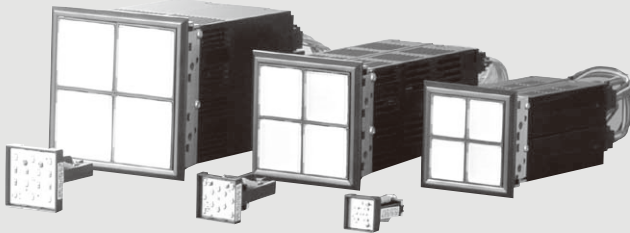




ANNUNCIATOR RELAY

XK TYPE

**Indicators built in relays help
reduction of auxiliary relays in the panel**



FEATURES

High brightness by 4 elements LED (Al InGap-LED)

4 elements LED (Al InGap-LED)
improves brightness.
(new one is 4 times as bright as
the previous model)



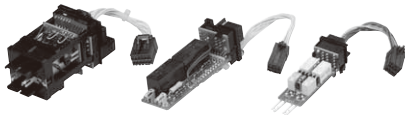
(XK44 Type)



(LK44 Type)

Easy wiring by built in relays

High performance and reliability of
built in relays reduce wiring work.



Various sequence type are available

Almost all standard pattern
sequence circuits are lined up, which
helps speed up of circuit design.

24mm, 30mm, 40mm square windows are available

Three different size windows are
available for various application needs,
and XK units and XL units can be mixed
in one assembly.



Easy setting of alarm output

Each alarm output (bell, buzzer,
chime) can be easily selected by
the switch on the rear side.



A new structural lens

A label film indicated words can be
installed with a single motion.

Insertable size of label film (mm)

- XK44TYPE ... (H)35.0×(W)33.5
- XK33TYPE ... (H)25.0×(W)23.5
- XK22TYPE ... (H)19.0×(W)17.5



* Label film is gold optionally.

SPECIFICATIONS (RATING, PERFORMANCE / NORMAL SERVICE CONDITION)

Specification	XK22	XK33	XK44
Rating	Rated insulation voltage (Ui)	250V	
	Rated operating voltage	24V DC	100 / 110V DC
	Input signal time	20ms or more (at rated voltage)	
	Insulated resistance	10MΩ or more (between electrical circuit and ground)	
	Power frequency withstand voltage	2,000V AC / 1min. (between electrical circuit and ground)	
	Impulse withstand voltage (Uimp)	±4.5kV (1.2 / 50μs) each pole (between electrical circuit and ground)	
Performance	Visibility of light flashing	Mounted side brightness: 1,000Lx, Visible distance: 10m	
	Degree of protection	IP40 (at illuminating portion)	
	Terminal size	M3 screw or Faston tab #187	
	Vibration resistance	Frequency: 10Hz Amplitude: 5mm (vertical direction: 2.5mm) Time: 30sec. (3 axial direction)	
	Shock resistance	Frequency: 16.7Hz Amplitude: 0.4mm Time: 600sec. (3 axial direction)	
	Shock resistance	294m/s ² (6 directions, 3 times / each)	
Normal service condition	Power consumption (1 unit)	Approx. 1W	Approx. 1W (110V DC) Approx. 3W (110V DC, 2 relays)
	Operating temperature	0 to 40°C (−10 to 50°C allowed for a few hours in a day)	
	Storing temperature	−20 to 60°C	
	Relative humidity	30 to 80%	
Normal service condition	Altitude	2,000 m max. no freeze / no condensation	

HOW TO ORDER

[XK22 TYPE] **XK22-01S-02 × 02-DC024-O W**^{*1}

Basic type	Circuit code	Terminal type	No. of columns	No. of rows	Rated operating voltage	Display color
	01 02	Code Spec S Screw M3×6			Code Voltage DC024 24V DC	Code Color Code Color R Red Y Yellow O Orange B Blue W White M Mix G Green

[XK33 TYPE] **XK33-04S-02 × 02-DC110-O W**^{*1}

Basic type	Circuit code	Terminal type	No. of columns	No. of rows	Rated operating voltage	Display color
	04	Code Spec S Screw M3×6			Code Voltage DC110 100 / 110V DC	Code Color Code Color R Red Y Yellow O Orange B Blue W White M Mix G Green

[XK44 TYPE] **XK44-01S-02 × 02-DC110-O W**^{*1}

Basic type ^{*2}	Circuit code	Terminal type	No. of columns	No. of rows	Rated operating voltage	Display color
	01 05 03 06 04 07	Code Spec S Screw M3×6			Code Voltage DC024 24V DC (special) DC110 110V DC MIX Mix ^{*3}	Code Color Code Color R Red Y Yellow O Orange B Blue W White M Mix G Green

^{*1} The choice of all white lens is also available.

^{*2} When Circuit code is 03 and 04, the basic type is XK44M (short body).

^{*3} In case the controll power supply voltage and lamp voltage are different, please consult with us (Some types are available).

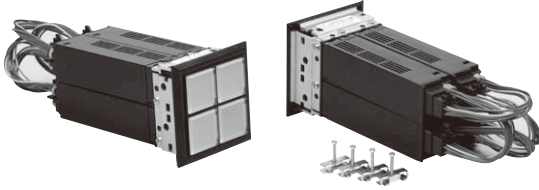


ANNUNCIATOR RELAY

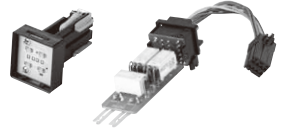
XK TYPE

STANDARD PRODUCTS

XK22-01

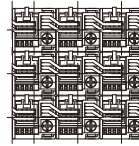
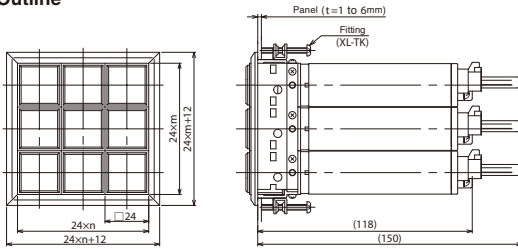


■ Lamp, Inner element

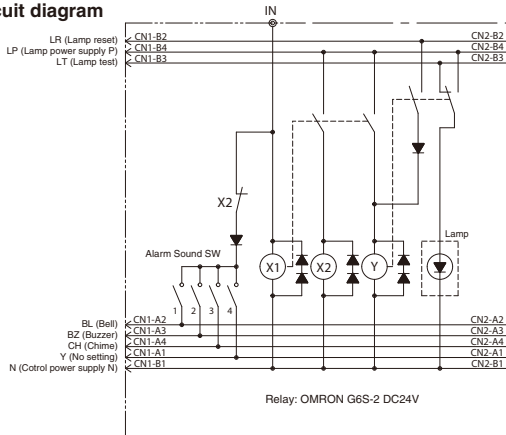


Standard attachment : fitting tool (XL-TK)

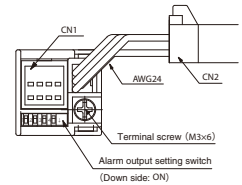
■ Outline



■ Circuit diagram



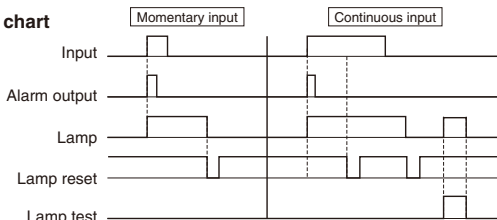
■ Rear side



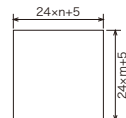
■ Function

External output	—
Output	b contact
Type	Pulse output
Sound	4 type (BL, BZ, CH, Y)
Input holding circuit	—

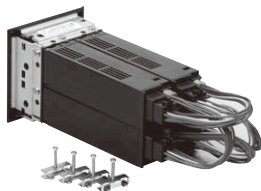
■ Operation chart



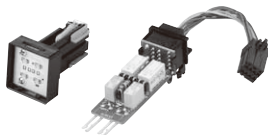
■ Mounting hole size



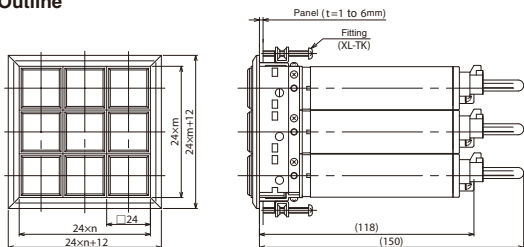
XK22-02



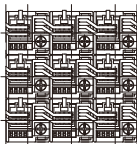
■ Lamp, Inner element



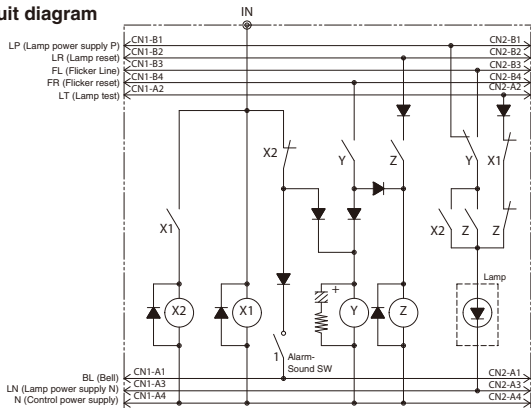
■ Outline



Standard attachment : fitting tool (XL-TK)

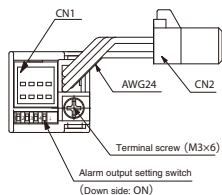


■ Circuit diagram



* Alarm setting switch must be on in case of combination use with interface unit (UKTF2).

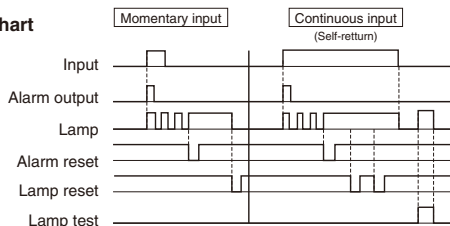
■ Rear side



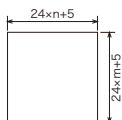
■ Function

External output	—	
Alarm	Output	b contact
	Type	Pulse output
	Sound	1 type (BL)
Interface unit	UKTF2	

■ Operation chart



■ Mounting hole size



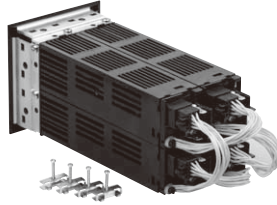


ANNUNCIATOR RELAY

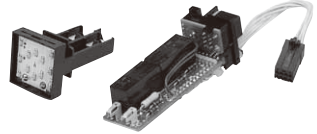
XK TYPE

STANDARD PRODUCTS

XK33-04

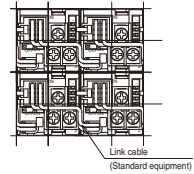
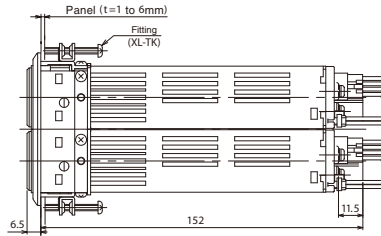
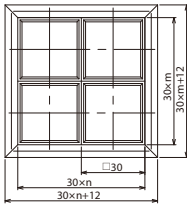


■ Lamp, Inner element

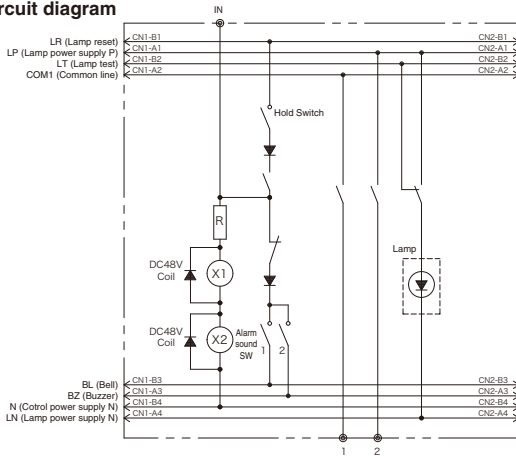


Standard attachment : fitting tool (XL-TK)

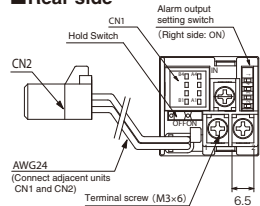
■ Outline



■ Circuit diagram



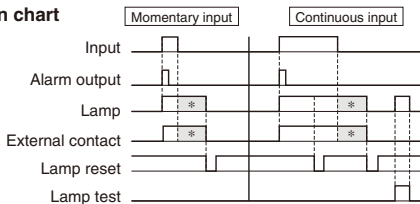
■ Rear side



■ Function

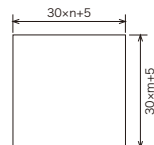
External output	2 a contact
Output	b contact
Alarm	Type Pulse output
Sound	2 type (BL, BZ)
Input holding circuit	available

■ Operation chart

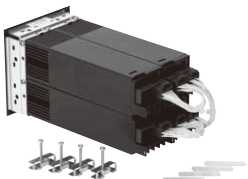
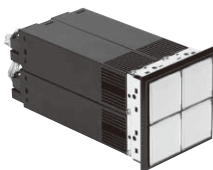


* When hold switch is ON

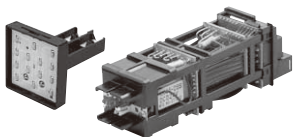
■ Mounting hole size



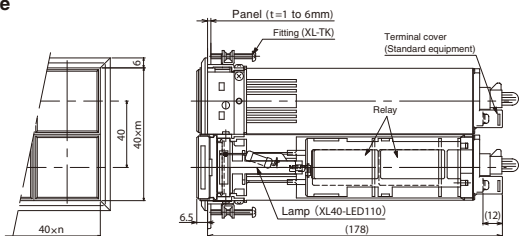
XK44-01



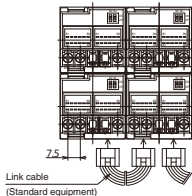
■ Lamp, Inner element



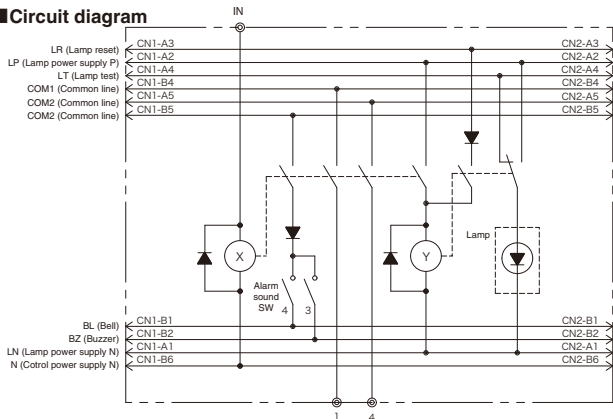
■ Outline



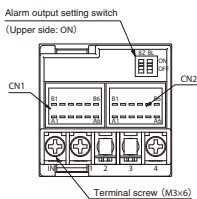
Standard attachment : fitting tool (XL-TK),
terminal cover (XK-CV)



■ Circuit diagram



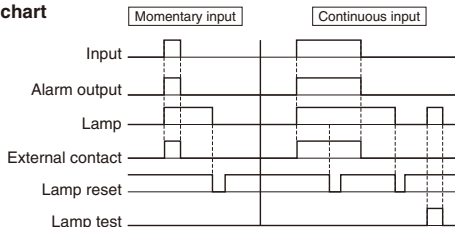
■ Rear side



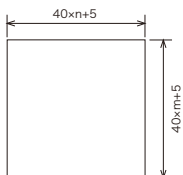
■ Function

External output		2 a contact
Alarm	Output	a contact
	Type	Sync with input
	Sound	2 type (BL, BZ)
Input holding circuit		—

■ Operation chart



■ Mounting hole size





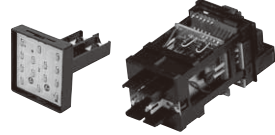
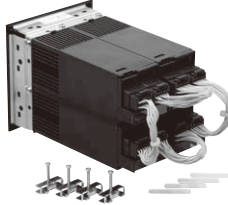
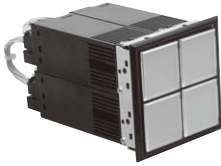
ANNUNCIATOR RELAY

XK TYPE

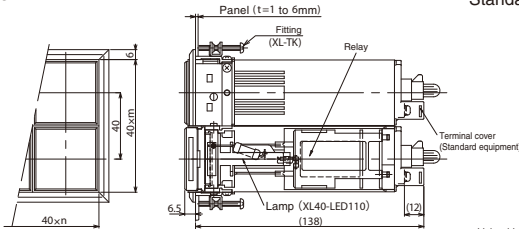
STANDARD PRODUCTS

XK44M-03

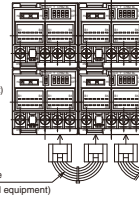
■ Lamp, Inner element



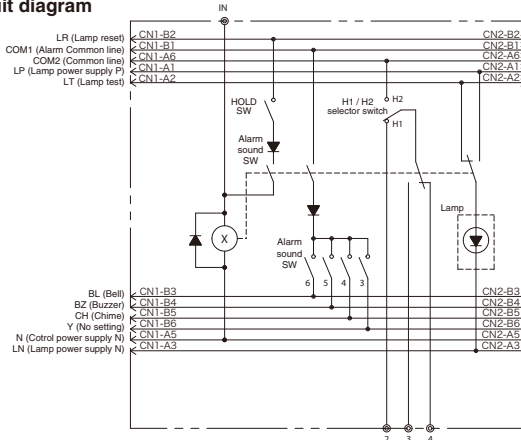
■ Outline



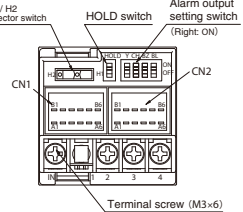
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



■ Circuit diagram



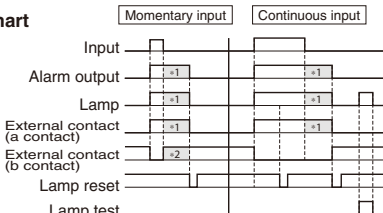
■ Rear side



■ Function

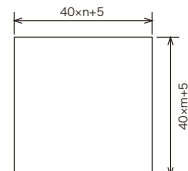
Alarm	External output	1 c contact
	Output	a contact
	Type	Sync with input
	Sound	4 type (BL, BZ, CH, Y)
Input holding circuit		available

■ Operation chart

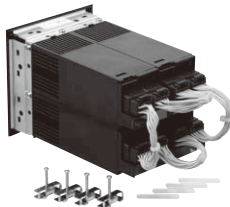


When HOLD switch is ON, the operation is shown as +1 and +2 shadows.
When HOLD switch is OFF, the operation is not shadows.

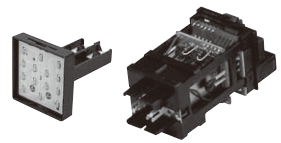
■ Mounting hole size



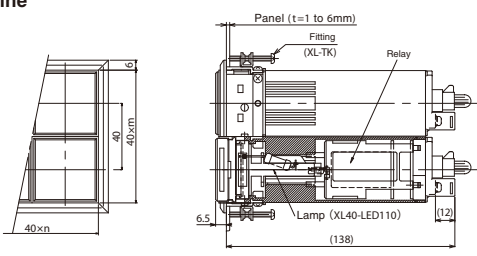
XK44M-04



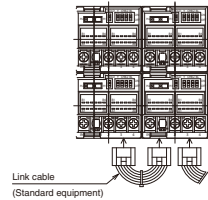
■ Lamp, Inner element



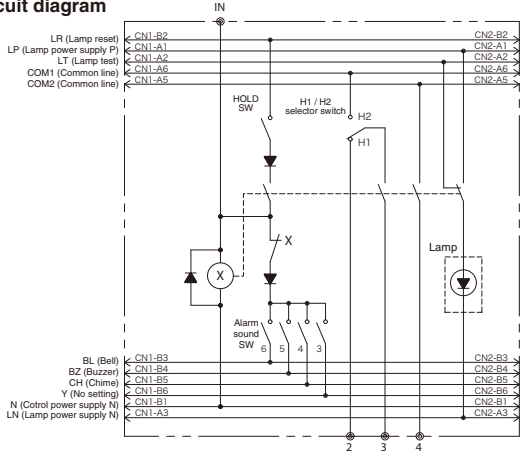
■ Outline



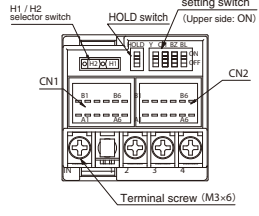
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



■ Circuit diagram



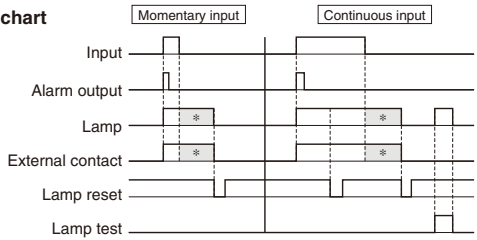
■ Rear side



■ Function

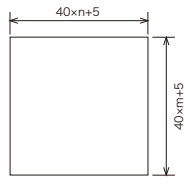
External output		2 a contact
Alarm	Output	b contact
	Type	Pulse output
	Sound	4 type (BL, BZ, CH, Y)
Input holding circuit		available

■ Operation chart



* When HOLD switch is ON, the operation is shown as * shadows.

■ Mounting hole size



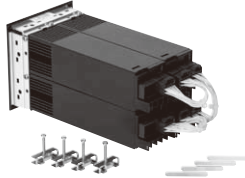
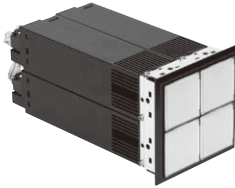


ANNUNCIATOR RELAY

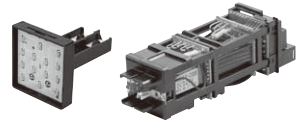
XK TYPE

STANDARD PRODUCTS

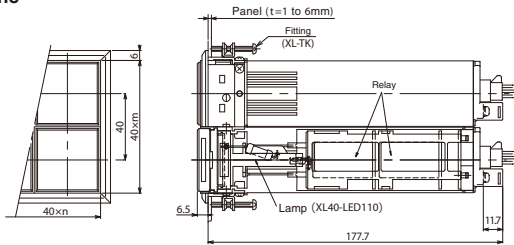
XK44-05



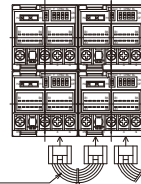
■ Lamp, Inner element



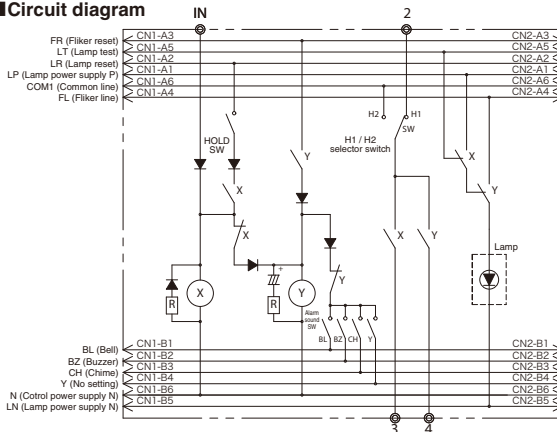
■ Outline



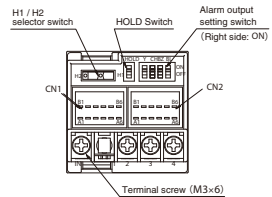
Standard attachment : fitting tool (XL-TK), terminal cover (XK-CV)



■ Circuit diagram



■ Rear side

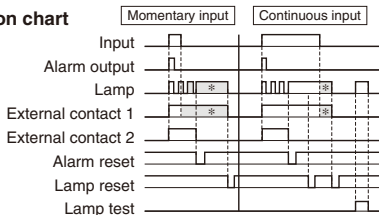


■ Function

External output	2 a Contact
Output	b Contact
Alarm	Type Pulse output
Sound	4 type (BL, BZ, CH, Y)
Input holding circuit	available

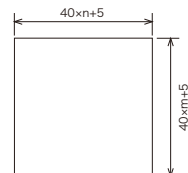
* Rated operating voltage: 100 / 110V DC

■ Operation chart

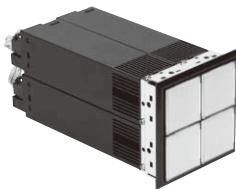


* When HOLD switch is ON, the operation is shown as * shadows.

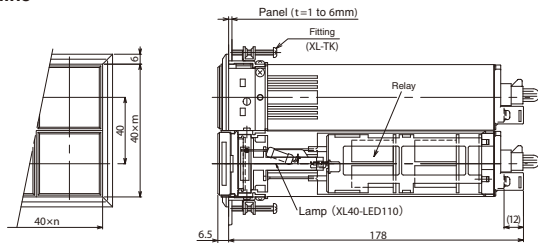
■ Mounting hole size



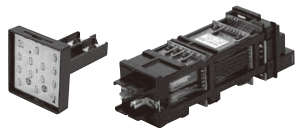
XK44-06



Outline

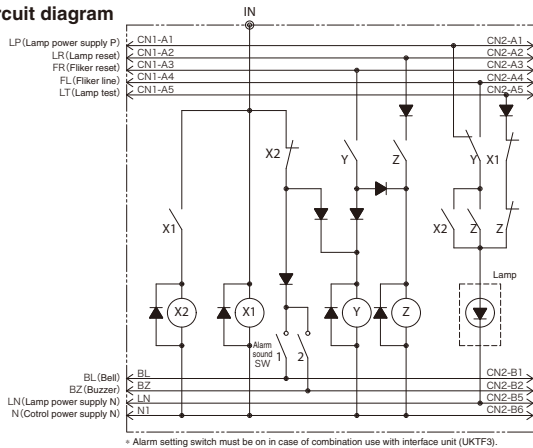


Lamp, Inner element

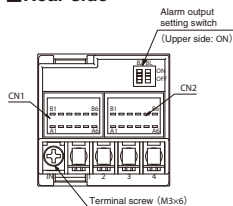


Standard attachment : fitting tool (XL-TK),
terminal cover (XK-CV)

Circuit diagram



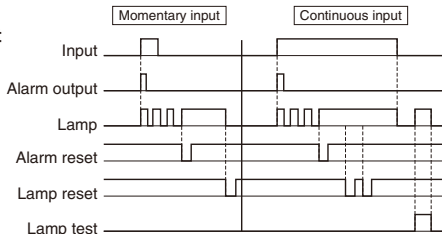
Rear side



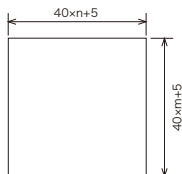
Function

External output		—
Alarm	Output	b Contact
	Type	Pulse output
	Sound	2 type (BL, BZ)
Interface unit		UKTF3

Operation chart



Mounting hole size



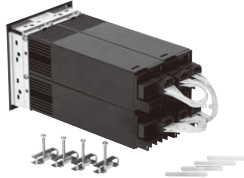
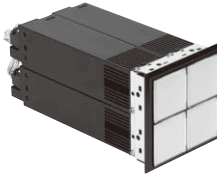


ANNUNCIATOR RELAY

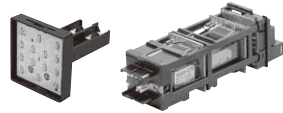
XK TYPE

STANDARD PRODUCTS

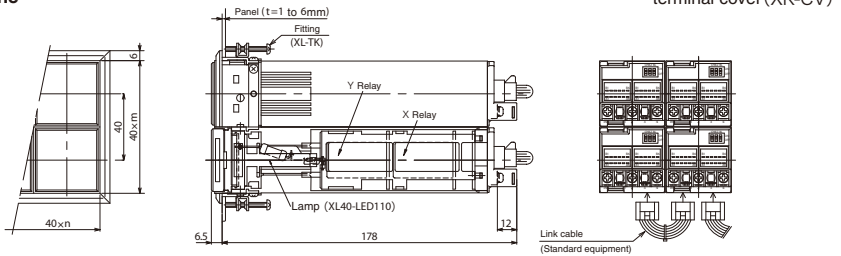
XK44-07



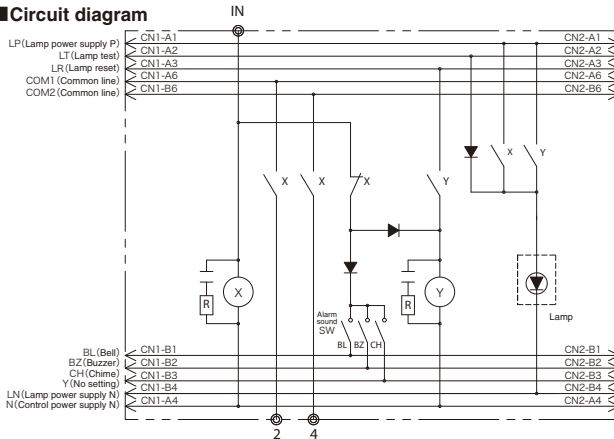
■ Lamp, Inner element



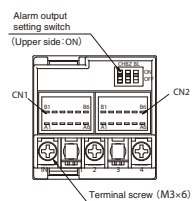
■ Outline



■ Circuit diagram



■ Rear side

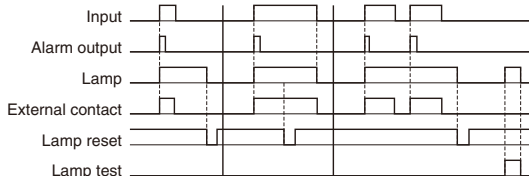


■ Function

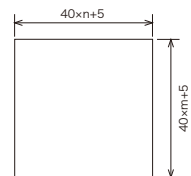
External output	2 a Contact
Output	b Contact
Alarm Type	Pulse output
Sound	3 type (BL, BZ, CH)
Input holding circuit	available

■ Operation chart

Momentary input Continuous input (Self return) Consecutive input



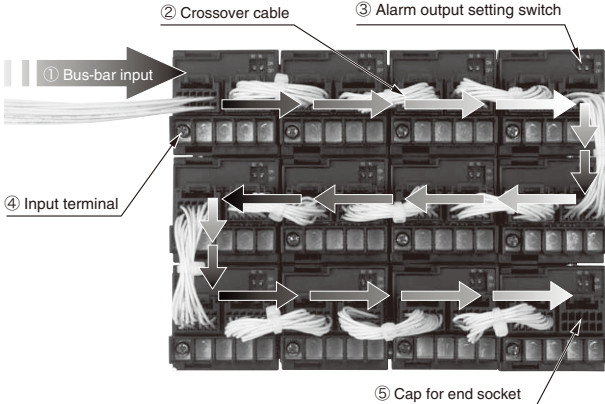
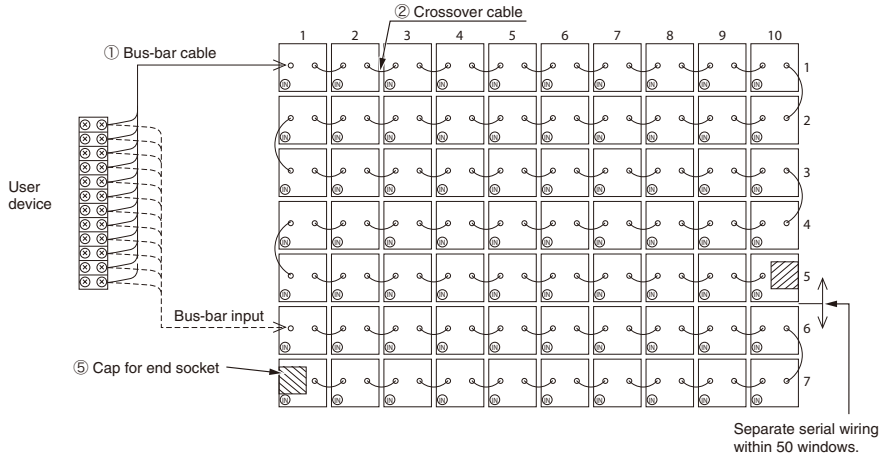
■ Mounting hole size



TECHNICAL DATA

Please refer to the following examples for many unit wiring ways.

■ Example of wiring (XK44)



- ① Bus-bar cable (Individual sale)
Code : XKK44-□□-14□□□
- ② Crossover cable (Attachment)
Code : XKK44-11008Y
- ③ Alarm output setting switch
BL/BZ/CH/Y
- ④ Input terminal
- ⑤ Cap for end socket (Individual sale)
Code : XK44-CAP

* Maximum unit number of skipping
with standard crossover cable.

XK22	2 units
XK33	1 unit
XK44	1 unit

■ Precautions

- Install products and alarm output setting switch under the no voltage condition.
- Use applicable wires for connection.
- Install this product considering heat influence to adjacent products.
- When many input signals come at the same time, relay characteristics change by temperature rise.
- In case of many unit installation, consider vibration or shock among transportation, and reinforce the mounting panel or do other operation.
- This product is exchangeable partly such as a element (relay and terminal) and an LED unit. In case of exchange caused by malfunction, disconnect them by using applicable tools.



ANNUNCIATOR RELAY

XK TYPE

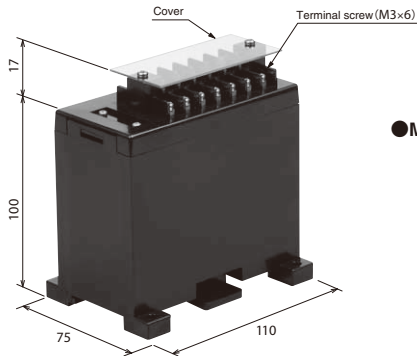
ACCESSORIES

Interface unit

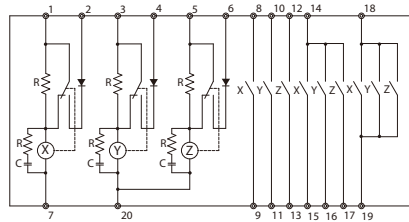
●How to order

UKTG-S DC110V

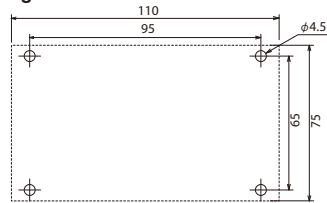
Basic type Terminal type Rated voltage



●Circuit drawing



●Mounting hole size



* Mounting on DIN rail is also available

Interface unit

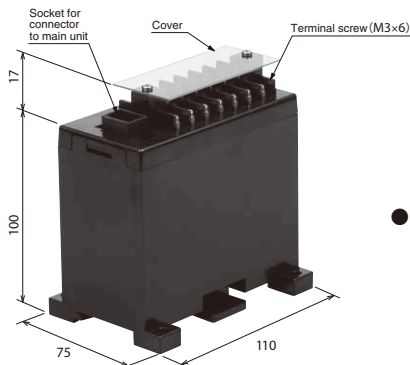
●How to order

UKTF-S-DC110V

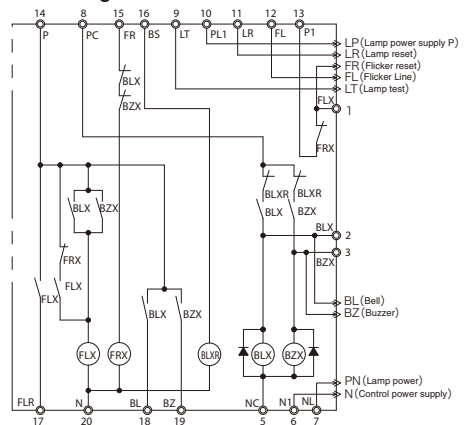
Basic type Terminal type Rated voltage

Specification

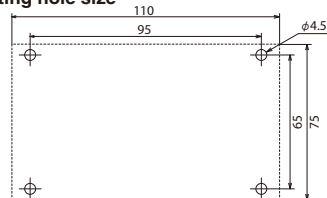
- | | |
|---|------------------|
| 2 | Only for XK22-02 |
| 3 | Only for XK44-06 |



●Circuit drawing



●Mounting hole size



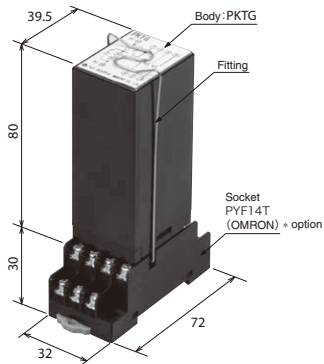
* Mounting on DIN rail is also available

Interface unit

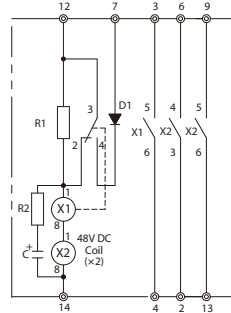
●How to order

PKTG - DC110V

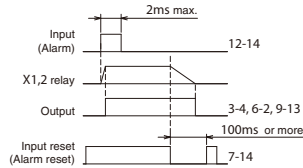
Basic type Rated voltage (110V DC: 100 / 110V DC)



●Circuit drawing



●Time chart

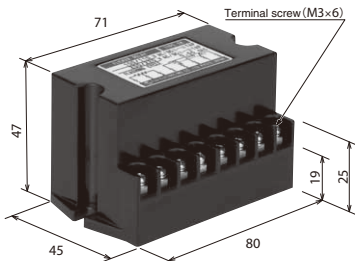


Flicker relay unit

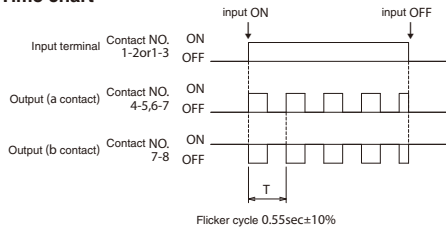
●How to order

FK - 110/220

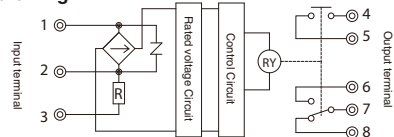
Basic type Rated voltage (common AC / DC)



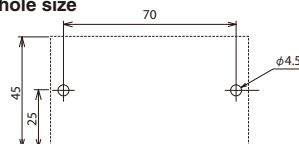
●Time chart



●Circuit drawing



●Mounting hole size





ANNUNCIATOR RELAY

XK TYPE

ACCESSORIES

LED Unit (Applicable type : XK22, XK33, XK44)

(Order unit: 10)



● How to order

XL40-LED024-R

Basic type

Type	Code	Size (mm)
XK22	XL20	24×24
XK33	XL3040	30×30
XK44	XL40	40×40

Rated voltage

Code	Voltage
024	24V DC
110	100 / 110V DC

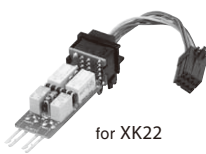
Display color

Code	Color	Code	Color
R	Red	G	Green
O	Orange	Y	Yellow
W	White	B	Blue

* Check the main circuit voltage for power supply voltage.

Inner element (Applicable Type : XK22, XK33, XK44)

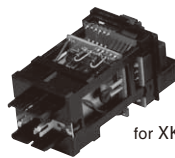
(Order unit: 1)



for XK22



for XK33



for XK44M



for XK44

● How to order

XK22-01S DC024-ELMT

Basic type

Type	Code
XK22	01
XK33	02
XK44M	04
XK44	05

Circuit code

XK22	XK33	XK44
01	—	01
02	—	03
—	04	04
—	—	05
—	—	06
—	—	07

Terminal type

Code	Spec
S	Screw
F	Faston

Rated voltage^{*)}

Code	Voltage
024	24V DC
110	100 / 110V DC

*1 Basic type is XK44M.

*2 Check the main circuit voltage for power supply voltage.
Only 100 / 110V DC is available for XK44-05.

Lens

(Order unit: 10)



Applicable Type			
	XK22	XK33	XK44
Red	XL20-LENS-R	XL30-LENS-R	XL40-LENS-R
Orange	XL20-LENS-O	XL30-LENS-O	XL40-LENS-O
White	XL20-LENS-W	XL30-LENS-W	XL40-LENS-W
Green	XL20-LENS-G	XL30-LENS-G	XL40-LENS-G
Yellow	XL20-LENS-Y	XL30-LENS-Y	XL40-LENS-Y
Blue	XL20-LENS-B	XL30-LENS-B	XL40-LENS-B

Cap for end socket (Applicable type: XK44)

●XK44-CAP

(Order unit: 1)



Terminal cover (Applicable type: XK44)

●XK-CV

(Order unit: 10)



* Standard equipment

Removal tool for inner element

(Order unit: 1)



* XK44-Q1

code	Type
XK22	XK22-Q1
XK33	XK33-Q1
XK44	XK44-Q1

Removal tool (Lens, LED unit)

●XL-NQ

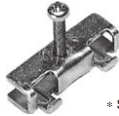
(Order unit: 10)



Fitting to a panel

(Order unit: 10)

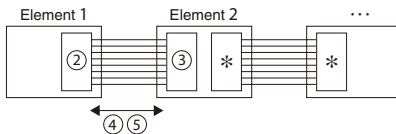
●XL-TK



* Standard equipment

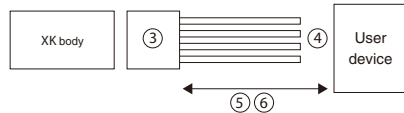
Crossover cable

(Order unit: 1)



Bus input cable

(Order unit: 1)



How to order

XKK44-11 008Y

① ② ③ ④ ⑤

- ① : Basic type (XKK22, XKK33, XK44)
- ② : Element 1 side cable processing (1: Receptacle housing)
- ③ : Element 2 side cable processing (1: Receptacle housing)
- ④ : Cable length (008: 80mm, 01: 100mm, 02: 200mm)
(05: 500mm, 10: 1000mm, 15: 1500mm)
- ⑤ : Cable color (Y: Yellow, BL: Blue)

(Standard equipment for XK44 is *XKK44-11008Y₁.)

How to order

XKK44-□□-1410Y

① ② ③ ④ ⑤ ⑥

- ① : Basic type (XK22, XK33, XK44)
- ② : Circuit code (No need to choose for XK22 and XK33)
- ③ : XK body side cable processing (1: Receptacle housing)
- ④ : User device side cable processing (4: Cut off processing)
- ⑤ : Cable length (008: 80mm, 01: 100mm, 02: 200mm)
(05: 500mm, 10: 1000mm, 15: 1500mm)
- ⑥ : Cable color (Y: Yellow, BL: Blue)*

(Standard color for XK33 and XK44 are *Y₁ and for XK22 is *M(Mix)₁.)



XK TYPE

TECHNICAL INFORMATION

STANDARD

JEM 1406	(2002)	Fault indication systems for switchgear and controlgear assemblies
JEC-2500	(1987)	Protective relays for electric power systems
B-402	(1997)	Digital Protective Relays and Protective Equipment
NECA C 8151	(2002)	Indicator lights for industry use
JIS C 2811	(1995)	Terminal Blocks for Industrial and Similar Use
JIS C 8201-1	(1998)	Low-voltage switchgear and controlgear -- Part 1: General rules

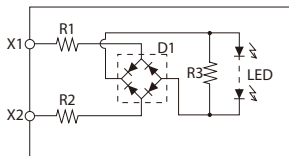
* This product is tested by the applicable items in the above standards.

XK'S INDICATOR

XL 2000 / XL 3040 / XL 4000 type standard LED are adopted for XK series. One point lighting spec and inclination window spec are available for XK44 as special specification. Parts exposed outside panels (Lens, Frame, Body case) are made from the anti-flammable material (oxygen index: 26 or more), and compliant to fire low.

CIRCUIT INSIDE THE INDICATOR

■ Circuit diagram 24V DC, 100 / 110V DC rated voltage products



R1: Limit Resistor 1
R2: Limit Resistor 2
R3: Bypass resistor
D1: Rectifier diode
LED: Light Emitting diode

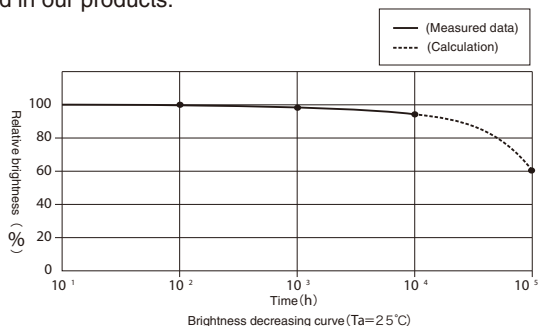
LIFE OF LED

■ Lifetime curve of LED element used in our products.
(Representative case)

LED products usually decrease the brightness as electrifying time passes.

We estimate the point of time that LED brightness decreases by half from default as the lifetime.

(The decrease depends on the condition of temperature, humidity, etc.)



Order sheet for XK Type Annunciator Relay

TERMINAL BLOCK
A
CONNECTOR
B
CONTROL CENTER PARTS
C
TEST TERMINAL
D
PILOT LAMP & INDICATOR
E
SWITCH
F
ELECTRONIC DEVICES
G

Date or order (month) / (day) / (year)

Company name	Person in charge			
E-mail Address	TEL			
Type code	Basic type No. of columns No. of rows Power supply voltage Indicator color Lens color			
Quantity	units	Delivery time	DD / MM / YY	Order number

- Please enclose the following layout drawing with a continuous line as the shape of an assembled unit.
- Please select indicator color from color codes R, O, W, G, Y, B.

Drawing for indicator color and crossover cable

Indicator color in no sign is color.

Rows \ Columns	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
01																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
02																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
03																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
04																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
05																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
06																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
07																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
08																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
09																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
10																				
Crossover cable	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

Example

Indicator color in no sign is color.

Rows \ Columns	01	02	03	04	05	06	07
01			G	W	O		
Crossover cable	o	o	o	o	o	o	o
02							
Crossover cable	o	o	o	o	o	o	o

• Maximum unit number of skipping by standard crossover cable.

XK22	2 Units
XK33	1 Unit
XK44	1 Unit