

Control and signaling units Ø 22

Harmony® XB7 monolithic

Catalog

January 2013








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Type of products	Pilot lights	Pushbuttons, selector switches and pilot lights			Biometric switches
					
Description of range	<ul style="list-style-type: none"> LED pilot lights 	<ul style="list-style-type: none"> Pushbuttons Multiple-headed pushbuttons Emergency Stop pushbuttons Emergency switching off pushbuttons Selector switches and key switches Illuminated pushbuttons Pilot lights 			<ul style="list-style-type: none"> Fingerprint readers 24V --- Stand-alone biometric switches Stand-alone USB biometric switches USB biometric switches dedicated to Schneider HMI (1)
Features	Products	Monolithic, compact, low consumption			Monolithic
	Bezel	Double insulated	Metal, chromium plated or black	Double insulated	Double insulated, dark grey
	Shape of head	Circular	Circular, square or rectangular	Circular	Circular or square
Drilling or cut-out for fixing		Ø 8 mm and Ø 12 mm	Ø 16	Ø 22	
Degree of protection	Conforming to IEC 60529	IP 40 IP 65 with seal	IP 65	IP 66 IP 69K (Selector switches and key switches, multiple-headed pushbuttons and Emergency Stop pushbuttons with bellows)	IP 65 (control button)
	Conforming to UL 508 and CSA C22-2 N° 14	–	Enclosure type 4, 4X and 13		Enclosure type 12
Cabling		Tags for 2.8 x 0.5 mm connectors or threaded connector	Faston connectors Solder pins for printed circuit boards	Spring clamp terminal connections Screw clamp terminal connections Faston connectors Connector With adaptor for printed circuit board	Cable or connectors
Mounting	Panel thickness	1...8 mm	1...6 mm		
Type references		XVLA	XB6	XB4	XB5
					XB5S

(1) Compatible with iPC, STU, OT, GXO, GT(except GT1000 series)/GK/GH, and GTO Magelis models.
 (2) Wireless and batteryless pushbutton and receiver ready-paired at the factory.

Wireless and batteryless pushbuttons	Pushbuttons, selector switches and pilot lights	Joystick controllers	Pushbuttons, selector switches and pilot lights	Cam switches
				
<ul style="list-style-type: none"> Wireless and batteryless pushbuttons and rope pull switch Configurable receivers Access point Relay-antenna Mobile handy box or plastic boxes for wall mounting 	<ul style="list-style-type: none"> Pushbuttons Emergency Stop and Emergency switching off pushbuttons Selector switches and key switches Illuminated pushbuttons Pilot lights 	<ul style="list-style-type: none"> 2 or 4 direction Stay put or spring return 	<ul style="list-style-type: none"> Pushbuttons Emergency Stop buttons Selector switches and key switches Illuminated pushbuttons Pilot lights 	<ul style="list-style-type: none"> Switches Stepping switches Reversing and changeover switches Ammeter switches Voltmeter switches Reversing switches Star-delta and reversing star-delta switches Pole change switches
Ready-to-use packs (2) and «components» range	Monolithic	Complete units or sub-assemblies (body + head with lever)	Complete units or sub-assemblies (body + head)	Complete units or sub-assemblies (body + front panel + head)
Metal, chromium plated or double insulated, black	Double insulated, dark grey (or white for pilot lights)	Metal, chromium plated	Double insulated, black	Metal, chromium plated or double insulated, black
Transmitter with circular head	Circular	Circular	Hexagonal	Square
Ø 22			Ø 30	Ø 16 or Ø 22 mm: series K10 Ø 22 mm and multifixing: series K1/K2 4 holes, 48 or 68 centres: series K30...K150
IP 65	IP 65 (control buttons and pilot lights) IP 54 (Emergency switching off pushbuttons)	IP 65	IP 66	IP 65
Enclosure type 12	Enclosure type 3 (pushbuttons and Emergency stop) and 4 (pilot lights)	Enclosure type 4, 4X and 13	Enclosure type 4 and 13 (9001K) Enclosure type 4, 4X, 13 (9001SK)	IP 65: series K10 IP 40, IP 65 with seal: series K1/K2 IP 40: series K30...K150
Wireless (transmitter) Through cable (receiver)	Screw and captive clamp terminal connections Faston clip connections (pilot lights)	Screw and captive clamp terminal connections		
1...6 mm				0.5...6 mm (depending on model)
XB5R, XB4R	XB7	XD4PA	XD2GA	XD5PA
		9001K, 9001 SK	K10, K1, K2, K30, K50, K63, K115, K150	

Presentation

The Harmony® XB7 range of plastic control and signaling units is a monolithic range designed for use in the industrial, tertiary and building sectors. It is simple to use and quick to install.

■ This range includes:

- Pushbuttons and switches designed for Start/Stop control of machines and installations, adjustment and parametering (contact functions): Pushbuttons, selector/key switches, Emergency stop or Emergency switching off pushbuttons
- Pilot lights designed for visual signaling (signaling functions)
- Illuminated pushbuttons designed for control and signaling (contact functions + signaling functions)

■ The range comprises complete units, with round plastic bezel, and 6 pilot light colors.

■ The pushbutton and switch control offer comprises:

- Flush and projecting spring return pushbuttons, with or without marking
- Flush latching pushbuttons, without marking
- Projecting spring return or latching illuminated pushbuttons
- Emergency stop trigger action and mechanically latching mushroom head pushbuttons (conforming to standards EN/IEC 60204-1 and EN/ISO 13850)
- Emergency switching off mechanically latching mushroom head pushbuttons (conforming to standard IEC 60364-5-53)
- Selector switches, with standard black handle, and key switches
- Legends and legend holders
- Accessories and spare parts

■ The pilot light signaling offer includes:

- Pilot lights with integral LED
- Pilot lights for BA 9s base fitting bulbs

The two types of pilot lights are for direct supply or with resistor.

Installation

■ Harmony® XB7 products are both simple and quick to install:

- Mounting by single installer
- Fixing by a single locking nut

■ Two types of connection are available:

- Screw clamp terminals
- Faston connectors (only for pilot lights)

Environment

The performance features of the XB7 range meet the following specifications:

■ International standards and approvals:

- For the entire range: EN/IEC 60947-1, EN/IEC 60947-5-1, EN/IEC 60947-5-4, UL 508, CSA C22-2 n° 14, GB 14048.5
- For Emergency stop pushbuttons: EN/IEC 60947-5-5, EN/ISO 13850 and EN/IEC 60204-1
- For Emergency switching off pushbuttons: EN/IEC 60364-5-53

■ International certifications: UL, CSA, CCC, GOST.

■ Degrees of protection:

- Front face: IP 65 (IP 54 for Emergency switching off pushbuttons)
- Rear face: IP 20 (protection against direct contact)

For more technical information, please refer to our website www.schneider-electric.com.

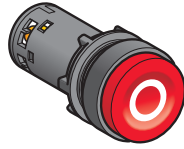
Complete units: Contact functions

Spring return pushbuttons marked/unmarked



Flush

XB7NA●●●●: see page 6



Projecting

XB7NL●●●●: see page 6

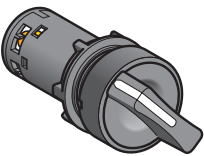


Latching pushbuttons unmarked

Flush

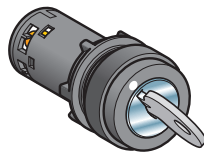
XB7NH●●: see page 6

Selector switches and key switches



Standard handle, black

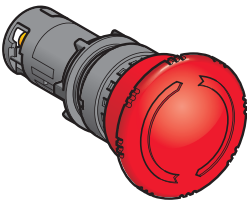
XB7ND●●: see page 9



Key operated

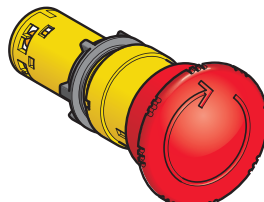
XB7NG●●: see page 9

Emergency switching off pushbuttons



Turn to release/Key release

XB7ES●●●P: see page 10



Emergency stop pushbuttons

Turn to release/Push-pull/Key release

XB7NS●●●●/XB7NT●●●: see page 10

Complete units: Signaling functions

Pilot lights



With integral LED

XB7EV0●●P: see page 8



With BA 9s base fitting, direct supply or with resistor

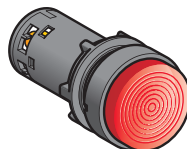
XB7EV7●●P, XB7EV6●P: see page 8

Illuminated pushbuttons, with projecting push



With integral LED, spring return or latching

XB7NW●●●●, XB7NJ●●●1: see page 8






With BA 9s base fitting, spring return or latching





XB7NW●●61, XB7NJ●●61: see page 8

Legend holders, legends, accessories and bulbs

See pages 10 and 11

Pushbuttons									
Shape of head	Type of push	Type of contact		Marking		Color of push	Sold in lots of	Unit reference	Weight
		NO	NC	Text	Color				
Spring return pushbutton 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
Latching pushbutton 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






Pushbuttons (continued)										
Shape of head	Type of push	Type of contact		Marking		Color of push	Sold in lots of	Unit reference	Weight	
		NO	NC	Text	Color					kg
Spring return pushbutton with marking										
	Flush		1	–	I	White	Green	10	XB7NA3131	0.021
			1	–	II	White	Green	10	XB7NA3136	0.021
			1	–	MARCHE	White	Green	10	XB7NA3142	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
			–	1	ARRET	White	Red	10	XB7NA4233	0.021
			–	1	ARRET	White	Black	10	XB7NA2233	0.021
			2	–	I	White	Green	10	XB7NA3331	0.021
			2	–	II	White	Green	10	XB7NA3336	0.021
			2	–	MARCHE	White	Green	10	XB7NA3342	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
1	1	ARRET	White	Black	10	XB7NA2533	0.021			
1	1	↓	White	Black	10	XB7NA25343	0.021			
1	1	↑	White	Black	10	XB7NA25341	0.021			
1	1	ARRET	White	Red	10	XB7NA4533	0.021			
	Projecting		–	1	ARRET	White	Red	10	XB7NL4233	0.021
			–	1	O	White	Red	10	XB7NL4232	0.021
			–	1	STOP	White	Red	10	XB7NL4234	0.021
			–	1	ARRET	White	Black	10	XB7NL2233	0.021
			1	1	ARRET	White	Red	10	XB7NL4533	0.021
			1	1	O	White	Red	10	XB7NL4532	0.021
			1	1	STOP	White	Red	10	XB7NL4534	0.021
			1	1	ARRET	White	Black	10	XB7NL2533	0.021



Illuminated pushbuttons, with 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 NO and NC 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		
		Latching 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		



With BA 9s base fitting (2)								
Shape of head	Type of push	Type of contact		Color of lights	Sold in lots of	Unit reference 250 V ~ max.	Weight kg	
		NO	NC					
	Spring return			Green	10	XB7NW3361	0.022	
				Red	10	XB7NW3461	0.022	
				Orange	10	XB7NW3561	0.022	
				Blue	10	XB7NW3661	0.022	
				Clear	10	XB7NW3761	0.022	
				Yellow	10	XB7NW3861	0.022	
				Latching				Green
	Red	10	XB7NJ0461					0.022
	Orange	10	XB7NJ0561					0.022
	Blue	10	XB7NJ0661					0.022
	Clear	10	XB7NJ0761					0.022
	Yellow	10	XB7NJ0861					0.022

(1) All product references ending in "1" are for products with "NO" contacts (example: XB7NW34B1).

All product references ending in "2" are for products with "NC" contacts (example: XB7NW34B2).

(2) Bulb, 1.2 W maximum, to be ordered separately. See page 11.

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 (1)			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

With BA 9s base fitting



Shape of head	Supply	Color of lens	Sold in lots of	Unit reference (1)		Weight kg
				With bulb	Without bulb	
	With resistor, for 130 V, 2.6 W bulb Supply voltage: 230 V ~, 50-60 Hz	Green	10	XB7EV73P	XB7EV730P	0.020
		Red	10	XB7EV74P	XB7EV740P	0.020
		Yellow	10	XB7EV75P	XB7EV750P	0.020
		Blue	10	XB7EV76P	XB7EV760P	0.020
		Clear	10	XB7EV77P	XB7EV770P	0.020
		Orange	10	XB7EV78P	XB7EV780P	0.020
	Direct for BA 9s base fitting incandescent bulb Supply voltage: ≤ 250 V (2)	Green	10	–	XB7EV63P	0.020
		Red	10	–	XB7EV64P	0.020
		Yellow	10	–	XB7EV65P	0.020
		Blue	10	–	XB7EV66P	0.020
		Clear	10	–	XB7EV67P	0.020
		Orange	10	–	XB7EV68P	0.020

Selector switches and key switches



Shape of head	Type of operator	Type of contact		Number and type of positions (3)	Sold in lots of	Unit reference	Weight kg	
		NO	NC					
	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 centre position		10	XB7NG33	0.050

(1) 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.

(2) Bulb characteristics for direct supply pilot lights: 250 V, 2.6 W.

(3) The symbol "K" indicates key withdrawal position.



XB7NS84

Ø 40 mm Emergency stop trigger action and mechanically latching mushroom head pushbuttons								
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,	–	1	Red	10	XB7NS8442	0.045
			1	1	Red	10	XB7NS8445	0.045
			–	2	Red	10	XB7NS8444	0.045
	Push-pull	EN/IEC 60947-5-5, Machinery directive 2006/42/EC and UL	–	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



XB7ES54-P

Ø 40 mm Emergency switching off mechanically latching mushroom head pushbuttons								
Shape of head	Type of push	Standard	Type of contact		Color of push	Sold in lots of	Unit reference	Weight
			NO	NC				
	Turn to release	IEC 60364-5-53	–	1	Red	10	XB7ES542P	0.032
			1	1	Red	10	XB7ES545P	0.035
	Key release (n° 455)		–	1	Red	10	XB7ES142P	0.055
			1	1	Red	10	XB7ES145P	0.058

Circular legends, yellow, for mushroom head pushbuttons

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
		ARRET D'URGENCE	ZBY9130	0.004
		EMERGENCY STOP	ZBY9330	0.004
		NOT-HALT	ZBY9230	0.004
		PARADA DE EMERGENCIA	ZBY9430	0.004
		ARRESTO DE EMERGENZA	ZBY9630	0.004
	90	–	ZBY8140	0.008
		ARRET D'URGENCE	ZBY8130	0.008
		EMERGENCY STOP	ZBY8330	0.008
		NOT-HALT	ZBY8230	0.008
		PARADA DE EMERGENCIA	ZBY8430	0.008
		ARRESTO DE EMERGENZA	ZBY8630	0.008



ZBY9130

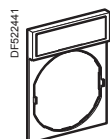
Used for "Emergency switching off" function

Conforming to standard	Diameter mm	Marking on yellow background	Unit reference	Weight kg
EN/IEC 60204-1	60	–	ZBY9101	0.008
		COUPURE D'URGENCE	ZBY9160	0.004
		EMERGENCY SWITCHING OFF	ZBY9360	0.004
		NOT-AUS	ZBY9260	0.004
		DESCONEXION DE EMERGENCIA	ZBY9460	0.004
		INTERRUZIONE DI EMERGENZA	ZBY9660	0.004
	90	–	ZBY8101	0.008
		COUPURE D'URGENCE	ZBY8160	0.008
		EMERGENCY SWITCHING OFF	ZBY8360	0.008
		NOT-AUS	ZBY8260	0.008
		DESCONEXION DE EMERGENCIA	ZBY8460	0.008
		INTERRUZIONE DI EMERGENZA	ZBY8660	0.008

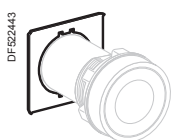


ZBY9160

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



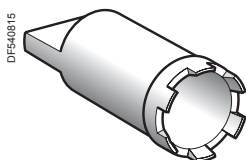
ZBY2101



ZB5AZ902



ZB5AZ901



ZB5AZ905



ZB5SZ3



DL1 CE●●●



DL1 CF●●●

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 legend	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	ZBZ33	0.001

Accessories

Description	Color	Sold in lots of	Unit reference	Weight kg
Anti-rotation plate	–	10	ZB5AZ902	0.008
Fixing nut	–	10	ZB5AZ901	0.002
Fixing nut tightening tool	–	1	ZB5AZ905	0.016
Grooved lenses for BA 9s pilot lights	White	10	ZB7EV01	0.002
	Green	10	ZB7EV03	0.002
	Red	10	ZB7EV04	0.002
	Yellow	10	ZB7EV05	0.002
	Blue	10	ZB7EV06	0.002
	Clear	10	ZB7EV07	0.002
	Orange	10	ZB7EV08	0.002
Plastic circular blanking plug (with fixing nut)	Black	10	ZB5SZ3	0.009

BA 9s bulbs

Description	Voltage V	Power W	Sold in lots of	Unit reference	Weight kg
Incandescent bulbs, long life Ø 11 mm max. length 28 mm max.	6	1.2	10	DL1CB006	0.002
	24	2.0	10	DL1CE024	0.002
	130	2.6	10	DL1CE130	0.002
Neon bulbs	120...130	–	10	DL1CF110	0.002
	230...240	–	10	DL1CF220	0.002



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