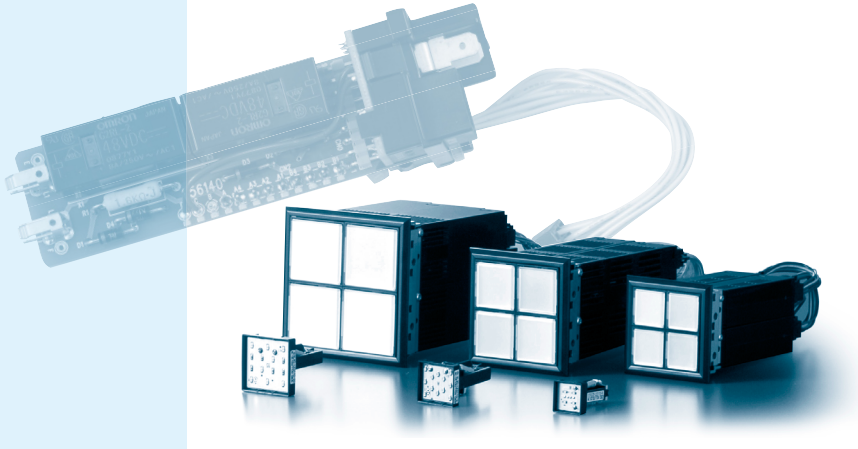


Indicators built in relays help reduction of auxiliary relays in the panel



● 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)

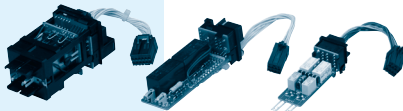
24mm, 30mm, 40mm square windows are available

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



Easy wiring by built in relays

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



Easy setting of alarm output

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



Various sequence type are available

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

A new structural lens

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

- Insertable size of label film (mm)
- XK44TYPE ... (H)35.0x(W)33.5
- XK33TYPE ... (H)25.0x(W)23.5
- XK22TYPE ... (H)19.0x(W)17.5



SPECIFICATIONS (Rating, Performance / Normal Service condition)

Specification	XK22	XK33	XK44	
Rating	Rated insulation voltage (Ui)	250V AC / DC		
	Rated operating voltage	24V DC	100/110V DC	
	Input signal time	20ms or more (at rated voltage)		
	Insulation resistance	10MΩ or more (between electrical circuit and ground)		
	Power frequency withstand voltage	AC2,000V 1min (between electrical circuit and ground)		
Performance	Impulse withstand voltage	±4,500V(1.2 / 50μs) each pole (between electrical circuit and ground)		
	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 Time:30sec (3 axial direction)		
		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)	around 1W	around 1W (110V DC)	around 2W (110V DC, 1 relay) around 3W (110V DC, 2 relays)
	Operating temperature	0 to +40°C		
	Storing temperature	-20 to +60°C		
	Relative humidity	30 to 80%		
Altitude	2,000m max.			

HOW TO ORDER

[XK22TYPE] **XK22 - 01 S - 02 × 02 - DC024 - O W**^{*1}

Basic type: XK22, Circuit code: 01, Terminal type: S, No. of columns: 02, No. of rows: 02, Rated operating voltage: DC024, Display color: O, Lens: W

Terminal type	
Code	Spec
S	Screw M3x6
F	Faston # 187

Rated operating voltage	
Code	Voltage
DC024	24V DC

Display color			
Code	Color	Code	Color
R	Red	Y	Yellow
O	Orange	B	Blue
W	White	M	Mix
G	Green		

[XK33TYPE] **XK33 - 04 S - 02 × 02 - DC110 - O W**^{*1}

Basic type: XK33, Circuit code: 04, Terminal type: S, No. of columns: 02, No. of rows: 02, Rated operating voltage: DC110, Display color: O, Lens: W

Terminal type	
Code	Spec
S	Screw M3x6
F	Faston # 187

Rated operating voltage	
Code	Voltage
DC110	100 / 110 DC

Display color			
Code	Color	Code	Color
R	Red	Y	Yellow
O	Orange	B	Blue
W	White	M	Mix
G	Green		

[XK44TYPE] **XK44 - 03 S - 02 × 02 - DC110 - O W**^{*1}

Basic type: XK44, Circuit code: 03, Terminal type: S, No. of columns: 02, No. of rows: 02, Rated operating voltage: DC110, Display color: O, Lens: W

Terminal type	
Code	Spec
S	Screw M3x6
F	Faston # 187

Rated operating voltage	
Code	Voltage
DC024	24V DC
DC110	100 / 110 DC
MIX	Mix ^{*1}

Display color			
Code	Color	Code	Color
R	Red	Y	Yellow
O	Orange	B	Blue
W	White	M	Mix
G	Green		

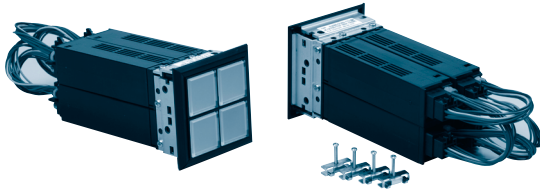
*1 The choice of all white lens is also available.

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

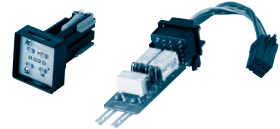
*3 In case the controll power supply voltage and lamp voltage are different, please consult with us (Some types are available).

STANDARD PRODUCTS

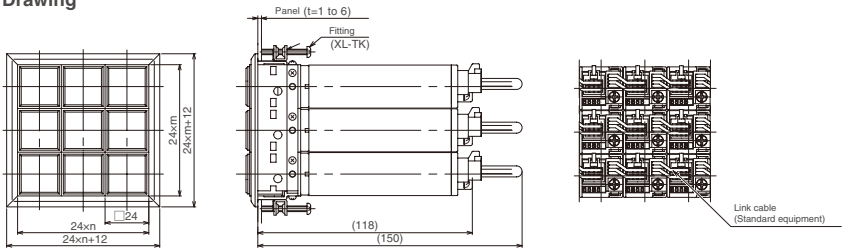
XK22-01



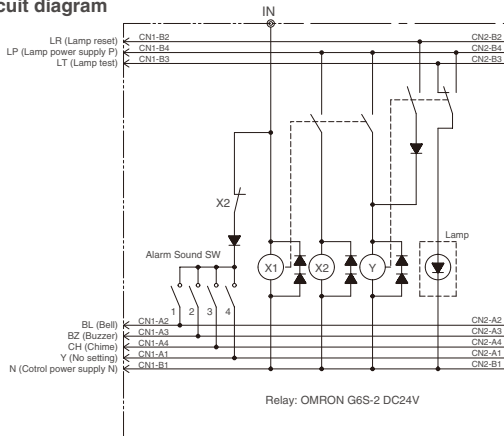
Lamp, Inner element



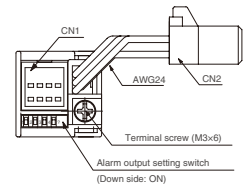
Drawing



Circuit diagram



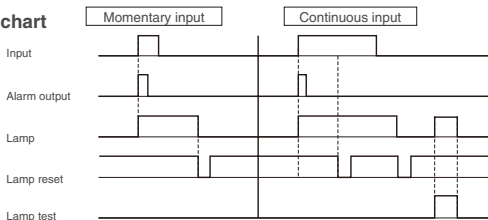
Rear side



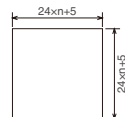
Function

External output		—
Alarm	Output	b contact
	Type	Pulse output
	Sound	4 type
Input holding circuit		—

Operation chart



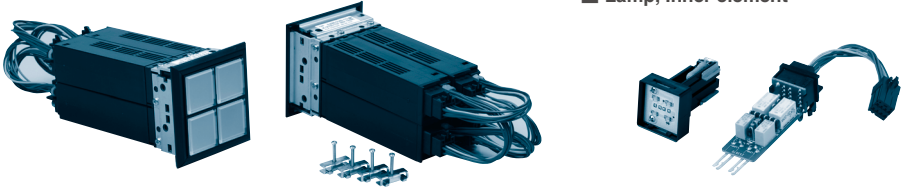
Mounting hole size



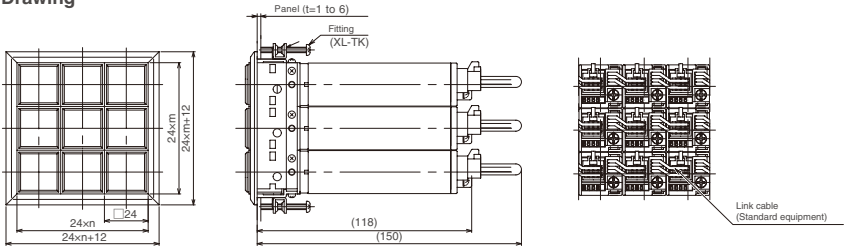
STANDARD PRODUCTS

XK22-02

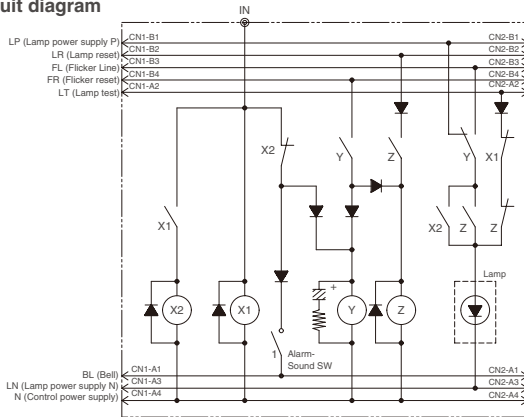
Lamp, Inner element



Drawing

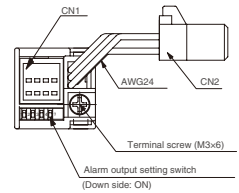


Circuit diagram



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

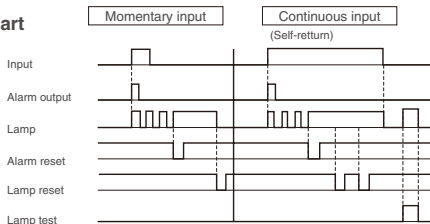
Rear side



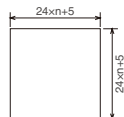
Function

External output	—	
Alarm	Output	b contact
	Type	Pulse output
	Sound	1 type
Predicated I/F	UKTF2	

Operation chart

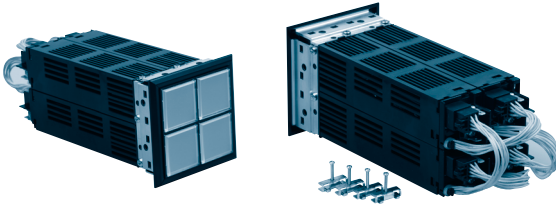


Mounting hole size

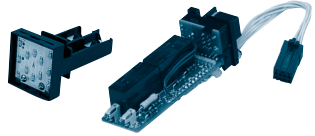


STANDARD PRODUCTS

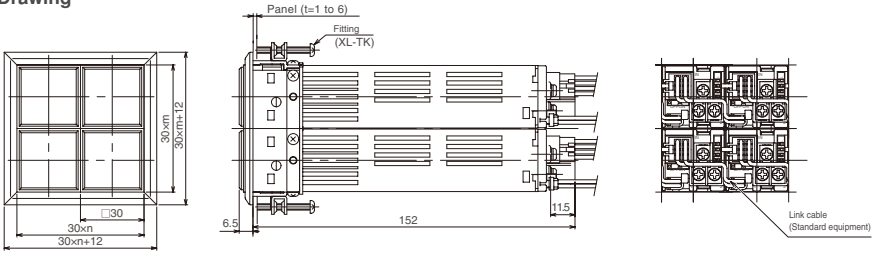
XK33-04



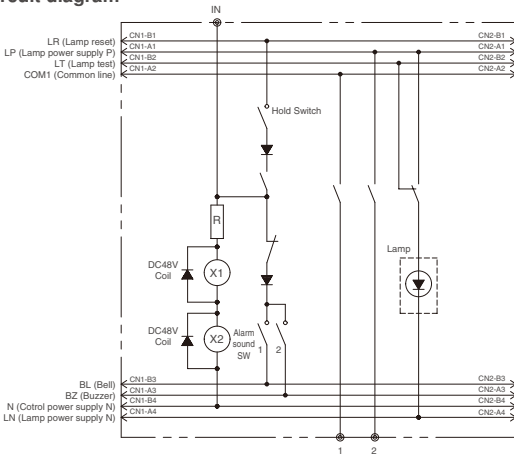
Lamp, Inner element



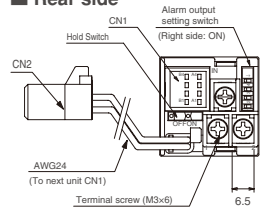
Drawing



Circuit diagram



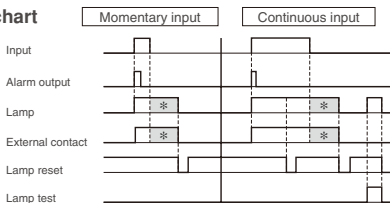
Rear side



Function

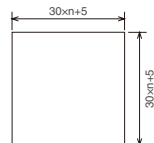
External output	2a contact	
	Output	b contact
Alarm	Type	Pulse output
	Sound	2 type
Input holding circuit	available	

Operation chart



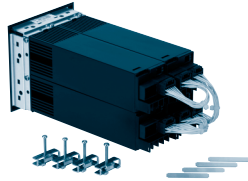
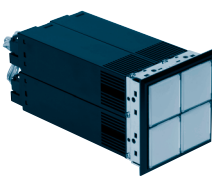
* When hold switch is ON

Mounting hole size

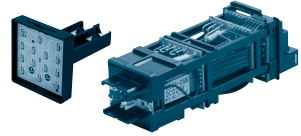


STANDARD PRODUCTS

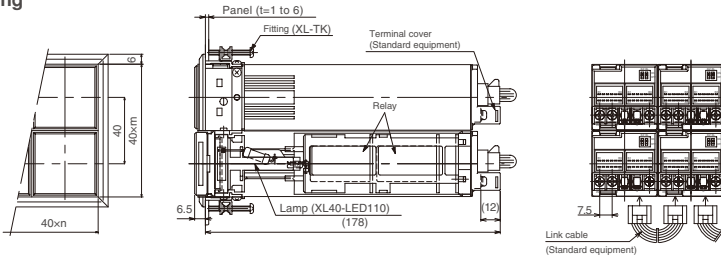
XK44-01



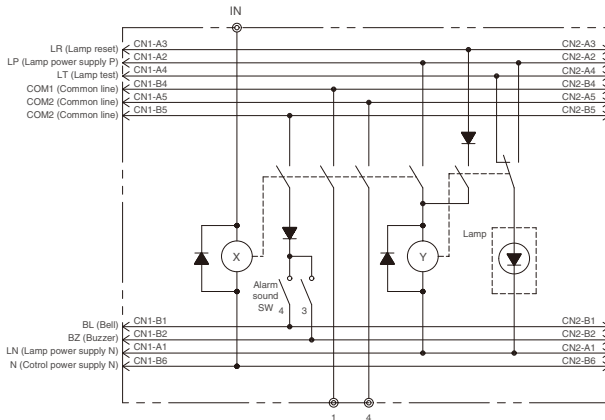
Lamp, Inner element



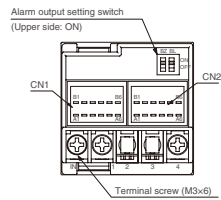
Drawing



Circuit diagram



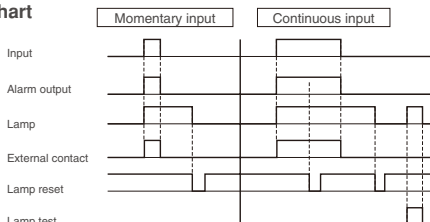
Rear side



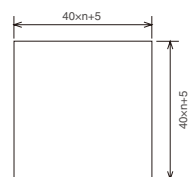
Function

External output	2a contact	
Output	b contact	
Alarm	Type	Sync with input
	Sound	2 type
Input holding circuit	—	

Operation chart

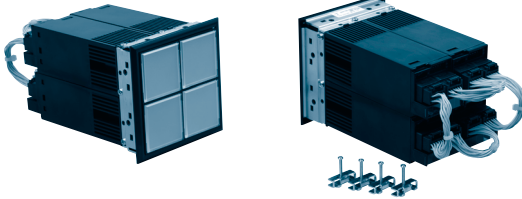


Mounting hole size

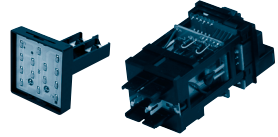


STANDARD PRODUCTS

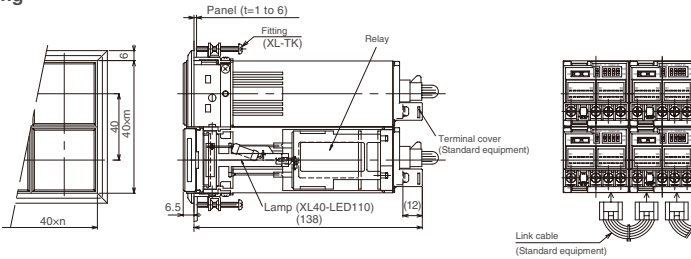
XK44M-03



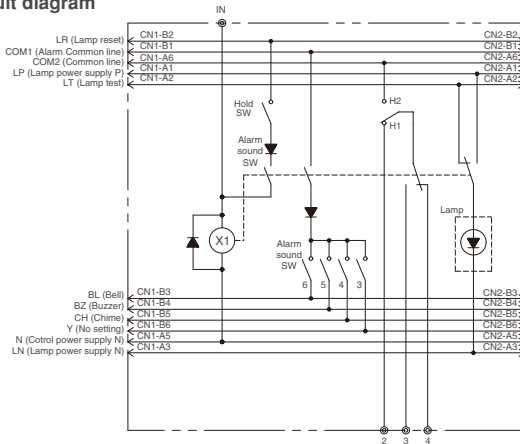
Lamp, Inner element



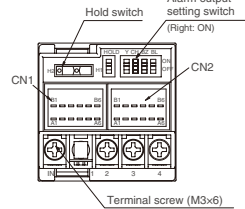
Drawing



Circuit diagram



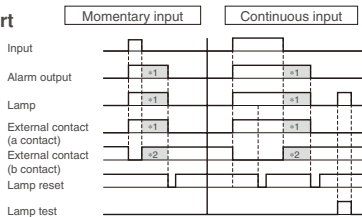
Rear side



Function

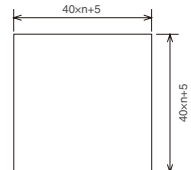
External output	1c contact
Alarm	Output Type Sound
Input holding circuit	available

Operation chart



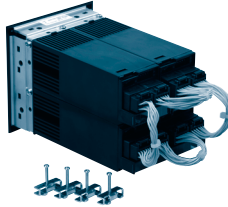
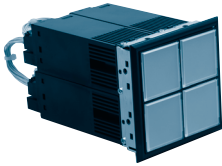
* When hold switch is OFF, +1 and +2 indicate no hatching line.
When hold switch is ON, +1 and +2 indicate outline of hatching area.

Mounting hole size

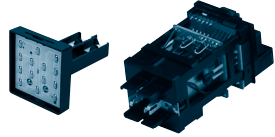


STANDARD PRODUCTS

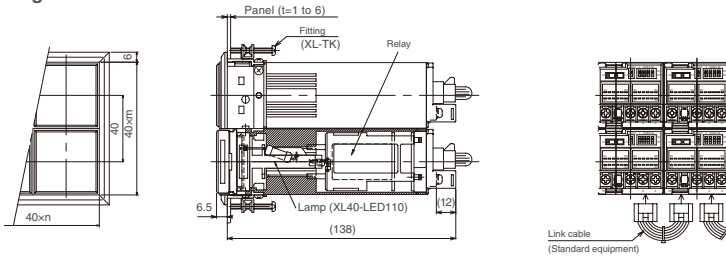
XK44M-04



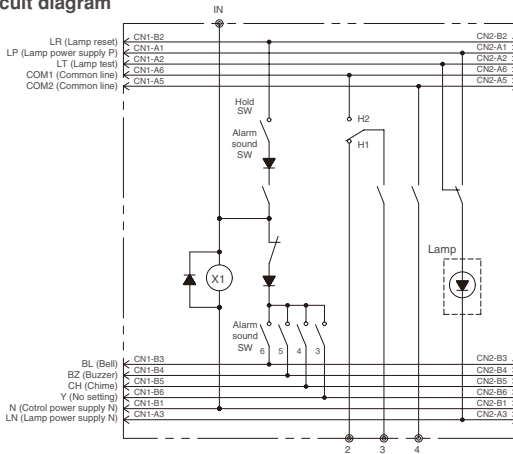
Lamp, Inner element



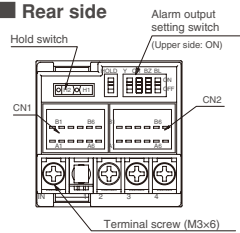
Drawing



Circuit diagram



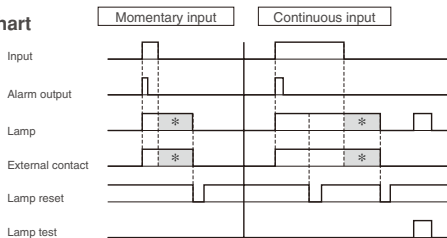
Rear side



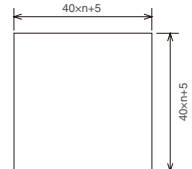
Function

External output	Output	2a contact
	b output	
Alarm	Type	Pulse output
	Sound	4 type
	Input holding circuit	available

Operation chart

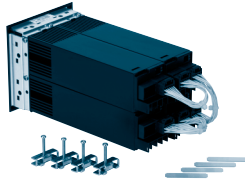
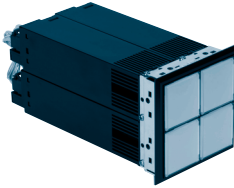


Mounting hole size

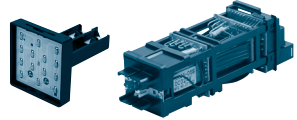


STANDARD PRODUCTS

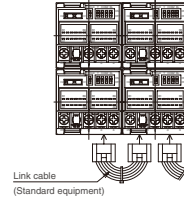
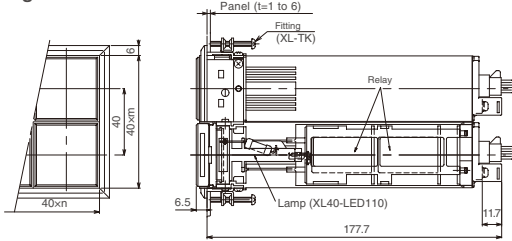
XK44-05



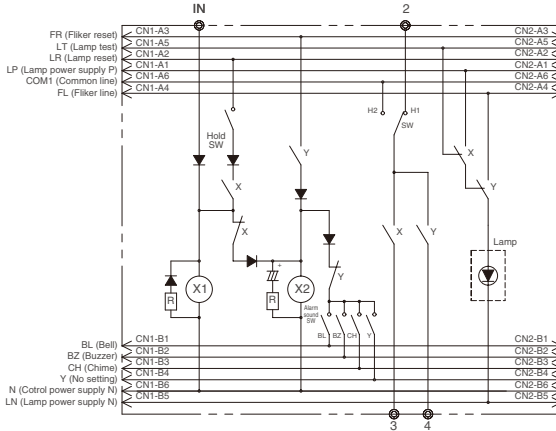
Lamp, Inner element



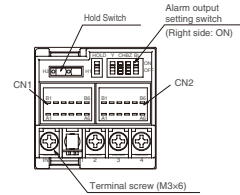
Drawing



Circuit diagram



Rear side

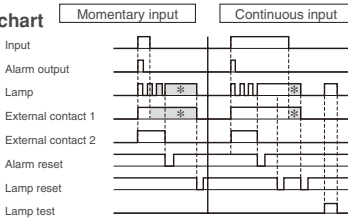


Function

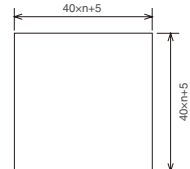
External output	2a Contact	
Alarm	Output	b Contact
	Type	Pulse output
	Sound	4 type
Input holding circuit	available	

* Rated operating voltage: 100 / 110V DC

Operation chart

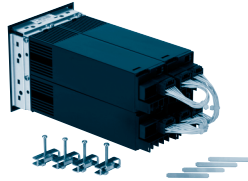
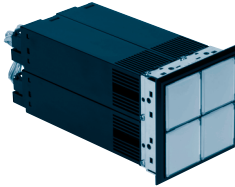


Mounting hole size

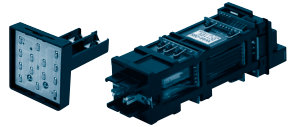


STANDARD PRODUCTS

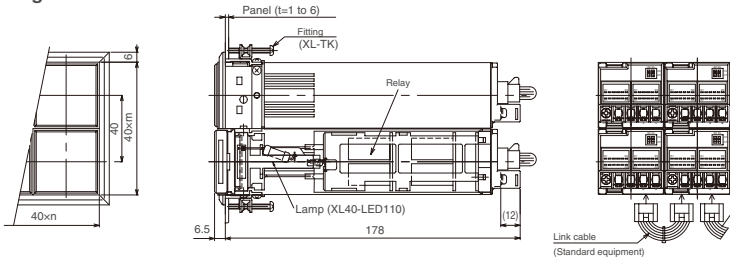
XK44-06



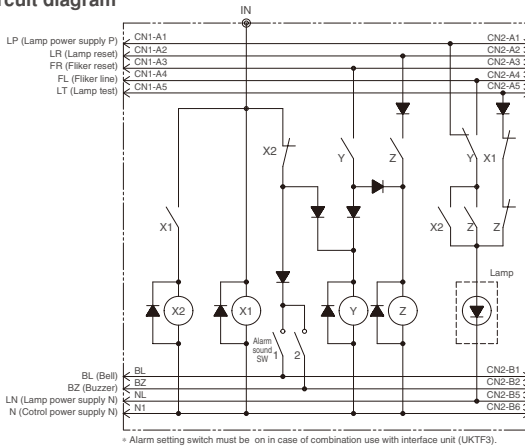
Lamp, Inner element



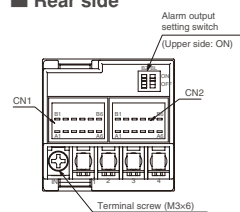
Drawing



Circuit diagram



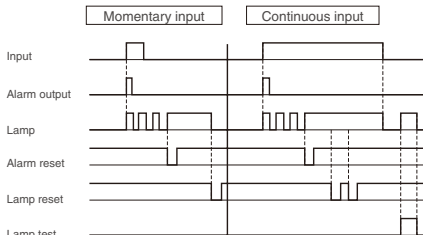
Rear side



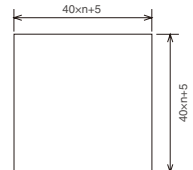
Function

External output		—
Alarm	Output	b Contact
	Type	Pulse output
	Sound	2 type
Input holding circuit		UKTF3

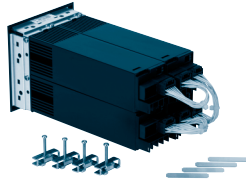
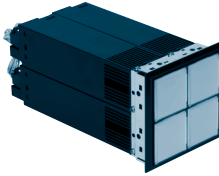
Operation chart



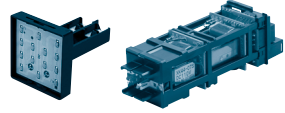
Mounting hole size



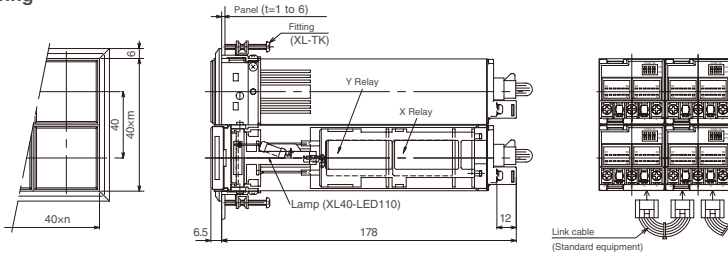
XK44-07



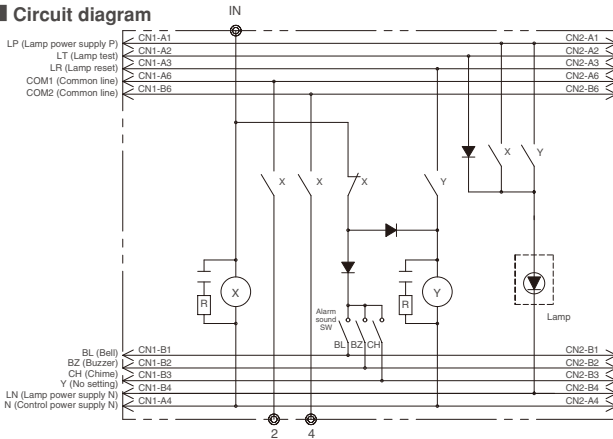
Lamp, Inner element



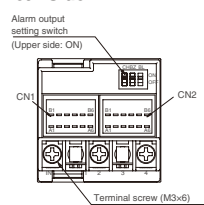
Drawing



Circuit diagram



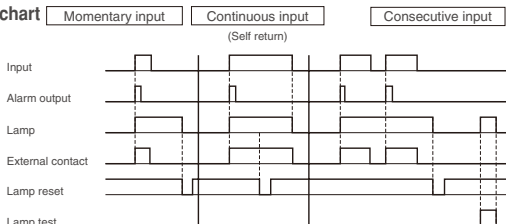
Rear side



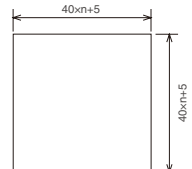
Function

External output	2a Contact
Output	b Contact
Alarm Type	Pulse output
Sound	4 type
Input holding circuit	available

Operation chart



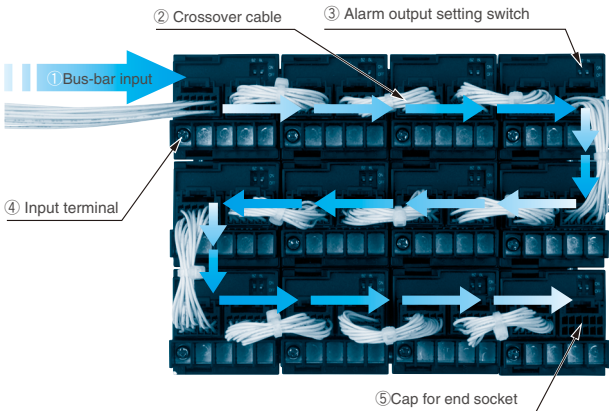
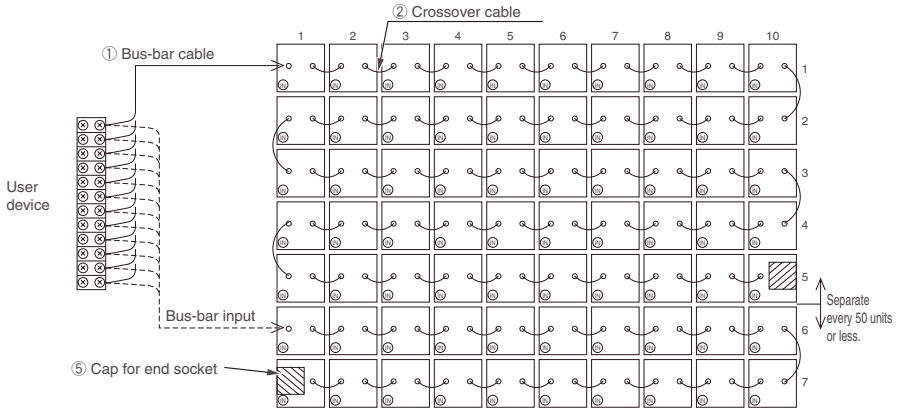
Mounting hole size



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	2units
XK33	1 unit
XK44	1 unit

Precautions

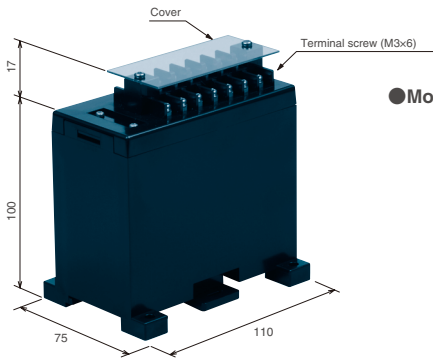
- Install products and alarm output setting switch under the no voltage condition.
- Use applicable wires for connection.
- Install this product considering heat influence to adjacent products.
- When many input signals come at the same time, relay characteristics change by temperature rise.
- In case 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.

Interface unit (Type : UKTG-S)

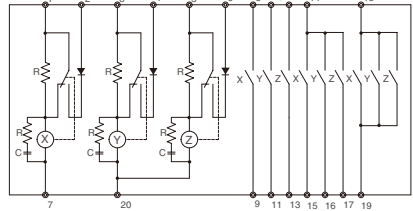
Type code

UKTG - S DC110V

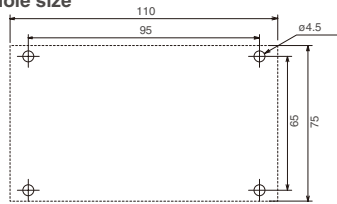
Basic type Terminal type Rated voltage



Circuit drawing



Mounting hole size



* Mounting on DIN rail is also available

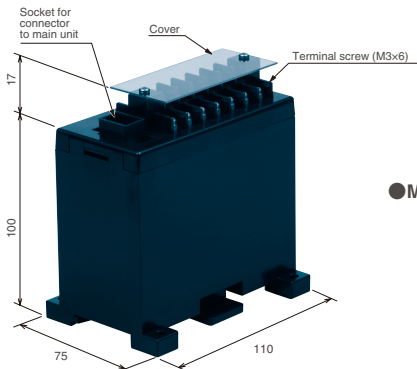
Interface unit (Type : UKTF□-S)

Type code

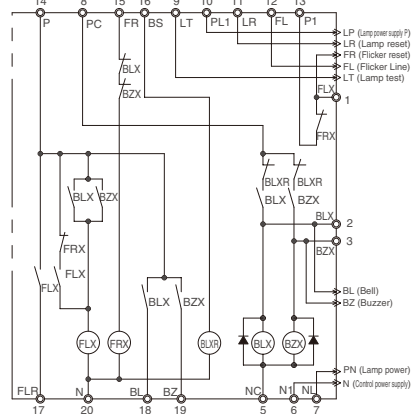
UKTF □ - S - DC110V

Basic type Specification Terminal type Rated voltage

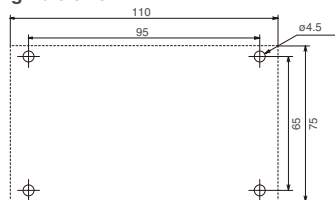
Specification	Terminal type
2	Only for XK22-02
3	Only for XK44-06



Circuit drawing



Mounting hole size



* Mounting on DIN rail is also available

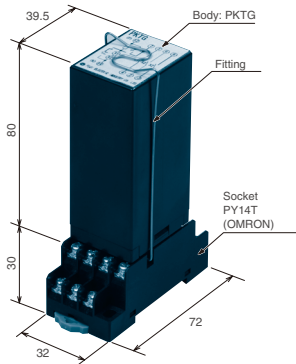
ACCESSORIES

Interface unit (Type : PKTG)

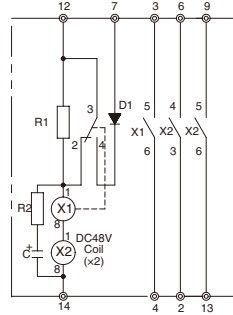
Type code

PKTG - DC110V

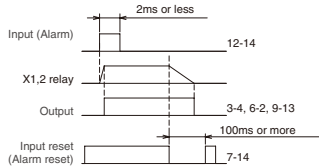
Basic type Rated voltage (110V DC : 100 / 110V DC)



Circuit drawing



Time chart

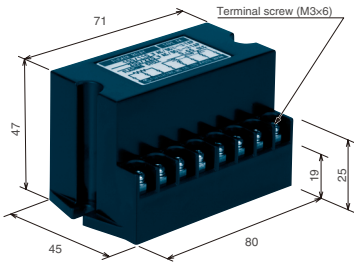


Flicker relay unit (Type : FK)

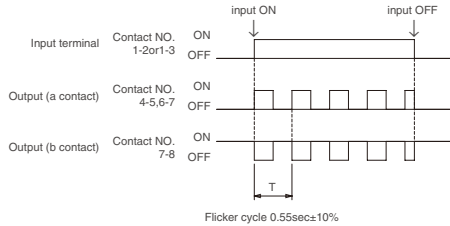
Type code

FK - 110 / 220

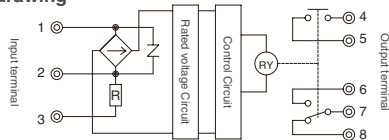
Basic type Rated voltage (common AC / DC)



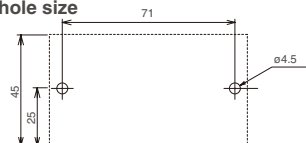
Time chart



Circuit drawing

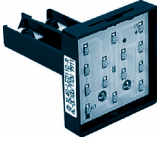


Mounting hole size



ACCESSORIES

LED Unit (Applicable type : XK22, XK33, XK44) [Order unit : 10]



Type code **XL40 - LED024 - R**

Basic type

Type	Code	Size (mm)
XK22	XL20	24x24
XK33	XL30	30x30
XK44	XL40	40x40

Rated voltage

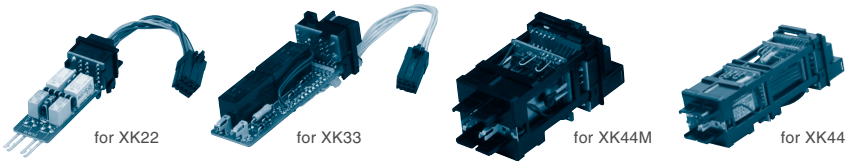
Code	Voltage
024	24V DC
110	100 / 110V DC

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]



Type code **XK22 - 01 S DC024 -ELMT**

Basic type

Type	XK22	XK33	XK44
XK22	01	-	01
XK33	02	-	03 ^{*1}
XK44M	-	04	04 ^{*1}
XK44	-	-	05
	-	-	06
	-	-	07

Circuit code

Terminal type

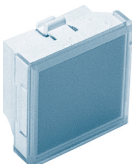
Code	Spec	Code	Voltage
S	Screw	024	24V DC
F	Faston	110	100 / 110V DC

Rated voltage^{*2}

*1 Basic type is XK44M.

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

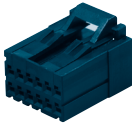
Lens [Order unit : 10]



	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

- XK44-CAP [Order unit: 1]



Terminal cover (Applicable type : XK44)

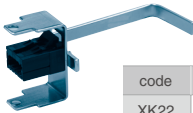
- XK-CV [Order unit: 10]



* Standard equipment

Removal tool for inner element

[Order unit: 1]



XK44-Q

code	Type
XK22	XK22-Q
XK33	XK33-Q
XK44	XK44-Q

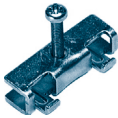
Removal tool (Lens, LED unit)

- XL-NQ [Order unit: 10]



Fitting to a panel

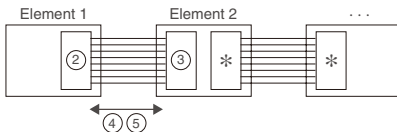
- XL-TK [Order unit: 10]



* Standard equipment

Crossover cable

[Order unit: 1]



●Type code

XKK44 - 11 008 Y

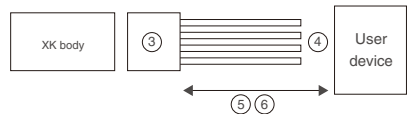
① ②③ ④ ⑤

- ① : Basic type (XKK22, XKK33, XKK44)
- ② : Element 1 side cable processing (1: Receptable housing)
- ③ : Element 2 side cable processing (2: Receptable 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 XKK44-11008Y.

Bus input cable

[Order unit: 1]



●Type code

XKK44 - □□ - 1410 Y

① ② ③ ④

- ① : Basic type (XKK22, XKK33, XKK44)
- ② : Circuit code (No need to choose for XKK22 and XKK33)
- ③ : XK body side cable processing (1: Receptade 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 "Y" and for XK22 is "M" (Mix).

[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

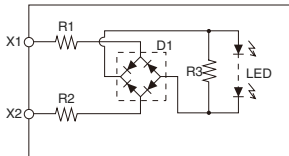
* This product is tested by the applicable items in the above standards.

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

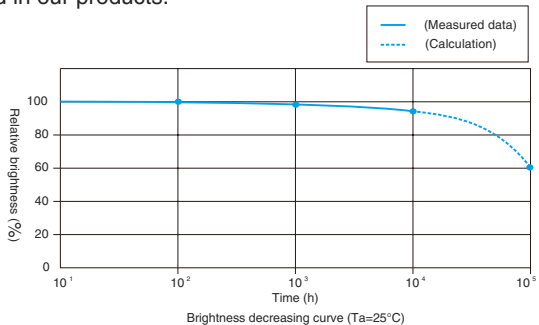


R1: Limit Resistor 1
 R2: Limit Resistor 2
 R3: Bypass resistor
 D1: Rectifier diode
 LED: Light Emitting diode

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 estimates 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

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

Company name					Person in charge					
E-mail Address					TEL					
					FAX					
Type code	Basic type	No. of columns	No. of rows	Power supply voltage	Indicator color	Lens color				
XK							M			
Quantity	units	Delivery time			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 R color.

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

* Maximum unit number of skipping by standard crossover cable.

XK22	2 Units
XK33	1Unit
XK44	1Unit