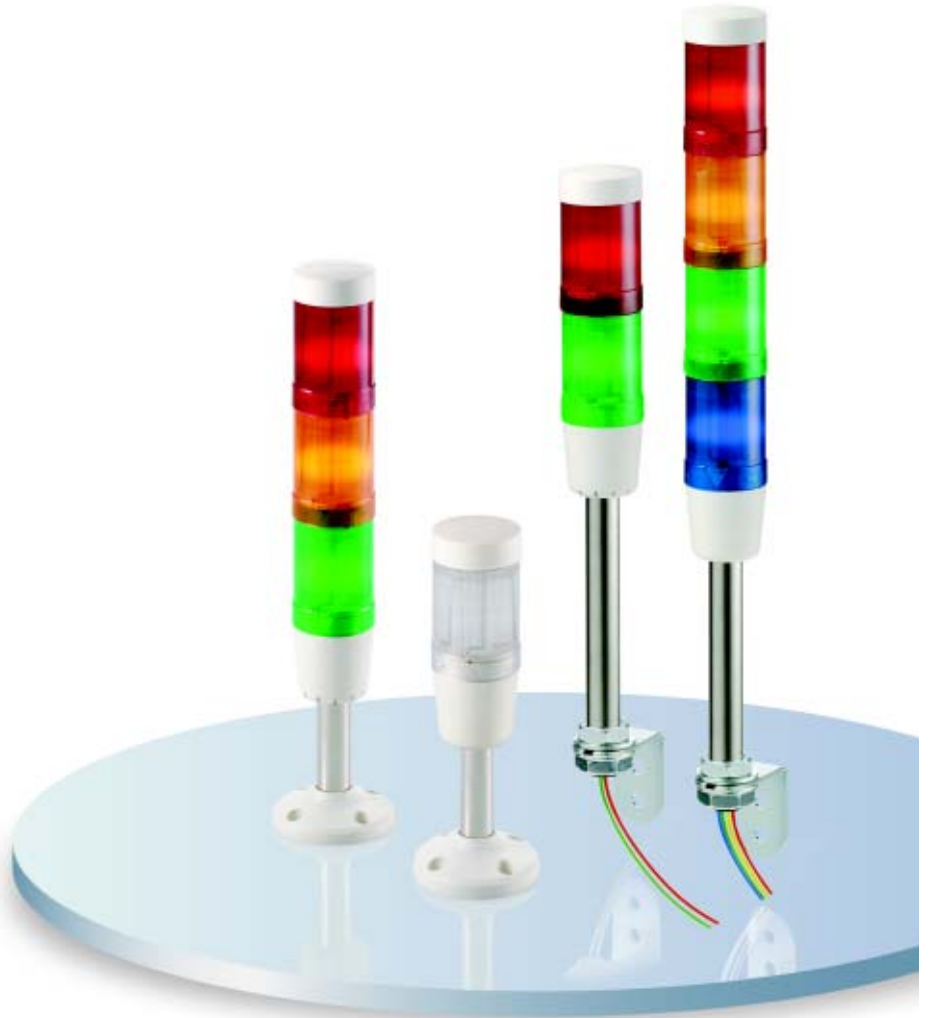


Indicator banks Ø 45 Optimum Harmony type XVM

Catalogue
January

05



Indicator banks Ø 45 mm Optimum Harmony type XVM

- **Presentation** page 2
- **Description** page 3
- **Characteristics** page 4
- **References**
 - Pre-cabled indicators banks pages 5 and 6
 - Customer assembled indicator banks page 7
 - Accessories for pre-cabled and
customer assembled indicator banks page 7
- **Dimensions, connections**
 - Pre-cabled indicators banks page 8
 - Customer assembled indicator banks page 9



Indicator banks XVM supplied complete and pre-cabled, with 2, 3 or 4 illuminated units and fitted with buzzer

Presentation

Ø 45 mm indicator banks XVM are available in 2 forms:

- **Supplied complete**, with 2, 3 or 4 illuminated units, with or without buzzer.
 - Pre-assembled, they are pre-cabled and fitted with a fixing base mounted on a bracket for vertical mounting on their support.
 - These pre-assembled and pre-cabled indicator banks cannot be modified since the wiring connections are permanent (soldered).

- But they are also available as separate components for **customised assembly** to suit the requirements of the customer.

Light signalling

5 catalogued lens unit colours available: red, orange, green, clear or blue.

These illuminated units incorporate a BA 15d base that can be fitted (by simple 15° rotation) with the choice of light source:

- 1 incandescent bulb,
- 1 LED, or
- 1 "flash" discharge tube.

These 3 types of light source enable:

- steady light signalling using an incandescent bulb or an LED (1),
- flashing light signalling using an LED,
- "flash" light signalling using a "flash" discharge tube.

(1) A flashing function can also be obtained from a steady light LED by using a PLC output signal.

Audible signalling

The indicator bank is supplied with or without an audible (buzzer) unit depending on the configuration required. The buzzer is housed in the base unit of the indicator bank.

- There is also a potentiometer in the base unit for adjusting the volume of the audible signal, up to a value of 80 decibels.
- A selector enables the choice of signalling: continuous or intermittent tone.

Modularity

Indicator banks XVM are supplied pre-assembled and pre-cabled, with or without an audible (buzzer) unit, but they can also be assembled using separate components, all of which are catalogued listed:

- either 5 illuminated units maximum, or
- a base unit with integral buzzer and 4 illuminated units.

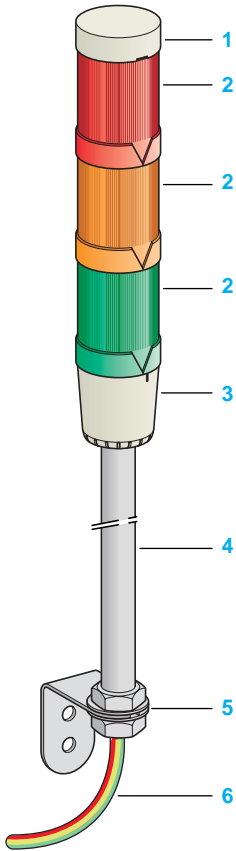
The light sources (incandescent bulb, LED or "flash" discharge tube) are interchangeable. This enables, for example, the replacement of incandescent bulbs initially fitted in an indicator bank by LEDs (longer service life) in order to reduce maintenance operations. The current consumption of LEDs is very low and consequently, their usage has a definite effect on the reduction of power consumption.

The illuminated units easily fit together and electrical connections are made automatically.

Connections in the base unit for indicator banks assembled by the customer are made to a screw terminal block.

Cabling

Indicator banks XVM supplied complete feature referenced wires with a wiring instructions label. Each illuminated unit of the indicator bank is identified by a different wire colour.



Description

Complete, pre-cabled indicator banks

The pre-assembled Ø 45 mm indicator banks XVM comprise:

- 1 A cover.
- 2 Two, three or four coloured illuminated units (red, green, orange or blue). Each illuminated unit is fitted with an incandescent bulb or an LED, depending on the model selected from the catalogue.
- 3 A base unit integrating the buzzer (depending on model).
- 4 A fixing base, height 250 mm.
- 5 A fixing bracket for mounting on a vertical support.
- 6 300 mm flying lead connections, each wire identified.

Breakdown of the reference for a complete indicator bank (1)

		XVM	1 unit	2 units	3 units	4 units
Voltage	≈ 24 V	B				
	≈ 120 V	G				
	≈ 230 V	M				
Light source (2)	Incandescent bulb		1			
	LED		2			
Illuminated unit	Colour	Red	R	R	R	R
		Orange	A	A	A	A
		Green	G	G	G	G
		Blue	B	B	B	B
		Clear	C	C	C	C
	Signalling	Steady		(3)	(3)	(3)
Flashing			5	5	5	5
"Flash"			6	6	6	6
Buzzer	Without					(3)
	With					S

Reference example

XVM B2R6AGS = indicator bank for ≈ 24 V supply, with LEDs, with 1 red lens unit with "flash" discharge tube signalling, 2 lens units (1 orange and 1 green) with steady light signalling and with buzzer.

(1) This table is for information only and must not be used to create a product reference.

(2) "Flash" discharge tube to be ordered separately, see page 7.

(3) Not indicated, default value.

Customer assembled indicator banks

The customised composition of indicator banks XVM is obtained by assembling:

- 1 A cover and a base unit, with or without integral buzzer.
- 2 5 illuminated units maximum (1), red, orange, green, blue or clear lens units (light source not included).

Each illuminated unit can be fitted with either:

- 3 an incandescent bulb,
- 4 an LED, or
- 5 a "flash" discharge tube.

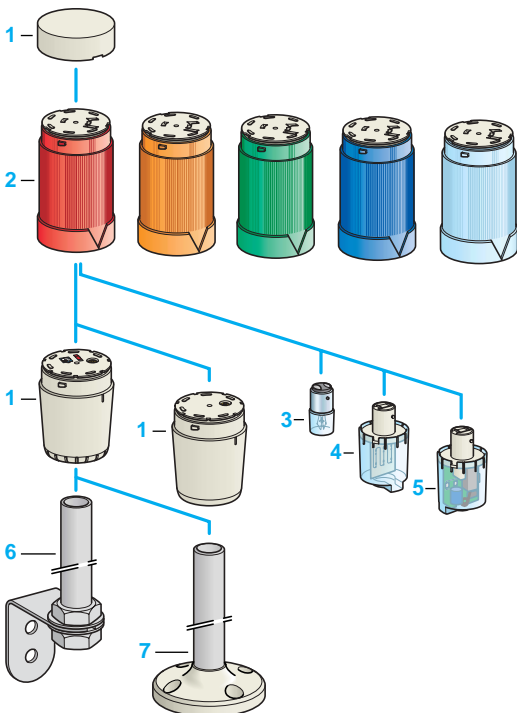
Both the LED and the "flash" discharge tube types can be fitted or removed without using a tool.

The assembly detailed above mounts on either:

- 6 an aluminium support tube (length 100, 250 or 400 mm) with a fixing bracket, or
- 7 an aluminium support tube (length 100, 250 or 400 mm) with a plastic fixing plate.

(1) Maximum configuration possibilities:

- 5 illuminated units mounted on base unit without buzzer.
- 4 illuminated units mounted on base unit fitted with buzzer.



Environment						
Degree of protection			IP 42 mounted vertically IP 40 in other positions			
Product certifications			CCC			
Approval			CE			
Conformity to standards			IEC/EN 60947-1, IEC/EN 60947-5-1			
Ambient air temperature	For storage	°C	- 25...+ 70			
	For operation	°C	- 10...+ 50			
Electric shock protection Conforming to IEC 61140, IEC 60947-1 and IEC 60947-5-1	Mounted on aluminium support tube		Class I			
	Mounted on base		Class II			
Protective treatment			Standard version "TC"			
Electronic components protection (LED and "flash")	By integral fuse in series on the common	A	0.2 (~ 120...230 V)			
Electrical characteristics						
Light sources			Incandescent bulbs	LEDs		"Flash" discharge tube, 0.8 Joule
				Steady light	Flashing light	
Rated insulation voltage (Ui)	Conforming to IEC 60947-1	V	250			
Voltage limits	Conforming to IEC 60947-5-1		0.85...1.10 Un			
Light source type	For mounting in BA 15d base, 15° rotation		BA 15d base fitting			
Consumption	On ~ 24 V	mA	Depending on bulb used	43	45	140 (on ~) 98 (on ---)
	On ~ 120 V	mA	Depending on bulb used	16	16	33
	On ~ 230 V	mA	Depending on bulb used	15	15	20
Rated impulse withstand voltage	Conforming to IEC 60947-1	kV	Uimp = 4			
Illuminating power	Average value for all colours	cds/m ²	650	900	900	–
Flashing frequency	Nominal value	Hz	–	–	1	1
Audible unit (base unit fitted with buzzer)						
Consumption	On ~ 24 V	mA	15			
	On ~ 120 V	mA	18			
	On ~ 230 V	mA	18			
Power	Continuous or intermittent tone	dB	0...80 at 1 m			
	Fundamental frequency	kHz	4 for continuous tone			
Connection of illuminated and audible units						
Terminal referencing			<input type="checkbox"/> 1 terminal referenced N : common to all 5 units, including base unit fitted with buzzer <input type="checkbox"/> 1 terminal referenced B : for base unit fitted with buzzer <input type="checkbox"/> 4 terminals referenced 1 - 2 - 3 - 4 : for 4 illuminated units mounted on base unit fitted with buzzer <input type="checkbox"/> 5 terminals referenced 1 - 2 - 3 - 4 - 5 : for 5 illuminated units mounted on base unit without buzzer			
Connection	Flying leads on pre-cabled indicator banks		Wire c.s.a.: 1 x 0.325 mm ² / AWG 22 (1)			
	Screw terminals		Max.: 1 x 1.5 mm ² Min.: 2 x 0.325 mm ²			

(1) AWG: American Wire Gauge.



Pre-cabled indicator banks

Description	Light source (included)	Voltage (V)	Signalling colour (1)			Reference (2)	Weight kg
			Steady	Flashing	"Flash"		
With 2 illuminated units							
Without buzzer	Incandescent bulb, 5 W	≈ 24	R-G	-	-	XVM B1RG	0.392
		≈ 120	R-G	-	-	XVM G1RG	0.392
		≈ 230	R-G	-	-	XVM M1RG	0.392
	LED	≈ 24	R-G	-	-	XVM B2RG	0.395
		≈ 120	R-G	-	-	XVM G2RG	0.395
		≈ 230	R-G	-	-	XVM M2RG	0.395
With buzzer integrated in base unit	Incandescent bulb, 5 W	≈ 24	R-G	-	-	XVM B1RGS	0.402
		≈ 120	R-G	-	-	XVM G1RGS	0.402
		≈ 230	R-G	-	-	XVM M1RGS	0.402
	LED	≈ 24	R-G	-	-	XVM B2RGS	0.404
		≈ 120	R-G	-	-	XVM G2RGS	0.404
		≈ 230	R-G	-	-	XVM M2RGS	0.404
With 3 illuminated units							
Without buzzer	Incandescent bulb, 5 W	≈ 24	R-O-G	-	-	XVM B1RAG	0.493
		≈ 120	R-O-G	-	-	XVM G1RAG	0.493
		≈ 230	R-O-G	-	-	XVM M1RAG	0.493
		≈ 24	O-G	-	R	XVM B1R6AG	0.454
		≈ 120	O-G	-	R	XVM G1R6AG	0.454
		≈ 230	O-G	-	R	XVM M1R6AG	0.454
	LED	≈ 24	R-O-G	-	-	XVM B2RAG	0.443
		≈ 120	R-O-G	-	-	XVM G2RAG	0.443
		≈ 230	R-O-G	-	-	XVM M2RAG	0.443
		≈ 24	O-G	-	R	XVM B2R6AG	0.456
		≈ 120	O-G	-	R	XVM G2R6AG	0.456
		≈ 230	O-G	-	R	XVM M2R6AG	0.456
	LED	≈ 24	R-G	O	-	XVM B2RA5G	0.443
		≈ 120	R-G	O	-	XVM G2RA5G	0.443
		≈ 230	R-G	O	-	XVM M2RA5G	0.443
		≈ 24	G	R-O	-	XVM B2R5A5G	0.443
		≈ 120	G	R-O	-	XVM G2R5A5G	0.443
		≈ 230	G	R-O	-	XVM M2R5A5G	0.443
LED	≈ 24	G	O	R	XVM B2R6A5G	0.456	
	≈ 120	G	O	R	XVM G2R6A5G	0.456	
	≈ 230	G	O	R	XVM M2R6A5G	0.456	

(1) Signalling colour: R: red; G: green; O: orange; B: blue.

(2) The colours are listed in same order in the references as the mounting order of the illuminated units (from top to bottom).



XVM●●●●●●GS

Pre-cabled indicator banks (continued)

Description	Light source (included)	Voltage (V)	Signalling colour (1)			Reference (2)	Weight kg
			Steady	Flashing	"Flash"		
With 3 illuminated units (continued)							
With buzzer integrated in base unit	Incandescent bulb, 5 W	≈ 24	R-O-G	-	-	XVM B1RAGS	0.449
		~ 120	R-O-G	-	-	XVM G1RAGS	0.449
		~ 230	R-O-G	-	-	XVM M1RAGS	0.449
		≈ 24	O-G	-	R	XVM B1R6AGS	0.463
		~ 120	O-G	-	R	XVM G1R6AGS	0.463
		~ 230	O-G	-	R	XVM M1R6AGS	0.463
	LED	≈ 24	R-O-G	-	-	XVM B2RAGS	0.453
		~ 120	R-O-G	-	-	XVM G2RAGS	0.453
		~ 230	R-O-G	-	-	XVM M2RAGS	0.453
		≈ 24	O-G	-	R	XVM B2R6AGS	0.466
		~ 120	O-G	-	R	XVM G2R6AGS	0.466
		~ 230	O-G	-	R	XVM M2R6AGS	0.466
	≈ 24	R-G	O	-	XVM B2RA5GS	0.453	
	~ 120	R-G	O	-	XVM G2RA5GS	0.453	
	~ 230	R-G	O	-	XVM M2RA5GS	0.453	
	≈ 24	G	R-O	-	XVM B2R5A5GS	0.453	
	~ 120	G	R-O	-	XVM G2R5A5GS	0.453	
	~ 230	G	R-O	-	XVM M2R5A5GS	0.453	
≈ 24	G	O	R	XVM B2R6A5GS	0.466		
~ 120	G	O	R	XVM G2R6A5GS	0.466		
~ 230	G	O	R	XVM M2R6A5GS	0.466		



XVM●●●RAGB XVM●●●RAGBS

With 4 illuminated units

Without buzzer	Incandescent bulb, 5 W	≈ 24	R-O-G-B	-	-	XVM B1RAGB	0.486
		~ 120	R-O-G-B	-	-	XVM G1RAGB	0.486
		~ 230	R-O-G-B	-	-	XVM M1RAGB	0.486
	LED	≈ 24	R-O-G-B	-	-	XVM B2RAGB	0.491
		~ 120	R-O-G-B	-	-	XVM G2RAGB	0.491
		~ 230	R-O-G-B	-	-	XVM M2RAGB	0.491
With buzzer integrated in base unit	Incandescent bulb, 5 W	≈ 24	R-O-G-B	-	-	XVM B1RAGBS	0.496
		~ 120	R-O-G-B	-	-	XVM G1RAGBS	0.496
		~ 230	R-O-G-B	-	-	XVM M1RAGBS	0.496
	LED	≈ 24	R-O-G-B	-	-	XVM B2RAGBS	0.501
		~ 120	R-O-G-B	-	-	XVM G2RAGBS	0.501
		~ 230	R-O-G-B	-	-	XVM M2RAGBS	0.501

(1) Signalling colour: R: red; G: green; O: orange; B: blue.

(2) The colours are listed in same order in the references as the mounting order of the illuminated units (from top to bottom).



XVM C3●



XVM C21



XVM C29●



XVM Z02



XVM Z02T



DL1 ED●S



DL2 E●●●



DL6 B●

Customer assembled indicator banks

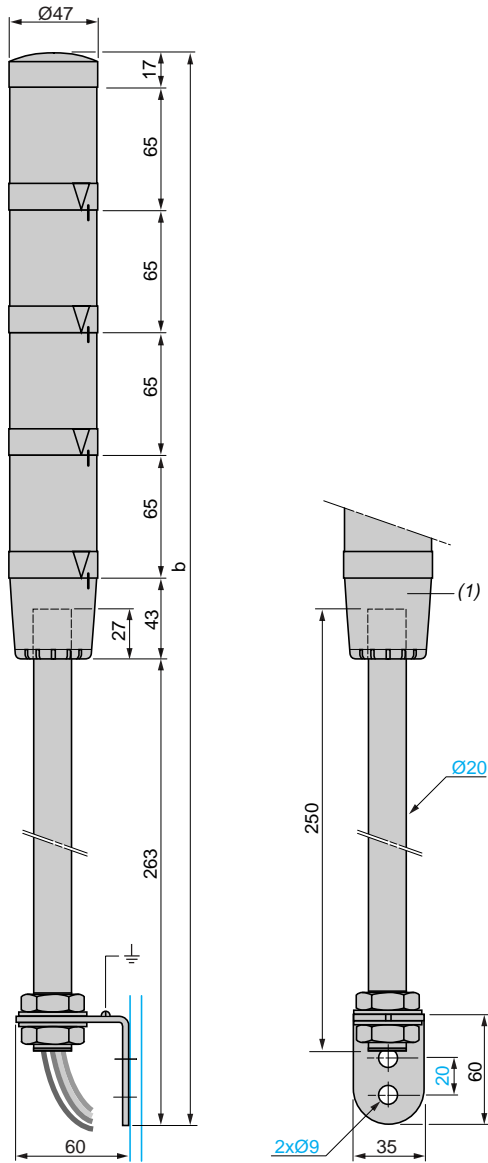
Description	Characteristics	Voltage (V)	Colour	Reference	Weight kg		
Illuminated units							
Lens units only for BA 15d base fitting bulb	Bulb not included, 5 W max.	Up to \approx 230	Green	XVM C33	0.040		
			Red	XVM C34	0.040		
			Orange	XVM C35	0.040		
			Blue	XVM C36	0.040		
			Clear	XVM C37	0.040		
Base mounting units							
Base unit and cover	Base unit without buzzer	–	White	XVM C21	0.055		
		\approx 24	White	XVM C29B	0.065		
		\sim 120	White	XVM C29G	0.065		
		\sim 230	White	XVM C29M	0.065		
Base unit and cover + 250 mm support tube with fixing bracket	Base unit without buzzer	–	White	XVM C213T	0.298		
		\approx 24	White	XVM C29B3T	0.308		
		\sim 120	White	XVM C29G3T	0.308		
		\sim 230	White	XVM C29M3T	0.308		
Support tubes and fixing bases							
Description	Length (mm)	Height under base unit (mm)	Colour	Reference	Weight kg		
Ø 20 mm aluminium support tube with plastic fixing plate	100	78	White	XVM Z02	0.060		
	250	228	White	XVM Z03	0.108		
	400	378	White	XVM Z04	0.155		
Ø 20 mm aluminium support tube with metal fixing bracket	100	113	–	XVM Z02T	0.198		
	250	263	–	XVM Z03T	0.242		
	400	413	–	XVM Z04T	0.287		
Light sources for lens units (1)							
Description	Signalling	Power	Sold in lots of	Voltage (V)	Colour	Unit reference	Weight kg
Incandescent bulbs	Steady light	5 W	10	\approx 24	–	DL1 EDBS	0.007
				\approx 120	–	DL1 EDGS	0.007
				\approx 230	–	DL1 EDMS	0.007
LEDs	Steady light: replace the ● by D in the references shown on the right. Flashing light: replace the ● by K in the references shown on the right.	–	1	\approx 24	White	DL2 E●B1	0.009
					Green	DL2 E●B3	0.009
					Red	DL2 E●B4	0.009
				\sim 120	Blue	DL2 E●B6	0.009
					Orange	DL2 E●B8	0.009
					White	DL2 E●G1	0.009
					Green	DL2 E●G3	0.009
					Red	DL2 E●G4	0.009
					Blue	DL2 E●G6	0.009
				\sim 230	Orange	DL2 E●G8	0.009
					White	DL2 E●M1	0.009
					Green	DL2 E●M3	0.009
					Red	DL2 E●M4	0.009
					Blue	DL2 E●M6	0.009
					Orange	DL2 E●M8	0.009
Discharge tubes	"Flash"	0.8 Joule	1	\approx 24	–	DL6 BB	0.022
				\sim 120	–	DL6 BG	0.022
				\sim 230	–	DL6 BM	0.022

(1) All light sources are push-and-turn (15°) mounting in a BA 15d base within the illuminated units.

Accessories for pre-cabled and customer assembled indicator banks

Description	Characteristics	Reference	Weight kg
Cover only	White	XVM Z081	–
Mounting tool	Mounting and removal of incandescent bulbs type DL1	ZBZ X13	–

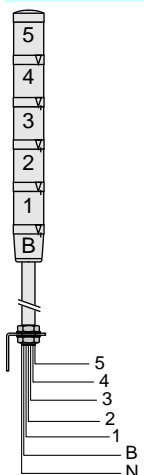
Pre-cabled indicator banks



Height of pre-cabled indicator bank	
Number of illuminated units	b
1 unit	392
2 units	457
3 units	522
4 units	587

(1) Base unit with or without buzzer.

Connection scheme



**Indicator bank with buzzer
(4 illuminated units max.)**

- 4: 4th unit (yellow wire)
- 3: 3rd unit (green wire)
- 2: 2nd unit (white wire)
- 1: 1st unit (blue wire)
- N: common (black wire)
- B: Buzzer (grey wire)

Indicator bank without buzzer

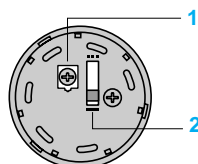
- 5: 5th unit (red wire)
- 4: 4th unit (yellow wire)
- 3: 3rd unit (green wire)
- 2: 2nd unit (white wire)
- 1: 1st unit (blue wire)
- N: common (black wire)

Maximum capacity for wiring through support tube:

- 6 wires x 1 mm²,
- 5 wires x 1.5 mm²

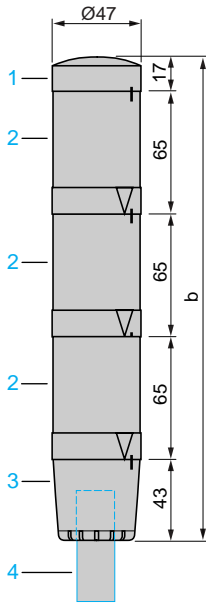
Adjustment of audible signal on buzzer type unit

Base unit with integral buzzer (viewed from above)



- 1 Volume adjustment potentiometer: 0 to 80 dB. Use either a cross headed or flat tipped screwdriver.
- 2 2-position selector for type of audible signal:
 - continuous tone
 - intermittent tone

Customer assembled indicator banks



- 1 Cover
- 2 Illuminated unit
- 3 Base unit (with or without buzzer)
- 4 Fixing base (see below)

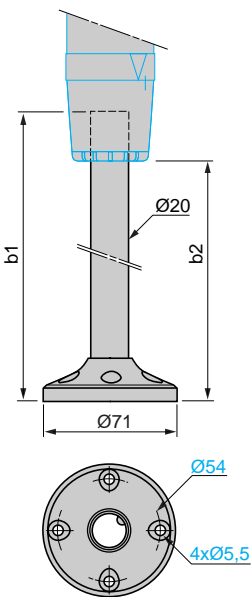
Height of customer assembled indicator bank

Number of illuminated units (ref. 2)	b
1 unit	125
2 units	190
3 units	255
4 units	320
5 units	385

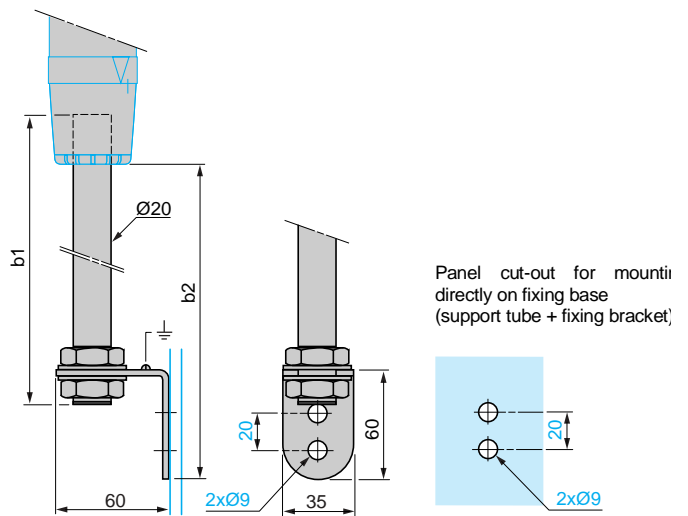
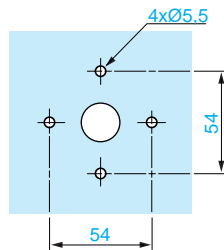
Fixing bases

XVM Z0●

XVM Z0●T



Panel cut-out for mounting directly on fixing base (support tube + fixing plate)



Panel cut-out for mounting directly on fixing base (support tube + fixing bracket)

Support tube length	b1 (tube + plate)	b2 (height under base unit)
100	105	78
250	255	228
400	405	378

Support tube length	b1 (tube + bracket)	b2 (height under base unit)
100	140	113
250	290	263
400	440	413

Connection scheme

See page 8

Adjustment of audible signal on buzzer type unit

See page 8

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