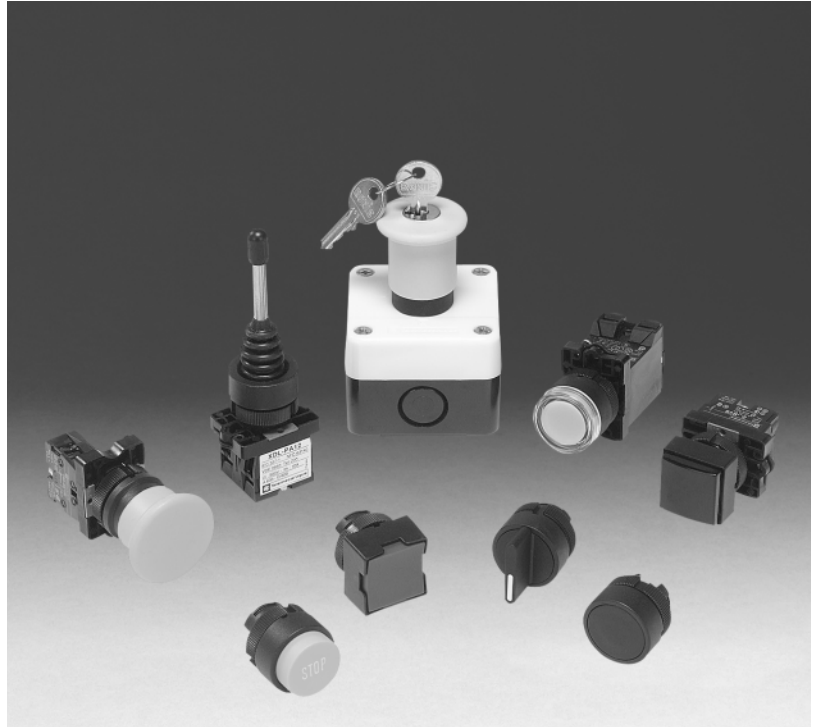


# Push Buttons and Operator Interface Specifier's Guide

## Type XA2B 22 mm, Double Insulated

File 9001



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**Merlin Gerin**

**Modicon**

**Square D**

**Telemecanique**

*Schneider Electric Brands*

# Push Buttons and Operator Interface Specifiers Guide

## XA2B 22 mm Double Insulated



### Environment

Conformity to standards	<b>XA2B:</b> IEC-60947-5-1, EN60947-5-1, NF C 63-140, ASE 0119, ASE 1003, BS 4794, VDE 0660-200, UL 508, CSA C 22-2 No. 14.
Approvals	<b>CSA and UL:</b> push buttons and selector switches NEMA / UL Type A600 - Q600, pilot lights and illuminated push buttons direct supply (120 V max); pilot lights and illuminated push buttons with transformer (600 V) ASE, DEMKO, NEMKO, SEMKO, BUREAU, VERITAS, SAHKOTARKASTUSKESKUS, GL, DNV, LROS
Protective treatment	Standard Version: "TC" (all climates).
Ambient temperature	Storage: -40 °C to +70 °C (-40 °F to +158 °F). Operating: -25 °C to +70 °C (-13 °F to +158 °F).
Resistance to vibration	60 mm diameter mushroom head: 8 g. Other push buttons: 15 g. Small joystick controllers: 5g (from 40 to 50 Hz) conforming to IEC 68-2-6.
Resistance to shock	Push buttons: 70 g. Mushroom head push buttons: 15 g. Selector switches: 120 g. Conforming to IEC 60068-2-27.
Electric shock protection	<b>XA2B:</b> Class 1, conforming to IEC 60536 and NF 20-030.
Degree of protection conforming to IEC 60529 and NEC 20-010.	NEMA / UL ratings XB2B: 1, 2, 4, 4x, 12K, 13, XB2B, XD2P. IP 65: flush and protecting, illuminated and non-illuminated push buttons (mounted). IP 40: double-headed push buttons (IP 65 on request).
Mechanical life	Push buttons -- 3 million operations. Latching mushroom head push buttons: 300,000 operations. Illuminated selector switches: 100,000 operations. (The product life expressed is based on average usage and normal operating conditions. Actual operating life will vary with conditions. The above statements are not intended to nor shall they create any express or implied warranties as to product operation or life. For information on the warranty offered on this product, please refer to the Square D terms and conditions of sale found in the Square D Digest.)

### Contact block characteristics

Nominal thermal current	10 A conforming to IEC 60947-5-1, NF C 63-140, UL 508, CSA 22-2 No. 14, VDE 0660 part 2, NEMA / UL Type A600-Q600.
Nominal insulation voltage	500V conforming to NF C 20-040, VDE 0110, IEC 60158-1, 600V conforming to UL 508, 600v conforming to CSA 22-2 No. 14.
Insulation category	Group C conforming to NF C 20-040 and VDE 0110.
Contact operation	Slow-make N.O. or slow-break N.C. with direct opening operation conforming to EN 60 947-5-1 Section 3.
Contact resistance	0.25 mΩ conforming to: NF C 93-050 method A or IEC 60225-7 category 3.
Operating force	Flush or projecting push buttons - with 1 NO contact: 2.25 lb - with 1 NC contact: 1.8 lb Additional contacts - N.O.: add 1 lb - N.C.: add 0.7 lb.
Terminal referencing	Conforming to CENELEC EN 50013.
Short circuit protection	10 A cartridge fuses, g1 or N conforming to IEC 60269-1 and VDE 0660-200.

Rated power conforming to IEC 60947-5-1 Appendix C duty categories AC15-DC13  
Operating frequency: 3,600 ops/hour  
Load factor: 0.5  
AC supply (50-60 Hz)

#### DC supply

Power broken in watts for 1 million operations	
Voltage	24 V 48 V 120 V
Inductive load	65 W 48 W 40 W

#### AC Ratings, Inductive - NEMA / UL A600

##### 35% Power factor

Volts	Make Amperes	VA	Break Amperes	VA	Continuous carrying Amperes	Resistive 75% Power factor Make, Break and continuous Amperes
120	60	7200	6	720	10	10
240	30	7200	3	720	10	10
480	15	7200	1.5	720	10	10
600	12	7200	1.2	720	10	10

#### DC Ratings, NEMA / UL Type Q600

##### Inductive and resistive

Volts	Make and break	Continuous
125	0.55	2.5
250	0.27	2.5
600	0.10	2.5



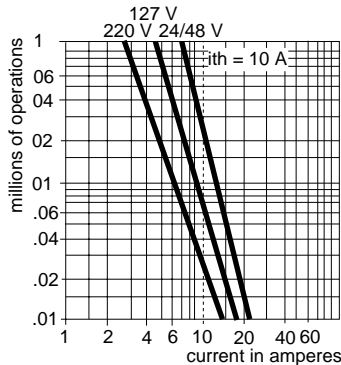
File E164353  
CCN NKCR



File LR 44087  
Class 3211 03



Marking



### Cabling

**XA2B:** Screw and captive clamp terminals. Recommended torque 15.62 lb-in. Capacity: minimum 1 x 0.5 mm<sup>2</sup> (20 AWG), solid or stranded, maximum with or without cable end: 2 x 1.5 mm<sup>2</sup> (16 AWG) or 1 x 2.5 mm<sup>2</sup> (14 AWG) or by cable clips conforming to NF C 20-120 (on request).

XA2B Non-Illuminated Operators	Page 297-299
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**Operator**


Type	Size	Color	Catalog Number		
Flush head		White	ZA2BA1		
		Black	ZA2BA2		
		Green	ZA2BA3		
		Red	ZA2BA4		
		Yellow	ZA2BA5		
		Blue	ZA2BA6		
		Grey	ZA2BA8		
		Flush head premarked		Green "START"	ZA2BA333
Green "ON"	ZA2BA341				
White "I"	ZA2BA131				
Black "O"	ZA2BA232				
Green "I"	ZA2BA331				
Red "O"	ZA2BA432				
Red "STOP"	ZA2BA434				
Red "OFF"	ZA2BA435				
Transparent flush head (for use with ZB2BY1• stick on legends see page 306)				Green	ZA2BA38
				Red	ZA2BA48
		Yellow	ZA2BA58		
		Blue	ZA2BA68		
		Clear	ZA2BA78		
		Extended head		White	ZA2BL1
				Black	ZA2BL2
Green	ZA2BL3				
Red	ZA2BL4				
Yellow	ZA2BL5				
Blue	ZA2BL6				
Red "STOP"	ZA2BL434				
Red "O"	ZA2BL432				
Red "OFF"	ZA2BL435				
Extended head premarked				Black	ZA2BP2
				Green	ZA2BP3
				Red	ZA2BP4
				Yellow	ZA2BP5
				Blue	ZA2BP6
				Black	ZA2BP02
Silicone booted head				Green	ZA2BP03
		Red	ZA2BP04		
		Yellow	ZA2BP05		
		Blue	ZA2BP06		
		Black	ZA2BA24		
		Green	ZA2BA34		
		Red	ZA2BA44		
		Yellow	ZA2BA54		
		Blue	ZA2BA64		
		Neoprene booted head		Black	ZA2BA22
Green	ZA2BA32				
Red	ZA2BA42				
Yellow	ZA2BA52				
Blue	ZA2BA62				
Flush plunger (with full guard)				Black/Red	ZA2BA9124
				Green/Red	ZA2BA9134
				Black/Red "I/O"	ZA2BA9224
				Green/Red "I/O"	ZA2BA9234
				Black/Red "START/STOP"	ZA2BA9724
		Green/Red "START/STOP"	ZA2BA9734		
		Two button operators	Two flush	Black/Red	ZA2BL9324
				Green/Red	ZA2BL9334
			Two flush premarked	Black/Red "I/O"	ZA2BL9424
				Green/Red "I/O"	ZA2BL9434
One flush, one extended	Black/Red "START/STOP"		ZA2BL9824		
	Green/Red "START/STOP"		ZA2BL9834		
One flush, one extended premarked					
Flush plunger (with half guard)		Black	ZA2BA24		
		Green	ZA2BA34		
		Red	ZA2BA44		
		Yellow	ZA2BA54		

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# Push Buttons and Operator Interface Specifiers Guide

XA2B 22 mm

Mushroom Operators and Yellow Contrast Plates



## Operator

Type	Size	Color	Catalog Number	
Mushroom head momentary	30 mm	Black	ZA2BC24	
		Green	ZA2BC34	
		Red	ZA2BC44	
		Yellow	ZA2BC54	
	40 mm	Blue	ZA2BC64	
		Black	ZA2BC2	
		Green	ZA2BC3	
		Red	ZA2BC4	
	60 mm	Yellow	ZA2BC5	
		Blue	ZA2BC6	
	Mushroom head Latching Push-Pull	30 mm	Black	ZA2BR2
			Red	ZA2BR4
40 mm		Black	ZABT24	
		Red	ZABT44	
60 mm		Black	ZA2T2	
		Red	ZA2BT4	
Mushroom head Latching Turn to Release	30 mm	Black	ZA2BX2	
	40 mm	Red	ZA2BX4	
	60 mm	Red	ZA2BS44	
Mushroom head Latching Turn to Release Trigger Action♦	30 mm	Red	ZA2BS54	
	40 mm	Red	ZA2BS64	
Mushroom head Latching Key to Release†	30 mm	Red	ZA2BS834	
	40 mm	Red	ZA2BS844	
Mushroom head Latching Key to Release Trigger Action††	30 mm	Red	ZA2BS74	
	40 mm	Red	ZA2BS14	
Mushroom head Latching Key to Release Trigger Action††	60 mm	Red	ZA2BS24	
	30 mm	Red	ZA2BS934	
Mushroom head Latching Key to Release Trigger Action††	40 mm	Red	ZA2BS944	



Mushroom Head Momentary 30 mm  
ZA2BC•4



Mushroom Head Momentary 40 mm  
ZA2BC•



Mushroom Head Turn to Release 40 mm  
ZA2BS54



Mushroom Head Key to Release 40 mm  
ZA2BS14

♦ Key release operators come with Ronis #455 keys (quantity 2) as standard. For replacement keys see page 306. For switches keyed with different keys, add the suffixes shown in the table below (no change in price). For other key numbers, contact local field office.

Key Number	Suffix
421	12
458A	10
520	14
3131A	20

† Trigger action mushroom heads are "tamper proof" whereby a change of contact state is not possible by "teasing" or floating the operator.

## Yellow Contrast Plates▼

### PVC Yellow Legend Plates 60 mm diameter

Text	Language	Catalog Number
Blank	N/A	ZB2BY9101
Emergency Stop	English	ZB2BY9330
Arret d'Urgence	French	ZB2BY9130
Not Aus	German	ZB2BY9230
Parada de Emergencia	Spanish	ZB2BY9430
Arresto Emergenza	Italian	ZB2BY9630

### PVC Yellow Legend Plates 90 mm diameter

Text	Language	Catalog Number
Blank	N/A	ZB2BY8101
Emergency Stop	English	ZB2BY8330
Arret d'Urgence	French	ZB2BY8130
Not Aus	German	ZB2BY8230
Parada de Emergencia	Spanish	ZB2BY8430
Arresto Emergenza	Italian	ZB2BY8630

▼ Yellow Contrast Plates comply with EN418 of the European Machinery Directive 89/392/EEC.



ZB2BY8330

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# Push Buttons and Operator Interface Specifiers Guide

## XA2B 22 mm Selector, Toggle, and Reset Switches

### Non-illuminated selector switches



Standard  
ZA2BD•



Extended  
ZA2BJ•



Key Switch  
ZA2BG•

Type	Positions, Action	Catalog Number
Standard handle or extended lever *	2-maintained	ZA2BD2
	2-spring return from right to left	ZA2BD4
	3-maintained	ZA2BD3
	3-spring return to center from left and right	ZA2BD5
	3-spring return from right to center	ZA2BD8
	3-spring return from left to center	ZA2BD7

### Key selectors

Type	Positions, Action	Key removal	Catalog Number
Key switch ♦	2-maintained	Left	ZA2BG2
	2-maintained	Left, Right	ZA2BG4
	2-spring return right to left	Left	ZA2BG6
	3-maintained	All	ZA2BG0
	3-maintained	Center	ZA2BG3
	3-maintained	Left, Right	ZA2BG5
	3-maintained	Right	ZA2BG09
	3-maintained	Left	ZA2BG9
	3-spring return to center from left and right	Center	ZA2BG7
	3-spring return to center from left	Right	ZA2BG1
	3-spring return to center from right	Center	ZA2BG8

### Selector Switch Sequences (using contact block assemblies, page 304)

2 Position selector switch		
↙	↘	Contact block guide
O	X	1 N.O. (left or right)
X	O	1 N.C. (left or right)
O	X	1 N.O. and 1 N.C.
X	O	1 N.C.

Note: View from front of panel

3 Position selector switch			
↙	↑	↘	Contact block guide
X	O	O	1 N.O. (left)
O	X	O	2 NC wired in series (side-by-side)
O	O	X	1 N.O. (right)
X	X	O	1 N.C. (right)
O	X	X	1 N.C. (left)
X	O	X	2 NO wired in parallel (side-by-side)

### Toggle switch



Toggle Switch  
ZA2BD28

Description	Color	Catalog Number
Two position toggle switch	Black	ZA2BD28

### Reset buttons (Mechanical overload resets 10 mm travel)



ZA2BA8602

NEMA Type 4X (not suitable for use with ZA2BZ10• body/contact assemblies)	Flush	Blank	Color	Catalog Number	
		with legend	Green	ZA2BA83	
			Red	ZA2BA84	
			Blue	ZA2BA86	
	Extended head	with legend	O	Red	ZA2BA8401
			R	Blue	ZA2BA8602
			O	Red	ZA2BL8401
Plunger (may be trimmed to length desired) The total operating distance may be set between 17 and 120 mm, as measured from the front face of the panel.				ZA2BZ13	

\* When ordering extended lever, substitute "J" for "D" in part number (No additional cost).  
Example: ZA2BD3 becomes ZA2BJ3

♦ Key selector switches come with Ronis #455 keys (quantity 2) as standard. For replacement keys see page 306.  
For other key numbers contact local field office.

For switches keyed with different keys, add the following suffixes:

Key Number	Suffix
421	12
458A	10
520	14
3131A	20

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# Push Buttons and Operator Interface Specifiers Guide

## XA2B 22 mm Pilot Lights and Light Modules



Standard  
ZA2BV0

### Pilot light head

Type	Color	Catalog Number
Standard	White	ZA2BV01
	Green	ZA2BV03
	Red	ZA2BV04
	Amber	ZA2BV05
	Blue	ZA2BV06
	Clear	ZA2BV07
	Special lens for neon and LED lamps	Green
Red		ZA2BV043
Amber		ZA2BV053
Blue		ZA2BV063
	Clear	ZA2BV073



ZA2BV6

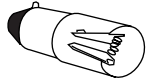
### Pilot light modules

Type	Catalog Number
Direct supply (bulb included) ★ (AC/DC)	ZA2BV6★
Transformer type (AC only) 1.2 VA/6 V (bulb included)♦	
24 V	ZA2BV1
48 V	ZA2BV2
110/120 V	ZA2BV3
220/240 V	ZA2BV94
440/480 V	ZA2BV95
550/660 V	ZA2BV98
Resistor type 130 V (bulb included)	
220/250 V	ZA2BV7

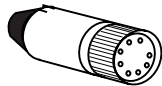
★ Complete catalog number by adding one of the following voltages: 6, 12, 24, 48 or 120 V. If desired without bulb, omit voltage.  
♦ Additional primary voltages are available. Contact local field office for details.

### Lamps

Type	Voltage AC/DC	Watts	Catalog Number
Incandescent Replacement bulbs (Type BA9s)	6	1.5	DL1CB006
	12	2.0	DL1CE012
	24	2.0	DL1CE024
	48	2.4	DL1CE048
	130	2.6	DL1CE130
Neon (use with direct supply light module)	120	-	NE51HRT120V
	220	-	NE51HRT220V
	380	-	NE51HRT380V



DLICE...  
(incandescent)



DLICJUS...  
(LED)

Type	Color	Voltage	Part Number	
LED, BA9s base for Direct Supply blocks	Green	6 Vac/dc	DL1CJUS0063	
	Red	6 Vac/dc	DL1CJUS0064	
	Amber	6 Vac/dc	DL1CJUS0065	
	Green	12 Vac/dc	DL1CJUS0123	
	Red	12 Vac/dc	DL1CJUS0124	
	Amber	12 Vac/dc	DL1CJUS0125	
	Green	24 Vac/dc	DL1CJUS0243	
	Red	24 Vac/dc	DL1CJUS0244	
	Amber	24 Vac/dc	DL1CJUS0245	
	Green	120 Vac/dc	DL1CJUS1203	
	Red	120 Vac/dc	DL1CJUS1204	
	Amber	120 Vac/dc	DL1CJUS1205	
	LED, BA9s base for retrofitting into transformer Light Modules	Green	9 Vac only	DL1CJUS0093
		Red	9 Vac only	DL1CJUS0094
		Amber	9 Vac only	DL1CJUS0095

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**Illuminated operators**



**Flush head  
ZA2BW3\***



**Extended head  
ZA2BW1\***



**Half guard  
ZA2BW3\*2**



**Turn to release  
ZA2BW7\***

Type	Color	Catalog Number	
Flush head	White	ZA2BW31	
	Green	ZA2BW33	
	Red	ZA2BW34	
	Amber	ZA2BW35	
	Blue	ZA2BW36	
	Clear	ZA2BW37	
Flush head for neon and LED lamps	Green	ZA2BW333	
	Red	ZA2BW343	
	Amber	ZA2BW353	
	Blue	ZA2BW363	
Extended head	Clear	ZA2BW373	
	White	ZA2BW11	
	Green	ZA2BW13	
	Red	ZA2BW14	
	Amber	ZA2BW15	
	Blue	ZA2BW16	
Extended head for neon and LED lamps	Clear	ZA2BW17	
	Green	ZA2BW133	
	Red	ZA2BW143	
	Amber	ZA2BW153	
	Blue	ZA2BW163	
	Clear	ZA2BW173	
With half guard	White	ZA2BW312	
	Green	ZA2BW332	
	Red	ZA2BW342	
	Amber	ZA2BW352	
	Blue	ZA2BW362	
	Clear	ZA2BW372	
	Illuminated Turn-to-Release mushroom head	Green	ZA2BW73
		Red	ZA2BW74
		Yellow	ZA2BW75
		Blue	ZA2BW76
		Clear	ZA2BW77
		Amber indicator	Black/Red
Two flush premarked	Green/Red	ZA2BW81354	
	Black/Red "I/O"	ZA2BW82254	
	Green/Red "I/O"	ZA2BW82354	
Two button momentary action operators NEMA Type 1 only ♦	Black/Red "Start/Stop"	ZA2BW87254	
	Green/Red "Start/Stop"	ZA2BW87354	
Amber indicator One flush, one extended	Black/Red	ZA2BW83254	
	Green/Red	ZA2BW83354	
One flush extended, premarked	Black/Red "I/O"	ZA2BW84254	
	Green/Red "I/O"	ZA2BW84354	
	Black/Red "Start/Stop"	ZA2BW88254	
	Green/Red "Start/Stop"	ZA2BW88354	

♦ To upgrade to NEMA / UL Type 3, 4 & 13 order silicon boot ZB2BW008.

Limited Availability  
For replacement use only.  
For new applications, use  
XB5 (page 73 - 116)

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Illuminated selector  
ZA2BK1\*\*

**Selector Switches**

Number of positions, action	Color	Catalog Number
2-maintained	Green	ZA2BK123
	Red	ZA2BK124
	Amber	ZA2BK125
	Blue	ZA2BK126
	Clear	ZA2BK127
2-spring return from right to left	Green	ZA2BK143
	Red	ZA2BK144
	Amber	ZA2BK145
	Blue	ZA2BK146
	Clear	ZA2BK147
3-maintained	Green	ZA2BK133
	Red	ZA2BK134
	Amber	ZA2BK135
	Blue	ZA2BK136
	Clear	ZA2BK137
3-spring return to center from right and left	Green	ZA2BK153
	Red	ZA2BK154
	Amber	ZA2BK155
	Blue	ZA2BK156
	Clear	ZA2BK157
3-spring return from right to center	Green	ZA2BK183
	Red	ZA2BK184
	Amber	ZA2BK185
	Blue	ZA2BK186
	Clear	ZA2BK187
3-spring return from left to center	Green	ZA2BK173
	Red	ZA2BK174
	Amber	ZA2BK175
	Blue	ZA2BK176
	Clear	ZA2BK177

Limited Availability  
For replacement use only  
For new applications, use  
XB5 (page 73 - 175)

**Selector Switch Sequences (using light module/contact block assemblies, page 304)**

2 Position selector switch		
		Contact block guide
O	X	1 N.O. (left or right)
X	O	1 N.C. (left or right)
O	X	1 N.O. and 1 N.C.
X	O	

Note: View from front of panel

3 Position selector switch			
			Contact block guide
X	O	O	1 N.O. (left)
O	X	O	2 NC wired in series (side-by-side)
O	O	X	1 N.O. (right)
X	X	O	1 N.C. (right)
O	X	X	1 N.C. (left)
X	O	X	2 NO wired in parallel (side-by-side)

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**Standard operators\***

**ZA2CA**

**ZA2CVO**

**ZA2CW1**

Description	Type	Color	Catalog Number
Push buttons	Flush	Black	ZA2CA2
		Green	ZA2CA3
		Red	ZA2CA4
		Yellow	ZA2CA5
		Blue	ZA2CA6
	Extended head	Black	ZA2CL2
		Green	ZA2CL3
		Red	ZA2CL4
		Yellow	ZA2CL5
		Blue	ZA2CL6

**Standard pilot lights**

	White	ZA2CV01
	Green	ZA2CV03
	Red	ZA2CV04
	Yellow	ZA2CV05
	Blue	ZA2CV06
	Clear	ZA2CV07

**Illuminated push buttons†**

Flush push button heads	White	ZA2CW31	
	Green	ZA2CW33	
	Red	ZA2CW34	
	Yellow	ZA2CW35	
	Blue	ZA2CW36	
	Clear	ZA2CW37	
	Projecting push button heads	White	ZA2CW11
		Green	ZA2CW13
		Red	ZA2CW14
		Yellow	ZA2CW15
Blue		ZA2CW16	
	Clear	ZA2CW17	

**Accessories for square push buttons**

Mounting Tool	Ring Nut Wrench and Lens Extractor	ZA2CZ12
---------------	------------------------------------	---------

\* For use with contact block assemblies, page 304.

◆ For use with pilot light modules, page 300.

† For use with light module / contact block assemblies, page 304.

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# Push Buttons and Operator Interface Specifiers Guide

## XA2B 22 mm Contact Block Assemblies



Contact block with mounting collar  
ZA2BZ101



Additional contact block  
ZB2BE10



Mounting collar  
ZA2BZ009



Transformer type  
ZA2BWO\*1

### Contact block assemblies contact blocks and mounting collar for XA2B pilot devices $\Delta$

Description	Contacts		Catalog Number
	N.O.	N.C.	
1 Contact block	1	-	ZA2BZ101
	-	1	ZA2BZ102
2 Contact blocks	2	-	ZA2BZ103
	-	2	ZA2BZ104
	1	1	ZA2BZ105

### Additional contact blocks $\ddagger$

Description	Contact	Type	Catalog Number
For converting body/contact assemblies to 3, 4, 5 or 6 contacts max or replacing 1st or 2nd contact blocks	N.O.	Standard	ZB2BE101
	N.C.	Standard	ZB2BE102
Mounting collar only for attaching contact block(s) to operator heads			ZA2BZ009

### Light module assemblies mounting collar with light module and contact blocks for XA2B pilot devices $\Delta$

Description	Contacts		Catalog Number
	N.O.	N.C.	
<b>Direct supply incandescent bulb included (AC/DC) <math>\dagger</math></b>			
Without contacts	-	-	ZA2BW060
1 Contact block	1	-	ZA2BW061+
	-	1	ZA2BW062+
2 Contact blocks	2	-	ZA2BW063+
	-	2	ZA2BW064+
	1	1	ZA2BW065+
	<b>Transformer type (1.2 VA/6 V incandescent bulb included) (AC only)<math>\dagger\dagger</math></b>		
Without contacts $\blacklozenge$	-	-	ZA2BW0*0
1 Contact block	1	-	ZA2BW0*1
	-	1	ZA2BW0*2
2 Contact blocks	2	-	ZA2BW0*3
	-	2	ZA2BW0*4
	1	1	ZA2BW0*5
<b>Resistor type (130 V incandescent bulb included) 220-250 V supply</b>			
2 Contact blocks	1	1	ZA2BW075

$\blacksquare$  N.C. contact is direct opening operation conforming to EN 60 947-5-1, Section 3.

$+$  Complete catalog number by adding one of the following voltages: 6, 12, 24, 48 or 120 V. If desired without bulb, omit voltage.

$*$  Select proper digit for desired primary voltage: **1** (24 V 50/60 Hz) **2** (48 V 50/60 Hz) **3** (110/120 V 50/60 Hz) **94** (220/240 V 60 Hz) **95** (440/480 V 60 Hz) **98** (550/600 V 60 Hz).

$\blacklozenge$  Additional primary voltages are available. Contact local field for details.

$\ddagger$  Non-illuminated devices can be configured with 6 contact blocks maximum (3 decks of 2).

$\dagger$  Illuminated devices can be configured with a light module and 4 contact blocks maximum (2 decks of 2).

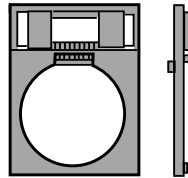
$\Delta$  Contact blocks and light module assemblies are available with quick connectors. Add suffix "3" to end of part number. Example: ZB2BE101 becomes ZB2BE1013.

Application Information .....Page 296  
Replacement Parts (bulbs) .....Page 306  
Dimensions .....Page 307

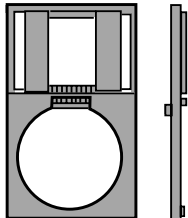




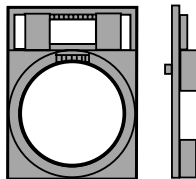
Standard text  
ZA2BZ32326



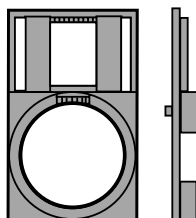
30 x 40 mm  
Carrier only  
ZA2BZ32



30 x 50 mm  
ZA2BZ33



30 x 40 mm  
Square aspect  
ZA2BZ34



30 x 50 mm  
Square aspect  
ZA2BZ35

**Legend plate carriers (30 x 40 mm) for XA2B pilot devices**

Complete with "snap-in" (27 x 8 mm) legend plates, with standard text.  
"Start" functions: white characters on black. "Stop" functions: white characters on red.

Standard texts	Catalog Number	Standard texts	Catalog Number
Auto-Hand	ZA2BZ32364	Off	ZA2BZ32312
Auto-O-Hand	ZA2BZ32385	On	ZA2BZ32311
Off-On	ZA2BZ32367	Open	ZA2BZ32313
Auto	ZA2BZ32115	Power On	ZA2BZ32326
Close	ZA2BZ32314	Reset	ZA2BZ32323
Down	ZA2BZ32308	Reverse	ZA2BZ32306
Emergency Stop	ZA2BZ32330	Run	ZA2BZ32334
Fast	ZA2BZ32328	Slow	ZA2BZ32327
Forward	ZA2BZ32305	Start	ZA2BZ32303
Hand	ZA2BZ32316	Stop	ZA2BZ32304
Inch	ZA2BZ32321	Up	ZA2BZ32307
Hand-O-Auto	ZA2BZ32387		

Description	Color	Catalog Number
Complete with "snap-in" (27 x 8 mm) legend plates, blank	Black or red background	ZA2BZ32101
	White or yellow background	ZA2BZ32102
Legend plate carriers only		ZA2BZ32
Snap in blank only (27 X 8 mm)	Black or red background	ZA2BY4101
	White or yellow background	ZA2BY4102

**Legend plate carriers (30 x 50 mm) for XA2B pilot devices**

Description	Color	Catalog Number
Complete with "snap-in" (27 x 18 mm) legend plates, blank	Black or red background	ZA2BZ33101
	White or yellow background	ZA2BZ33102
Legend plate carriers only		ZA2BZ33
Snap in blank only (27 x 18 mm)	Black or red background	ZA2BY5101
	White or yellow background	ZA2BY5102

**Legend carrier for square aspect head (30 x 40 mm) for XA2B pilot devices**

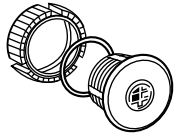
Description	Color	Catalog Number
With "snap-in" blank legend plate	Black or red background	ZA2BZ34101
	White or yellow background	ZA2BZ34102
Legend plate carriers only		ZA2BZ34
No legend square aspect ring		ZA2BZ31

**Legend carrier for square aspect head (30 x 50 mm) for XA2B pilot devices**

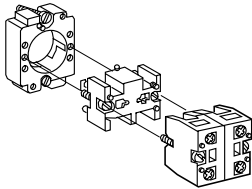
Description	Color	Catalog Number
With "snap-in" blank legend plate	Black or red background	ZA2BZ35101
	White or yellow background	ZA2BZ35102
Legend plate carriers only		ZA2BZ35

# Push Buttons and Operator Interface Specifiers Guide

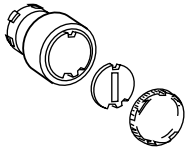
## XA2B 22 mm Accessories and Replacement Parts



Closing plate  
ZB2SZ3



Push on/push off  
mechanism  
ZB2BZ21



Mylar circular legend



ZB2BV000



ZB2BW930



ZB2BP012



Q99900901



ZA2 BZ901

### Accessories

Type	Description	Catalog Number
Guards/Locks	60 mm mushroom guard (black plastic) no padlocking provision	ZB2BZ19
Closing plates 22 mm	Black plastic	ZB2SZ3
	Gray plastic	ZB2SZ4
	Blue metallic	ZB2SZ2
Miscellaneous Accessories	Add on push-on/push-off mechanism	ZB2BZ21
Tools	Bulb extractor for use with BA9s	XBFX13
	Ring nut wrench	ZA2BZ905
	Lens removal key	ZB2BZ8
Mylar circular legends for use with transparent flush head operators See page 297	No text	ZB2BY1101
	O	ZB2BY1146
	I	ZB2BY1147
	Auto	ZB2BY1115
	Hand	ZB2BY1316
	Off	ZB2BY1312
	On	ZB2BY1311
	Start	ZB2BY1303
	Stop	ZB2BY1304
	Forward	ZB2BY1305
	Reverse	ZB2BY1306

### Replacement Parts

Type	Description	Catalog Number
Replacement lenses	Lens – standard pilot light	ZB2BV01●
	Lens kit – standard pilot light (includes lens, diffuser and gasket)	ZB2BV02●
	Lens – pilot light (jeweled for LED and Neon)	ZB2BV01●3
	Lens – flush illuminated push buttons	ZB2BW91●
	Lens – flush illuminated push buttons (jeweled for LED and Neon)	ZB2BW93●3
	Lens – extended push buttons	ZB2BW93●
	Lens – extended push buttons (jeweled for LED and Neon)	ZB2BW93●3
	Lens – push-to-test	ZB2BV01●1
	Lens – rectangle for ZB2BW80000 series (2 button with indicator)	ZB2BW90●
	Lens – 40 mm mushroom	W4042926400●
Replacement ring nut	Standard nut for all operators	ZB2BBZ901
Replacement boots	Replacement silicon boot for ZB2BP series operators	ZB2BP01†
	Replacement neoprene boot for ZB2BP series operators	ZB2BP02†
Replacement keys	Replacement key for standard selector switches and key release mushroom operators. Qty. 1- Ronis key #455.	Q99900901
	Key #421 Qty. 1	Q99900911
	Key #458A Qty. 1	Q99900910
	Key #520 Qty. 1	Q99900912
	Key #3131A Qty. 1	Q99900915

+ Complete lens part number by replacing with digit for desired color. (1-white, 3-green, 4-red, 5-amber, 6-blue, 7-clear).

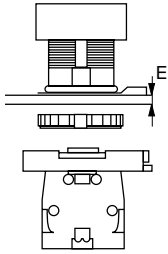
Example **ZB2BV013** green standard pilot lens. Note: Jeweled lens not available in white.

† Complete boot part number by replacing with digit for desired color. (2-black, 3-green, 4-red, 5-yellow, 6-blue).

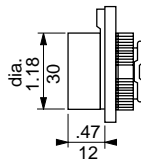
Example **ZB2BP013** green silicon boot.



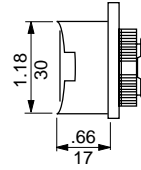
**Panel cut-out**  
(Thickness E = 1 to 5 mm)



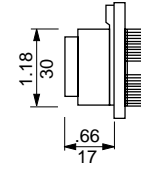
**Control units**  
(operating heads)  
**ZA2BA\*\***



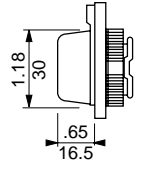
**ZA2CA\***



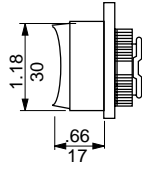
**ZA2BL\***



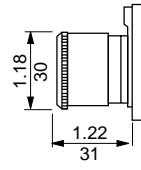
**ZA2BP\***



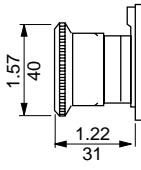
**ZA2CL\***



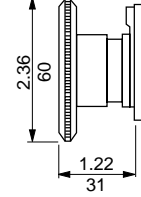
**ZA2B\*\*\***



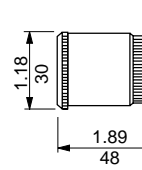
**ZA2B\*\*\***



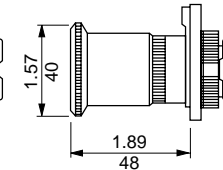
**ZA2B\*\*\***



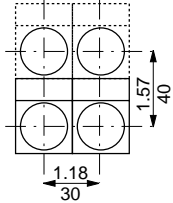
**ZA2BS834**



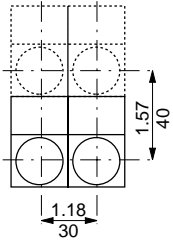
**ZA2BS844**



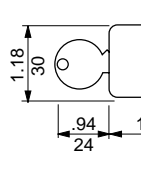
**ZA2B**  
(with 30 x 40  
legend plate carrier)



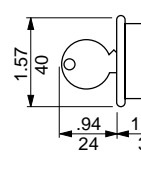
**ZA2B**  
(with 30 x 50  
legend plate carrier)



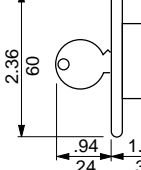
**ZA2BS74**



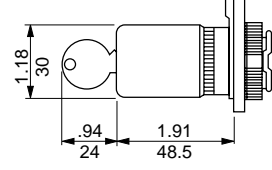
**ZA2BS14**



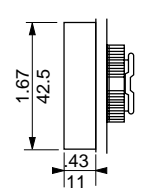
**ZA2BS24**



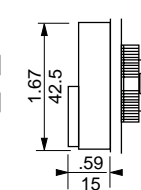
**ZA2BS9\*4**



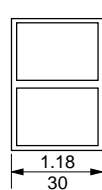
**ZA2BA\*\*34**



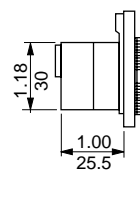
**ZA2BL\*\*34**



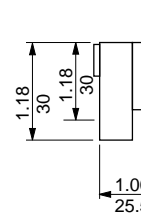
**ZA2BD\*\***



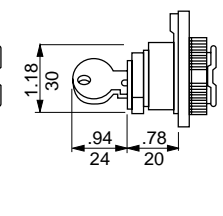
**ZA2BJ\*\***



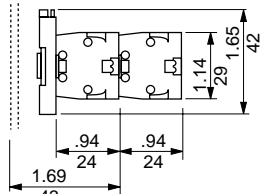
**ZA2BG\***



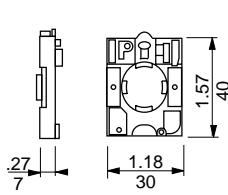
**ZA2BG\***



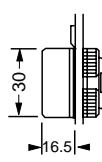
**Body contact assemblies**  
**ZA2BZ10\***



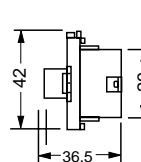
**Mounting collar**  
**ZA2BZ009**



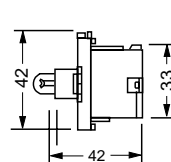
**ZA2BVO\***



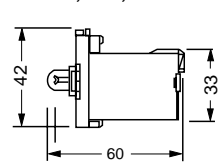
(bodies)  
**ZA2BV6**



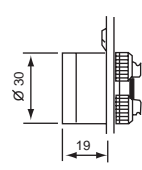
**ZA2BV7**



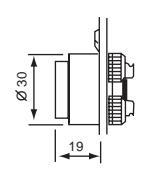
**ZA2BV3, BV94, BV95,  
BV98, BV1, BV2**



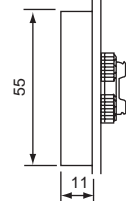
**ZA2BW3\*\***



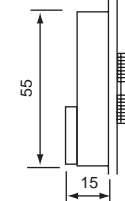
**ZA2BW1\*\***



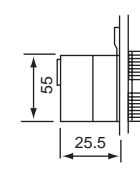
**ZA2BW8\*\*\*4**



**ZA2BW8\*\*\*4**



**ZA2BK1\*\***



All dimensions are in mm. To convert to inches, divide mm by 25.4.



# Push Buttons and Operator Interface Specifiers Guide

## XALB

### General Purpose Control Stations



The XALB line of standard push button wall stations are in IEC Type IP65, plastic enclosures for indoor and outdoor use. The units are UL Listed, and CSA Certified. The enclosures are provided with 4 to 8 cable entry knockouts. Two knockouts are in the base. A cross reference between the base (contact blocks) and the cover (operators) is provided to avoid confusion.



File E164353  
CCN NKCR



File LR 44087  
Class 3211 03



Marking

Operators	Nameplates	Wiring diagram	Part Number
1 push button	Start		XALB101
1 push button	Stop		XALB111
1 push button (mushroom head)	N/A		XALB164
1 push button (mushroom head) Turn to release	N/A*		XALJ174
1 push button (mushroom head) Turn to release "No Tease"			XALJ178
1 push button (mushroom head) key to release			XALJ184
1 push button (mushroom head) key to release "No Tease"			XALJ188
2 push buttons	Start Stop		XALB211
2 push buttons	Forward Reverse	120V max	XALB221
1 pilot light 2 push buttons	Start Stop		XALB371
3 push buttons	Forward Reverse Stop		XALB311
3 push buttons	Up Down Stop		XALB321
3 push buttons	Open Close Stop		XALB341

\* Yellow cover per EN418 of European Machinery Directive 89/392/EEC

Limited Availability  
For replacement use only.  
For new applications, use  
XAL (page 109 - 116)

XALB Wall Stations use ZA2B operators, special base mounted contact blocks and light modules. Legends used are ZB2BY●● type from page 333.



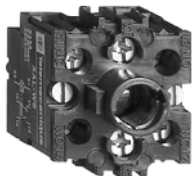
XALB03



XENL1111



XALV6



XALW6

### Empty Enclosures

Description	Number of Holes	Part Number
Light grey lid with dark grey base	1	XALB01
	2	XALB02
	3	XALB03
	4	XALB04
	5	XALB05
Yellow lid with grey base	1	XALJ01

### Contact Blocks (base mounted)

Description	Symbol	Function	Part Number
Slow make		1 N/O	XENL1111
Slow break, direct opening		1 N/C	XENL1121

### Contact Blocks (operator mounted)

Description	Symbol	Function	Part Number
Slow make, Slow break, (direct opening)		2 N/C, 1N/O	ZA2BZ141

### Pilot Light Bodies

Description	Supply Voltage	Part Number
Direct supply bulb included (AC/DC) †		XALV6
Transformer Type (AC only) (1.2 VA/6 V Lamp Included)◆*	120 V Primary	XALV3
	240 V Primary	XALV94
	480 V Primary	XALV95
Direct through resistor BA9s, 130 V bulb included	230-240 V	XALV7

### Illuminated Push Button Bodies (1 N/C + 1 N/O)

Description	Supply Voltage	Part Number
Direct supply (bulb included) (AC/DC) †	ø 400 V	XALW6
Transformer Type (AC only) (1.2 VA/6 V Lamp Included)◆*	120 V Primary	XALW3
	240 V Primary	XALW94
	480 V Primary	XALW95
Direct through resistor BA9s, 130 V bulb included	230-240 V	XALW7

- † Complete catalog number by adding one of the following voltages: 6, 12, 24, 48 or 120 V. Replacement bulbs available on page 300. If desired without bulb, omit voltage.
- ◆ Base mounted transformer light modules require a separately mounted transformer which mounts in the open next to the light module (hole blanking plug provided).
- \* Additional primary voltages are available. Contact local field office for details.

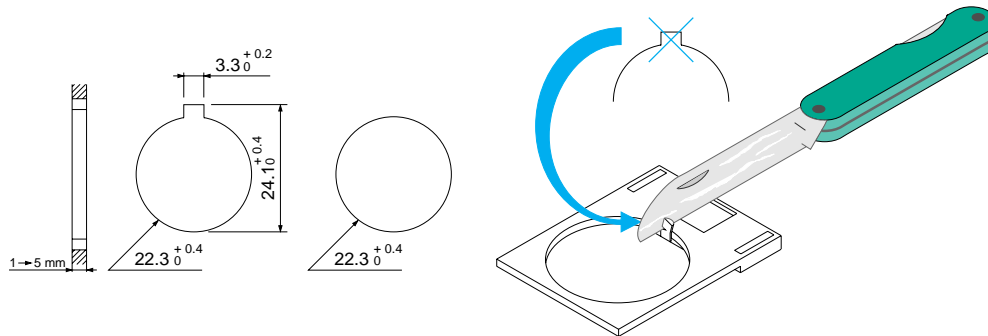
Non-Illuminated Operators . . . . .	Page 297-299
Illuminated Operators . . . . .	Page 301
Application Information . . . . .	Page 296
Accessories . . . . .	Page 306
Replacement Parts . . . . .	Page 306
Dimensions . . . . .	Page 310



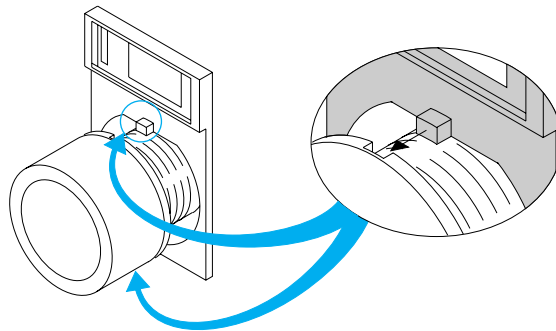




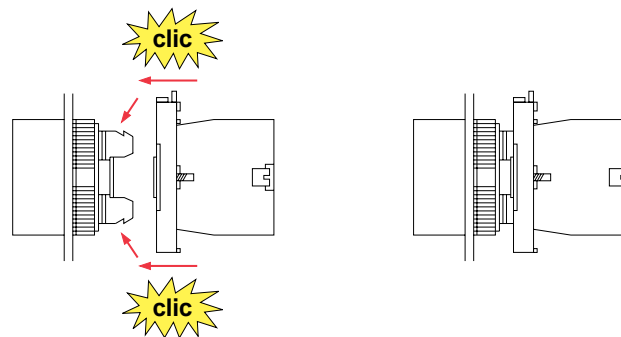
Panel cut-out: (legend plate carrier included)



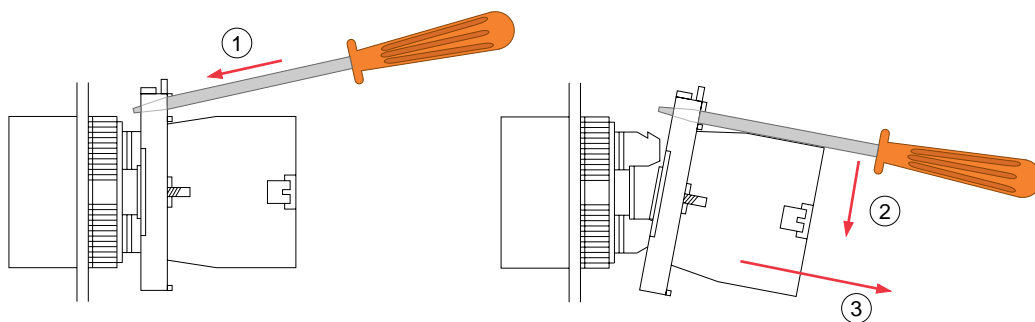
Legend plate carrier mounting:



Fixing the operating head onto the body:



Removing the body:



## Push Buttons and Operator Interface Specifiers Guide



*Square D offers specialized control packages through the Modified Panels Group. Assemblies can be manufactured to meet your specific design criteria, incorporating special dimensions, enclosure types, and component makeup.*

*Specific control operator needs can be satisfied with products ranging from standard 30 mm push buttons to printed circuit board mounted pilot device assemblies.*

*In addition, Square D offers the widest variety of control products in numerous enclosure types to meet your electrical, environmental, and dimensional needs. Use of CAD designs, prototype assembly before production, and personalized service insures the product you receive will be exactly what you ordered...Guaranteed.*

*For additional information or receive a personalized proposal, contact your local Square D sales office.*

