



LED INDICATOR

ROUND TYPE LED INDICATOR



FEATURES

■ Wide variety for different uses

A broad range of models from 10 to 30 mm in diameter are available. The brightness equivalent to that of an incandescent lamp has been achieved through our original technological efforts.

■ Compatible with different types of power sources

These indicators comply with requirements of various power sources which allows connections without decreasing voltage from the control power supply for each facility.

SPECIFICATIONS (RATINGS, PERFORMANCE)

Specification \ Type	TMPN · TMPH	TSPA	HXL	JXL	PXL
Rated insulation voltage (Ui)	250V				
Mounting hole size	$\phi 10.1^{+0.2}$	$\phi 16.2^{+0.2}$	$\phi 22.3^{+0.4}$	$\phi 25.5^{+0.5}$	$\phi 30.5^{+0.5}$
Screw size	Faston tab #110	M3x6	M3.5x8	M3.5x8	M3.5x8
Rated current	8mA	6mA	11mA	11mA	11mA, 22mA (12V only)
Rated impulse withstand voltage	$\pm 4.5kV$ / $\pm 7kV$ 3 times for each pole (1.2 / 50 μ s) (Whole live part to mounting panel)				
Recognition distance	10m (1,000 LX in illuminance on applicable panel)				
Power-Frequency withstand voltage	2,000V AC		2,500V AC 1 min.		
Operating temperature	-20 to 55°C	-20 to 55°C	-20 to 40°C		
Storing temperature	-25 to 75°C	-30 to 75°C	-25 to 65°C		
Altitude	2,000 m max.				
Weight	Approx. 15g	Approx. 20g	Approx. 20g	Approx. 20g	Approx. 30g

HOW TO ORDER

[TMPN • TMPH type]

TMPN - 110 - R B (E)

No.	Item	Code	Detail	Note
①	Basic type	TMPN	φ 10 series standard luminance type	—
		TMPH	φ 10 series high luminance type	—
②	Power supply voltage	005	5V AC / DC	
		012	12V AC / DC	
		024	24V AC / DC	
		048	48V AC / DC	—
		063	63.5V AC / DC	
		110	100 / 110V AC / DC	
③	Lens color	R	Red	TMP-LED□-R
		G*1	Green	TMP-LED□-G
		O	Orange	TMP-LED□-O
		W*2	Milky white	TMP-LED□-Y
		BL*1	Blue (TMPH only)	TMP-LED□-BL
④	Frame color	B	Black (N1.5)	—
		(E)	Round Flat	
⑤	Lens form	(S)	Round	—

*1 For G (green) and B(blue), 5V specifications cannot be manufactured.
*2 W (Milky white) is like the amber color of an incandescent bulb.

[TSPA type]

TSPA - AC110 - R B (E) - GPT

No.	Item	Code	Detail	Note
①	Basic type	TSPA	φ 16	—
		DC012	12V DC	
②	Rated voltage	DC024	24V DC	
		DC030	30V DC	
		DC048	48V DC	
		DC110	100 / 110V DC	
		DC125	125V DC	—
		DC220	200 / 220V DC	
		AC024	24V AC	
		AC030	30V AC	
		AC048	48V AC	
		AC063	63.5V AC	
		AC063	110 / 3V*3 AC	GPT only
		AC110	100 / 110V AC	—
		AC110	190/3V*3 AC	GPT only
		AC120	208 / 3V*3 AC	GPT only
		AC125	125V AC	
		AC220	200 / 220V AC	—
③	Lens color	R	Red	TS-LEDA-R
		G	Green	TS-LEDA-G
		Y	Yellow	TS-LEDA-Y
		O	Orange	TS-LEDA-O
		W*2	Milky white	TS-LEDA-Y
		BL	Blue	TS-LEDA-BL
		C	Clear	TS-LEDA-O
		T	Clear	TS-LEDN-CO GPT only
④	Frame color	B	Black	—
		(E)	Round Flat	
⑤	Lens form	(S)	Round	—
		(E)	Round Flat	
⑥	Special specification	No code	Standard	—
		GPT	For grounding transformer	

*2 W (Milky white) is like the amber color of an incandescent bulb.

*3 See page B4 for operating voltage range for grounding transformer.



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HOW TO ORDER

[HXL · JXL type]

HXL - 110 - R B (S)

① ② ③ ④ ⑤

No.	Item	Code	Detail	Note
①	Basic type	HXL	φ 22	—
		JXL	φ 25	—
②	Power supply voltage	024	24V AC / DC	—
		048	48V AC / DC	—
		063	63.5V AC / DC	(HXL Only)
		110	100 / 110V AC / DC	—
		125	125V AC / DC	—
		220	200 / 220V AC / DC	—
③	Lens color	R	Red	—
		G	Green	—
		O	Orange	Standard color
		W*2	Milky white	—
		Y	Yellow	—
		B	Blue	Special color
		P	Pure white	(HXL Only)
④	Frame color	B	Black (N1.5)	—
⑤	Lens form	(S)	Round	—

*2 W (Milky white) is like the amber color of an incandescent bulb.

[PXL type]

PXL - 110 - R B (S)

① ② ③ ④ ⑤

No.	Item	Code	Detail	Note
①	Basic type	PXL	φ 30	—
		012	12V AC / DC	—
②	Power supply voltage	024	24V AC / DC	—
		048	48V AC / DC	—
		110	100 / 110V AC / DC	—
		125	125V AC / DC	—
		220	200 / 220V AC / DC	—
		③	Lens color	R
G	Green			Standard color
O	Orange			
W*2	Milky white			—
Y	Yellow			—
B	Blue			Special color
P*4	Pure white			—
④	Frame color	B	Black (N1.5)	—
		CR	Chrome	—
⑤	Lens form	(S)	Round	—
		(F)	Round Flat	—

*2 W (Milky white) is like the amber color of an incandescent bulb.

*4 For P (Pure white), only for products rated for supply voltage of 24V or higher.

LED chip number for HXL / JXL / PXL LED unit

* LED unit for JXL and PXL is common (PXL-LED).

Color	HXL	JXL	PXL
R (Red)	2	4	4
O (Orange)	2	4	4
W (Milky white)	2	4	4
Y (Yellow)	2	4	4
G (Green)	1	2	2
B (Blue)	1	2	2
P (Pure white)	1	2	2

LED chip



LED: 1



LED: 2



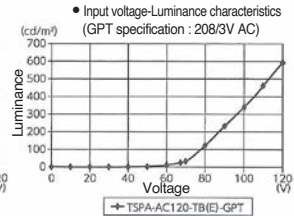
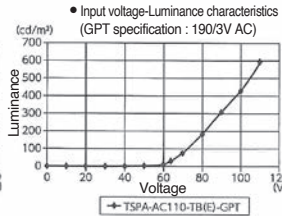
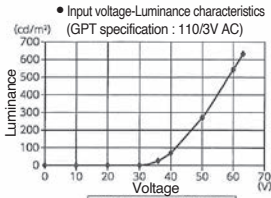
LED: 4

TSPA type GPT specifications for reference

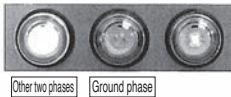
- Ground fault detection specifications for ground transformer (TSPA type GPT specifications) operational voltage range

Voltage	Operational voltage range		Rated current (At one-line ground)
	At Normal operation	At one-line ground	
AC063	36.6V AC to	63.5V AC	14mA MAX
AC110	63.3V AC to	110V AC	
AC120	69.3V AC to	120V AC	

- Lighting characteristing (TSPA type GPT specifications)



at ground ←→ at normal operation



When normal operation, all three phases light up as shown in the photo.
In the event of one-line ground fault, the ground fault phase turns off and the other two phases light up brightly.

* Both surface lens and LED element are clear.

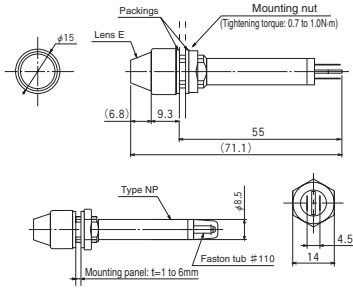


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STANDARD PRODUCTS

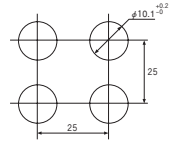
TMPN (φ 10)



● Applicable accessories

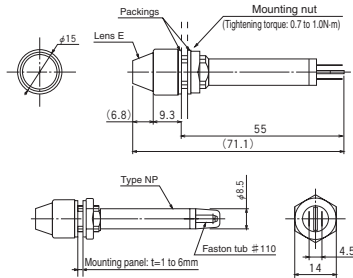
LED lamp	TMP-LEDN-□
Lens	TMP Lens E-□ (Round flat type) WMP Lens S-□ (Round type)
Tightening tool	TMP-Q

● Mounting hole size



TMPH (φ 10)

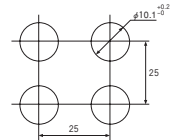
High-brightness type



● Applicable accessories

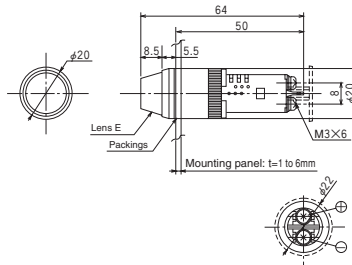
LED lamp	TMP-LEDH-□
Lens	TMP Lens E-□ (Round flat type) WMP Lens S-□ (Round type)
Tightening tool	TMP-Q

● Mounting hole size



TSPA (φ 16)

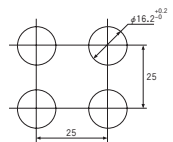
(GPT type is same shape)



● Applicable accessories

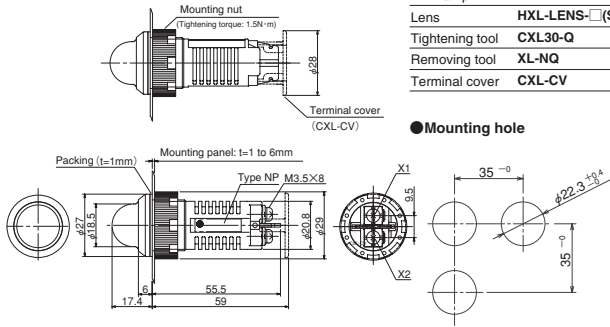
LED lamp	TS-LEDA-□
Lens	TS-Lens E-□ (Round flat type) WS-Lens S-□ (Round type)
Tightening tool	Tightening jig F
Protective cover	TS-CV

● Mounting hole size



PILOT LAMP & INDICATOR

HXL (φ 22)

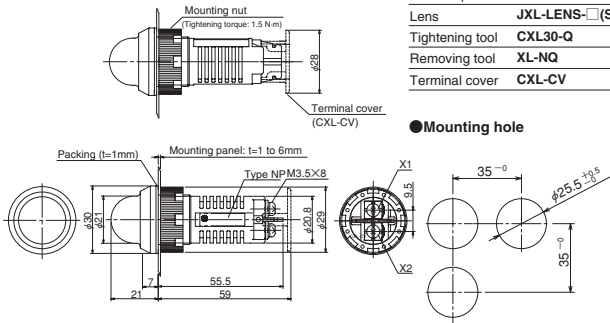


●Applicable accessories

LED lamp	HXL-LED□□
Lens	HXL-LENS□(S)
Tightening tool	CXL30-Q
Removing tool	XL-NQ
Terminal cover	CXL-CV

●Mounting hole

JXL (φ 25)

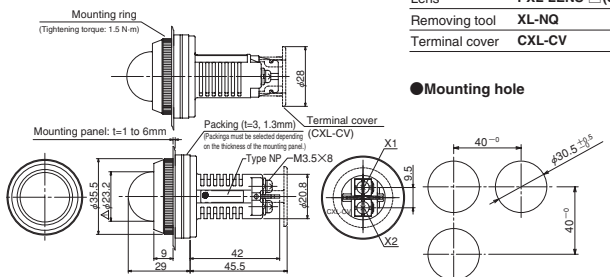


●Applicable accessories

LED lamp	PXL-LED□□
Lens	JXL-LENS□(S)
Tightening tool	CXL30-Q
Removing tool	XL-NQ
Terminal cover	CXL-CV

●Mounting hole

PXL (φ 30)



●Applicable accessories

LED lamp	PXL-LED□□
Lens	PXL-LENS□(S)
Removing tool	XL-NQ
Terminal cover	CXL-CV

●Mounting hole

PILOT LAMP & INDICATOR

ACCESSORIES

Main frame



● HXL-000

Basic type Frame only

Code	Mounting hole (φ)
HXL	22
JXL	25
PXL	30

LED unit

(Order unit: 10)

● For TMP/WMP

	Lens color					
	Red	Orange	Green	Yellow	Milky white	Blue
TMPN	Red TMP-LEDN-R	Orange TMP-LEDN-O	Green TMP-LEDN-G	—	Yellow TMP-LEDN-Y	—
TMPH	Red TMP-LEDH-R	Orange TMP-LEDN-O	Green TMP-LEDN-G	—	Yellow TMP-LEDN-Y	Blue TMP-LEDH-BL

* Since voltage is controlled with the main unit, a constant voltage is applied to each LED.

● For TSPA/WSPA

	Lens color						
	Red	Orange	Green	Yellow	Milky white	Blue	Clear
TSPA	Red TS-LEDA-R	Orange TS-LEDA-O	Green TS-LEDA-G	Yellow TS-LEDA-Y	Yellow TS-LEDA-Y	Blue TS-LEDA-BL	Orange TS-LEDA-O

* Since voltage is controlled with the main unit, a constant voltage is applied to each LED.

● For TSPA(GPT)

	Lens color
	Clear
TSPA-GPT	Clear orange TS-LEDN-CO

● For HXL



● For JXL • PXL



	Voltage Color	24V AC / DC	48V AC / DC	100/110V AC / DC	125V AC / DC	200/220V AC / DC
		HXL	Red	HXL-LED024-R	HXL-LED048-R	HXL-LED110-R
	Orange	HXL-LED024-O	HXL-LED048-O	HXL-LED110-O	HXL-LED125-O	HXL-LED220-O
	Milky white	HXL-LED024-W	HXL-LED048-W	HXL-LED110-W	HXL-LED125-W	HXL-LED220-W
	Green	HXL-LED024-G	HXL-LED048-G	HXL-LED110-G	HXL-LED125-G	HXL-LED220-G
	Yellow	HXL-LED024-Y	HXL-LED048-Y	HXL-LED110-Y	HXL-LED125-Y	HXL-LED220-Y
	Blue	HXL-LED024-B	HXL-LED048-B	HXL-LED110-B	HXL-LED125-B	HXL-LED220-B
	Pure white	HXL-LED024-P	HXL-LED048-P	HXL-LED110-P	HXL-LED125-P	HXL-LED220-P
JXL PXL	Red	PXL-LED024-R	PXL-LED048-R	PXL-LED110-R	PXL-LED125-R	PXL-LED220-R
	Orange	PXL-LED024-O	PXL-LED048-O	PXL-LED110-O	PXL-LED125-O	PXL-LED220-O
	Milky white	PXL-LED024-W	PXL-LED048-W	PXL-LED110-W	PXL-LED125-W	PXL-LED220-W
	Green	PXL-LED024-G	PXL-LED048-G	PXL-LED110-G	PXL-LED125-G	PXL-LED220-G
	Yellow	PXL-LED024-Y	PXL-LED048-Y	PXL-LED110-Y	PXL-LED125-Y	PXL-LED220-Y
	Blue	PXL-LED024-B	PXL-LED048-B	PXL-LED110-B	PXL-LED125-B	PXL-LED220-B
	Pure white	PXL-LED024-P	PXL-LED048-P	PXL-LED110-P	PXL-LED125-P	PXL-LED220-P



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ACCESSORIES

Classification	Type	Shape	Applicable type
Lens	TMP LENS E [color]	Round flat type 	TMPN,TMPH
	WMP LENS S [color]	Round type 	WMPH,TMPN,TMPH
	TS LENS E [color]	Round flat type 	TSPA
	WS LENS S [color]	Round type 	WSPA,TSPA
	HXL-LENS [color] (S) JXL-LENS [color] (S)	Round type 	HXL JXL
	PXL-LENS [color] (S)	Round type 	PXL

Terminal protection cover

(Order unit: 10)

●TS-CV (Standard equipment)



Applicable type
TSPA, WSPA

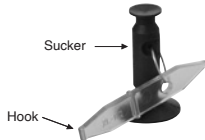
●CXL-CV (Standard equipment)



Applicable type
HXL, JXL, PXL, QXL, KXL,
CXL30, CXL40

Removing tool

●XL-NQ (Order unit: 10)



- * Sucker is used for lens removal.
- * Hook is used for LED unit removal.
(TSPA, WSPA, HXL, JXL, PXL, CXL30 / 40)

Classification	Type	Shape	Applicable type
Tightening tool	Tightening jig F		TSPA,WSPA
	TMP-Q		TMPN,TMPH,WMPH
	CXL30-Q		HXL,JXL

Separate transformer

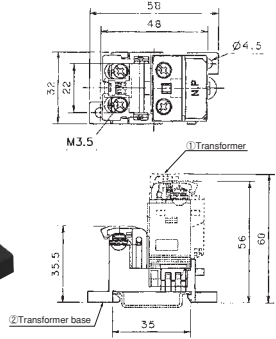
Separate transformer



① Transformer
(Primary)



② Transformer base
(Secondary)



Please order ① Transformer and ② Transformer base separately.

① Transformer

Type	Rated primary voltage	Rated secondary voltage
AR9T559-H	100 / 110V	24V
AR9T559-M	200 / 220V	
AR9T559-T	400 / 440V	

* AC power use only.

② Transformer base

Type
AR9T003