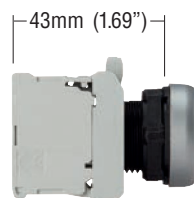
- Electrical contact and LED elements are **snapped onto** the mounting adapter.
- **The activation of the middle contacts is standard supplied** on all non-illuminated spring return and push-push button or selector switch actuators.

## REDUCED DIMENSIONS AND INTERAXIS



Minimum pitch:

- 30x40mm/1.18x1.57" between drillings for two actuators on a mounting surface
- 30x55mm/1.18x2.16" 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
- 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.

### 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 buttons
- Versions with or without indicator.

### MECHANICAL RESET BUTTONS



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



- Up to 6 contact elements can be mounted

### ADAPTER FOR DIN RAIL MOUNTING



- Permits the fitting of the Platinum and 8 LM2T series buttons on DIN rail, in panels and modular boxes. Only 35mm/1.38" wide (2 modules).

### 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).

### SHROUD



- Suitable for all Platinum and 8 LM2T mushroom-head latch buttons, guarantees protection against accidental on-board machinery contact.

### SELECTOR SWITCH ACTUATORS



- Lever 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.

### MONOBLOCK POTENTIOMETERS



- Potentiometer included in the product.
- Protection rating IP66, IP67 and IP69K and UL Type 4X.
- Resistance values from 1 to 500kΩ.

### METAL CONTROL STATIONS



- IP66 and IP67 protection degree.
- From 1 to 16 holes version.
- 1 hole version with actuator protection.
- Version without holes.

### PILOT LIGHTS



- Protection rating IP66, IP67, IP69K and UL Type 4X for LED monoblock pilot lights and pilot light heads.
- Long life and low consumption.

### MONOBLOCK BUZZERS



- Continuous or pulse-tone monoblock buzzers in a single product.
- IP40 version (90dB/10cm) and IP66, IP67, IP69K and UL Type 4X, version (80dB/10cm) available.

### COMMUNICATION INTERFACES



- Protection rating IP65, UL Type 4X.
- USB and RJ45 for Ethernet types with data transmission in both directions.
- USB type 3.0 (backward compatible with USB 2.0).

### PLASTIC CONTROL STATIONS



- IP66, IP67, IP69K and UL Type 4X 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...

## Push-push button actuators



LPC Q10...



LPC Q20...

| Order code                                          | Colour | Qty per pkg<br>n° | Wt<br>[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      |

| Order code                                             | Colour | Qty per pkg<br>n° | Wt<br>[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.  
For the number of contacts that can be fitted, see the indication here to the side.

### 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 7-20.

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 spring-return button actuators

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

See page 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

| Type                                                                                                                                                                                                                                                                                                              | Termination |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|
| <p>Front-mount types snap onto LPX AU120 mounting adapter (to purchase separately).</p> <p>Up to 9 contacts can be fitted: 3 each on the left, middle and right, one behind the other.</p> <p>They can also be fitted internally on the cover surface of LP2 control stations, up to 3 elements per actuator.</p> |             |              |
| 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 |

### Contact elements for push-push button actuators

See page 7-20.

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

Contacts snap onto the 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, 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

### Pushbutton actuators, spring return, with symbol



LPC B11...



LPC B21...

| 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 R1196 | 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 |
|-----------|-----|---|-------|

① With "RESET" caption on actuator.  
E.g. Not suitable for LPZ control stations.

| 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 |       | Black | 10 | 0.025 |
| LPC B1148 |       | White | 10 | 0.025 |
| LPC B1152 |       | 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 |

① Arrow symbol can be used to indicate right or left.  
② 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: 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 7-20.

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 except for LPC R... types. The mounting adapter directly snaps onto the actuator.

### Contact elements for mechanical reset buttons

See page 7-20 or 7-23.

| 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        |

### Contact elements for spring-return button actuators

See pages 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 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, 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<br>④⑤                          | Symbol        | Colour | Qty<br>per pkg<br>n° | Wt<br>[kg] |
|-------------------------------------------|---------------|--------|----------------------|------------|
| Spring return (without mounting adapter). |               |        |                      |            |
| LPCB100180                                |               | 0      | 50                   | 0.027      |
| LPCB100200                                | OPEN          | 0      | 50                   | 0.027      |
| LPCB100210                                | CLOSED        | 0      | 50                   | 0.027      |
| LPCB100220                                |               | 0      | 50                   | 0.027      |
| LPCB100230                                |               | 0      | 50                   | 0.027      |
| LPCB100250                                | +             | 0      | 50                   | 0.027      |
| LPCB100260                                | -             | 0      | 50                   | 0.027      |
| LPCB100270                                |               | 0      | 50                   | 0.027      |
| LPCB100280                                |               | 0      | 50                   | 0.027      |
| LPCB100290                                |               | 0      | 50                   | 0.027      |
| LPCB100300                                | AUTO<br>      | 0      | 50                   | 0.027      |
| LPCB100310                                | BASED<br>     | 0      | 50                   | 0.027      |
| LPCB100320                                | SE<br>        | 0      | 50                   | 0.027      |
| LPCB100330                                | DE<br>        | 0      | 50                   | 0.027      |
| LPCB100340                                | MAN           | 0      | 50                   | 0.027      |
| LPCB100350                                | AUTO          | 0      | 50                   | 0.027      |
| LPCB100380                                | TRIP          | 0      | 50                   | 0.027      |
| LPCB100390                                | TEST          | 0      | 50                   | 0.027      |
| LPCB100400                                |               | 0      | 50                   | 0.027      |
| LPCB100410                                |               | 0      | 50                   | 0.027      |
| LPCB100420                                |               | 0      | 50                   | 0.027      |
| LPCB100430                                |               | 0      | 50                   | 0.027      |
| LPCB100440                                |               | 0      | 50                   | 0.027      |
| LPCB100450                                |               | 0      | 50                   | 0.027      |
| LPCB100460                                |               | 0      | 50                   | 0.027      |
| LPCB100470                                |               | 0      | 50                   | 0.027      |
| LPCB100480                                |               | 0      | 50                   | 0.027      |
| LPCB100490                                |               | 0      | 50                   | 0.027      |
| LPCB100520                                |               | 0      | 50                   | 0.027      |
| LPCB100530                                |               | 0      | 50                   | 0.027      |
| LPCB100540                                |               | 0      | 50                   | 0.027      |
| LPCB100550                                |               | 0      | 50                   | 0.027      |
| LPCB100560                                | START<br>STOP | 0      | 50                   | 0.027      |
| LPCB100570                                | III           | 0      | 50                   | 0.027      |
| LPCB100580                                | IV            | 0      | 50                   | 0.027      |
| LPCB100590                                |               | 0      | 50                   | 0.027      |
| LPCB100600                                |               | 0      | 50                   | 0.027      |
| LPCB100610                                |               | 0      | 50                   | 0.027      |
| LPCB100620                                |               | 0      | 50                   | 0.027      |
| LPCB100630                                |               | 0      | 50                   | 0.027      |
| LPCB100640                                | ①             | 0      | 50                   | 0.027      |
| LPCB100650                                | Ⓢ             | 0      | 50                   | 0.027      |
| LPCB100660                                |               | 0      | 50                   | 0.027      |
| LPCB100670                                |               | 0      | 50                   | 0.027      |
| LPCB100680                                |               | 0      | 50                   | 0.027      |
| LPCB100690                                |               | 0      | 50                   | 0.027      |

① Add letter "L" if illuminated type is required.

② For the type of actuator, add: 1 for flush or 2 for extended.

③ 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.

④ Products available on specific request for a minimum multiple quantity of 50 pieces per type.

⑤ Consult Technical support for assistance; see contact details or inside front cover.

⑥ 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 7-20.

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

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 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, 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 B674...



LPC B6344



LPC B6634



LPC B6644

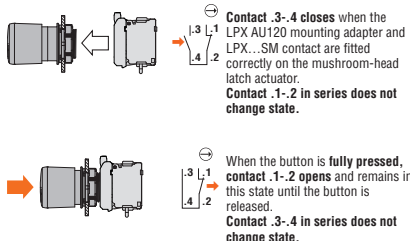


LPC B684...

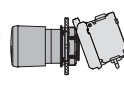
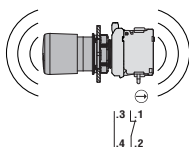
Normal operation of auto-monitor contact mounted on surface or on cover of control stations

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

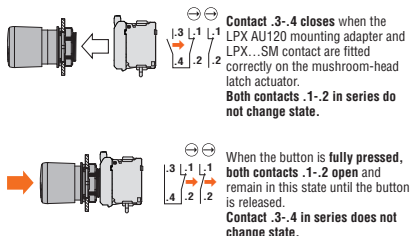
### With contact type LPX C01SM



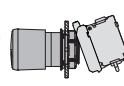
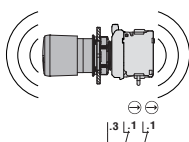
If the contact LPX C01SM detaches from the actuator due to **strong vibrations or shock**, the equipment can be restored to operating state only when proper mounting of the contact with the actuator is re-established resulting in **contact .3-.4 closing**.



### With contact type LPX C02SM



If the contact LPX C02SM 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**.



| Order code                                                                                                    | Colour | Qty per pkg | Wt    |
|---------------------------------------------------------------------------------------------------------------|--------|-------------|-------|
|                                                                                                               |        | n°          | [kg]  |
| SPRING RETURN.<br>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 |
| 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<br>Ø40mm/1.6" (without mounting adapter).<br>For normal stopping.                      |        |             |       |
| LPC B6742                                                                                                     | Black  | 10          | 0.097 |
| LPC B6744                                                                                                     | Red    | 10          | 0.097 |
| For emergency stopping, ISO 13850 compliant.                                                                  |        |             |       |
| LATCH, TURN TO RELEASE<br>Ø40mm/1.6" (without mounting adapter).<br>For normal stopping.                      |        |             |       |
| LPC B6342                                                                                                     | Black  | 10          | 0.046 |
| LPC B6344                                                                                                     | Red    | 10          | 0.046 |
| Ø30mm/1.2" (without mounting adapter).<br>For emergency stopping, ISO 13850 compliant.                        |        |             |       |
| LPC B6634                                                                                                     | Red    | 10          | 0.079 |
| Ø40mm/1.6" (without mounting adapter).<br>For emergency stopping, ISO 13850 compliant.                        |        |             |       |
| LPC B6644                                                                                                     | Red    | 10          | 0.079 |
| LATCH, TURN KEY TO RELEASE<br>Ø40mm/1.6" (without mounting adapter). Key code n° 455.<br>For normal stopping. |        |             |       |
| LPC B6842                                                                                                     | Black  | 10          | 0.083 |
| LPC B6842R                                                                                                    | Black  | 1           | 0.083 |
| For emergency stopping, ISO 13850 compliant.                                                                  |        |             |       |
| LPC B6844                                                                                                     | Red    | 10          | 0.083 |
| LPC B6844R                                                                                                    | Red    | 1           | 0.083 |

① 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.

## 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:

- Mushroom head spring return buttons: 5,000,000 cycles
- Mushroom head latch buttons: 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

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

| Type                                                                                                                                              | Termination           |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 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.<br>See example on page 7-27.<br>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, 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...

**new**

| Order code | Colour | Symbols | Qty per pkg<br>n° | Wt<br>[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 |
| LPC B7191 | Black/Black | ↑<br>↓     | 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<br>n° | Wt<br>[kg] |
|------------|---------|-------------------|------------|
|------------|---------|-------------------|------------|

One middle extended buttons (without mounting adapter). Spring return.

|           |                |   |       |
|-----------|----------------|---|-------|
| LPC B7345 | ↑<br>STOP<br>↓ | 5 | 0.030 |
| LPC B7355 | ↑<br>STOP<br>↓ | 5 | 0.030 |
| LPC B7365 | →<br>STOP<br>← | 5 | 0.030 |
| LPC B7375 | ↗<br>STOP<br>↖ | 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: 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 7-20.

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

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

| 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: 3 on the left, 3 on the right.                                           |             |
| 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: 2 for double-touch and 3 elements for triple-touch. |             |

|     |          |              |
|-----|----------|--------------|
| 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.

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

## Selector switch actuators lever



LPC S1...

| Order code                             | Type of positions | Qty per pkg<br>n° | Wt<br>[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 long lever



LPC S2...

| Order code                             | Type of positions | Qty per pkg<br>n° | Wt<br>[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

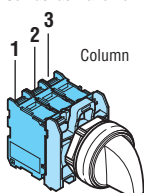


LPC S3...

| Order code                             | Type of positions | 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 |

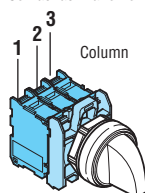
① Versions with different key codes.  
Complete with the numeric code of the key.  
The following versions are available: 421E, 458A, 520E, 3131A, 3433E.  
Example of complete code: LPC S320 R421E.  
② Available only on specific request

Contact activation of 2-position selector switch



|   |  | Contacts |   |   |
|---|--|----------|---|---|
|   |  | 1        | 2 | 3 |
| A |  | —        | — | — |
| B |  | •        | • | • |

Contact activation 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: 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/1.69lbf) 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.

| Type | Termination |              |
|------|-------------|--------------|
| 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](http://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 cover.

### 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.

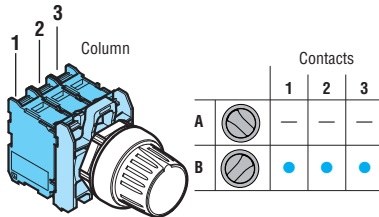
## Selector switch actuators knob



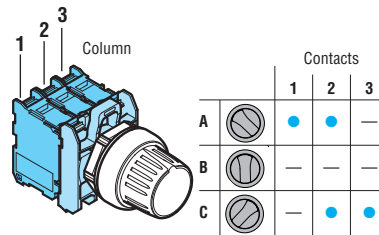
LPC S4...

| Order code                            | Type of positions | Qty per pkg | Wt    |
|---------------------------------------|-------------------|-------------|-------|
|                                       |                   | n°          | [kg]  |
| 2 position (without mounting adapter) |                   |             |       |
| LPC S420                              | ▼                 | 10          | 0.037 |
| LPC S421                              | ↕                 | 10          | 0.037 |
| 3 position (without mounting adapter) |                   |             |       |
| LPC S430                              | ▼                 | 10          | 0.037 |
| LPC S431                              | ↕                 | 10          | 0.037 |
| LPC S432                              | ↕                 | 10          | 0.037 |
| LPC S433                              | ↕                 | 10          | 0.037 |

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: 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/1.69lbf) 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.

| 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 7-27.

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](http://www.LovatoElectric.com).

### Type of position

▼ Maintained position.

↕ Spring return position.

### Rotation angles

2 position



3 position



### Certifications and compliance

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

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

### 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.<br>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.<br>Ø40mm/1.6" (without mounting adapter).<br>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.



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



LPC BL71...



LPC BL72...

**new**

| Order code | Colour | Symbol | Qty per pkg<br>n° | Wt<br>[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 |
| LPC BL7191 | Black/Black | ↑<br>↓     | 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.<br>n° | Wt<br>[kg] |
|------------|--------|-------------------|--------------------|------------|
|------------|--------|-------------------|--------------------|------------|

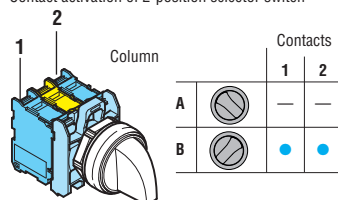
2 position (without mounting adapter).

|            |        |   |    |       |
|------------|--------|---|----|-------|
| 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 |

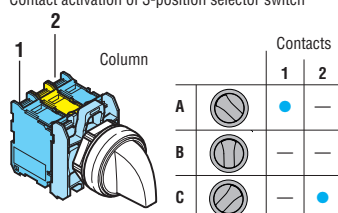
3 position (without mounting adapter).

|            |        |   |    |       |
|------------|--------|---|----|-------|
| 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: Type 1, 2, 3R, 4, 4X, 12, 12K.

### Materials

Polyamide.

### Mechanical endurance

Operating force: <0.5kg/1.1lb (actuator).

Mechanical life:

- Double-touch: 1,000,000 cycles.
- Selector switches: 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/1.69lbf) 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.

| 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 7-27.

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 |

### Selector switch type of positions

✓ Maintained position.

∇ Spring return position.

### Selector switch rotation angles

2 position



3 position



### LED light elements

See pages 7-22 to 7-24.

### 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.

## 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  | 10          | 0.024 |

❗ 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: Type 1, 2, 3R, 4, 4X, 12, 12K.

## Materials

Polyamide.

## Mounting adapter

See page 7-20.

Type: LPX AU120.

Pilot light heads 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, with LED element in central position.

The mounting adapter directly snaps onto the actuator.

## LED light elements

See pages 7-22 to 7-24.

## 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.

## LED integrated monoblock pilot lights steady light



LPM...

new

| Order code | Rated auxiliary supply voltage | LED colour  | Qty per pkg | Wt    |
|------------|--------------------------------|-------------|-------------|-------|
|            |                                |             | n°          | [kg]  |
| LPM LA1    | 12VAC/DC                       | Orange      | 10          | 0.021 |
| LPM LA3    |                                | Green       | 10          | 0.021 |
| LPM LA4    |                                | Red         | 10          | 0.021 |
| LPM LA5    |                                | Yellow      | 10          | 0.021 |
| LPM LA6    |                                | Blue        | 10          | 0.021 |
| LPM LA7    |                                | Transparent | 10          | 0.021 |
| LPM LB1    | 24VAC/DC                       | Orange      | 10          | 0.021 |
| LPM LB3    |                                | Green       | 10          | 0.021 |
| LPM LB4    |                                | Red         | 10          | 0.021 |
| LPM LB5    |                                | Yellow      | 10          | 0.021 |
| LPM LB6    |                                | Blue        | 10          | 0.021 |
| LPM LB7    |                                | Transparent | 10          | 0.021 |
| LPM LD1    | 48VAC/DC                       | Orange      | 10          | 0.021 |
| LPM LD3    |                                | Green       | 10          | 0.021 |
| LPM LD4    |                                | Red         | 10          | 0.021 |
| LPM LD5    |                                | Yellow      | 10          | 0.021 |
| LPM LD6    |                                | Blue        | 10          | 0.021 |
| LPM LD7    |                                | Transparent | 10          | 0.021 |
| LPM LE1    | 110...120VAC                   | Orange      | 10          | 0.024 |
| LPM LE3    |                                | Green       | 10          | 0.024 |
| LPM LE4    |                                | Red         | 10          | 0.024 |
| LPM LE5    |                                | Yellow      | 10          | 0.024 |
| LPM LE6    |                                | Blue        | 10          | 0.024 |
| LPM LE7    |                                | Transparent | 10          | 0.024 |
| LPM LM1    | 230VAC                         | Orange      | 10          | 0.024 |
| LPM LM3    |                                | Green       | 10          | 0.024 |
| LPM LM4    |                                | Red         | 10          | 0.024 |
| LPM LM5    |                                | Yellow      | 10          | 0.024 |
| LPM LM6    |                                | Blue        | 10          | 0.024 |
| LPM LM7    |                                | Transparent | 10          | 0.024 |

## Operational characteristics

- Nominal frequency: 50-60Hz
- Supply voltage: 12VAC/DC, 24VAC/DC, 48VAC/DC, 110VAC, 230VAC (-15%...+10% Ue)
- Consumption: ≤20mA
- Installed through a Ø22mm/Ø0.87" drilling with a threaded fixing ring (Tmax = 2.3Nm/1.69lbf) also on cover of LPZ control stations
- Electrical life: >30,000 hours
- Screw termination
- Side cable entry
- Maximum tightening torque: 0.8Nm
- Ambient conditions:
  - Operating temperature: -25...+70°C
- Degree of protection:
  - per IEC/EN: IP66, IP67 and IP69K on front; IP20 at rear
  - per UL: Type 1, 2, 3R, 4, 4X, 12, 12K on front.

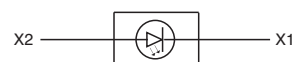
## Materials

Polyamide.

## Maximum conductor cross section

1 or 21.5mm² or AWG16 cables.

## Wiring diagram



## Certifications and compliance

Certifications obtained: cULus, EAC, CCC (pending). Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

## Monoblock potentiometers



LPC PA...

| Order code | Resistance value | Qty per pkg. | Wt    |
|------------|------------------|--------------|-------|
|            |                  | n°           | [kg]  |
| LPC PA001  | 1kΩ              | 10           | 0.040 |
| LPC PA002  | 2.5kΩ            | 10           | 0.040 |
| LPC PA005  | 5kΩ              | 10           | 0.040 |
| LPC PA010  | 10kΩ             | 10           | 0.040 |
| LPC PA050  | 50kΩ             | 10           | 0.040 |
| LPC PA100  | 100kΩ            | 10           | 0.040 |
| LPC PA500  | 500kΩ            | 10           | 0.040 |

## General characteristics

Monoblock potentiometers are typically used for regulating the parameters of many devices (e.g. the speed of the electric motors through static converters).

The monoblock body design permits direct use of the potentiometer by panel fitting with fixing ring and subsequent tightening of cables into the built-in terminal block.

The potentiometer is made with Cermet technology, which ensures stable, constant resistance values over time. The, UL-certified, range is made for resistance values from 1 to 500kΩ. All potentiometers are IP66, IP67, IP69K and UL Type 4X, which means that they can be used in demanding ambient conditions.

## Operational characteristics

- Rated insulation voltage  $U_i$ : 250VAC
- Impulse withstand voltage  $U_{imp}$ : 4kV
- Potentiometer included in the product
- Monoblock body with 1-turn graduated scale
- Any fitting position permitted
- Installed through a Ø22mm/Ø0.87" drilling with a threaded fixing ring ( $T_{max} = 2.3Nm/1.69lbft$ ) also on the cover of LPZ control stations
- Resistive material: cermet
- Operation: linear
- Resistance tolerance:  $\pm 10\%$
- Max. power: 1W (70°C)
- Mechanical endurance: 25,000 operations
- Mechanical travel: 290°
- Side cable entry
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP66, IP67 and IP69K on front
  - Per IEC/EN: IP20 at rear
  - Per UL: Type 1, 2, 3R, 4, 4X, 12, 12K on front.

## Materials

Polyamide.

## Maximum conductor cross section

Screw terminal connections with three separate connections:

- Min. cable 0.5mm<sup>2</sup> / AWG24
- Max. cable 2.5mm<sup>2</sup> / AWG14
- Maximum tightening torque: 0.5Nm/0.37lbft
- Flat-head screwdriver: 0.6x3.5mm/0.02x0.14".

## Certifications and compliance

Certifications obtained: cULus, EAC, CCC (pending).  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

## Monoblock buzzers



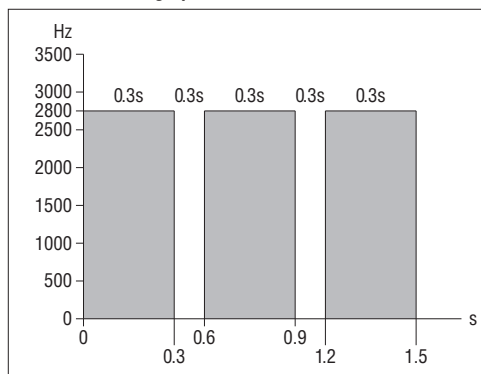
LPC ZS...



LPC ZS...IP

| Order code                                                       | Voltage         | Sound intensity at 2800Hz | Qty per pkg. | Wt    |
|------------------------------------------------------------------|-----------------|---------------------------|--------------|-------|
|                                                                  | [V]             | [dB/10cm]                 | n°           | [kg]  |
| Continuous or pulse tone, IP40 version.                          |                 |                           |              |       |
| <b>LPC ZSA</b>                                                   | 9...15VAC/DC    | 90                        | 1            | 0.020 |
| <b>LPC ZSB</b>                                                   | 18...30VAC/DC   | 90                        | 1            | 0.020 |
| <b>LPC ZSE</b>                                                   | 85...140VAC/DC  | 90                        | 1            | 0.020 |
| <b>LPC ZSM</b>                                                   | 185...265VAC/DC | 90                        | 1            | 0.020 |
| Continuous or pulse tone, IP66, IP67, IP69K, UL Type 4X version. |                 |                           |              |       |
| <b>LPC ZSAIP</b>                                                 | 9...15VAC/DC    | 80                        | 1            | 0.020 |
| <b>LPC ZSBIP</b>                                                 | 18...30VAC/DC   | 80                        | 1            | 0.020 |
| <b>LPC ZSEIP</b>                                                 | 85...140VAC/DC  | 80                        | 1            | 0.020 |
| <b>LPC ZSMIP</b>                                                 | 185...265VAC/DC | 80                        | 1            | 0.020 |

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, compact size and the use of materials, in accordance with the North American market, are the main features of this product.

## Operational characteristics

- Rated frequency: 50...60Hz
- Supply voltage: 9...15VAC/DC, 18...30VAC/DC, 85...140VAC/DC, 185...265VAC/DC
- Maximum absorption: 20mA-0.30W (type 9...15VAC/DC), 15mA-0.40W (type 18...30VAC/DC), 5.5mA-0.80W (type 85...140VAC/DC), 3.5mA-0.95W (type 185...265VAC/DC)
- Minimum activation voltage: >4V (type 9...15VAC/DC), >8V (type 18...30VAC/DC), >15V (type 85...140VAC/DC), >25V (type 185...265VAC/DC)
- Impulse withstand voltage  $U_{imp}$ : 4kV
- Installed through a Ø22mm/Ø0.87" drilling with a threaded fixing ring ( $T_{max} = 2.3Nm/1.69lbf$ ) also on the cover of LPZ control stations
- Service life: 30,000 hours (permanently powered)
- Side cable entry
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection (type LPC ZS...IP):
  - per IEC/EN: IP66, IP67, IP69K on front and IP20 at rear
  - per UL: Type 1, 2, 3R, 4, 4X, 12, 12K on front.

## Materials

Polyamide.

## Maximum conductor cross section

Screw terminal connections with three separate connections:

- Min. cable 0.5mm<sup>2</sup> / AWG24
- Max. cable 2.5mm<sup>2</sup> / AWG14
- Maximum tightening torque: 0.5Nm/0.37lbf
- Flat-head screwdriver: 0.6x3.5mm/0.02x0.14"

## Certifications and compliance

Certifications obtained: cULus, EAC, CCC (pending), RINA (pending).  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.

## USB and RJ45 communication interfaces



LPC D01

new

| Order code          | Description                                               | Qty per pkg. | Wt    |
|---------------------|-----------------------------------------------------------|--------------|-------|
|                     |                                                           | n°           | [kg]  |
| <b>LPC D01</b>      | USB interface, A/A female type connection                 | 1            | 0.018 |
| <b>LPC D01 L050</b> | USB interface, A/A female connection with 0.5m long cable | 1            | 0.050 |
| <b>LPC D01 L100</b> | USB interface, A/A female connection with 1m long cable   | 1            | 0.080 |
| <b>LPC D03</b>      | USB interface, A/B female type connection                 | 1            | 0.018 |
| <b>LPC D05</b>      | USB interface, B/A female type connection                 | 1            | 0.018 |
| <b>LPC D06</b>      | RJ45 interface, Ethernet connection type                  | 1            | 0.026 |
| <b>LPC D06 L100</b> | RJ45 interface, Ethernet connection with 1m long cable    | 1            | 0.090 |

new



LPC D01 L...



LPC D05

## 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

- Rated insulation voltage for LPCD01, LPCD03, LPCD05: 5VAC/DC
- Rated insulation voltage for LPCD06: 24VAC
- Interface mechanical endurance: ≥750 insertions
- Installed through a Ø22mm/Ø0.87" drilling with a threaded fixing ring ( $T_{max} = 2.3Nm/1.69lbf$ ) also on the cover of LPZ control stations
- Transmission characteristics for LPCD01, D03, D05: 5Gbps (625MB/sec)
- Transmission characteristics for LPCD06: 10 Gigabit Ethernet IEEE 802.3an-2006
- Rated current for LPCD01, LPCD03, LPCD05: 1.8A
- Rated current for LPCD06: 1.5A
- Insulation resistance: ≥100MΩ
- Contact resistance for LPCD01, LPCD03, LPCD05: ≤30mΩ
- Contact resistance for LPCD06: ≤40mΩ
- USB connector class: 3.0 (backward compatible with USB class 2.0)
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection:
  - Per IEC/EN: IP65 on front (with cap mounted)
  - Per IEC/EN: IP20 at rear
  - Per UL: Type 1, 2, 3R, 4, 4X, 12, 12K on front (with cap mounted)

## Materials

Polyamide.

## Certifications and compliance

Certifications obtained: cULus, EAC, CCC (pending), RINA (pending).  
Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.



## Accessories and spare parts



LPX A130



LPX A140



LPX AU00



LPX AU01



LPX P01



LPX B0



LPX B104



LPX B203



LPX BL105



LPX BL206

new

| Order code                                             | Description                                                                            | Qty per pkg.<br>n° | Wt<br>[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)                                              | 10                 | 0.006      |
| LPX A170                                               | Spare standard key set for selector switches or mushroom-head buttons, key code n° 455 | 10                 | 0.008      |
| LPX A170R●                                             | Spare key set for selector switches or mushroom head buttons, LPC...R type             | 1                  | 0.008      |
| LPX AU00                                               | Plastic threaded ring for actuator fixing                                              | 20                 | 0.002      |
| LPX AU01                                               | Metallic threaded ring for actuator fixing                                             | 20                 | 0.015      |
| 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                                      | 10                 | 0.013      |
| LPX B3                                                 | Shrouded spring return actuator with no cap                                            | 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



LPX AU159



LPX DIN

| Order code         | Description                                                                                                            | Qty per pkg. | Wt    |
|--------------------|------------------------------------------------------------------------------------------------------------------------|--------------|-------|
|                    |                                                                                                                        | n°           | [kg]  |
| LPX AU100          | Label holder for 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 engraved plastic LPX AU108 label                                                                      | 50           | 0.003 |
| LPX AU108          | Engravable silver plastic label to use with LPX AU105 holder                                                           | 50           | 0.002 |
| LPX AU13①②         | Rubber boot for flush button LPC B1/BL1/R1...                                                                          | 10           | 0.006 |
| LPX AU14①②         | Rubber boot for buttons LPC B2/3..., LPC BL2... and LPC R2...                                                          | 10           | 0.009 |
| LPX AU157          | Rubber boot for double and triple-touch buttons, transparent                                                           | 10           | 0.007 |
| LPX AU167②③        | Rubber boot for mushroom head buttons LPC B63/B66/B67/BL66... transparent                                              | 10           | 0.012 |
| LPX AU158②④        | Padlockable protection, Ø5-8mm locks or buttons LPC B66/B67/B68/BL664...; for LPC B634... Ø5-6mm/0.2-0.24" locks only. | 10           | 0.005 |
| LPX AU159②④        | Shroud for buttons LPC B63..., LPC B66/67/68/BL666...                                                                  | 10           | 0.010 |
| LPX DIN            | Adapter for mounting LPC... buttons on DIN rail 35mm/1.38" wide (2 modules)                                            | 10           | 0.008 |
| 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        | Yellow selector protection shroud for knob type only                                                                   | 10           | 0.004 |
| 8 LM2T A200        | Socket spanner/wrench for fixing ring fitting, metal                                                                   | 1            | 0.184 |

① For flush and extended push buttons, complete the order code by adding the digit of the required colour:

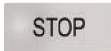
2 (black); 3 (green); 4 (red); 5 (yellow); 6 (blue); 7 (transparent); 8 (white).  
For illuminated push buttons, add only digit 7 (transparent).

② Cannot be used when LPX AU100 or LPX AU105 is fitted.

③ Cannot be used when LPX AU158 is fitted.

④ Cannot be used when LPX AU167 is fitted.

## Labels with text for LPX AU100 legend holder



8 LM2T AGB230

| Order code                                  | Text                                                  | Qty per pkg<br>n° | Wt<br>[kg] |
|---------------------------------------------|-------------------------------------------------------|-------------------|------------|
| General use.                                |                                                       |                   |            |
| 8 LM2T AU206                                | Blank for writing                                     | 50                | 0.001      |
| 8 LM2T AU207                                | Sheet with 108 labels for laser printing <sup>❶</sup> | 1 <sup>❷</sup>    | 0.005      |
| 8 LM2T AU208 <sup>❸</sup>                   | Sheet with 108 customized text <sup>❶</sup>           | 1 <sup>❷</sup>    | 0.005      |
| 8 LM2T AGB210                               | LATCH                                                 | 50                | 0.001      |
| 8 LM2T AGB211                               | OPEN                                                  | 50                | 0.001      |
| 8 LM2T AGB212                               | STOP                                                  | 50                | 0.001      |
| 8 LM2T AGB213                               | GENERAL STOP                                          | 50                | 0.001      |
| 8 LM2T AGB214                               | STOP RESET                                            | 50                | 0.001      |
| 8 LM2T AGB215                               | FORWARD                                               | 50                | 0.001      |
| 8 LM2T AGB216                               | CLOSE                                                 | 50                | 0.001      |
| 8 LM2T AGB217                               | RIGHT                                                 | 50                | 0.001      |
| 8 LM2T AGB218                               | LOWER                                                 | 50                | 0.001      |
| 8 LM2T AGB219                               | DEACTIVATED                                           | 50                | 0.001      |
| 8 LM2T AGB220                               | EMERGENCY                                             | 50                | 0.001      |
| 8 LM2T AGB221                               | OFF                                                   | 50                | 0.001      |
| 8 LM2T AGB222                               | REVERSE                                               | 50                | 0.001      |
| 8 LM2T AGB223                               | ON                                                    | 50                | 0.001      |
| 8 LM2T AGB237                               | TRIP                                                  | 50                | 0.001      |
| 8 LM2T AGB224                               | SLOW                                                  | 50                | 0.001      |
| 8 LM2T AGB225                               | START                                                 | 50                | 0.001      |
| 8 LM2T AGB226                               | RESET                                                 | 50                | 0.001      |
| 8 LM2T AGB226                               | RESET                                                 | 50                | 0.001      |
| 8 LM2T AGB227                               | RAISE                                                 | 50                | 0.001      |
| 8 LM2T AGB228                               | LEFT                                                  | 50                | 0.001      |
| 8 LM2T AGB229                               | POWER ON                                              | 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 AGB231                               | FAST                                                  | 50                | 0.001      |
| For selector switches.                      |                                                       |                   |            |
| 8 LM2T AI232                                | ARR-MAR                                               | 50                | 0.001      |
| 8 LM2T AI233                                | AUTO-MAN                                              | 50                | 0.001      |
| 8 LM2T AI234                                | AUTO-O-MAN                                            | 50                | 0.001      |
| 8 LM2T AI242                                | MAN-O-AUTO                                            | 50                | 0.001      |
| 8 LM2T AI235                                | FWD-O-REV                                             | 50                | 0.001      |
| 8 LM2T AI236                                | ON - OFF.                                             | 50                | 0.001      |
| 8 LM2T AI241                                | MAN-AUTO                                              | 50                | 0.001      |
| 8 LM2T AGB232                               | STOP-START                                            | 50                | 0.001      |
| 8 LM2T AGB236                               | OFF-ON                                                | 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 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 Technical support; see contact details on inside front cover.

### Plastic disk for mushroom head pushbuttons



LPX AU113



LPX AU115



LPX AU124



LPX AU110

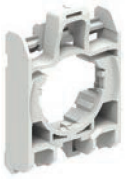
**new**

| Order code | Text                                                                                                       | Qty            | Wt    |
|------------|------------------------------------------------------------------------------------------------------------|----------------|-------|
|            |                                                                                                            | per pkg.<br>n° | [kg]  |
| LPX AU112  | EMERGENZA ARRESTO<br>Ø90mm/3.5"                                                                            | 10             | 0.005 |
| LPX AU114  | EMERGENZA ARRESTO<br>Ø60mm/2.4"                                                                            | 10             | 0.003 |
| LPX AU113  | EMERGENCY STOP<br>Ø90mm/3.5"                                                                               | 10             | 0.005 |
| LPX AU115  | EMERGENCY STOP<br>Ø60mm/2.4"                                                                               | 10             | 0.003 |
| LPX AU124  | IEC60417-5630 symbol<br>according to ISO 13850<br>Ø90mm/3.5"                                               | 10             | 0.005 |
| LPX AU123  | IEC60417-5630 symbol<br>according to ISO 13850<br>Ø60mm/2.4"                                               | 10             | 0.005 |
| LPX AU118  | ARRET D'URGENCE /<br>NOT-AUS/<br>PARO EMERGENCIA<br>Ø60mm/2.4"                                             | 10             | 0.003 |
| LPX AU110  | Adhesive label<br>EMERGENCY STOP<br>(34.5x65mm/1.36x2.56")<br>for LPC B63/663/664/<br>67/68/BL66...buttons | 12             | 0.001 |

### General characteristics

The disks are made of non-adhesive plastic.  
Plastic disks cannot be used with LPX AU158 and  
LPX AU159 protection.

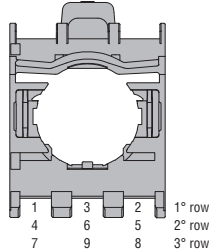
## Mounting adapter



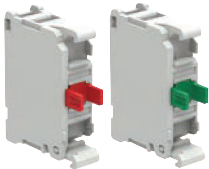
LPX AU120

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

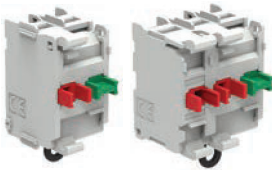
**Rear view**  
(reference for element installation)



## Contact elements



LPX C...

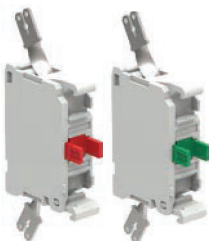


LPX C01SM

LPX C02SM



LPX E...



LPX CF01

LPX CF10

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

Screw termination.  
Without mounting adapter.

|            |  |    |       |
|------------|--|----|-------|
| LPX C10Ⓢ   |  | 10 | 0.011 |
| LPX C10A   |  | 10 | 0.011 |
| LPX C01⊖   |  | 10 | 0.011 |
| LPX C01DⓈ⊖ |  | 10 | 0.011 |

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

|             |  |   |       |
|-------------|--|---|-------|
| LPX C01SMⓈ⊖ |  | 1 | 0.022 |
| LPX C02SMⓈ⊖ |  | 1 | 0.033 |

Screw termination.  
With mounting adapter.

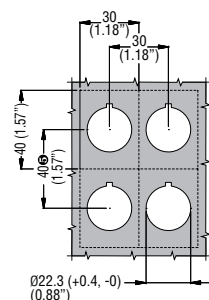
|          |  |    |       |
|----------|--|----|-------|
| LPX E10Ⓢ |  | 10 | 0.029 |
| LPX E01⊖ |  | 10 | 0.029 |

Faston termination.  
Without mounting adapter.

|           |  |    |       |
|-----------|--|----|-------|
| LPX CF10Ⓢ |  | 10 | 0.012 |
| LPX CF01⊖ |  | 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 |

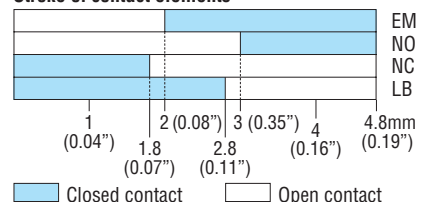
Short-circuit protection fuse: max calibre: 10A gG/SC.

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.



## Test elements for steady-light LED elements

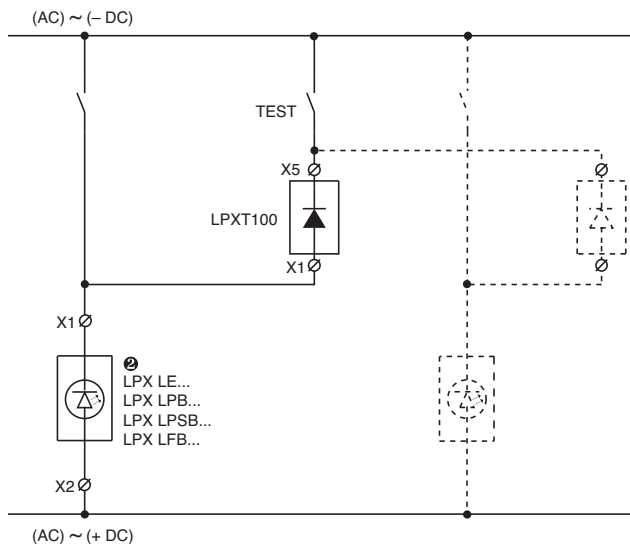


LPX T...

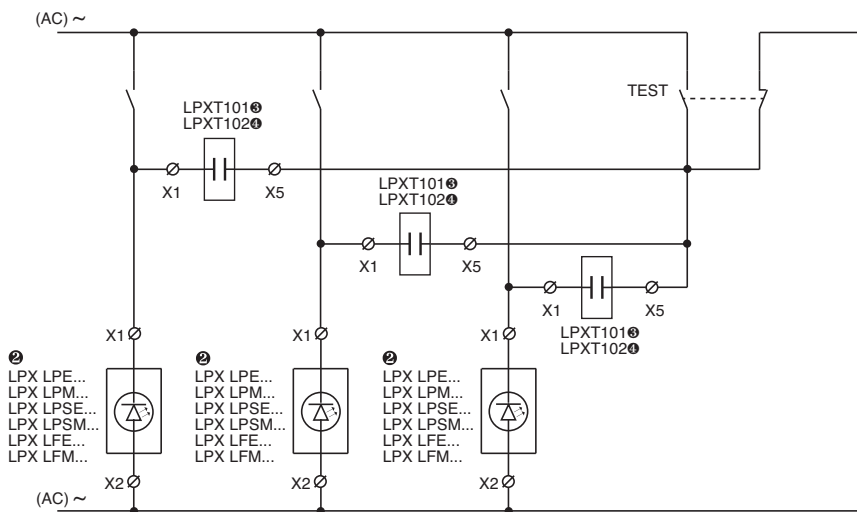
| Order code      | Description                                                                                | Qty per pkg<br>n° | Wt<br>[kg] |
|-----------------|--------------------------------------------------------------------------------------------|-------------------|------------|
| <b>LPX T100</b> | Use with LED elements in AC/DC, types LPX LE... (all), LPX LFB..., LPX LPB and LPX LPSB... | 10                | 0.011      |
| <b>LPX T101</b> | Use with LED elements at 85-140VAC for types LPX LFE..., LPX LPE... and LPX LPSE...        | 10                | 0.011      |
| <b>LPX T102</b> | Use with LED elements at 185-265VAC for types LPX LFM..., LPX LPM... and LPX LPSM...       | 10                | 0.011      |

- ① 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](http://www.LovatoElectric.com)
- ② 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 with reduced brightness level.

For LPX T100 test element



For LPX T101 and LPX T102 test elements



- ② Use with LPX LFE..., LPX LPE... or LPX LPSE... type.
- ③ 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: 85-140VAC
  - LPX T102 test element: 185-265VAC
- For use with LED elements LPX LPBB/LPBE/LPBM... types, consult Technical support; see contact details on inside front cover
- Electrical life: 100,000 hours
- Any mounting position allowed
- Snap onto LPX AU120 mounting adapter beside the LED element or stacked behind contact elements; also internally on the LPZ control station cover
- 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.

## Mounting adapter

Type: LPX AU120. See page 7-20.

The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

## Maximum conductor cross section

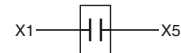
1 or 2 2.5mm<sup>2</sup> or AWG 12 cables.

## Wiring Diagram

For LPX T100



For LPX T101 - LPX T102



## 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.

### LED elements steady light



LPX LP...

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



LPX LE...

Simple protection against overvoltages and to withstand vibrations.

### LED elements flashing light



LPX LF...

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

| Order code                                                             | Rated supply voltage | LED colour | Qty per pkg. | Wt    |
|------------------------------------------------------------------------|----------------------|------------|--------------|-------|
|                                                                        | [V]                  |            | n°           | [kg]  |
| Steady light, screw termination.<br>Supplied without mounting adapter. |                      |            |              |       |
| LPX LP B3                                                              | 12...30V<br>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...140V<br>AC      | 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...265V<br>AC     | 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 |

| Order code                                                             | Rated supply voltage | LED colour | Qty per pkg. | Wt    |
|------------------------------------------------------------------------|----------------------|------------|--------------|-------|
|                                                                        | [V]                  |            | n°           | [kg]  |
| Steady light, screw termination.<br>Supplied without mounting adapter. |                      |            |              |       |
| LPX LE B3                                                              | 12...30V<br>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<br>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<br>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 |

| Order code                                                               | Rated supply voltage | LED colour | Qty per pkg. | Wt    |
|--------------------------------------------------------------------------|----------------------|------------|--------------|-------|
|                                                                          | [V]                  |            | n°           | [kg]  |
| Flashing light, screw termination.<br>Supplied without mounting adapter. |                      |            |              |       |
| LPX LF B3                                                                | 18...30V<br>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...140V<br>AC      | 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...265V<br>AC     | 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

- Rated frequency: 50-60Hz
- Auxiliary supply voltage:
  - LPX LP... with steady light: 12...30VAC/DC; 85...140VAC; 185...265VAC
  - LPX LE... with steady light: 12...30VAC/DC; 85...140VAC/DC; 185...265VAC/DC
  - LPX LF... flashing light: 18...30VAC/DC; 85...140VAC; 185...265VAC
- Maximum consumption for:
  - LPX LP... steady light and LPX LF... flashing light: 17mA-0.50W (12...30VAC/DC); 20mA-0.40W (85...140VAC); 18mA-0.55W (185...265VAC)
  - LPX LE... steady light: 11mA-0.33W (12...30VAC/DC); 5mA-0.72W (85...140VAC/DC); 3mA-0.67W (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
- Minimum activation voltage:
  - LPX LP... steady light: 4V-1mA (12...30VAC/DC); 30V-4mA (85...140VAC); 55V-4mA (185...265VAC)
  - LPX LE... steady light: 4V-0.5mA (12...30VAC/DC); 15V-0.4mA (85...140VAC/DC); 35V-0.3mA (185...265VAC/DC)
  - LPX LF... flashing light: 5V-1.5mA (18...30VAC/DC); 13V-1.5mA (85...140VAC); 25V-1.5mA (185...265VAC)
- 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/0.74lbf
- Ambient conditions:
  - Operating temperature: -25...+70°C (-25...+60°C for LPX LE...)
  - Storage temperature: -40...+85°C
- Degree of protection: IP20.

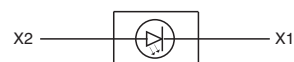
#### Mounting adapter

See page 7-20. Type: LPX AU120.

The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

**Maximum conductor cross section**  
1 or 2 2.5mm<sup>2</sup> or AWG12 cables.

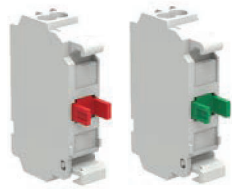
#### Wiring diagram



#### 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.

### Contact elements with spring-clamp terminals



LPX CS01 LPX CS10

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

Spring-clamp termination.  
Without mounting adapter.

|           |  |    |       |
|-----------|--|----|-------|
| LPX CS10① |  | 10 | 0.010 |
| LPX CS01⊖ |  | 10 | 0.010 |

① Not suitable for push-push actuators.

② Direct (positive) opening action ⊖ in accordance with IEC/EN 60947-5-1

### LED elements steady light with spring-clamp terminals



LPX LPS...

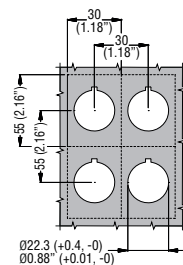
| Order code | Rated supply voltage | LED colour | Qty per pkg | Wt   |
|------------|----------------------|------------|-------------|------|
|            | [V]                  |            | n°          | [kg] |

Steady light, with spring-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 |

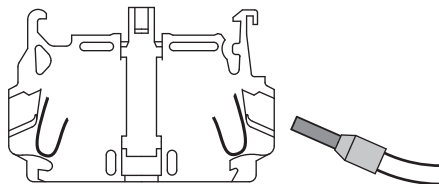
Total protection against overvoltages and stray currents in wiring, to reduce flickering phenomenon and withstand vibrations.

Drillings - Minimum recommended distances

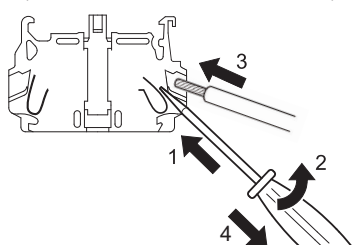


Push-in wiring technology for rigid cables or with ferrules only - no screwdriver needed  
Cable retaining force guaranteed over time even in presence of vibrations and/or impacts

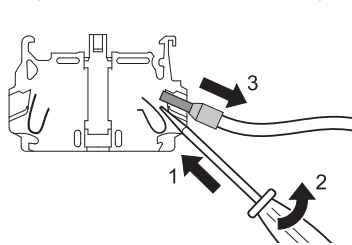
Push-in  
technology



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
- No other element can be stacked behind LED elements
- See the combinations given under "Contact elements" in the right-hand column for each type of pushbutton and selector switch
- Suitable for applications with vibration and/or impact work conditions; cable retaining force guaranteed over time in these conditions
- For use with the test elements, see page 7-20
- Wiring also possible after installation with stacked contacts
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection: IP20.

### Mounting adapter

See page 7-20.

Type : LPX AU120.

The mounting adapter directly snaps onto the actuator fixed to the mounting surface.

### General characteristics

#### CONTACT ELEMENTS

Wiping action and dual scraping-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:

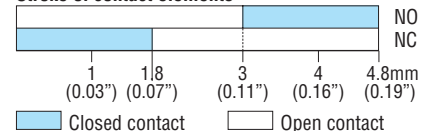
| [V] | 12 | 24 | 48  | 125  | 250  | 440  | 500  | 600 |
|-----|----|----|-----|------|------|------|------|-----|
| [A] | 3  | 3  | 1.5 | 0.55 | 0.27 | 0.15 | 0.13 | 0.1 |

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 and LPX CS01.

### LED ELEMENTS

- Rated frequency: 50-60Hz
- Supply voltage:
  - 12...30VAC/DC; 85...140VAC; 185...265VAC
- Maximum consumption: 17mA-0.50W (12...30VAC/DC); 20mA-0.40W (85...140VAC); 18mA-0.55W (185...265VAC)
- Total protection:
  - Against overvoltages
  - Against stray currents in wiring
  - To reduce flickering phenomenon
  - To withstand vibrations
- Minimum activation voltage:
  - 4V-1mA (12...30VAC/DC); 30V-4mA (85...140VAC); 55V-4mA (185...265VAC)
- Electrical life: 100,000 hours.

### Wiring diagram for LED elements



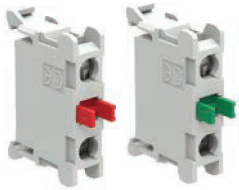
### Maximum conductor cross section

1 or 2 2.5mm² or AWG14 cables. For 2.5mm² section, use rounded cable terminal with metal end at least 10mm

### 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.

### Contact elements, base mount on LPZ control stations



LPX CB...

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

Screw termination.

Direct snap-on mounting on LPZ... control station base.

|           |  |    |       |
|-----------|--|----|-------|
| LPX CB10① |  | 10 | 0.012 |
| LPX CB01② |  | 10 | 0.012 |

① Not suitable for push-push actuators.

② 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 supply voltage | LED color | Qty per pkg. | Wt   |
|------------|----------------------|-----------|--------------|------|
|            | [V]                  |           | n°           | [kg] |

Screw termination.

Steady light.

Direct snap-on mounting on LPZ... control station base.

|            |                   |        |    |       |
|------------|-------------------|--------|----|-------|
| LPX LPB B3 | 12...30V<br>AC/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...140V<br>AC   | 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 | 185...265V<br>AC  | White  | 10 | 0.016 |
| LPX LPB M3 |                   | 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.

### Operational characteristics

- Any mounting position allowed
- Snap-on mounting 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
- See the combinations given under "Contact elements" in the right-hand column for each type of pushbutton and selector switch
- For use with test elements, consult Technical support; see contact details on inside front cover
- Maximum tightening torque for screw terminals: 1Nm
- Ambient conditions:
  - Operating temperature: -25...+70°C
  - Storage temperature: -40...+85°C
- Degree of protection: IP20.

### General characteristics

#### CONTACT ELEMENTS

Wiping action and dual scraping-oscillating effect

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 | 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 |
|-----|----|----|----|-----|-----|-----|-----|-----|

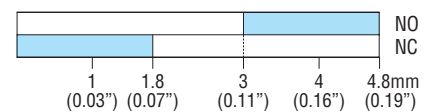
|     |   |   |     |      |      |      |      |     |
|-----|---|---|-----|------|------|------|------|-----|
| [A] | 3 | 3 | 1.5 | 0.55 | 0.27 | 0.15 | 0.13 | 0.1 |
|-----|---|---|-----|------|------|------|------|-----|

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

Contact resistance:  $\leq 20\text{m}\Omega$ 

Terminals: Clamp screw and washer.

### Stroke of contact elements



Closed contact    Open contact

### Mechanical and electrical endurance of contact elements

Opening force:  $\leq 0.5\text{kg}/1.1\text{lb}$ 

Electrical life: 1,000,000 cycles for LPX CB10 and LPX CB01.

### LED ELEMENTS

- Rated frequency: 50...60Hz
- Supply voltage:
  - 12...30VAC/DC; 85...140VAC; 185...265VAC
- Maximum consumption:
  - 17mA-0.50W (12...30VAC/DC); 20mA-0.40W (85...140VAC); 18mA-0.55W (185...265VAC)
- Total protection:
  - Against overvoltages
  - Against stray currents in wiring
  - To reduce flickering phenomenon
  - To withstand vibrations
- Minimum activation voltage:
  - steady light LPX LPB...: 4V-1mA (12...30VAC/DC); 30V-4mA (85...140VAC); 55V-4mA (185...265VAC)
- Electrical life: 100,000 hours.

### Wiring diagram for LED elements



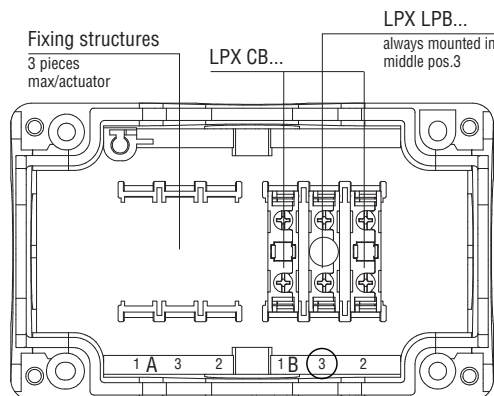
### Maximum conductor cross section

1 or 2 2.5mm<sup>2</sup> or AWG14 cables.

### 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 position on the LPZ control station base



### Without actuators



LPZ P1 A5



LPZ P2 A5

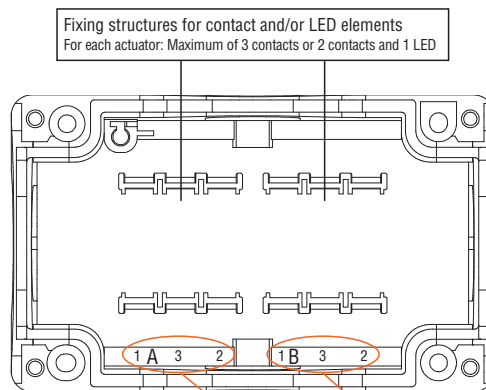


LPZ P3 A5

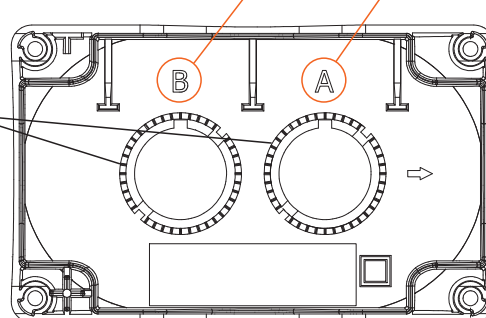
Anti-loosening action  
Anti-rotation indents to extend  
fixing ring gripping over time

| Order code | Description     | Cover colour | Qty<br>per<br>pkg | Wt<br>[kg] |
|------------|-----------------|--------------|-------------------|------------|
|            |                 |              | n°                |            |
| LPZ P1 A5  | For 1 actuator  | Yellow       | 1                 | 0.107      |
| LPZ P1 A8  | For 1 actuator  | Grey         | 1                 | 0.107      |
| LPZ P2 A5  | For 2 actuators | Yellow       | 1                 | 0.152      |
| 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



#### Control station cover (inside view)



#### General characteristics

##### CONTROL STATIONS WITHOUT ACTUATOR

- 1 to 6 holes
- 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/PG16 (1 each on top and bottom)
  - LPZ P2... knockouts:
    - M16/PG11 (2 at rear)
    - M20/PG13.5 (1 on each side)
    - M20/M25/PG13.5/PG16 (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/PG16 (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: Type 1, 2, 3R, 4, 4X, 12K.

#### Materials

Polycarbonate.

#### 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, UL508A for types without actuators / UL508 for types complete with actuator, CSA C22.2 n° 14.

### With one actuator



LPZ P1 B8 02



LPZ P1 B5 03

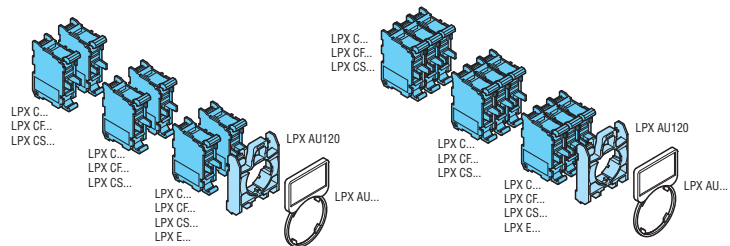
| Order code    | Control station description | Actuator description                                  | Qty<br>per<br>pkg | Wt<br>[kg] |
|---------------|-----------------------------|-------------------------------------------------------|-------------------|------------|
|               |                             |                                                       | n°                |            |
| LPZ P1 B8 01  | Grey, 1 way<br>LPZ P1 A8    | Mushroom-head<br>button LPC B6744<br>with STOP legend | 1                 | 0.150      |
| LPZ P1 B8 02  | Grey, 1 way<br>LPZ P1 A8    | Mushroom-head<br>button LPC B6344<br>with STOP legend | 1                 | 0.135      |
| LPZ P1 B5 02  | Yellow, 1 way<br>LPZ P1 A5  | Mushroom-head<br>button LPC B6344                     | 1                 | 0.135      |
| LPZ P1 B5 03① | Yellow, 1 way<br>LPZ P1 A5  | Mushroom-head<br>button LPC B6644                     | 1                 | 0.150      |

① Version with red emergency stop, turn to release and yellow cover compliant with ISO 13850.

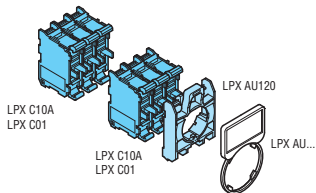
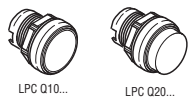


## COMBINATIONS FOR PUSHBUTTONS AND SELECTOR SWITCHES

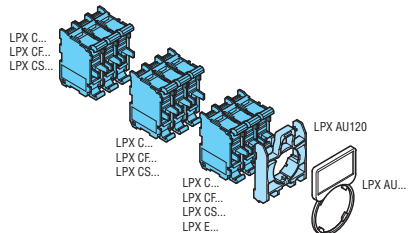
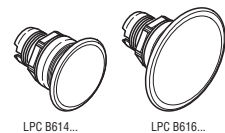
## SPRING-RETURN BUTTONS



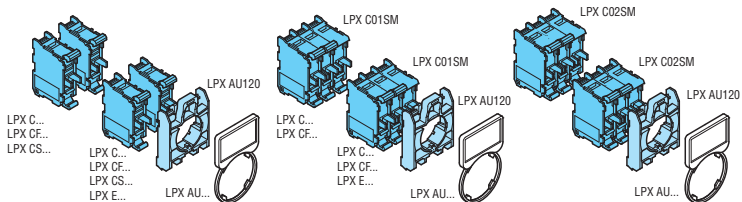
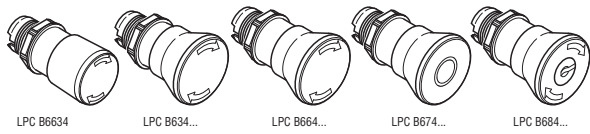
## PUSH-PUSH BUTTONS



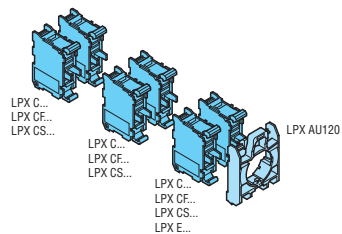
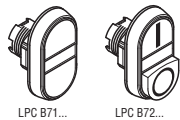
## MUSHROOM-HEAD SPRING-RETURN BUTTONS



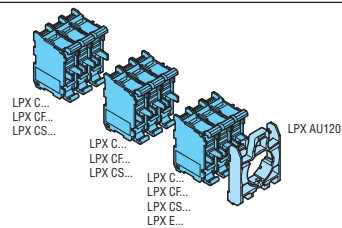
## MUSHROOM-HEAD LATCH BUTTONS



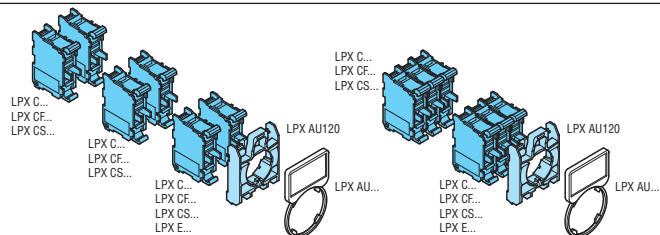
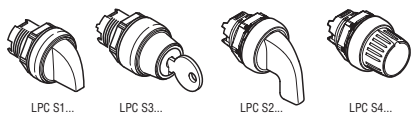
## DOUBLE-TOUCH BUTTONS



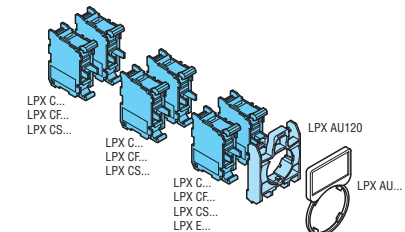
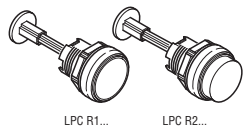
## TRIPLE-TOUCH BUTTONS



## SELECTOR SWITCHES

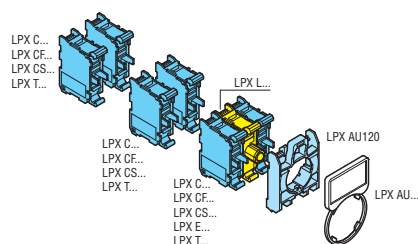
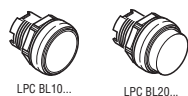


## MECHANICAL SPRING-RETURN RESET BUTTONS

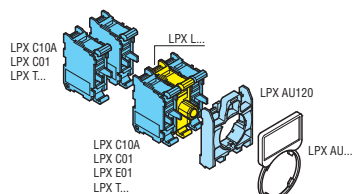
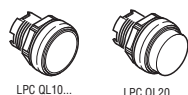


## COMBINATIONS FOR ILLUMINATED PUSHBUTTONS AND SELECTOR SWITCHES

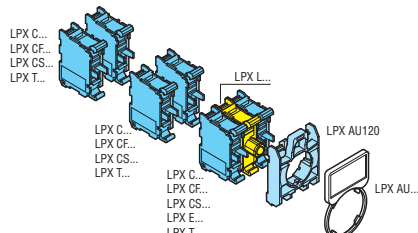
### SPRING-RETURN BUTTONS



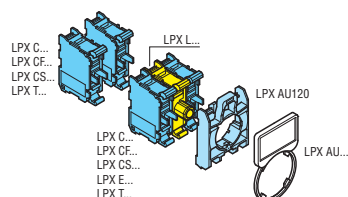
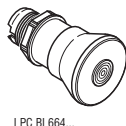
### PUSH-PUSH BUTTONS



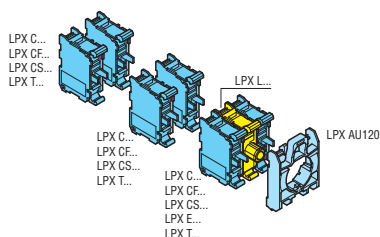
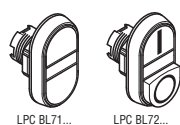
### MUSHROOM-HEAD SPRING-RETURN BUTTON



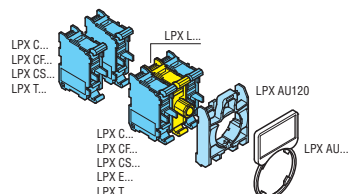
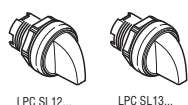
### MUSHROOM-HEAD LATCH BUTTON



### 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

