

# Harmony™ XB7 monolithic 22 mm push buttons

Catalog  
**2012**





# Harmony™ XB7 monolithic 22 mm push buttons

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# Harmony™ XB7: Compact, robust, monolithic 22 mm push buttons for your machines

For your control systems that require high-performance, compact, and easy-to-install components...Harmony XB7 push buttons are your ideal solution. The new Emergency Stop push button design allows immediate identification of safety functions and status of contacts.

## > Simple installation, simple integration...

Easy to install and to integrate into your Control Systems

## > Designed for quality and conformity...

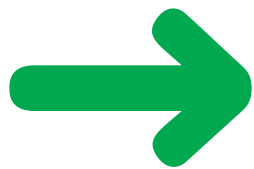
Conforms to industry standards and Machinery Directive

## > High performance for industrial applications...

Robust, durable controls for industry and buildings

Make the most of your energy<sup>SM</sup>





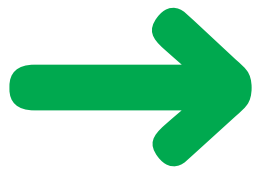
## Simple installation...

The monolithic design of the Harmony™ XB7 makes it **easy to mount** on machines or control panels with only one ring nut.

The 4 top-down terminals enable **easy wiring** with finger protection (IP 20).



**IEC 60529**  
compliant



## Simple integration...

New ergonomic design in 6 colors, plus illuminated functions with **integrated LED**.

### Complete product range



Push buttons ○ ● ● ● ● ●



Pilot lights ● ● ● ● ● ○

Long life: a duration of more than **70,000 hours** on pilot lights and **1 million** operations for push buttons.



Illuminated push buttons  
● ● ● ● ● ○



Handle selectors  
●



Key selectors  
●

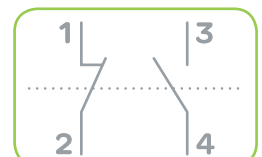


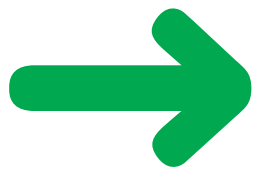
Emergency stop push buttons  
●

**1 reference**  **1 function**

### Electrical reliability

Contact functions are designed for **load switching** (I/O interface) and resistance to vibrations.





## Designed for quality and conformity...

Harmony™ XB7 “Emergency stop” push buttons comply with EN/IEC and UL standards, EN 13850, EN/IEC 60947-5-5 and are designed for machines and industrial control panels. The emergency stop function consists of:

Red trigger action



Standardized yellow legend

Green mark on body allows contact state visualization



Off



On

**Green**  
mark for contact state



Worldwide availability



Conforming to  
**EN/IEC 60947-5-5**

International certifications:  
**CE, UL, CSA, CCC, GOST**



## High performance for industrial applications...

The Harmony XB7 push button is perfect for industry applications like packaging and other machine processes, and building applications, including: HVAC, electrical distribution, and lighting.

Assembly lines



Packaging machines



HVAC



Buildings



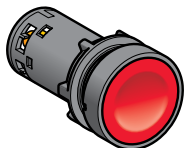
Degree of protection  
**IP 65**

# Harmony™ XB7 monolithic 22 mm push buttons

Push buttons, switches and pilot lights

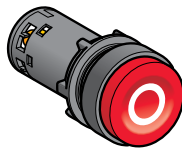
## Complete products: Contact functions

### Spring return push buttons with/without marking



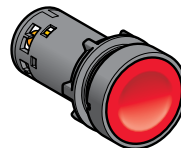
Flush

XB7 NA●●●●: see page 11



Projecting

XB7 NL●●●●: see page 11

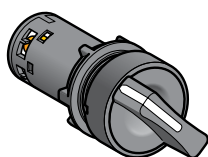


### Latching push buttons without marking

Flush

XB7 NH●●: see page 11

### Selector switches and key switches



Standard handle, black

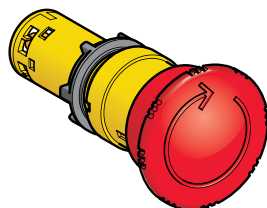
XB7 ND●●: see page 14



Key operated

XB7 NG●●: see page 14

### Emergency Stop push buttons



Turn to release/Push-pull/Key release

XB7 NS●●●●/XB7 NT●●●: see page 14

## Complete products: Signalling functions

### Pilot lights



With integral LED

XB7 EV0●●P: see page 13



### Illuminated push buttons, with projecting push

With integral LED, spring return or latching

XB7 NW●●●●, XB7 NJ●●●●1: see page 13

## Legend holders, legends, and accessories

See pages 15 and 16

# Harmony™ XB7 monolithic 22 mm push buttons

Push buttons, switches and pilot lights

| Environment                                         |                                                |     |                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------|------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective treatment                                | Standard version                               |     | "TH"                                                                                                                                                                                                                                                                                                                        |
| Ambient air temperature around the device           | For storage                                    | °C  | -40 to +70                                                                                                                                                                                                                                                                                                                  |
|                                                     | For operation                                  | °C  | -25 to +70 for integral LED version                                                                                                                                                                                                                                                                                         |
| Electric shock protection                           | Conforming to IEC 61140                        |     | Class II                                                                                                                                                                                                                                                                                                                    |
| Degree of protection                                | Conforming to IEC 60529                        |     | Front face:<br>□ IP 65 for push buttons, illuminated push buttons, pilot lights, selector switches and Emergency Stop push buttons<br><br>Rear face:<br>□ IP 20 (protection against direct contact)                                                                                                                         |
|                                                     | Conforming to UL 50E                           |     | □ Suitable for enclosure type 3: push buttons, illuminated push buttons, selector switches, Emergency Stop push buttons<br>□ Suitable for enclosure type 4: pilot lights with integral LED<br>□ Suitable for enclosure type 12: Emergency Stop push buttons, pilot lights with integral LED                                 |
| Conformity to standards                             | Generic standards<br>UL, CSA, GOST, CCC and CE |     | □ EN/IEC 60947-1, EN/IEC 60947-5-1 for push buttons, pilot lights, illuminated push buttons and selector switches<br>□ UL, EN/IEC 60947-1, EN/IEC 60947-5-1, EN/IEC 60947-5-5, EN/IEC 60204-1 and EN/ISO 13850 for Emergency Stop trigger action push buttons<br>□ UL 508, CSA C22 n° 14, CCC, GB 14048.5 for all XB7 range |
| Terminal referencing                                | Conforming to EN 50005 and EN 50013            |     | Conforms                                                                                                                                                                                                                                                                                                                    |
| General specifications                              |                                                |     |                                                                                                                                                                                                                                                                                                                             |
| Mechanical durability<br>(in operating cycles)      |                                                |     | □ Push buttons: 1,000,000<br>□ Illuminated push buttons, spring return and latch type: 300,000<br>□ Selector switches and key switches: 300,000<br>□ Emergency Stop: 100,000                                                                                                                                                |
| Vibration resistance                                | Conforming to IEC 60068-2-6                    |     | 5 gn (frequency 2 to 500 Hz)                                                                                                                                                                                                                                                                                                |
| Mechanical shock resistance                         | Conforming to IEC 60068-2-27                   |     | Half sine wave acceleration 11 ms: 50 gn<br>Half sine wave acceleration 18 ms: 30 gn<br>Half sine wave acceleration 11 ms:<br>- 15 gn for Emergency Stop push buttons                                                                                                                                                       |
| Mounting<br>Conforming to<br>EN/IEC 60947-5-1       | Finished mounting hole                         | mm  | 22.5, recommended (22.3 + 0.4/0)                                                                                                                                                                                                                                                                                            |
|                                                     | Mounting center                                | mm  | □ 30 x 40 for all products (except Emergency Stop push buttons)<br>□ 40 x 40 for Emergency Stop push buttons                                                                                                                                                                                                                |
|                                                     | Support panel thickness                        | mm  | □ Metal: 1 to 6<br>□ Plastic: 2 to 6                                                                                                                                                                                                                                                                                        |
|                                                     | Mounting nut: head tightening torque           | N•m | □ 2.2 (+/-0.2)                                                                                                                                                                                                                                                                                                              |
| Cabling capacity<br>Conforming to<br>EN/IEC 60947-1 | Screw clamp terminal connection                | mm² | For all types of push buttons and pilot lights:<br>□ min: 1 x 0.34 mm² without cable end<br>□ max: 2 x 1.5 mm² with cable end or 2 x 2.5 mm² without cable end                                                                                                                                                              |
|                                                     | Forked "U" type tag connection                 |     | 2 max., fitted head to tail (for all types of push buttons and pilot lights)<br>Recommended fork width: 6.5 mm (7 mm max.) for M3 screw                                                                                                                                                                                     |
|                                                     | Faston clip connection                         | mm  | Type 6.35 x 0.8 mm (for pilot lights only)                                                                                                                                                                                                                                                                                  |
| Tightening torque of mounting screws                |                                                | N•m | □ 0.8 (nominal recommended)<br>□ 1.2 (max.)                                                                                                                                                                                                                                                                                 |
|                                                     |                                                |     | Screw heads compatible with Pozidriv, Phillips or JIS screwdrivers (size 1) and flat tipped screwdrivers (4 and 5.5 mm)                                                                                                                                                                                                     |

# Harmony™ XB7 monolithic 22 mm push buttons Push buttons, switches and pilot lights

| Contact function specifications                                 |                                                           |                                                                                               |                                                                                                                                   |                                                                      |              |
|-----------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|
| Type of contact                                                 | N/C, N/O or N/C+N/O                                       |                                                                                               | <input type="checkbox"/> Slow break<br><input type="checkbox"/> Snap action for Emergency Stop push buttons                       |                                                                      |              |
| Positive operation                                              | Conforming to EN/IEC 60947-5-1 Appendix K                 |                                                                                               | All functions incorporating a N/C contact are positive opening operation                                                          |                                                                      |              |
| Short-circuit protection                                        | Conforming to EN/IEC 60947-5-1                            | A                                                                                             | 4 (using gG cartridge fuse conforming to IEC 269-1)                                                                               |                                                                      |              |
| Rated insulation voltage                                        | Conforming to EN/IEC 60947-1                              | V                                                                                             | Ui = 250 (degree of pollution 3)                                                                                                  |                                                                      |              |
| Rated impulse withstand voltage                                 | Conforming to EN/IEC 60947-1                              | kV                                                                                            | Uimp = 6                                                                                                                          |                                                                      |              |
| Rated operational specifications conforming to EN/IEC 60947-5-1 | a.c. supply: utilization category AC14, D300              |                                                                                               | Ue = 240 V and Ie = 0.3 A or Ue = 120 V and Ie = 0.6 A                                                                            |                                                                      |              |
|                                                                 | AC15, C300                                                |                                                                                               | Ue = 120 V and Ie = 1.5 A or Ue = 240 V and Ie = 0.75 A (Emergency Stop only)                                                     |                                                                      |              |
|                                                                 | DC13, R300                                                |                                                                                               | Ue = 250 V and Ie = 0.1 A or Ue = 125 V and Ie = 0.22 A                                                                           |                                                                      |              |
| Electrical reliability at 17 V and 5 mA                         | Failure rate in accordance with EN/IEC 60947-5-4          |                                                                                               | <input type="checkbox"/> $\lambda \leq 10^{-6}$<br><input type="checkbox"/> $\lambda \leq 5 \times 10^{-7}$ (Emergency Stop only) |                                                                      |              |
| Light function specifications                                   |                                                           |                                                                                               |                                                                                                                                   |                                                                      |              |
| Type of signaling units                                         |                                                           |                                                                                               | Illuminated push buttons                                                                                                          |                                                                      | Pilot lights |
| Integral LED                                                    |                                                           |                                                                                               |                                                                                                                                   |                                                                      |              |
| Current consumption                                             | For all colors                                            |  ~ 24 V      | mA                                                                                                                                | 18 (27 max.)                                                         | 20 (27 max.) |
|                                                                 |                                                           |  120 V      | mA                                                                                                                                | 12 (17 max.)                                                         | 18 (21 max.) |
|                                                                 |                                                           |  230 V     | mA                                                                                                                                | 22 (27 max.)                                                         | 16 (20 max.) |
| Voltage limits                                                  | At nominal voltage                                        |  24 V      | V                                                                                                                                 | 19.2 to 30                                                           |              |
|                                                                 |                                                           |  24 V      | V                                                                                                                                 | 21.6 to 26.4                                                         |              |
|                                                                 |                                                           |  120 V     | V                                                                                                                                 | 100 to 132                                                           |              |
|                                                                 |                                                           |  230–240 V | V                                                                                                                                 | 195 to 264                                                           |              |
| Service life                                                    | At nominal voltage and at an ambient temperature of 25 °C |                                                                                               | Hr                                                                                                                                | 70,000                                                               |              |
| Overvoltage withstand                                           | Level of protection                                       |  120 V     | VA                                                                                                                                | 100                                                                  |              |
|                                                                 |                                                           |  230 V     | VA                                                                                                                                | 200                                                                  |              |
| Resistance to electrostatic discharges                          | Conforming to IEC 61000-4-2                               |                                                                                               | kV                                                                                                                                | 6: on contact, on metal parts<br>8: in free air, in insulating parts |              |
| Resistance to electromagnetic fields                            | Conforming to IEC 61000-4-3                               |                                                                                               | V/m                                                                                                                               | 10                                                                   |              |
| Resistance to fast transients                                   | Conforming to IEC 61000-4-4                               |                                                                                               | KV                                                                                                                                | 2                                                                    |              |
| Surge withstand                                                 | Conforming to IEC 61000-4-5                               |                                                                                               | KV                                                                                                                                | 1                                                                    |              |
| Immunity to conducted disturbances                              | Conforming to IEC 61000-4-6                               |                                                                                               | V                                                                                                                                 | 10                                                                   |              |
| Brightness                                                      | At nominal voltage and for all colors                     |                                                                                               | Lux                                                                                                                               | > 200                                                                |              |

# Harmony™ XB7 monolithic

## 22 mm push buttons

Push buttons, switches and pilot lights



XB7NA31

| Push buttons                                                                        |              |                                                                                   |                                                                                   |         |       |               |                 |                |        |
|-------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------|-------|---------------|-----------------|----------------|--------|
| Shape of head                                                                       | Type of push | Type of contact                                                                   |                                                                                   | Marking |       | Color of push | Sold in lots of | Unit reference | Weight |
|                                                                                     |              | N/O                                                                               | N/C                                                                               |         |       |               |                 |                |        |
|                                                                                     |              |  |  | Text    | Color |               |                 |                |        |
| Spring return push button without marking                                           |              |                                                                                   |                                                                                   |         |       |               |                 |                |        |
|    | Flush        | 1                                                                                 | –                                                                                 | –       | –     | White         | 10              | XB7NA11        | 0.021  |
|                                                                                     |              | 1                                                                                 | –                                                                                 | –       | –     | Black         | 10              | XB7NA21        | 0.021  |
|                                                                                     |              | 1                                                                                 | –                                                                                 | –       | –     | Green         | 10              | XB7NA31        | 0.021  |
|                                                                                     |              | 1                                                                                 | –                                                                                 | –       | –     | Yellow        | 10              | XB7NA81        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | White         | 10              | XB7NA15        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Black         | 10              | XB7NA25        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Green         | 10              | XB7NA35        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Red           | 10              | XB7NA45        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Blue          | 10              | XB7NA65        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Yellow        | 10              | XB7NA85        | 0.021  |
|                                                                                     |              | –                                                                                 | 1                                                                                 | –       | –     | Red           | 10              | XB7NA42        | 0.021  |
|                                                                                     |              | 2                                                                                 | –                                                                                 | –       | –     | Black         | 10              | XB7NA23        | 0.021  |
|                                                                                     |              | 2                                                                                 | –                                                                                 | –       | –     | Green         | 10              | XB7NA33        | 0.021  |
|                                                                                     |              | –                                                                                 | 2                                                                                 | –       | –     | Red           | 10              | XB7NA44        | 0.021  |
|  | Projecting   | –                                                                                 | 1                                                                                 | –       | –     | Red           | 10              | XB7NL42        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Red           | 10              | XB7NL45        | 0.021  |
|                                                                                     |              | –                                                                                 | 2                                                                                 | –       | –     | Red           | 10              | XB7NL44        | 0.021  |
| Latch type push button without marking                                              |              |                                                                                   |                                                                                   |         |       |               |                 |                |        |
|  | Flush        | 1                                                                                 | –                                                                                 | –       | –     | Black         | 10              | XB7NH21        | 0.021  |
|                                                                                     |              | 1                                                                                 | –                                                                                 | –       | –     | Green         | 10              | XB7NH31        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Black         | 10              | XB7NH25        | 0.021  |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | –       | –     | Green         | 10              | XB7NH35        | 0.021  |
|                                                                                     |              | 1                                                                                 | –                                                                                 | –       | –     | Yellow        | 10              | XB7NH81        | 0.021  |



XB7NH2

# Harmony™ XB7 monolithic 22 mm push buttons

Push buttons, switches and pilot lights

## Push buttons (continued)

| Shape of head                                                                       | Type of push | Type of contact                                                                   |                                                                                   | Marking | Color of push | Sold in lots of | Unit reference | Weight     |       |
|-------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------|---------------|-----------------|----------------|------------|-------|
|                                                                                     |              | N/O                                                                               | N/C                                                                               |         |               |                 |                |            |       |
|                                                                                     |              |  |  |         |               |                 |                |            |       |
|                                                                                     |              |                                                                                   |                                                                                   | Text    | Color         |                 |                |            | kg    |
| Spring return push button with marking                                              |              |                                                                                   |                                                                                   |         |               |                 |                |            |       |
|    | Flush        | 1                                                                                 | –                                                                                 | I       | White         | Green           | 10             | XB7NA3131  | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | II      | White         | Green           | 10             | XB7NA3136  | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | START   | White         | Green           | 10             | XB7NA3133  | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | ↓       | Black         | White           | 10             | XB7NA11343 | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | ↑       | Black         | White           | 10             | XB7NA11341 | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | ⇅       | White         | Black           | 10             | XB7NA21343 | 0.021 |
|                                                                                     |              | 1                                                                                 | –                                                                                 | ⇅       | White         | Black           | 10             | XB7NA21341 | 0.021 |
|                                                                                     |              | –                                                                                 | 1                                                                                 | O       | White         | Red             | 10             | XB7NA4232  | 0.021 |
|                                                                                     |              | –                                                                                 | 1                                                                                 | STOP    | White         | Red             | 10             | XB7NA4234  | 0.021 |
|                                                                                     |              | 2                                                                                 | –                                                                                 | I       | White         | Green           | 10             | XB7NA3331  | 0.021 |
|                                                                                     |              | 2                                                                                 | –                                                                                 | II      | White         | Green           | 10             | XB7NA3336  | 0.021 |
|                                                                                     |              | 2                                                                                 | –                                                                                 | START   | White         | Green           | 10             | XB7NA3333  | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | O       | White         | Red             | 10             | XB7NA4532  | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | STOP    | White         | Red             | 10             | XB7NA4534  | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | ↓       | Black         | White           | 10             | XB7NA15343 | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | ↑       | Black         | White           | 10             | XB7NA15341 | 0.021 |
|  | Projecting   | 1                                                                                 | 1                                                                                 | ⇅       | White         | Black           | 10             | XB7NA25343 | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | ⇅       | White         | Black           | 10             | XB7NA25341 | 0.021 |
|                                                                                     |              | –                                                                                 | 1                                                                                 | O       | White         | Red             | 10             | XB7NL4232  | 0.021 |
|                                                                                     |              | –                                                                                 | 1                                                                                 | STOP    | White         | Red             | 10             | XB7NL4234  | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | O       | White         | Red             | 10             | XB7NL4532  | 0.021 |
|                                                                                     |              | 1                                                                                 | 1                                                                                 | STOP    | White         | Red             | 10             | XB7NL4534  | 0.021 |
|                                                                                     |              |                                                                                   |                                                                                   |         |               |                 |                |            |       |
|                                                                                     |              |                                                                                   |                                                                                   |         |               |                 |                |            |       |

# Harmony™ XB7 monolithic

## 22 mm push buttons

Push buttons, switches and pilot lights



| Illuminated push buttons, projecting push                                         |                                                 |               |                 |                                      |           |           |           |
|-----------------------------------------------------------------------------------|-------------------------------------------------|---------------|-----------------|--------------------------------------|-----------|-----------|-----------|
| with integral LED                                                                 |                                                 |               |                 |                                      |           |           |           |
| Shape of head                                                                     | Type of push and contacts                       | Color of lens | Sold in lots of | Unit reference by supply voltage (1) |           |           | Weight kg |
|                                                                                   |                                                 |               |                 | ~ / ~ 24 V                           | ~ 120 V   | ~ 230 V   |           |
|  | Spring return push with N/O or N/C contacts (1) | Green         | 10              | XB7NW33B1                            | XB7NW33G1 | XB7NW33M1 | 0.023     |
|                                                                                   |                                                 | Red           | 10              | XB7NW34B1                            | XB7NW34G1 | XB7NW34M1 | 0.023     |
|                                                                                   |                                                 |               | 10              | XB7NW34B2                            | XB7NW34G2 | XB7NW34M2 | 0.023     |
|                                                                                   |                                                 | Orange        | 10              | XB7NW35B1                            | XB7NW35G1 | XB7NW35M1 | 0.023     |
|                                                                                   |                                                 | Blue          | 10              | XB7NW36B1                            | XB7NW36G1 | XB7NW36M1 | 0.023     |
|                                                                                   |                                                 | Clear         | 10              | XB7NW37B1                            | XB7NW37G1 | XB7NW37M1 | 0.023     |
|                                                                                   |                                                 | Yellow        | 10              | XB7NW38B1                            | XB7NW38G1 | XB7NW38M1 | 0.023     |
|                                                                                   | Latch push                                      | Green         | 10              | XB7NJ03B1                            | XB7NJ03G1 | XB7NJ03M1 | 0.023     |
|                                                                                   |                                                 | Red           | 10              | XB7NJ04B1                            | XB7NJ04G1 | XB7NJ04M1 | 0.023     |
|                                                                                   |                                                 |               | 10              | XB7NJ04B2                            | XB7NJ04G2 | XB7NJ04M2 | 0.023     |
|                                                                                   |                                                 | Orange        | 10              | XB7NJ05B1                            | XB7NJ05G1 | XB7NJ05M1 | 0.023     |
|                                                                                   |                                                 | Blue          | 10              | XB7NJ06B1                            | XB7NJ06G1 | XB7NJ06M1 | 0.023     |
|                                                                                   |                                                 | Clear         | 10              | XB7NJ07B1                            | XB7NJ07G1 | XB7NJ07M1 | 0.023     |
|                                                                                   |                                                 | Yellow        | 10              | XB7NJ08B1                            | XB7NJ08G1 | XB7NJ08M1 | 0.023     |



| Pilot lights                                                                        |                                 |               |                 |                                      |           |           |           |
|-------------------------------------------------------------------------------------|---------------------------------|---------------|-----------------|--------------------------------------|-----------|-----------|-----------|
| with integral LED                                                                   |                                 |               |                 |                                      |           |           |           |
| Shape of head                                                                       | Type of light source (included) | Color of lens | Sold in lots of | Unit reference by supply voltage (2) |           |           | Weight kg |
|                                                                                     |                                 |               |                 | ~ / ~ 24 V                           | ~ 120 V   | ~ 230 V   |           |
|  | Integral LED                    | Green         | 10              | XB7EV03BP                            | XB7EV03GP | XB7EV03MP | 0.020     |
|                                                                                     |                                 | Red           | 10              | XB7EV04BP                            | XB7EV04GP | XB7EV04MP | 0.020     |
|                                                                                     |                                 | Yellow        | 10              | XB7EV05BP                            | XB7EV05GP | XB7EV05MP | 0.020     |
|                                                                                     |                                 | Blue          | 10              | XB7EV06BP                            | XB7EV06GP | XB7EV06MP | 0.020     |
|                                                                                     |                                 | Clear         | 10              | XB7EV07BP                            | XB7EV07GP | XB7EV07MP | 0.020     |
|                                                                                     |                                 | Orange        | 10              | XB7EV08BP                            | XB7EV08GP | XB7EV08MP | 0.020     |

(1) All product references ending with "1" correspond to products with N/O contacts (Example: XB7NW34B1). All product references ending with "2" correspond to products with N/C contacts (Example: XB7NW34B2).

(2) For Faston® connection version (1 x 6.35 mm and 2 x 2.8 mm), add the number "3" to the end of the reference. Example: XB7EV07BP becomes XB7EV07BP3.

# Harmony™ XB7 monolithic 22 mm push buttons

Push buttons, switches and pilot lights

## Selector switches and key switches

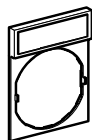
| Shape of head                                                                     | Type of operator       | Type of contact                                                                   |                                                                                   | Number and type of positions (1)     |                                                                                     | Sold in lots of | Unit reference | Weight |
|-----------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------|-----------------|----------------|--------|
|                                                                                   |                        | NO                                                                                | NC                                                                                |                                      |                                                                                     |                 |                | kg     |
|                                                                                   |                        |  |  |                                      |                                                                                     |                 |                |        |
|  | Standard handle, black | 1                                                                                 | –                                                                                 | 2, stay put                          |  | 10              | XB7ND21        | 0.026  |
|                                                                                   |                        | 1                                                                                 | 1                                                                                 | 2, stay put                          |  | 10              | XB7ND25        | 0.026  |
|                                                                                   |                        | 2                                                                                 | –                                                                                 | 3, stay put                          |  | 10              | XB7ND33        | 0.026  |
|  | Key (key n° 455)       | 1                                                                                 | –                                                                                 | 2, key withdrawal in LH position     |  | 10              | XB7NG21        | 0.050  |
|                                                                                   |                        | 2                                                                                 | –                                                                                 | 3, key withdrawal in center position |  | 10              | XB7NG33        | 0.050  |

## Ø 40 mm Emergency stop trigger action and mechanically latching push buttons

| Emergency stop button, stop action and mechanically latching push buttons           |                      |                                                                                       |                                                                                   |                                                                                   |               |                 |                |        |
|-------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|-----------------|----------------|--------|
| Shape of head                                                                       | Type of push         | Standards                                                                             | Type of contact                                                                   |                                                                                   | Color of push | Sold in lots of | Unit reference | Weight |
|                                                                                     |                      |                                                                                       | NO                                                                                | NC                                                                                |               |                 |                |        |
|                                                                                     |                      |                                                                                       |  |  |               |                 |                |        |
|   | Turn to release      | EN/IEC 60204-1, EN/ISO 13850, EN/IEC 60947-5-5, Machinery directive 2006/42/EC and UL | –                                                                                 | 1                                                                                 | Red           | 10              | XB7NS8442      | 0.045  |
|                                                                                     |                      |                                                                                       | 1                                                                                 | 1                                                                                 | Red           | 10              | XB7NS8445      | 0.045  |
|                                                                                     |                      |                                                                                       | –                                                                                 | 2                                                                                 | Red           | 10              | XB7NS8444      | 0.045  |
|  | Push-pull            |                                                                                       | –                                                                                 | 1                                                                                 | Red           | 10              | XB7NT842       | 0.040  |
|                                                                                     |                      |                                                                                       | 1                                                                                 | 1                                                                                 | Red           | 10              | XB7NT845       | 0.040  |
|                                                                                     |                      |                                                                                       | –                                                                                 | 2                                                                                 | Red           | 10              | XB7NT844       | 0.040  |
|  | Key release (n° 455) |                                                                                       | –                                                                                 | 2                                                                                 | Red           | 10              | XB7NS9444      | 0.072  |
|                                                                                     |                      |                                                                                       | –                                                                                 | 1                                                                                 | Red           | 10              | XB7NS9445      | 0.072  |

(1) The symbol "⌘" indicates key withdrawal position.

# Harmony™ XB7 monolithic 22 mm push buttons Push buttons, switches and pilot lights



ZBY 2101

## Standard (30 x 40 mm) legend holders for 8 x 27 mm legends

| Text           | Sold in lots of | Unit reference | Weight kg |
|----------------|-----------------|----------------|-----------|
| Without legend | 10              | ZBZ32          | 0.001     |

## Legend holder, 30 x 40 mm with legend (black or red background)

### with blank legend

| Text    | Sold in lots of | Unit reference | Weight kg |
|---------|-----------------|----------------|-----------|
| Without | 10              | ZBY2101        | 0.001     |

### with marked legend (sold singly)

- Start functions: White characters on black background.
- Stop functions: White characters on red background.

| Text     | Unit reference | Weight kg | Text    | Unit reference | Weight kg |
|----------|----------------|-----------|---------|----------------|-----------|
| Auto     | ZBY2115        | 0.001     | Reset   | ZBY2323        | 0.001     |
| Down     | ZBY2308        | 0.001     | Reverse | ZBY2306        | 0.001     |
| Forward  | ZBY2305        | 0.001     | Right   | ZBY2309        | 0.001     |
| Hand     | ZBY2316        | 0.001     | Start   | ZBY2303        | 0.001     |
| Inch     | ZBY2321        | 0.001     | Stop    | ZBY2304        | 0.001     |
| Left     | ZBY2310        | 0.001     | Up      | ZBY2307        | 0.001     |
| Off      | ZBY2312        | 0.001     | O       | ZBY2146        | 0.001     |
| On       | ZBY2311        | 0.001     | I       | ZBY2147        | 0.001     |
| Power on | ZBY2326        | 0.001     | O-I     | ZBY2178        | 0.001     |

## Standard (30 x 50 mm) legend holders for 18 x 27 mm legends

| Text           | Sold in lots of | Unit reference | Weight kg |
|----------------|-----------------|----------------|-----------|
| Without legend | 10              | ZBZ 3          | 0.001     |

## Circular legends, yellow, for mushroom head push buttons

### used for "Emergency stop" function (1)

| Conforming to standards             | Diameter mm | Marking on yellow background | Unit reference | Weight kg |
|-------------------------------------|-------------|------------------------------|----------------|-----------|
| EN/IEC 60204-1 and EN/ISO 13850 (1) | 60          | —                            | ZBY9140        | 0.004     |
|                                     |             | EMERGENCY STOP               | ZBY9330        | 0.004     |
|                                     | 90          | —                            | ZBY8140        | 0.008     |
|                                     |             | EMERGENCY STOP               | ZBY8330        | 0.008     |

### used for "Emergency switching off" function

| Conforming to standard | Diameter mm | Marking on yellow background | Unit reference | Weight kg |
|------------------------|-------------|------------------------------|----------------|-----------|
| EN/IEC 60204-1         | 60          | —                            | ZBY9101        | 0.004     |
|                        |             | EMERGENCY SWITCHING OFF      | ZBY9360        | 0.004     |
|                        | 90          | —                            | ZBY8101        | 0.008     |
|                        |             | EMERGENCY SWITCHING OFF      | ZBY8360        | 0.008     |

## Nameplates, 30 x 40 mm, blank

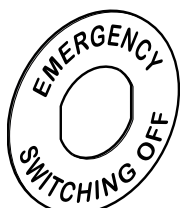
| Text color | Background color | Unit reference |
|------------|------------------|----------------|
| White      | Black            | ZBY42101       |
| White      | Red              | ZBY44101       |
| Black      | Yellow           | ZBY41101       |
| Black      | White            | ZBY45101       |

## Nameplates, 30 x 50 mm, blank

| Text color | Background color | Unit reference |
|------------|------------------|----------------|
| White      | Black            | ZBY62101       |
| White      | Red              | ZBY64101       |
| Black      | Yellow           | ZBY61101       |
| Black      | White            | ZBY65101       |



ZBY9330



ZBY9360



ZBY42101

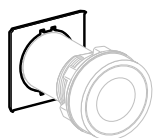


ZBY62101

(1) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop logo  has been added.

# Harmony™ XB7 monolithic 22 mm push buttons

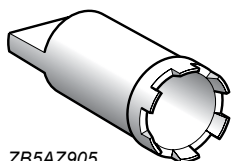
Push buttons, switches and pilot lights



ZB5AZ902



ZB5AZ901



ZB5AZ905



ZB5SZ3

## Accessories

| Description                                        | Color | Sold in lots of | Unit reference | Weight kg |
|----------------------------------------------------|-------|-----------------|----------------|-----------|
| Anti-rotation plate                                | –     | 10              | ZB5AZ902       | 0.008     |
| Mounting nut                                       | –     | 10              | ZB5AZ901       | 0.002     |
| Mounting nut tightening tool                       | –     | 1               | ZB5AZ905       | 0.016     |
| Plastic circular blanking plug (with mounting nut) | Black | 10              | ZB5SZ3         | 0.009     |

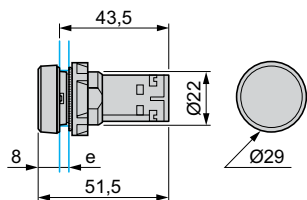
## Harmony™ XB7 monolithic 22 mm push buttons

Push buttons, switches and pilot lights

### Dimensions

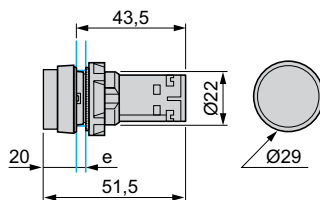
#### Push buttons, flush type

**XB7NA●●●●, XB7NH●●**



#### Push buttons, projecting type

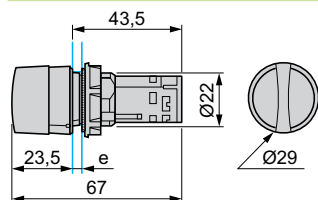
**XB7NL●●●●**



e : support panel thickness: 1 to 6 mm (metal), 2 to 6 mm (plastic).

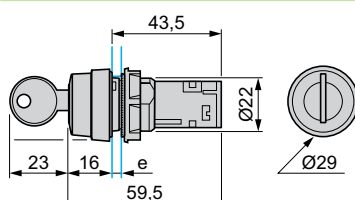
#### Selector switches, standard handle

**XB7ND●●**



#### Key switches

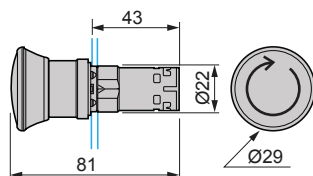
**XB7NG●●**



e : support panel thickness: 1 to 6 mm (metal), 2 to 6 mm (plastic).

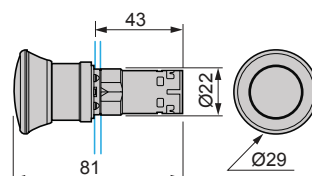
#### Emergency Stop push buttons (Turn to release)

**XB7NS84●●**



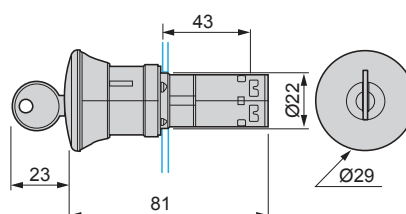
#### Emergency Stop push buttons (Push-pull)

**XB7NT84●●**



#### Emergency Stop push buttons with key

**XB7NS94●●**

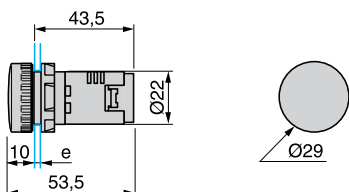


e : support panel thickness: 1 to 6 mm (metal), 2 to 6 mm (plastic).

## Dimensions (continued)

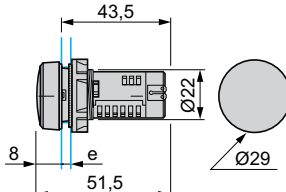
### Pilot lights with screw terminal

XB7EV...P



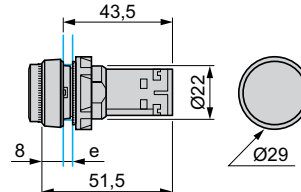
### Pilot lights with Faston® terminal

XB7EV...P3



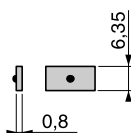
### Illuminated push buttons

XB7NW..., XB7NJ...

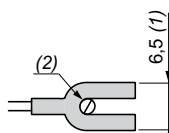


e : support panel thickness: 1 to 6 mm (metal), 2 to 6 mm (plastic).

### Faston clip connection (for pilot lights only)



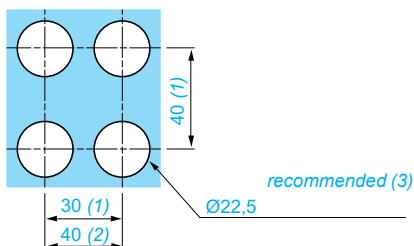
### "U" type tag connection



(1) 6.5 recommended, 7 mm max.  
(2) M3 screw clamp terminal.

## Mounting

### Diameter of finished mounting holes



(1) Minimum value.  
(2) 40 mm for Emergency Stop push buttons only.  
(3) Standard value: Ø 22.3 (0; + 0.4).



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