

# Push Buttons and Operator Interface Specifiers Guide

## XVP Illuminated Indicating Banks Supplement

Class 9001



**Merlin Gerin**  
**Modicon**  
**Square D**  
**Telemecanique**  
*Schneider Electric Brands*

### CONTENTS

Description	Page
XVP Characteristics .....	2
XVP Bank Components .....	3
XVP Accessories .....	5
XVP Wiring Diagram .....	5
XVP Dimensions .....	6






**SQUARE D**  
 Schneider Electric

# XVP Illuminated Indicating Banks Characteristics

## CHARACTERISTICS

### Environment

Product certifications	UL Listed, CSA Certified  File E164353 CCN NKCR  File LR 44087 Class 3211 03  File E164353 CCN NKCR 2
Conforming to standards	CE Marked IEC/EN 60947-5-1. UL 508
Protective Treatment	"TC"
Ambient Air Temperature (Storage)	-40 to + 158 °F -40 to +70 °C
Operation	Illuminated lens unit, steady, with LED or 7 W incandescent bulb Flashing Units with LED or 7 W incandescent bulb Units with Strobe Audible Sounder Units -13 to +122 °F (-25 to +50 °C)
Electric Shock Protection conforming to IEC 536	Tube mounting Class 1 Direct mounting on base unit Class 2
Degree of Protection	To IEC 60529 and NF C 20-010 To UL 50 and CSA 22.2 No. 94 IP 65 Type 1, 12, 13
Material	Illuminated lens unit Polycarbonate Base unit and top cover ABS + Polycarbonate Ring on lens and base Polyamide Tube mounting Aluminum Tulip ABS + Polycarbonate

### Electrical Characteristics

Rated Insulation Voltage (UL)	Conforming to IEC 60947-1	250 Vac
Consumption	LED unit Steady Incandescent bulb 7W Flashing Unit with strobe (on energization) Audible sounder units	24 Vac/Vdc: <60 mA 120-230 Vac: <20 mA 24 Vac/Vdc: <300 mA; 120-230 Vac: 65-35 mA 24 Vac or 24 Vdc <250 mA; 120-230 Vac < 30mA 24 Vdc: 0.3 Joules, 40 mA; 120 Vac: 0.6 Joules, 20mA; 230 Vac: 0.6 Joules, 11mA 24 Vdc, 12 mA; 120 Vac, 15 mA; 230 Vac, 15 mA
Rated Impulse withstand voltage	Conforming to IEC 60947-1	U imp = 4 kV
Bulb type	Illuminated units, steady or flashing	Bayonet type BA 15d; 5 W minimum power; 7 W maximum power
Illuminating Power	Strobe Units	0.3 Joules, 24 Vdc, 1.2 cd; 0.6 Joules, 120 Vac, 5.0 cd; 0.6 Joules, 230 Vac, 5.0 cd
Audible sounder units	Signal	At one meter: 75-85 dB
Terminal marking	Common Depending on type of units Ground	1 terminal marked -/N 1 to 5 terminals marked 1+/L to 5+/L Marked with grounding symbol
Cable size	Maximum wire size	2 x #16 AWG (1.5 mm <sup>2</sup> ) with cable end
Terminals	Torque requirement	Removable and captive screw terminals: 4.4 lb-in (0.5 Nm)
Ring tongue connectors	Burdny YAV14RL33	Wire: 20-14 AWG Studs: 4-6 Width: 0.25 in.
Frequency of Illuminated units	Strobe Units	0.7 Hz-2.0 Hz

### Specific Characteristics of Protected LED Bulbs

Voltage limits	Nominal voltage	24 V: 19.2 to 30 Vdc; 21.6 to 24.6 Vac 120 V: 100 to 132 Vac 240 V: 200 to 264 Vac
Current consumption	Applicable to all colors	24 Vac/Vdc supply: 24 mA 120 Vac supply: 18 mA 240 Vac supply: 18 mA
Service life	At nominal voltage and at an ambient temperature of 77 °F (25 °C)	100,000 hours
Surge withstand	Conforming to IEC 61000-4-5	1 kV (differential)
Resistance to fast transients	Conforming to IEC 61000-4-4	2 kV
Resistance to electromagnetic fields	Conforming to IEC 61000-4-3	10 V/m
Resistance to electrostatic discharges	Conforming to IEC 61000-4-2	8/6 kV
Electromagnetic emission	Conforming to EN 55011	Class B



# XVP Illuminated Indicating Banks Components

## COMPONENTS

### Base Units with Cover (for direct or tube mounting)



XVPC21

Description	Color	For use with Indicating Banks	Catalog Number
50 mm base unit	Black	50 mm diameter only	XVPC21
50 mm base unit	Off-white	50 mm diameter only	XVPC21W
50 mm base unit with ring-tongue compatible terminal		50 mm diameter only	XVPC21WR

### Illuminated Lens Units (Steady or Flashing)



XVPC37

Description	Ring Color	Light Source and Voltage	Lens Color	Catalog Number
50 mm steady lens unit  (See part numbers under "LEDs" on page 4 to select steady or flashing mode)	Black	Bulb (7 W max) not included 250 V max	Green Red Amber Blue Clear Yellow	XVPC33 XVPC34 XVPC35 XVPC36 XVPC37 XVPC38
	Off-white	Bulb (7 W max) not included 250 V max	Green Red Amber Blue Clear Yellow	XVPC33W XVPC34W XVPC35W XVPC36W XVPC37W XVPC38W



XVPC33



XVPC6B8



XVPC6G6



XVPC6M5

### Illuminated Lens Units with Strobe

Description	Ring Color	Light Source and Voltage	Lens Color	Catalog Number			
50 mm strobe lens unit	Black	Strobe 24 Vdc 0.3 Joule	Green Red Amber Blue Clear Yellow	XVPC6B3 XVPC6B4 XVPC6B5 XVPC6B6 XVPC6B7 XVPC6B8			
				Strobe 120 Vac 0.6 Joule	Green Red Amber Blue Clear Yellow	XVPC6G3 XVPC6G4 XVPC6G5 XVPC6G6 XVPC6G7 XVPC6G8	
						Strobe 230 Vac 0.6 Joule	Green Red Amber Blue Clear Yellow
		Off-white	Strobe 24 Vdc 0.3 Joule				
				Strobe 120 Vac 0.6 Joule	Green Red Amber Blue Clear Yellow		
						Strobe 230 Vac 0.6 Joule	Green Red Amber Blue Clear Yellow



# XVP Illuminated Indicating Banks Components

## Audible Sounder Units



XVPC09B

Description	Ring Color	Supply Voltage	Catalog Number
50 mm sounder unit Ten tone selections, 75–85 dB at 1 m	Black	24 Vdc	XVPC09B
		120 Vac	XVPC09G
		230 Vac	XVPC09M
	Off-white	24 Vdc	XVPC09BW
		120 Vac	XVPC09GW
		230 Vac	XVPC09MW

## LEDs



DL1BDB1



DL1BKB1

Description	Voltage	Color	Catalog Number
Steady-On LEDs <b>Protected LED</b>	24 Vac/Vdc	White Green Red Blue Yellow/Amber	DL1BDB1 DL1BDB3 DL1BDB4 DL1BDB6 DL1BDB8
	120 Vac	White Green Red Blue Yellow/Amber	DL1BDG1 DL1BDG3 DL1BDG4 DL1BDG6 DL1BDG8
	230 Vac	White Green Red Blue Yellow/Amber	DL1BDM1 DL1BDM3 DL1BDM4 DL1BDM6 DL1BDM8
Flashing LEDs <b>Protected LED</b>	24 Vac/Vdc	White Green Red Blue Yellow/Amber	DL1BKB1 DL1BKB3 DL1BKB4 DL1BKB6 DL1BKB8
	120 Vac	White Green Red Blue Yellow/Amber	DL1BKG1 DL1BKG3 DL1BKG4 DL1BKG6 DL1BKG8
	230 Vac	White Green Red Blue Yellow/Amber	DL1BKM1 DL1BKM3 DL1BKM4 DL1BKM6 DL1BKM8

NOTE: Protected LEDs provide additional circuit protection against overvoltage, overcurrent, and electrostatic discharge. See page 2.

## Incandescent Bulbs



DL1BEJ

Description	Voltage	Catalog Number
Bayonet type BA 15d, 7 W	12 Vac/Vdc	DL1BEJ
	24 Vac/Vdc	DL1BEB
	48 Vac/Vdc	DL1BEE
	120 Vac/Vdc	DL1BEG
	230 Vac/Vdc	DL1BEM



# XVP Illuminated Indicating Banks Accessories

## ACCESSORIES

Description	Color	Characteristics	Catalog Number
Threaded tube with bracket	Silver	100 mm (4 in.)	XVPC02T
		250 mm (10 in.)	XVPC03T
		400 mm (16 in.)	XVPC04T
Tube with tulip base	Black	100 mm (4 in.)	XVPC02
		250 mm (10 in.)	XVPC03
		400 mm (16 in.)	XVPC04
	Off-white	100 mm (4 in.)	XVPC02W
		250 mm (10 in.)	XVPC03W
		400 mm (16 in.)	XVPC04W
Wall mounting bracket	Black	—	XVPC12
	Off-white	—	XVPC12W
Bulb mounting tool	—	—	XVPCX13



XVPC12



XVPC03T\*



XVPC02\*

\* Does not include lens units

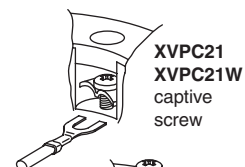
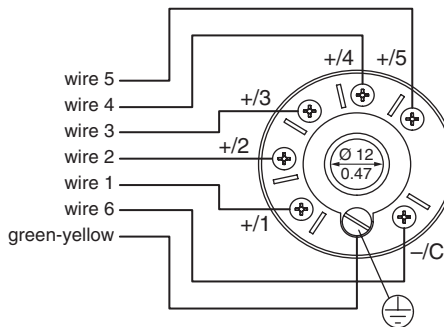


XVPC02W\*

## WIRING DIAGRAM

### Cable Connections

Ø Supply line max.:  
1.5 mm<sup>2</sup> (#16 AWG)



XVPC21  
XVPC21W  
captive  
screw



XVPC21WR  
removable  
screw

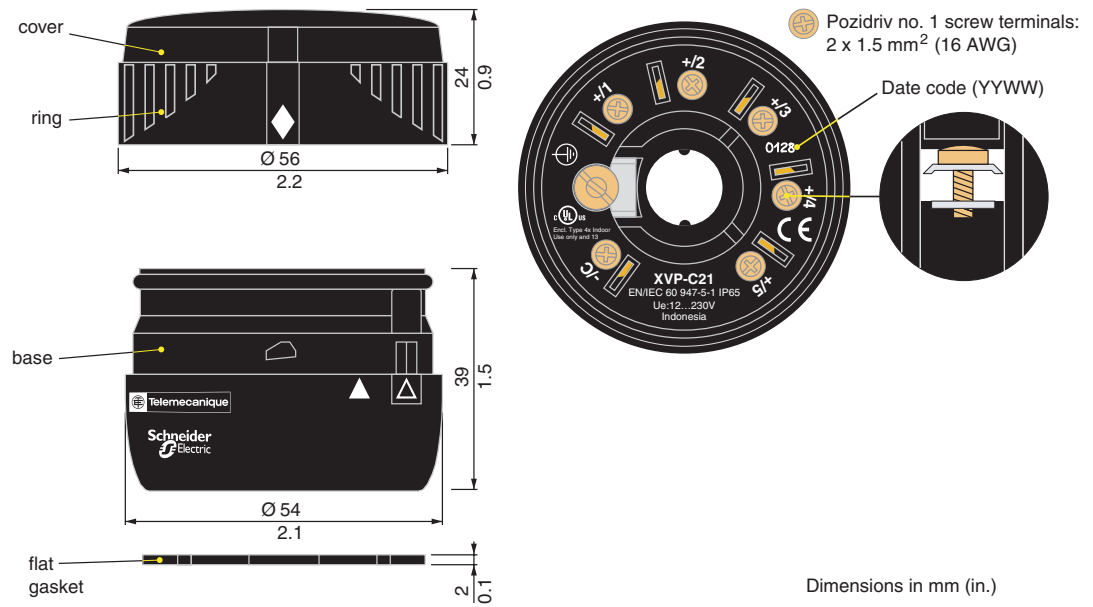


# XVP Illuminated Indicating Banks

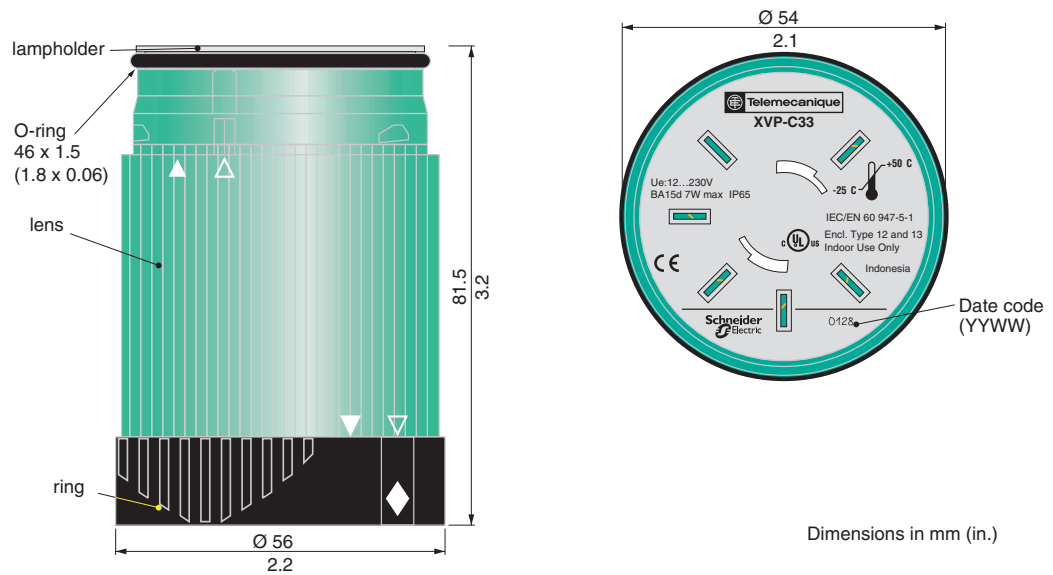
## Dimensions

### DIMENSIONS

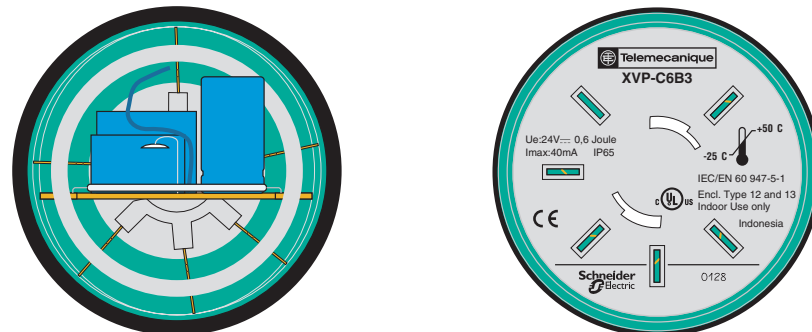
#### Bases



#### Steady Lights for BA15d Bulbs

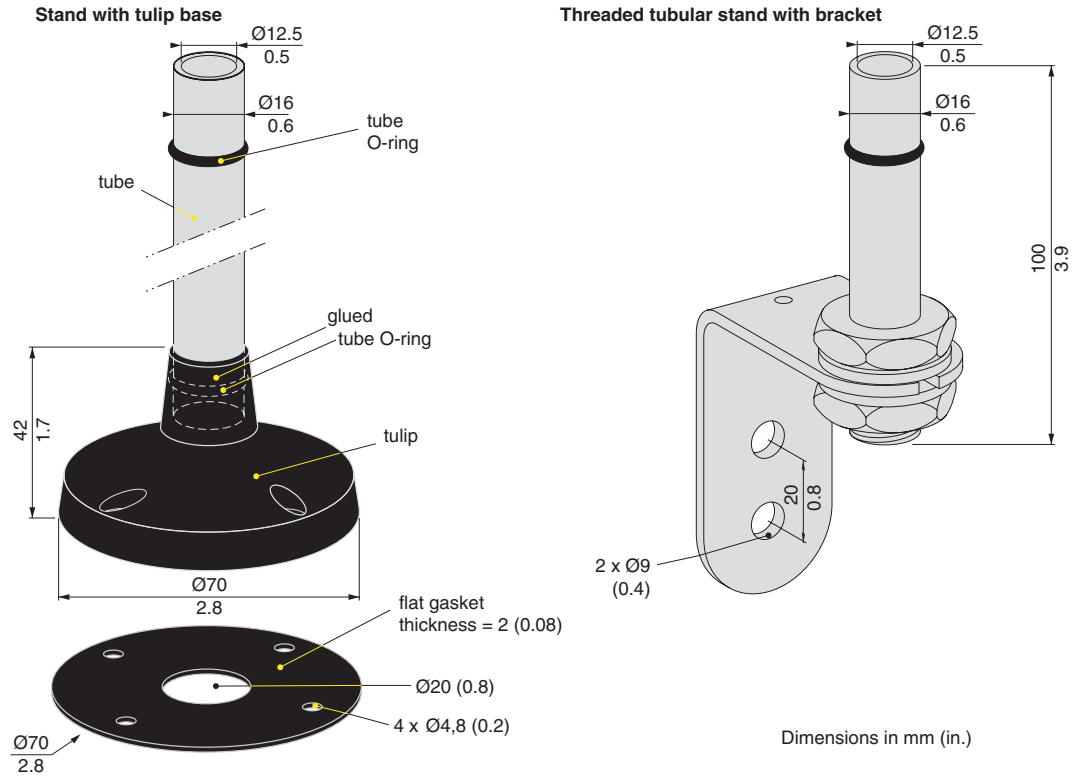


#### Strobes

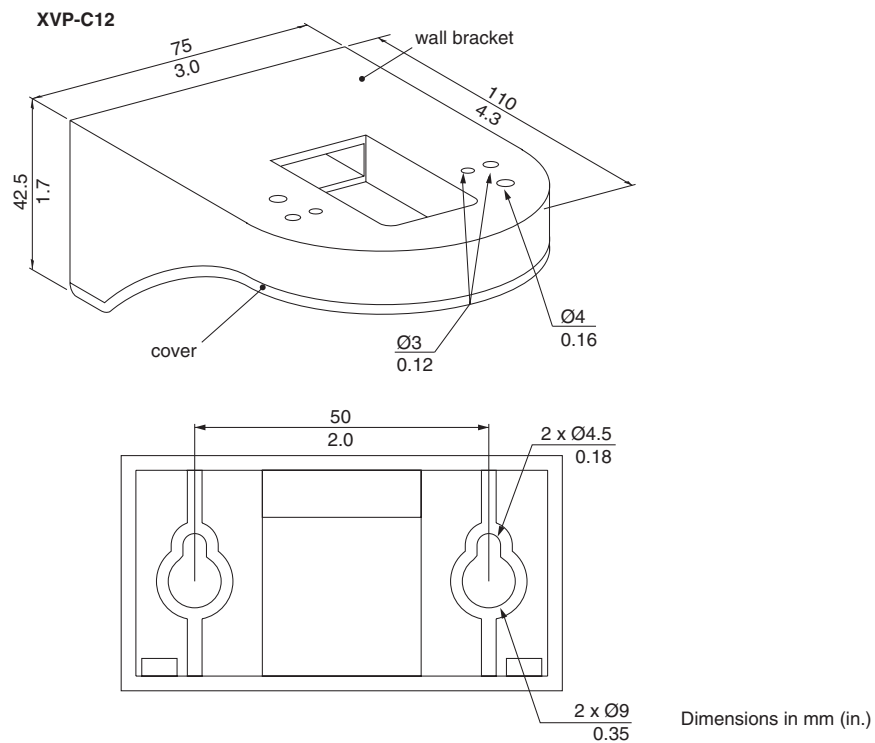


# XVP Illuminated Indicating Banks Dimensions

## Tube Stands



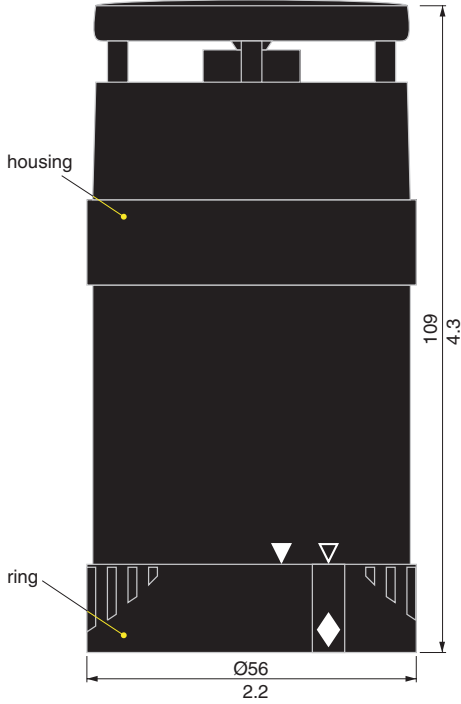
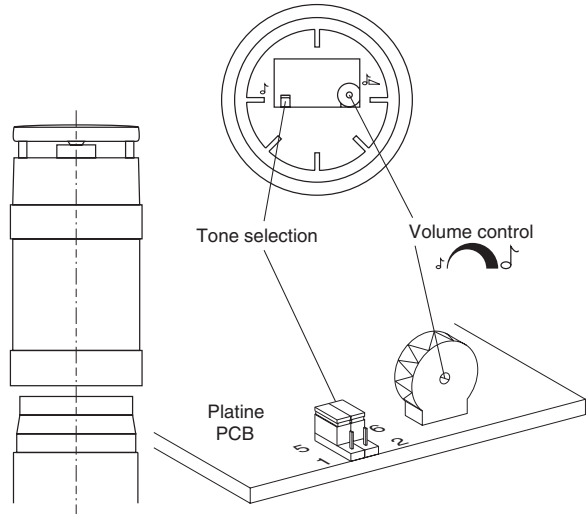
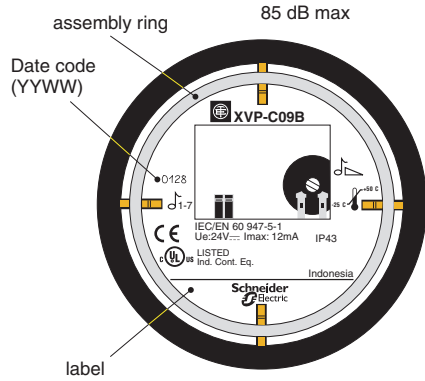
## Wall Mounting Bracket



# XVP Illuminated Indicating Banks

## Dimensions

### Audible Sounder Units



Tone No.	Tone Setting	Frequency Description	
1	5 6 1 2	Alternating 800 Hz / 1000 Hz at 0.25 s intervals	
2	5 6 1 2	Slow whoop 500 Hz / 1200 Hz at 0.3 Hz with 0.5 s gap—repeated	
3	5 6 1 2	Sawtooth 1200 Hz / 500 Hz at 1Hz	
4	5 6 1 2	Alternating 544 Hz for 100 ms / 440 Hz for 400 ms (NF S 32-001)	
5*	5 6 1 2	Continuous at 1000 Hz	
6	5 6 1 2	Simulated bell sound	
7	5 6 1 2	Sweeping 800 Hz / 1000 Hz at 7 Hz	
8	5 6 1 2	Sweeping 2400 Hz / 29000 Hz at 50Hz	
9	5 6 1 2	420 Hz repeating 0.625 s On, 0.625 s Off	
10	5 6 1 2	550/1200 Hz Sweeping 3.75 s On, 0.25 s Off (15 cycles/minute)	

\* Factory Setting

Square D Company  
8001 Highway 64 East  
Knightdale, NC 27545  
1-888-SquareD  
(1-888-778-2733)  
www.SquareD.com

Schneider Canada Inc.  
19 Waterman Avenue,  
M4B 1 Y2  
Toronto, Ontario  
1-800-565-6699  
www.schneider-electric.ca

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