

LED Round Lights

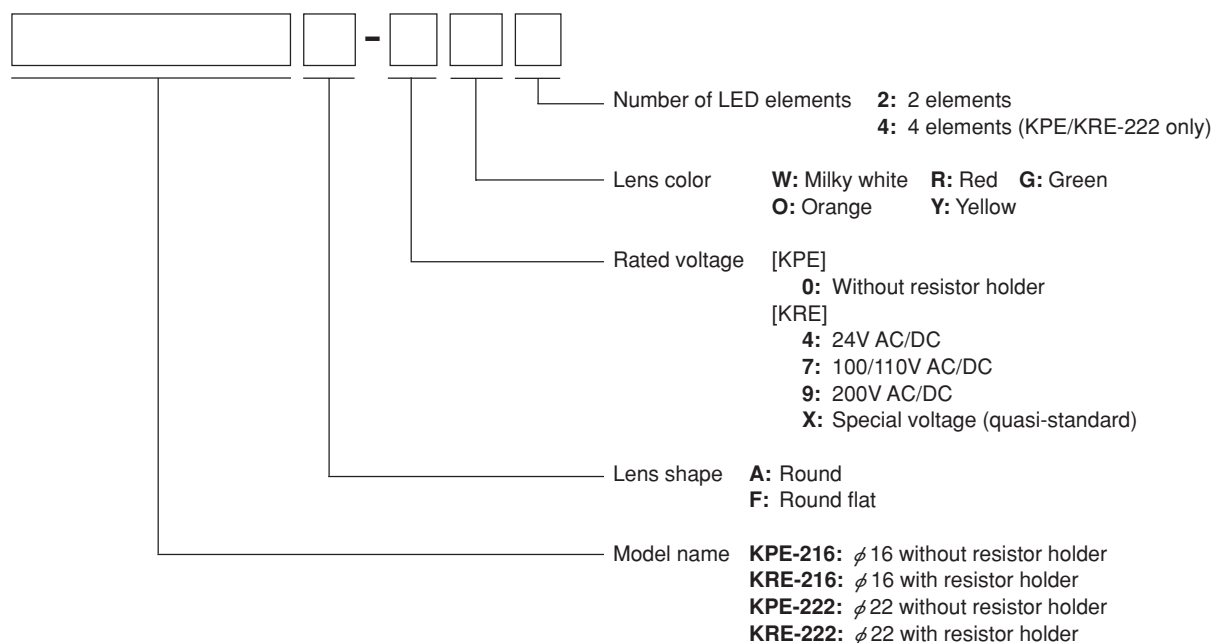
KPE/KRE-200 Series



■ Features

- Large lighting section (ϕ 14 or ϕ 20), high brightness and long duration of life.
- Rated voltages of 24V, 100/110V and 200V AC/DC.
- One-touch detachable LED unit and resistor holder for the replacement.
- Five colors are available; milky white, red, green, yellow and orange.

■ Model Designation



NOTICE

- The LED works on a few mill amperes. Accordingly, when used in a circuit with induced or leakage current, the LED may be unintentionally lit. To prevent this error, insert a resistor in parallel across the indicator terminals.
- Neither of KPE-216 nor KPE-222 is equipped with a current regulation resistor. Prepare the resistor to be connected externally in reference to the next page for the recommended resistance value.
- For wiring KPE-216/222, raise the terminals to solder.
- Do not change the soldered KPE-216/222 to the KRE model with resistor holder. Doing so may cause erroneous contacts.
- When soldering, set the soldering iron below 270°C, and solder in 5 seconds.
- Unless otherwise mentioned, all dimensions are indicated in "mm" in this book.

■ Ratings

● KPE

Item	Model	KPE-216 KPE-222 (2 elements)	KPE-222 (4 elements)
	Lighting Color	Standard value	
Forward voltage	Red	3.4V	6.8V
	Green	4.2V	8.4V
	Yellow		
	Orange	4.4V	8.8V
	Milky white		
Forward Current		20mA	

● KRE

Item	Model	KRE-216, 222		
Rated Voltage		24V±10%	100/110V ±10%	200V±10%
Rated Current		20mA		15mA

■ Specifications

Model Item	KPE-216	KPE-222	KRE-216	KRE-222
Insulation Resistance	100MΩ or more between live parts and ground measured by 500V DC megohmmeter			
Withstand Voltage	2000V AC for 1 minute between live parts and ground			
Temperature Resistance	Normal after 2 hours left at -25°C and 2 hours left at +55°C			
Humidity Resistance	Normal after 96 hours left at 40°C, 95%RH			
Vibration Resistance	Normal after 3-dimensional vibration of amplitude 1.5mm and frequency ranging 10 ~ 55Hz for 1 hour with a sweep time of 1 minute			
Shock Resistance	Normal after 5 times of 3-dimensional shock of 500m/s ² to 6 surfaces			
Protection Structure	All closed (IP40)			
Operating Environment	-10 ~ 40°C, 45 ~ 85%RH (No freezing or condensation)			
Reverse Voltage	8V	8V (2 elements) 16V (4 elements)	82V (Rated voltage: 24V) 480V (Rated voltage: 100/110V) 600V (Rated voltage: 200V)	
Lighting Color	Red, yellow, green, orange, milky white			
Lens Shape	Round and round flat			
Panel Thickness	1.0 ~ 10mm			
Wiring	Soldering		M3.5 × 8 screws (Recommended torque: 1 ~ 1.3N·m)	
Frame Color	Black (approximate N1.5)			

■ Materials

Item	Model	KPE-216/222		KRE-216/222	
Lens		Polycarbonate resin		UL94V-2	
Holder		PBT resin		UL94V-2	
Resistor Holder		—		PET resin	UL94V-0
Mounting Nut		Zinc (Die casting)	Brass (Nickel plated)	Zinc (Die casting)	Brass (Nickel plated)
Terminal		Brass (Nickel plated)			
Terminal Screw		—		Carbon steel (Galvanized chromate treatment)	

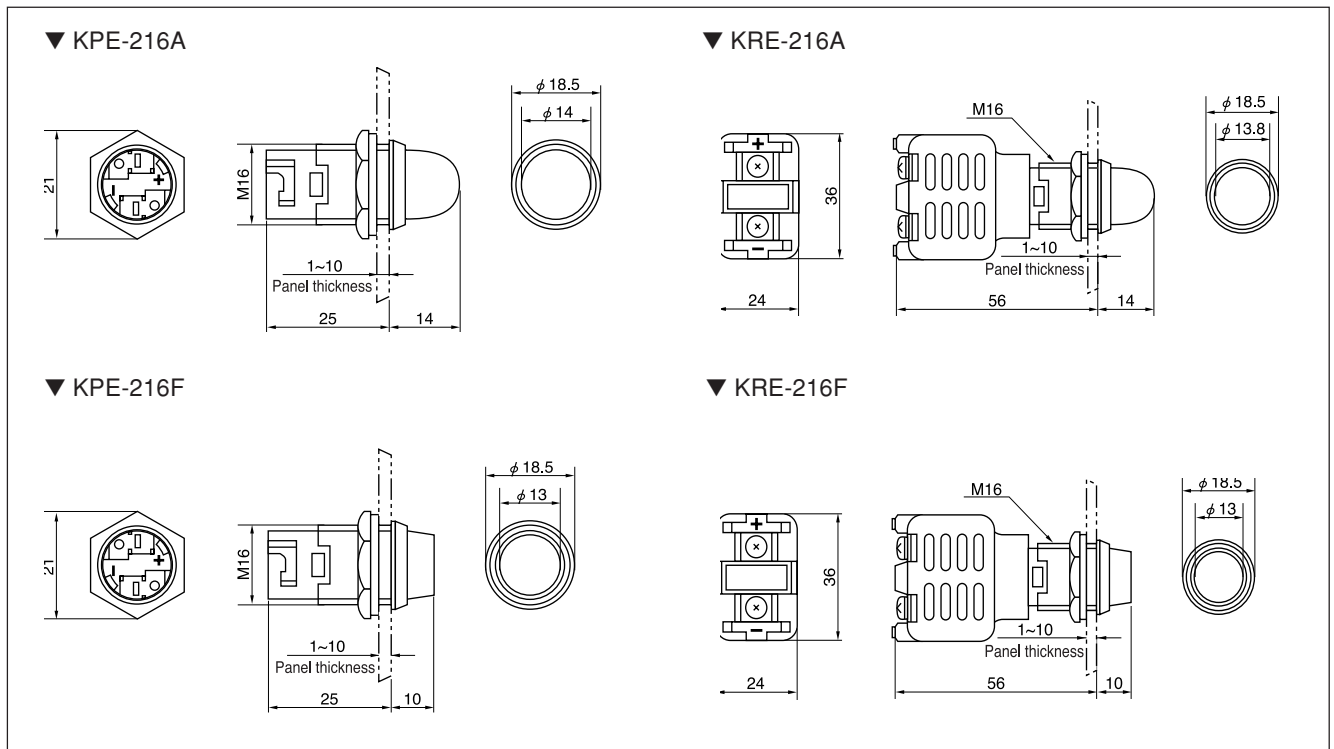
● Recommended resistance value and capacity for KPE-216/222

Rated Voltage	24V	100/110V	200V	220V
Model				
KPE-216 (2 elements)	1kΩ 2W	5.1kΩ 10W	10kΩ 20W	11kΩ 20W
KPE-222 (2 elements)				
KPE-222 (4 elements)	820Ω 2W			

● Weight (unit: g)

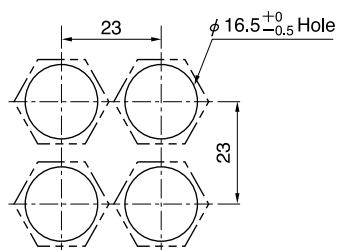
KPE-216	KRE-216	KPE-222	KRE-222
Approx. 9	Approx. 35	Approx. 17	Approx. 43

■ Dimensions

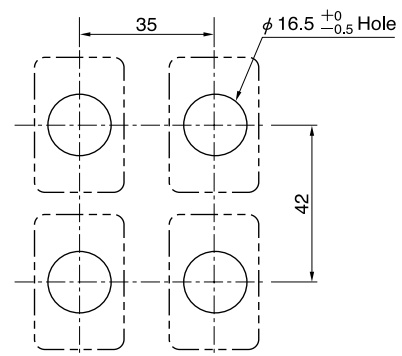


● Panel cut dimensions and minimum mounting pitch

▼ KPE-216

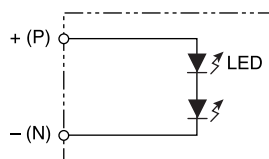


▼ KRE-216

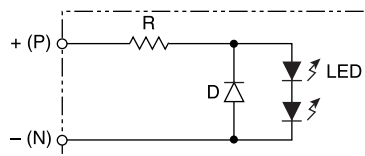


● Circuit diagram

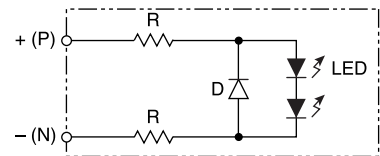
▼ KPE-216



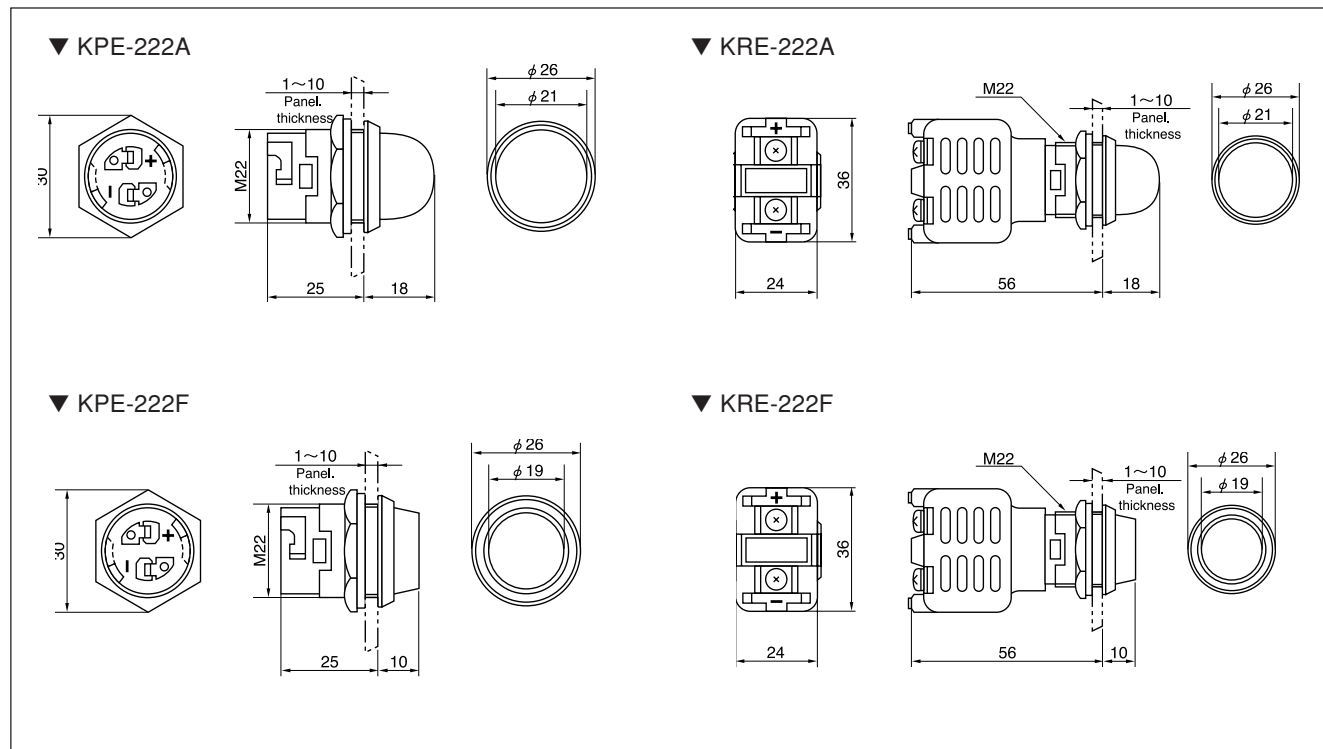
▼ KRE-216 24V AC/DC



▼ KRE-216 100/110 and 200V AC/DC

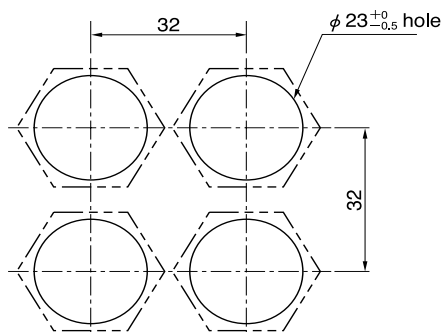


■ Dimensions

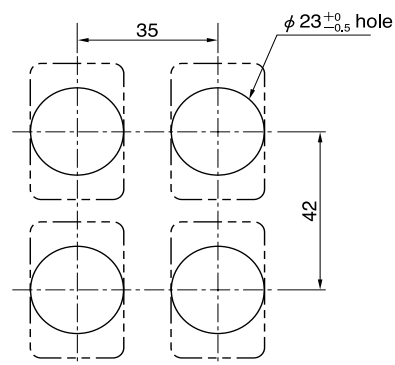


● Panel cut dimensions and minimum mounting pitch

▼ KPE-222

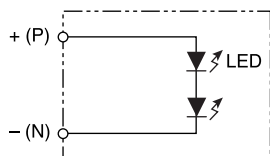


▼ KRE-222

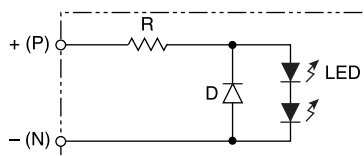


● Circuit diagram

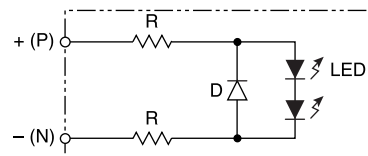
▼ KPE-222



▼ KRE-222 24V AC/DC



KRE-222 100/110V and 200V AC/DC

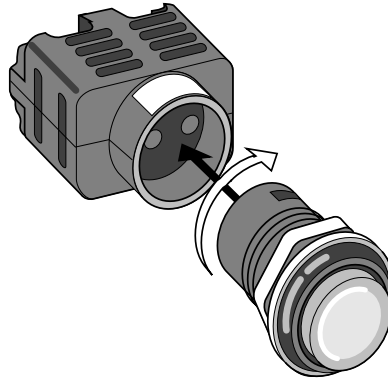


• Number of LED elements: 2 or 4

● Change in lighting method

Align the resistor holder with the polarity guide of all-voltage main body, and rotate the main body as shown by arrow while pushing it to the depth to change from the all-voltage type to the resistor holder type.

Do not change the soldered KPE-216/222 to the KRE model with resistor holder. Doing so may cause erroneous contacts.



● Mounting

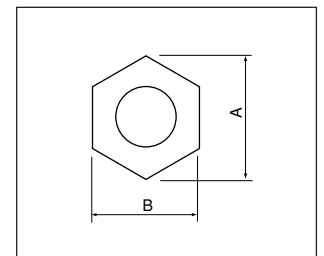
KPE-216/222

Insert the main body from the panel front and fasten with hexagonal nut from the rear.

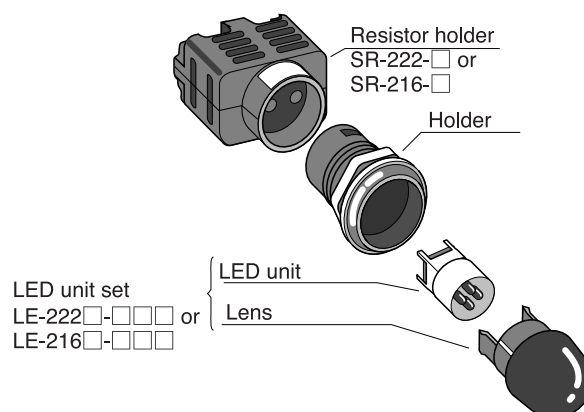
KRE-216/222

Insert the main body from the panel front and fasten with hexagonal nut from the rear. Afterwards, rotate the resistor holder clockwise while pushing it to mount.

Model	A	B	Recommended torque
KPE/KRE-216	(21)	19mm	0.8~1.1 N · m
KPE/KRE-222	(30)	26mm	1.2~2.0 N · m

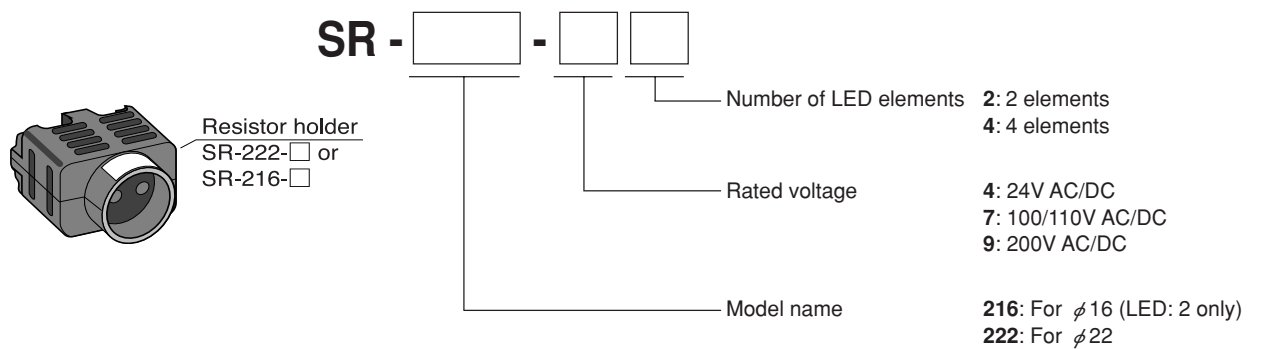


● Product construction



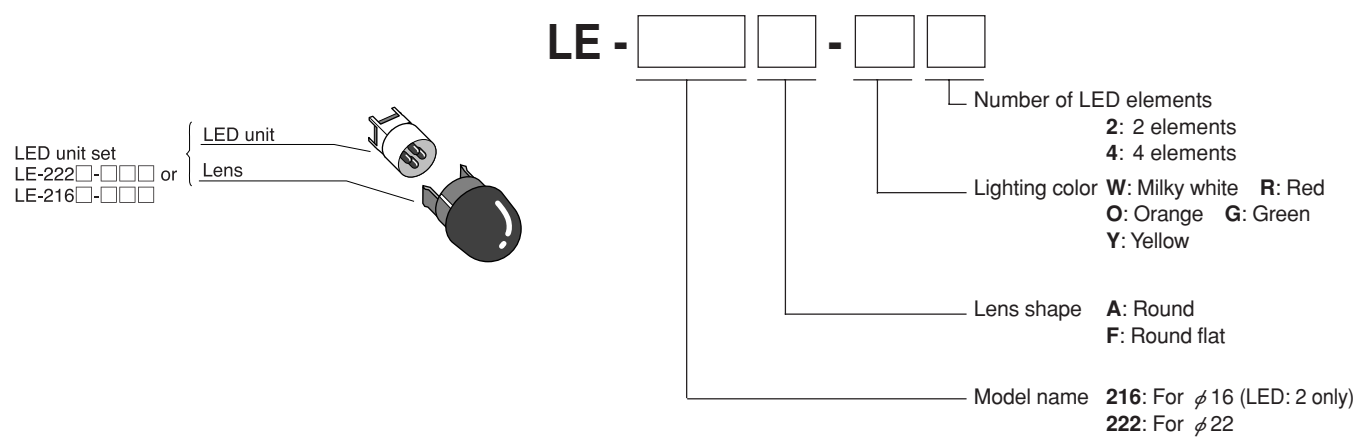
Resistor Holder

Model Designation



LED Unit Set

Model Designation



The lighting color can not be changed only by replacing the lens color. Order for the LED unit set.

Terminal Protection Cover

▼KRE-216, 222
LC-222

