

Push Buttons and Operator Interface Specifier's Guide

Type XVA Indicating Banks and Beacons

File 9001



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Merlin Gerin

Modicon

Square D

Telemecanique

Schneider Electric Brands



SQUARE D
Schneider Electric

Push Buttons and Operator Interface Specifiers Guide

Type XVA — Indicating Banks and Beacons

General Description



The XVA indicating bank is an illuminated stackable modular system of signaling lights that can be used for indicating the status of a machine and verifying that status from a distance and in all directions (360°). The modular system of lenses allows the unit to be constructed from any combination of 1 to 5 lenses. Constant, flashing and strobe units are available.

Examples: Indicates machine shutdown, shortage of materials, paging of supervisor or maintenance personnel, hazardous or dangerous conditions to name a few. It is a perfect solution for status indication on factory floors utilizing JIT methods.

Machines, instrument panels and work stations equipped with the XVA allow personnel to react more quickly to any situation or incident.

Specifications

- One complete single stage beacon or components consisting of 1 to 5 lenses forming an indicating bank.
- Five colors to select from: green, red, orange, blue and clear.
- Signal can be continuous, flashing or strobe.
- Visible from a distance and on a 360° radius.
- Shock and vibration resistant.
- One common base for 1-5 lenses, only one cable entry required.
- Aluminum tubes of 4 in. (100 mm), 16 in. (400 mm), and 31.5 in. (800 mm) lengths for extension of column.
- Audible signal available

Protective treatment	Standard version, treatment TC "all climates"
Ambient temperature	Storage: -40 °F to +158 °F (-40 °C to +70 °C) Operating: -13 °F to +158 °F (-25 °C to +70 °C)
Degree of protection	Approval per UL508. Meets NEMA / UL Type 1 and 12 protection, IEC Type IP54
Material	Cover and lenses: polycarbonate Base: Polyamide Tube: Anodized aluminum Gasket: Neoprene

Some industries that currently use or could use XVAs:

- | | |
|-----------------|-------------------|
| Automotives | Canning |
| OEMs | Test Equipment |
| Electronics | Computer Industry |
| Garment | Food Processing |
| Pharmaceuticals | Robotics |
| Publishing | Semiconductor |
| Textiles | Machine Tool |
| Agriculture | |

Mounting

- Two screws affix base when units are direct mounted or four screws used for tube and tulip mounted.
- The tube and base of column mount directly on the tulip.
- All wiring done into saddle clamp screws in the base. See page 347 for wiring diagram.
- Lenses stack on one another by use of a captive screw through the lens.

Typical applications for the XVA include:

- | | |
|------------------|-------------------------------|
| Conveyor Systems | Industrial Baking Ovens |
| Machine Tools | Automated Paint Booths |
| Printing Presses | Automated Test Equipment |
| Retro-fit | Just-In-Time Manufacturing |
| Assembly Lines | Automated Manufacturing Lines |
| Textile Looms | Assembly Work Stations |

Specifications

Rated insulation voltage	250 V	
Approvals		File E164353 CCN NKCR
		File LR 44087 Class 3211 03 and Class 3211 07
		Marking
Lamps	5 W minimum, 7W maximum, length: 1.61" (41 mm) for DL1BA●●● 1.93" (49 mm) for DL1BL●●●	
Terminal marking	Terminal marked "O" common to 5 elements and ground	
Wiring	Captive terminal with screw saddle clamp, minimum capacity: 2 size #18 AWG series maximum capacity: 2 size #12 AWG series	

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Type XVAL — Indicating Banks and Beacons

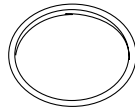
Single Stage Indicating Beacon



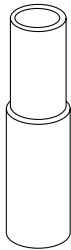
XVAL471
(One circuit only)



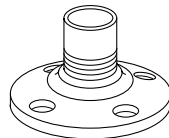
(1) **XVAC211**
Base + cover



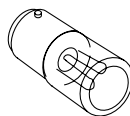
XVAC09



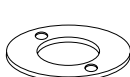
XVAC02, 027
XVAC03, 037
XVAC04, 047



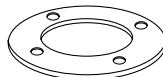
XVAC01
XVAC11



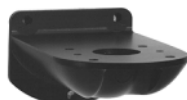
DL1B••••



XVAC05



XVAC06



XVAC12

Indicating Beacons

Description	Signal	Color	Catalog Number
Steady light lamp type BA15d (not supplied) Ø 240 Vac/dc		Green	XVAL331
		Red	XVAL341
		Orange	XVAL351
		Blue	XVAL361
		Clear	XVAL371
Standard flashing light lamp type BA15d (not supplied) 24 V - 240 Vac only (± 10%)		Green	XVAL431
		Red	XVAL441
		Orange	XVAL451
		Blue	XVAL461
		Clear	XVAL471
Strobe light (integral discharge tube) 24 Vdc, 260 mA max		Green	XVAL73C024
		Red	XVAL74C024
		Orange	XVAL75C024
		Blue	XVAL76C024
		Clear	XVAL77C024
Strobe light (integral discharge tube) 110-120 Vac, 110 mA 50-60 Hz		Green	XVAL73B120
		Red	XVAL74B120
		Orange	XVAL75B120
		Blue	XVAL76B120
		Clear	XVAL77B120
Strobe light (integral discharge tube) 220 Vac (± 10%), 80 mA 50-60 Hz		Green	XVAL73A220
		Red	XVAL74A220
		Orange	XVAL75A220
		Blue	XVAL76A220
		Clear	XVAL77A220

Complete assembly comprising:
1 cover
1 illuminated lens unit
1 base

Accessories and spare parts for indicating beacons and banks

Type		Size/ Type Voltage	Catalog Number
Accessories for tube mounting	4" metal tubes	100 mm	XVAC02
	16" metal tubes	400 mm	XVAC03
	31.5" metal tubes	800 mm	XVAC04
	4" black anodized metal tubes	100 mm	XVAC027
	16" black anodized metal tubes	400 mm	XVAC037
	31.5" black anodized metal tubes	800 mm	XVAC047
	1/2" NPT conduit adaptor	Metallic	XVAC00
	Tube support/fixing plate - Black Anodized	Plastic	XVAC01
	Tube support/fixing plate - Black Anodized	Metallic	XVAC11
	Wall mounting bracket	Metallic	XVAC12
Gaskets for use at point of mounting	For direct base mounting		XVAC05
	For tube support/mounting plate		XVAC06
	For between lenses, base, cover - replacement		XVAC09
Lamps type BA15d	Length 49 mm (BL) 41 mm (BA)	AC or DC	
		2.5 W 12 V	DL1BA012
		4 W 24 V	DL1BA024
		6.5 W 24 V	DL1BL024
		4 W 48 V	DL1BA048
		7 W 110 V	DL1BA110
		7 W 120 V	DL1BL120
		5 W 160 V	DL1BA160
6 W 260 V	DL1BA260		

For LED lamp options see page 228 (XVB).



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Type XVAC — Indicating Banks and Beacons

Indicating Bank Components



= 1 example of a complete indicating bank

(Components for variable composition)

Description	Signal	Color	Catalog Number
Lens unit sub assembly	Steady light lamp type BA15d (not supplied) ≤ 240 Vac/dc	Green	XVAC331
		Red	XVAC341
		Orange	XVAC351
		Blue	XVAC361
		Clear	XVAC371
	Standard flashing light lamp type BA15d (not supplied) 24 V to 240 Vac only (± 10%)	Green	XVAC431
		Red	XVAC441
		Orange	XVAC451
		Blue	XVAC461
		Clear	XVAC471
Lens unit sub assembly with strobe light (only 1 strobe may be used on each bank and must be mounted in the top position).	Strobe light (integral discharge tube) 24 Vdc, 260 mA max. common negative (for common positive, take off digit 1 at the end of the reference. ▲)	Green	XVAC73C0241
		Red	XVAC74C0241
		Orange	XVAC75C0241
		Blue	XVAC76C0241
		Clear	XVAC77C0241
Strobe light (integral discharge tube) 110-120 Vac, 110 mA, 50-60 Hz	Green	XVAC73B120	
	Red	XVAC74B120	
	Orange	XVAC75B120	
	Blue	XVAC76B120	
Strobe light (integral discharge tube) 220 Vac (± 10%), 80 mA, 50-60 Hz	Green	XVAC73A220	
	Red	XVAC74A220	
	Orange	XVAC75A220	
	Blue	XVAC76A220	
		Clear	XVAC77A220

Audible sounder sub assembly (90 db. at 1 meter, 3KHz)	Continuous tone	12 to 48Vdc, 13 mA max. common negative	XVAC911
		110 to 220 Vac, 3.3 mA	XVAC93
(for common positive remove digit 1 at the end of the reference. Example: XVAC91)	Intermittent tone	12 to 48 Vdc 13 mA max. common negative	XVAC921
		110 to 220 Vac, 3.1 mA	XVAC94
Cover and one to five unit base			XVAC211
Cover only			XVAC081
Base only			XVAC07

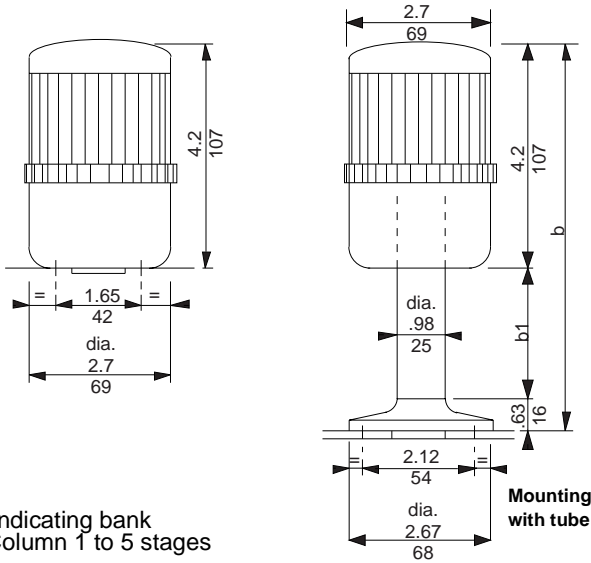
Indicating banks are supplied as sub-assemblies, individually referenced and boxed, for assembly by the user. **Maximum number of units:** 5, including 1 (max.) top mounted strobe. See page 345 for Accessories and Spare Parts. ▲ Example: XVAC73C024

Pre-Wired Bases (1)

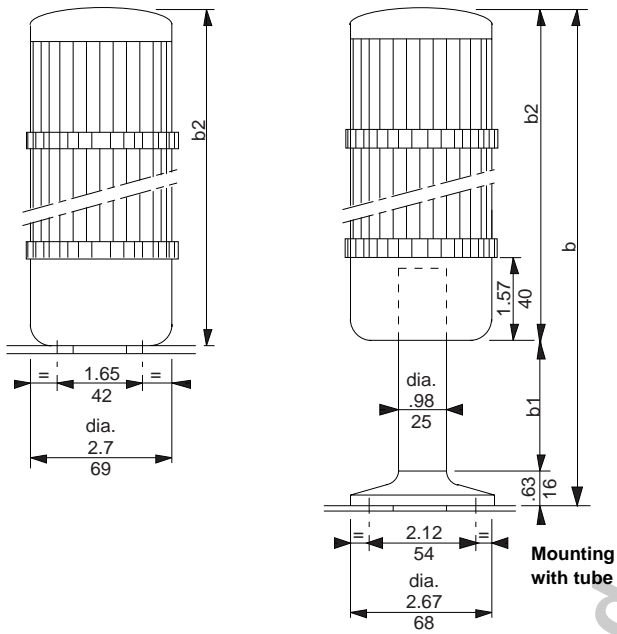
Wire Gauge	Standard Wire (2)
#14 AWG (3)	XVAC211S5
#16 AWG	XVAC211S1
#18 AWG	XVAC211S10
#22 AWG	XVAC211S11

(1) Common and ground wires are provided with all of the above options.
 (2) **Standard wire** provides 2 feet of wire as standard length.
 (3) #14 AWG wire cannot be used with tube support/fixing plates (XVAC01 or XVAC11) and wall mounting bracket (XVAC12).

Indicating beacon, 1 stage



Indicating bank
 Column 1 to 5 stages

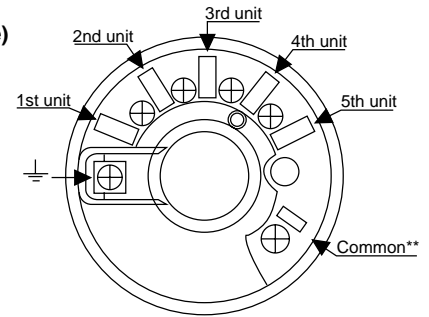


Tube length

b		b1		b2	
in.	mm	in.	mm	in.	mm
3.9	100	7.3	186	2.5	63
15.7	400	19.1	486	14.3	363
31.5	800	34.9	886	30.0	763

Note: For strobe unit add 3.19" (81mm) to total stack height.

Cabling
 (base viewed from above)

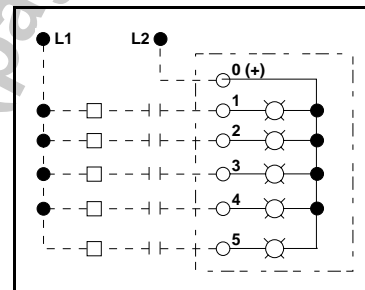


** "-" pole to "common" terminal---

No. of lenses	Tube length		b		b1		b2	
	in.	mm	in.	mm	in.	mm	in.	mm
1	3.9	100	7.3	186	2.5	63	4.2	107
	15.7	400	19.1	486	14.3	363	4.2	107
	31.5	800	34.9	886	30.0	763	4.2	107
	3.9	100	9.25	238	2.5	63	6.25	159
2	15.7	400	21.2	538	14.3	363	6.25	159
	31.5	800	36.9	938	30.0	763	6.25	159
	3.9	100	11.4	290	2.5	63	8.3	211
3	15.7	400	23.2	590	14.3	363	8.3	211
	31.5	800	39.0	990	30.0	763	8.3	211
	3.9	100	13.4	342	2.5	63	10.3	263
4	15.7	400	25.3	642	14.3	363	10.3	263
	31.5	800	41.0	1042	30.0	763	10.3	263
	3.9	100	15.5	394	2.5	63	12.4	315
5	15.7	400	27.3	694	14.3	363	12.4	315
	31.5	800	43.0	1094	30.0	363	12.4	315

Note: For strobe unit add 3.19" (81 mm) to total stack height.

Wiring Diagram



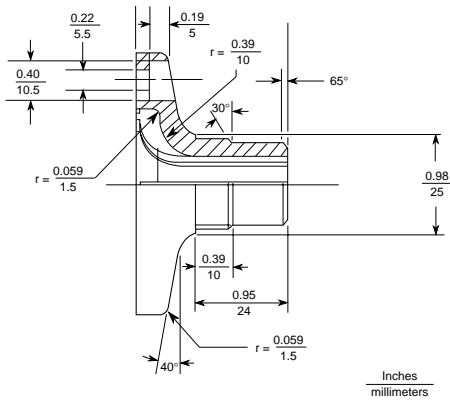
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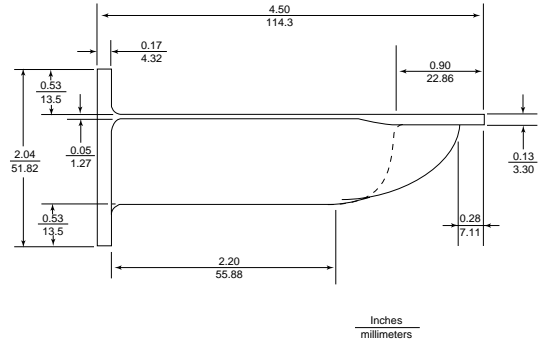
Dimensions



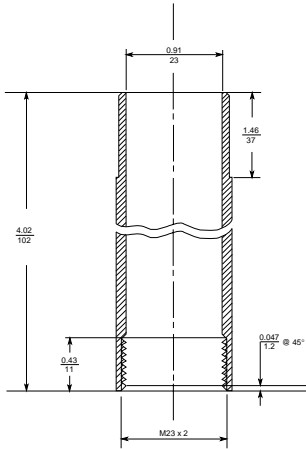
Baseplate 1



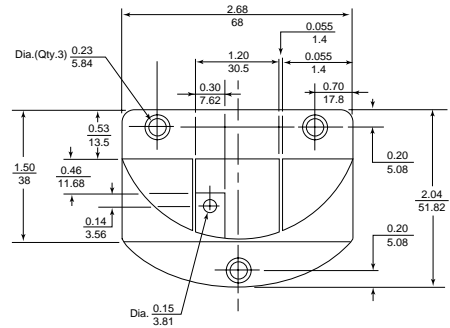
Wall Mount Side



Lite Tube

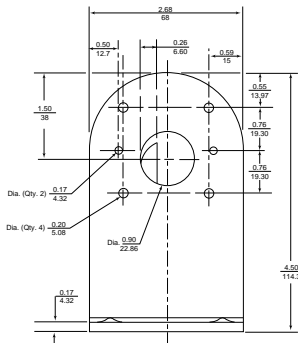


Wall Mount Bottom



Tube and Thread Dimensions
Wall Mounting Bracket
To be Drawn

Wall Mount Front



Drilling and tapping of support

