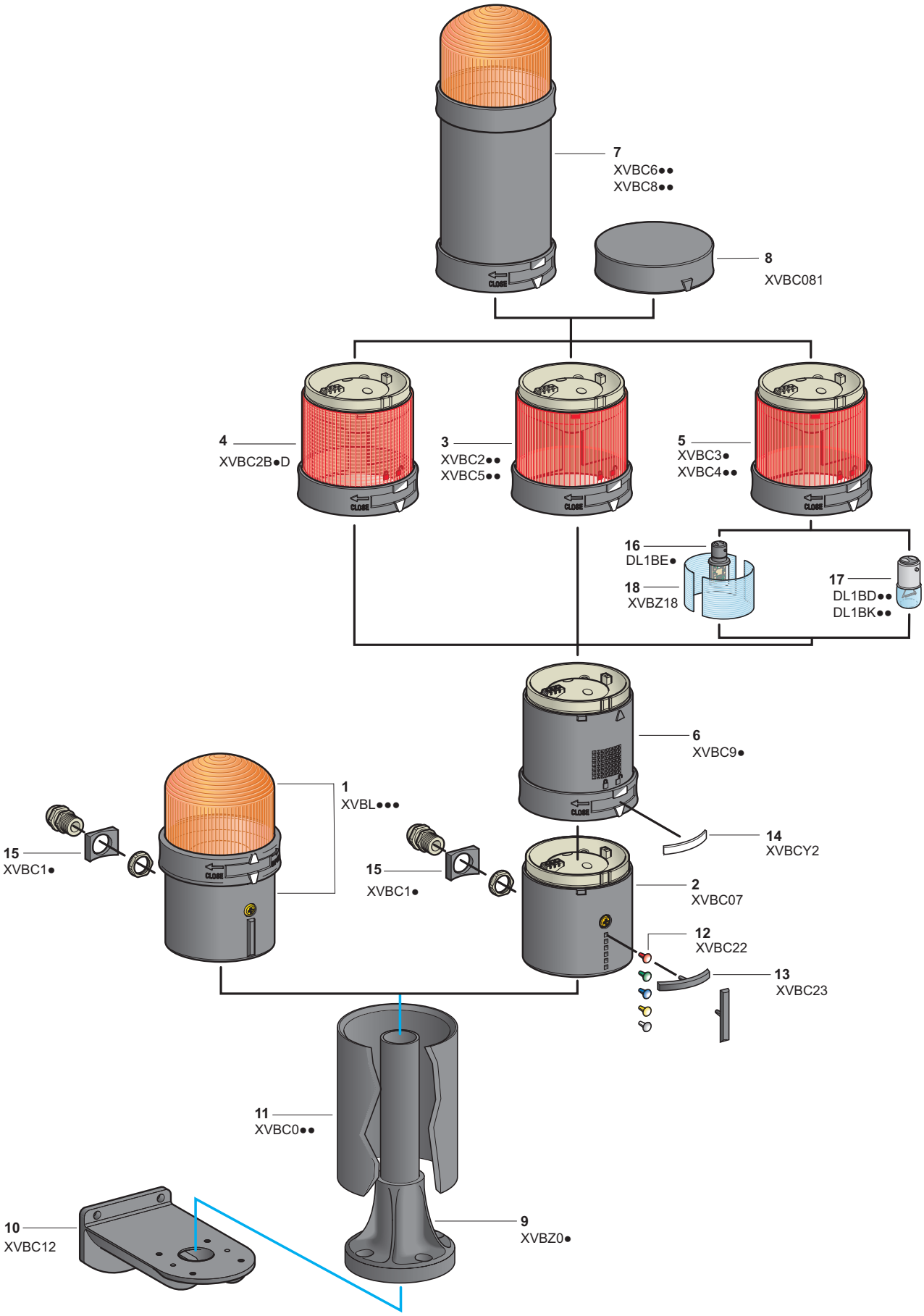
Tower Lights and Beacons
70 mm Diameter
Harmony® XVB



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Harmony XVB tower lights and beacons are visual or audible signaling units used for indicating (with 360° visibility and visible at a distance) the various states of operation for a device or installation. Examples include: start, stop machine, no material, call technical staff, and fault signaling.

Illuminated Beacon

Complete Product XVBL

Ready assembled with a single illuminated signaling unit:
- Steady light (with incandescent bulb or LED),
- Flashing light (with incandescent bulb or LED),
- "Flash" (with discharge tube).

The **XVBL** beacon includes:
- A base unit with a removable terminal block and bottom or side cable entry.
- One colored illuminated unit (green, red, orange, blue, clear, or yellow).

Tower Lights

Customer Assembled Product XVBC

Variable assembly of one to five illuminated or audible units which are supplied as separate items (not pre-assembled). Maximum configuration: five units or four units + one "flash" unit.

The **XVBC** tower lights include:
- A base unit with a removable terminal block and bottom or side cable entry (**2**).
- One to five colored illuminated units (green, red, orange, blue, clear, or yellow):
  - with integral LED (**3**),
  - with integral LED and diffuser (**4**),
  - for incandescent bulbs or base mounted LEDs (**5**).
- One or two audible units (**6**).
- A maximum of one "flash" discharge unit (5 Joule or 10 Joule) (**7**), for mounting on top of the bank.
- A top cover (**8**) (except when using a "flash" discharge tube).
- The illuminated or audible units stack vertically and are easily locked and unlocked using an integral clamping ring. Electrical connections between each unit are automatically connected.
- A light diffuser, pre-fitted in illuminated units (XVBC2B●D), with a base mounted LED, distributes the light evenly over the lens surface. When using the indicator banks in bright ambient light conditions, remove the diffuser to improve contrast.

Accessories

For Beacons XVBL and Indicator Banks XVBC

- Mounting base comprised of a support tube glued into a plastic mounting plate, to provide a height beneath the base unit of 80, 380 or 780 mm (3.14, 15, or 30.71 in) (**9**).
- Mounting plate for mounting on a vertical support (**10**).
- Support tube concealment cover, height of 100, 400, or 800 mm (3.94, 15.75, or 31.5 in) (**11**).
- Colored markers (**12**).
- Legend holder with legend (**13**).
- Legends that attach to the locking ring of each signaling unit for identification (**14**).
- Adaptor and cable gland (**15**).
- Base mounted LED (**16**) or incandescent bulb (**17**).
- Diffuser (**18**) (1).

Installation

Mounting

- Base unit fixed directly onto panel using 2 screws.
- Fixed using a mounting base comprised of an aluminum support tube glued into a plastic mounting plate.

Cabling

- Through a removable terminal block incorporated in the base unit (simplified wiring).

(1) The diffuser can only be used with LED illuminated units. Not compatible with units fitted with an incandescent bulb or "flash" discharge tube.

Tower Lights and Beacons
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Harmony® XVB

Environment Specifications

Product Certifications	Standard version		CSA C22-2 n°14, UL 508, CCC, GOST
Conformity to Standards			EN/IEC 60947-5-1
Protective Treatment	Standard version Conforming to UTE C63-100		"TC"
Ambient Air Temperature	For storage	**°C (F)**	- 40…+ 70 (-40…+158)
	For operation (1)	**°C (F)**	**Illuminated units with steady light signaling:** - 25…+ 70 (-13…+158), with 7 W incandescent bulb - 25…+ 50 (-13…+122), with LED
		°C (F)	**Illuminated units with flashing light signaling:** - 25…+ 50 (-13…+122), with 7 W incandescent bulb - 25…+ 50 (-13…+122), with LED
		°C (F)	**Illuminated units with "flash" discharge tube:** - 25…+ 50 (-13…+122)
		°C (F)	**Audible units:** - 25…+ 50 (-13…+122), with buzzer
Electric Shock Protection conforming to IEC 61140	Mounted on support tube		Class I
	Mounted on base unit		Class II
Degree of Protection	Conforming to IEC 60529		IP 65 (mounted on mounting base XVBZ0●) IP 66 (mounted directly on base unit)
	Conforming to UL 508		Type 4X NEMA "Indoor"
Material	Illuminated units		Polycarbonate
	Base unit and cover		Glass-reinforced polyamide and polycarbonate
	Support tube		Painted aluminum
	Mounting plate for use on vertical support		Zamak
	Mounting plate for use on horizontal support		Polyamide 66
	Support tube concealment cover		ABS

(1) WARNING: RISK OF OVERHEATING:

- *Illuminated units with incandescent bulbs must not be combined with LED illuminated units, due to the risk of overheating.*
- *When different units (steady or flashing) are combined, the maximum temperature is limited to that of the weaker unit.*

Electrical Specifications

Rated Insulation Voltage (Ui)	Conforming to EN/IEC 60947-1	**V**	250
Voltage Limits	Conforming to EN/IEC 60947-5-1	**V**	0.85 to 1.10 Un (Un: nominal voltage)
Consumption	LED units	**mA**	**Steady light signaling:** 24 Vac/dc: < 47 120 Vac: < 17 230 Vac: < 17
		mA	**Strobe light signaling:** 24 Vac/dc: < 47 120 Vac: < 17 230 Vac: < 17
	Units with discharge tube (1)	**mA**	**Strobe light signaling:** 24 Vdc: 5 J unit: < 430; 10 J unit: < 850 120 Vac: 5 J unit: < 130; 10 J unit: < 260 230 Vac: 5 J unit: < 105; 10 J unit: < 210
	Audible units	**mA**	12…48 Vac/dc: < 20 120…230 Vac: < 50
Rated Impulse Withstand Voltage	Conforming to EN/IEC 60947-1	**kV**	Uimp = 4
Light Source	Illuminated units with steady or flashing light signaling		LEDs: degree of pollution 2 Bulbs with BA 15d base fitting, maximum power 7 W
Illuminating Power	Units with discharge tube	**cds**	13 (integral high intensity tube) with clear lens unit: 5 J tube 26 (integral high intensity tube) with clear lens unit: 10 J tube
Audible Unit	Continuous or intermittent tone	**dB**	90 at 1 m
	Fundamental frequency	**kHz**	2.8
Terminal Referencing			1 terminal referenced "C" common to all 5 units
			1 or 5 terminals referenced 1 to 5, depending on number of units
Connection	Maximum clamping capacity on protected, ready-to-tighten, screw and captive cable clamp terminals	**mm^2**	1 x 1.5 with cable end 2 x 16 AWG
Torque Value for Wlring Terminals		**lb-in (N-m)**	4.4 (0.5)
Frequency of Illuminated Units	Illuminated units with flashing light signaling	**Hz**	1
	Illuminated units with discharge tube	**Hz**	1

(1) ***WARNING*** *RISK OF OVERHEATING: Illuminated units with a "flash" discharge tube are not suitable for steady light signaling.*

Tower Lights and Beacons

70 mm Diameter

Harmony® XVBL



XVBL3●



XVBL4B●



XVBL8B●

Beacons with Steady Light Signaling

Description	Light source (ordered separately)	Color	Catalog Number	Weight kg (lb)
Complete Unit Includes: - 1 lens unit - 1 base unit (direct or tube mounting)	Bulb (10 W max.) not included 250 V max.	Green	**XVBL33**	0.260 (0.57)
		Red	**XVBL34**	0.260 (0.57)
		Orange	**XVBL35**	0.260 (0.57)
		Blue	**XVBL36**	0.260 (0.57)
		Clear	**XVBL37**	0.260 (0.57)
		Yellow	**XVBL38**	0.260 (0.57)

Beacons with Integral Flashing Light Signaling

Description	Light Source *(1)* (ordered separately)	Color	Catalog Number	Weight kg (lb)
Complete Unit Includes: - 1 lens unit - 1 base unit (direct or tube mounting)	Incandescent bulb 7 W max. 24 Vac 24…48 Vdc	Green	**XVBL4B3**	0.280 (0.62)
		Red	**XVBL4B4**	0.280 (0.62)
		Orange	**XVBL4B5**	0.280 (0.62)
		Blue	**XVBL4B6**	0.280 (0.62)
		Clear	**XVBL4B7**	0.280 (0.62)
		Yellow	**XVBL4B8**	0.280 (0.62)

(1) Incandescent bulbs and LEDs, see page 13.

Beacons with 10 Joule "Strobe" Discharge Tube

Description	Light Source	Color	Catalog Number	Weight kg (lb)
Complete Unit Includes: - 1 illuminated unit - 1 base unit (direct or tube mounting)	Integral "strobe" discharge tube 24 Vac/dc	Green	**XVBL8B3**	0.450 (0.99)
		Red	**XVBL8B4**	0.450 (0.99)
		Orange	**XVBL8B5**	0.450 (0.99)
		Blue	**XVBL8B6**	0.450 (0.99)
		Clear	**XVBL8B7**	0.450 (0.99)
		Yellow	**XVBL8B8**	0.450 (0.99)
	Integral "strobe" discharge tube 120 Vac	Green	**XVBL8G3**	0.460 (1.01)
		Red	**XVBL8G4**	0.460 (1.01)
		Orange	**XVBL8G5**	0.460 (1.01)
		Blue	**XVBL8G6**	0.460 (1.01)
		Clear	**XVBL8G7**	0.460 (1.01)
		Yellow	**XVBL8G8**	0.460 (1.01)

Tower Lights and Beacons
70 mm Diameter
Harmony® XVBC



XVBC3●

Lens Units with Steady Light Signaling

Description	Light Source (ordered separately)	Color	Catalog Number	Weight kg (lb)
Illuminated Units	Bulb (10 W max.) not included 250 Vac max	Green	**XVBC33**	0.140 (0.31)
		Red	**XVBC34**	0.140 (0.31)
		Orange	**XVBC35**	0.140 (0.31)
		Blue	**XVBC36**	0.140 (0.31)
		Clear	**XVBC37**	0.140 (0.31)
		Yellow	**XVBC38**	0.140 (0.31)



XVBC4●●

Description	Light Source *(1)* (ordered separately)	Color	Catalog Number	Weight kg (lb)
Illuminated Units	Incandescent bulb 7 W max. 24 Vac 24…48 Vdc or LED	Green	**XVBC4B3**	0.160 (0.35)
		Red	**XVBC4B4**	0.160 (0.35)
		Orange	**XVBC4B5**	0.160 (0.35)
		Blue	**XVBC4B6**	0.160 (0.35)
		Clear	**XVBC4B7**	0.160 (0.35)
		Yellow	**XVBC4B8**	0.160 (0.35)
	Incandescent bulb 7 W max. 48…230 Vac or LED	Green	**XVBC4M3**	0.160 (0.35)
		Red	**XVBC4M4**	0.160 (0.35)
		Orange	**XVBC4M5**	0.160 (0.35)
		Blue	**XVBC4M6**	0.160 (0.35)
		Clear	**XVBC4M7**	0.160 (0.35)
		Yellow	**XVBC4M8**	0.160 (0.35)

(1) Incandescent bulbs and LEDs, see page 13.



XVBC8●●

Lens Units with 10 Joule "Strobe" Discharge Tube

Description	Light source	Color	Catalog Number	Weight kg (lb)
Illuminated Units	Integral "strobe" discharge tube 24 Vdc	Green	**XVBC8B3**	0.305 (0.67)
		Red	**XVBC8B4**	0.305 (0.67)
		Orange	**XVBC8B5**	0.305 (0.67)
		Blue	**XVBC8B6**	0.305 (0.67)
		Clear	**XVBC8B7**	0.305 (0.67)
		Yellow	**XVBC8B8**	0.305 (0.67)
	Integral "strobe" discharge tube 120 Vac	Green	**XVBC8G3**	0.315 (0.69)
		Red	**XVBC8G4**	0.315 (0.69)
		Orange	**XVBC8G5**	0.315 (0.69)
		Blue	**XVBC8G6**	0.315 (0.69)
		Clear	**XVBC8G7**	0.315 (0.69)
		Yellow	**XVBC8G8**	0.315 (0.69)

Tower Lights and Beacons

70 mm Diameter

Harmony® XVBC (customer assembly, up to 5 units) Indicator Banks (audible units, base units, cover, and accessories)



XVBC9●

Audible Units

Description	Specifications	Catalog Number	Weight kg (lb)
Buzzer, 90 dB at 1 m Adjustable: - 70 or 90 dB - Continuous or intermittent tone using microswitch	12…48 Vdc	**XVBC9B**	0.170 (0.37)
	120…230 Vac	**XVBC9M**	0.180 (0.40)

Base Units (for direct or tube mounting)

Description	For use with	Catalog Number	Weight t kg (lb)
Base Unit + Cover with Bottom or Side Cable Entry	Banks without "flash" discharge tube unit (includes gasket)	**XVBC21**	0.190 (0.42)

Accessories

Description	Application	Catalog Number	Weightt kg (lb)
Cover only	For use with XVBC2, XVBC3, XVBC4, XVBC5 and XVBC9	**XVBC081**	0.030 (0.07)
Set of 6 Colored Markers	Identification of the unit position if the bank is dismantled	**XVBC22**	0.001 (0.002)
Set of 5 Legend Holders	Identification of stacked units on the base unit	**XVBC23**	0.002 (0.004)
Adaptor for Side Entry through Base Unit	With 13P cable gland	**XVBC14**	0.015 (0.03)

Tower Lights and Beacons

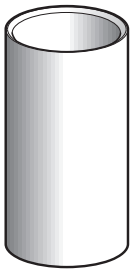
70 mm Diameter

Harmony® XVB

Tower Lights and Beacons Accessories



XVBZ02 XVBZ03/Z04



XVBC020



XVBC12



DL1B●●



DL1BD●●/DL1BK●●

Accessories (continued)

Description	Height Under Base Unit mm (in)	Color	Catalog Number	Weight kg (lb)
Mounting Tube (Tube with plastic mounting base)	80 (3.15)	Black aluminum	**XVBZ02**	0.110 (0.24)
		Aluminum	**XVBZ02A**	0.110 (0.24)
	380 (14.96)	Black aluminum	**XVBZ03**	0.200 (0.44)
		Aluminum	**XVBZ03A**	0.200 (0.44)
	780 (30.71)	Black aluminum	**XVBZ04**	0.325 (0.72)
		Aluminum	**XVBZ04A**	0.325 (0.72)

Description	For use with	Material	Catalog Number	Weight kg (lb)
Mounting Tube Concealment Cover	**XVBZ02, XVBZ02A**	ABS	**XVBC020**	0.080 (0.18)
	XVBZ03, XVBZ03A	ABS	**XVBC030**	0.305 (0.67)
	XVBZ04, XVBZ04A	ABS	**XVBC040**	0.610 (1.34)
Wall Mount Bracket	Base unit (direct mounting), mounting plate XVB Z01, or mounting bases XVBZ0●	Zamak	**XVBC12**	0.380 (0.84)

Description	Specifications		Sold in lots of	Catalog Number	Weight kg (lb)
Incandescent Bulbs BA 15d Base Fitting	12 V	7 W	10	**DL1BEJ**	0.090 (0.20)
	24 V	6.5 W	10	**DL1BEB**	0.090 (0.20)
	48 V	6 W	10	**DL1BEE**	0.090 (0.20)
	120 V	7 W	10	**DL1BEG**	0.090 (0.20)
	230 V	7 W	10	**DL1BEM**	0.090 (0.20)
LEDs BA 15d Base Fitting Protected LED	24 Vdc	White	1	**DL1BDB1**	0.015 (0.03)
		Green	1	**DL1BDB3**	0.015 (0.03)
		Red	1	**DL1BDB4**	0.015 (0.03)
		Orange	1	**DL1BDB5**	0.015 (0.03)
		Blue	1	**DL1BDB6**	0.015 (0.03)
		Yellow	1	**DL1BDB8**	0.015 (0.03)
	120 Vac	White	1	**DL1BDG1**	0.015 (0.03)
		Green	1	**DL1BDG3**	0.015 (0.03)
		Red	1	**DL1BDG4**	0.015 (0.03)
		Orange	1	**DL1BDG5**	0.015 (0.03)
		Blue	1	**DL1BDG6**	0.015 (0.03)
		Yellow	1	**DL1BDG8**	0.015 (0.03)
Flashing LEDs BA 15d Base Fitting Protected LED	24 Vdc	White	1	**DL1BKB1**	0.015 (0.03)
		Green	1	**DL1BKB3**	0.015 (0.03)
		Red	1	**DL1BKB4**	0.015 (0.03)
		Orange	1	**DL1BKB5**	0.015 (0.03)
		Blue	1	**DL1BKB6**	0.015 (0.03)
		Yellow	1	**DL1BKB8**	0.015 (0.03)
	120 Vac	White	1	**DL1BKG1**	0.015 (0.03)
		Green	1	**DL1BKG3**	0.015 (0.03)
		Red	1	**DL1BKG4**	0.015 (0.03)
		Orange	1	**DL1BKG5**	0.015 (0.03)
		Blue	1	**DL1BKG6**	0.015 (0.03)
		Yellow	1	**DL1BKG8**	0.015 (0.03)

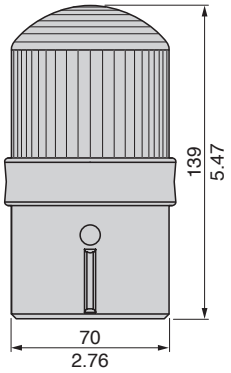
Description	Application	Catalog Number	Weight kg (lb)
Bulb Mounting and Removal Tool	—	XVPCX13	0.015 (0.03

Tower Lights and Beacons
70 mm Diameter
Harmony® XVB

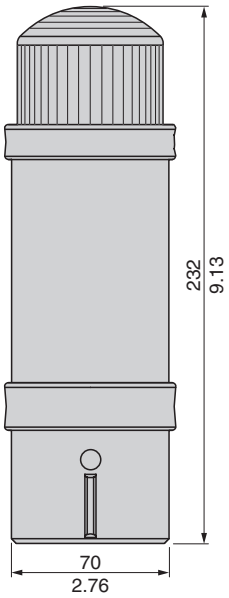
Dimensions

Illuminated Beacons XVBL●●●

For BA 15d Bulb or LED

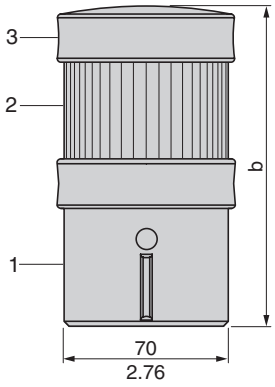


With "Flash" Discharge Tube Unit



Tower Lights XVBC●●●

Without "Flash" Discharge Tube Unit

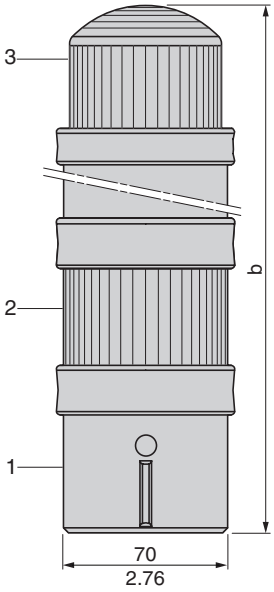


1 Base unit XVBC21 (1)
2 Illuminated or audible signaling unit XVBC●●●
3 Cover (1)

Number of Illuminated or Audible Signalling Units (no "flash")	b mm (in)
1	138 (5.43)
2	201 (7.91)
3	264 (10.39)
4	327 (12.87)
5	390 (15.35)

(1) Base unit XVBC21 is supplied with a cover.

With "Flash" Discharge Tube Unit

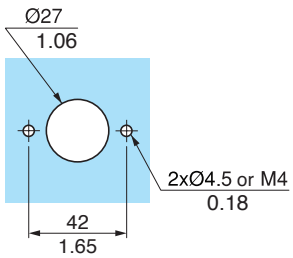


1 Base unit XVBC07
2 Illuminated or audible signaling unit XVBC●●●
3 "Flash" unit XVBC●●●

Number of Illuminated or Audible Signalling Units other than "Flash" Tube	b mm (in)
1	295 (11.61)
2	358 (14.09)
3	421 (16.57)
4	484 (19.06)

Panel Cut-out for Direct Mounting

On Base Unit XVBC21, XVBC07, XVBC21A, or XVBC21B

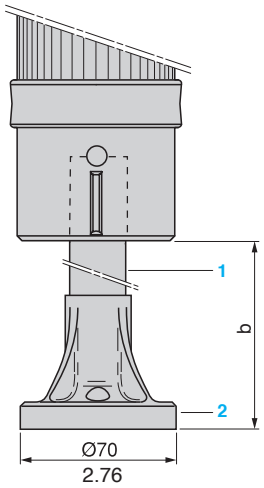


Dimensions $\frac{mm}{in.}$

Tower Lights and Beacons
70 mm Diameter
Harmony® XVB

Dimensions

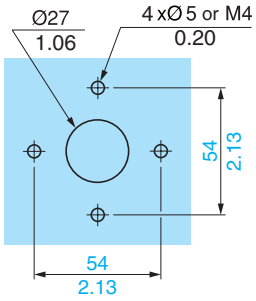
With Mounting Bases Comprising XVBZ0● (aluminum support tube glued into black plastic mounting plate)



Mounting base comprised of an XVBZ0● (Ø 25 mm support tube 1 glued into plastic mounting plate 2)

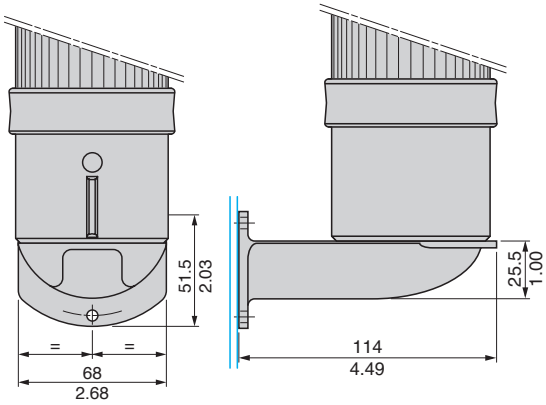
XVB	b
Z02/Z02A	80
Z03/Z03A	380
Z04/Z04A	780

Horizontal Support Drilling Plan for Mounting on Mounting Plate

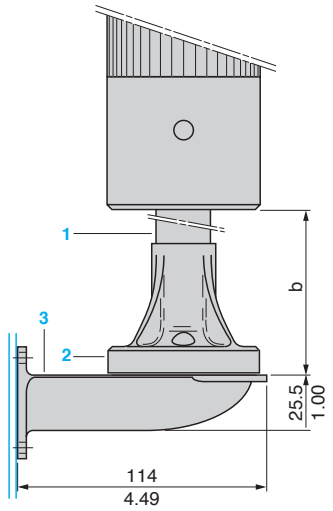


With Mounting Plate XVBC12 for use on Vertical Support

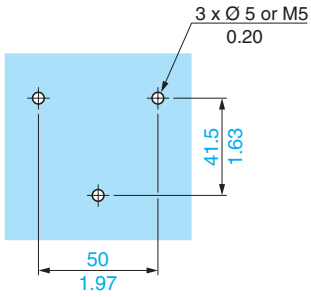
Direct Mounting on Base Unit



Mounting using Mounting Base XVBZ0● (aluminum support tube glued into black plastic mounting plate)



Drilling Plan for XVBC12



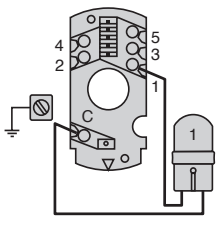
Mounting base comprised of an XVBZ0● (Ø 25 mm support tube 1 glued into plastic mounting plate 2) mounted on mounting plate XVBC12 for vertical support 3

XVB	b mm (in)
Z02/Z02A	80 (3.15)
Z03/Z03A	380 (14.96)
Z04/Z04A	780 (30.71)

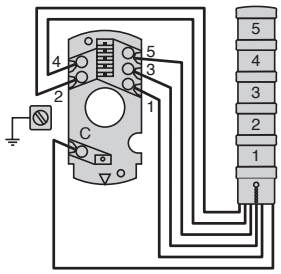
Installation

Connections

XVBL

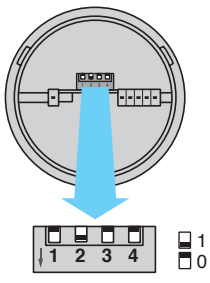


XVBC



Adjustment of Audible Signal for Buzzers XVBC9●

Four microswitches located in the base of the buzzer:
- 2 switches marked **1** and **2** used to select continuous or intermittent **mode** (Hz).
- 2 switches marked **3** and **4** used to select the **power** (dB) of the audible signal.



Position of Microswitches 1	2	Setting Mode
1	1	▬ 2.8 kHz
1	0	▬ 2.8 kHz
0	1	⊓⊓ 5 Hz (1)
0	0	⊔ 1 Hz
3	**4**	**Power**
1	1	90 dB (1)
0	1	85 dB
1	0	80 dB
0	0	70 dB

(1) Factory setting.

Dimensions $\frac{mm}{in.}$