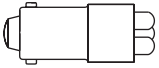
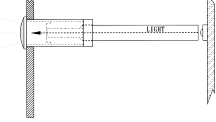
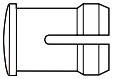
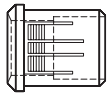
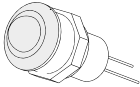
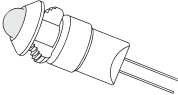
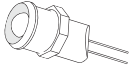
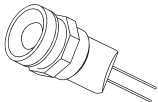
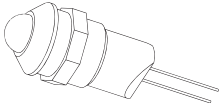
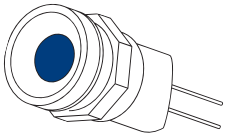
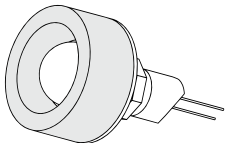
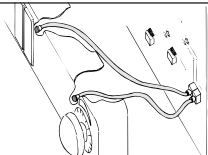
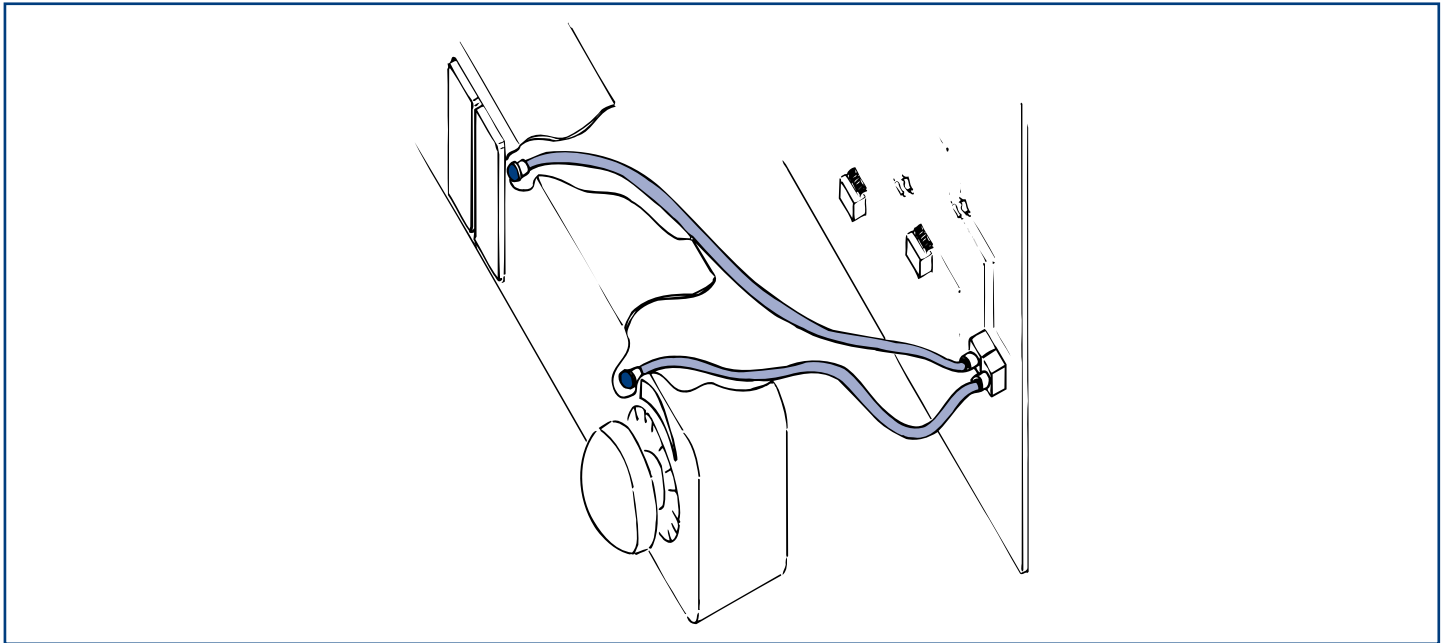


Package Outline Drawing	Part. No.	Description	Page
	from K04 to K51	SINGLE LAMP & MULTI CHIP LED BULB	24-32
	KLX	PANEL LIGHT PIPES	6
	KPANOXX	PANEL LENSES	7
	KPANOXX	PLASTIC CLIPS	23
	KSEX05	PLASTIC SIGNAL LAMPS Ø 5 mm	22
	KSPX05 KSPX08 KSPX10	PLASTIC SIGNAL LAMPS Ø 5 mm CONCAVE , CONVEX	8-11
	KSX03	METAL SIGNAL LAMPS Ø 3 mm, CONCAVE , CONVEX , PLANE	12
	KSX05	METAL SIGNAL LAMPS Ø 5 mm, CONCAVE , CONVEX , PLANE	14
	KSX08	METAL SIGNAL LAMPS Ø 8 mm, CONCAVE , CONVEX , PLANE	16
	KSX10	METAL SIGNAL LAMPS Ø 10 mm, CONCAVE , CONVEX , PLANE	18
	KSX20	METAL SIGNAL LAMPS 20mm, CONCAVE , CONVEX , PLANE	20
	KTAB	OPTICAL CABLE SYSTEM	2

Optical Cable System



Optical cable system solves many important problems connected to:

quality, reliability, low mounting costs, flexibility, on time deliveries, fast solution in your mounting system, utilization of only 3 codes for a range of own products, possibility to use the actual PCB without modifying or changing it, elimination of connection and/or soldering, transport/receive of every luminous source (visible or invisible).

You can now use the technology tested for many years in the aerospace field in order to improve the quality and above all to reduce costs without making essential changes. Since 1979 our idea stands out from the others for the creativeness and simply because **WE MANUFACTURE SOLUTIONS.**

135°C operating temperature, different shapes and symbols on request. Cold area and without voltage on all panels with ESD protection.

Optical cable system offers many advantages respect to the traditional panel LED-holder, in fact it is easier to assemble LED and other components on pcb, to insert lens and support in press-fit and snap-in, to cut the cable at the right length close the system.

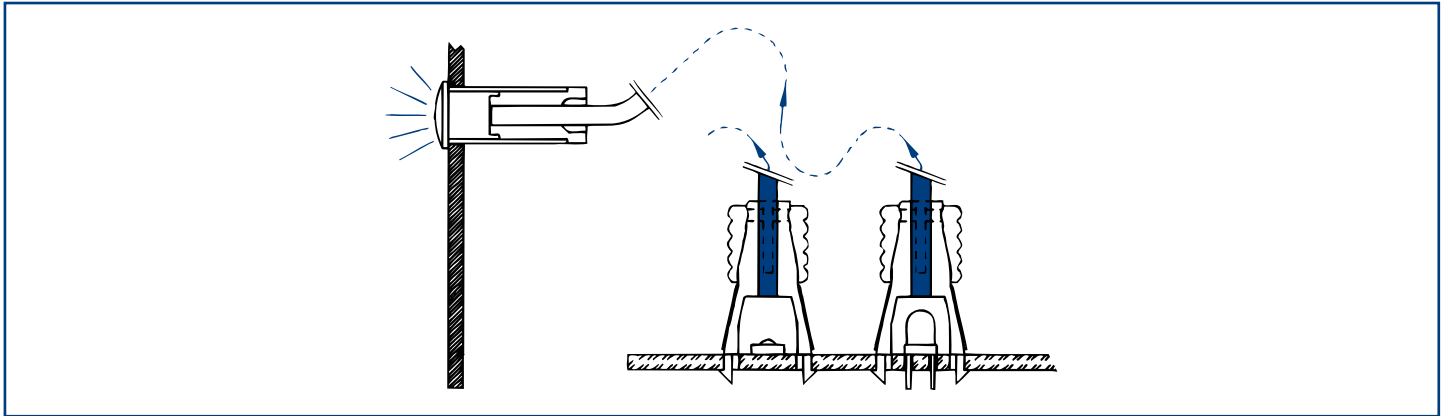
You can specify desired length from 10cm till to 250 m.

Traditional System

- ▶ Cold soldering
- ▶ Voltage to the Panel
- ▶ At least 12 operations for mounting
- ▶ High mounting costs
- ▶ Connection and/or soldering
- ▶ Vibration's problems
- ▶ Large pitch
- ▶ Necessary tool for mounting
- ▶ Isolation problems
- ▶ Range temperature problems

Optical Cable System

- ▶ No solder
- ▶ ESD protection
- ▶ Only 3 operations for mounting
- ▶ Low mounting costs
- ▶ No connection and no soldering
- ▶ No vibration problems
- ▶ Reduced pitch
- ▶ Water proof available
- ▶ From SMD led to front panel
- ▶ High visibility 180°



Make up your code

KTAB

Series

LXX

Lens
LX=Ø 7mm

WX

PCB Holder
 ● WR for all LED size, (from SMD to 3mm)
 ● WA for 3mm LED
 ● WP for 3mm LED

XX

LED Type
See below

XXX

Optical Cable:
C01 Ø 2mm:
Indicate your length (cm)

Example for code: **KTAB-L74-WR-S1-10**

- ▶ **KTAB:** is the series
- ▶ **L74:** lens clear (insert colour)
- ▶ **WR:** generic PCB holder
- ▶ **S1:** SMD LED 1206 Red (put your LED)
- ▶ For Optical Cable System you can use only the code C01, to means the cable length in cm.

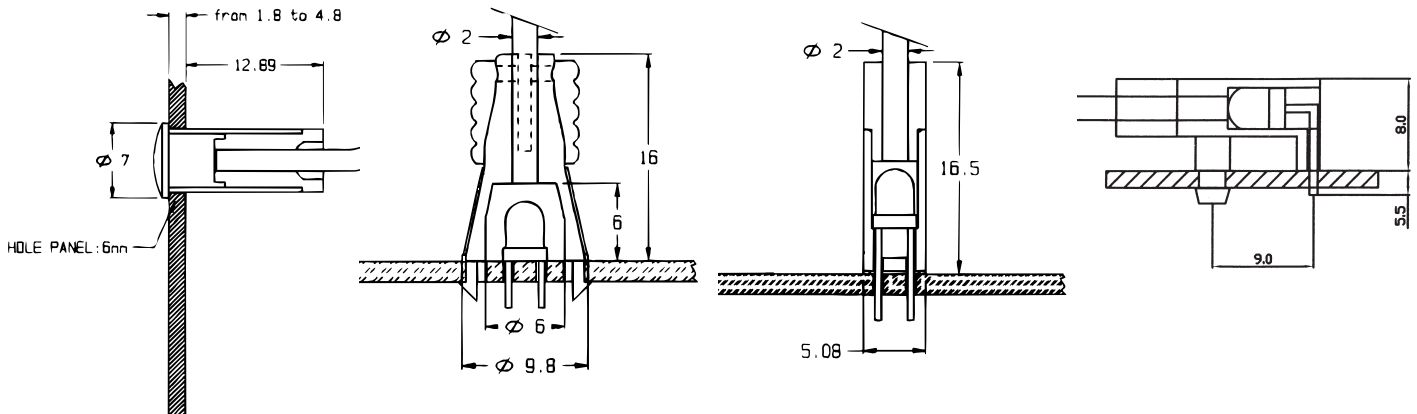
You can order each code separately: you have to indicate KTAB before the product code (es. KTABL75 is the lens Blue)

L7X

WR

WA

WP



Lens				
Code	Colour	Ø Lens (mm)	Ø Hole (mm)	Material
L71	Red	Ø 7	Ø 6	Transparent UL94 V-O Operating temperature -60°C +125°C
L72	Green	Ø 7	Ø 6	
L73	Yellow	Ø 7	Ø 6	
L74	Clear	Ø 7	Ø 6	
L75	Blue	Ø 7	Ø 6	
L..	Special Color			

PCB Holder				
Code	Temperature Range	Deflected temp.	Flamability	Material
WR	-60 °C +125 °C	135 °C	UL 94 V-0	PC
WA	-60 °C +125 °C	150 °C	UL 94 V-0	PA 66
WH	-60 °C +125 °C	150 °C	UL 94 V-0	PA 66

LED						
Code	Size	Emitted Color	IF 20 mA		Peak	Operating Temperature
			mcd (TYP)	V (TYP)		
Q1	PLCC2	Red	65	2.0	624	-30 °C +85°C
Q2	PLCC2	Green	40	2.1	571	
Q3	PLCC2	Yellow	56	2.0	589	
Q4	PLCC2	Red/Green	40/25	2.1/2.0	625/571	
Q5	PLCC2	Blue	37	3.8	470	
Q6	PLCC2	White	160	3.6	-	
P1	Ø 3mm	Red	100	2.0	635	
P2	Ø 3mm	Green	110	2.2	568	
P3	Ø 3mm	Yellow	90	2.1	585	
P4	Ø 3mm	Red/Green	30	2.2	635/568	
P5	Ø 3mm	Blue	60	5.1	430	
P6	Ø 3mm	White	180	4.5	-	
P7	Ø 3mm	Orange	20	2.1	625	
S1	1206	Red	50	1.8	660	
S1	1206	Green	35	2.0	568	
S3	1206	Yellow	70	2.0	587	
S4	1206	Red/Green	30	2.0	660/568	
S5	1206	Blue	22	4.0	430	

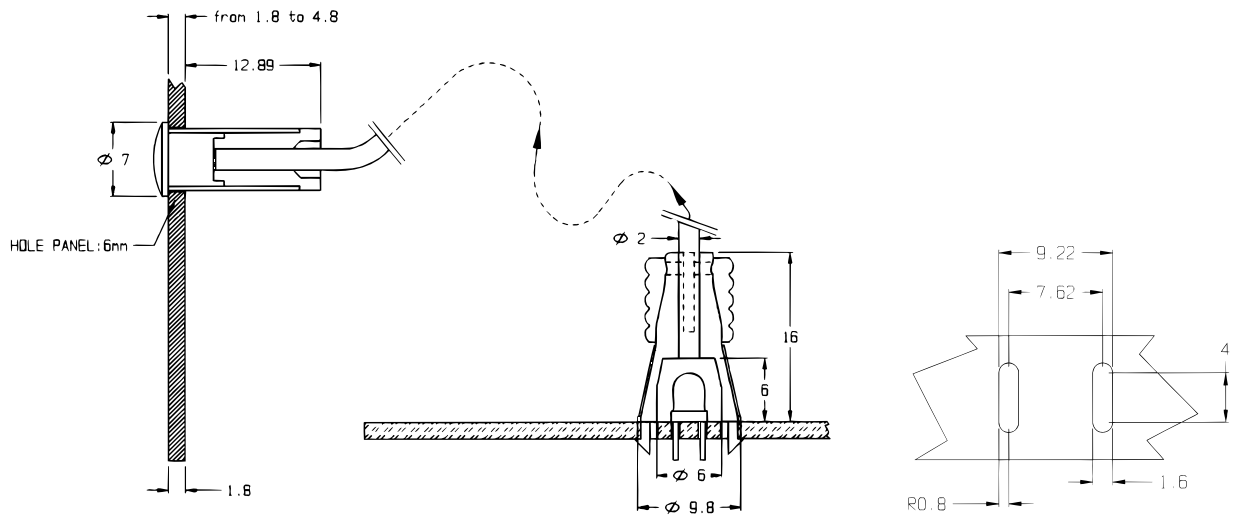
Optical Cable					
Code	Length (mt)	Max.Atten (db/m)	Fibre Ø (mm)	Operating Temp	Option
C01	0 ÷ 250	0.2	2.00	-55°C +70°C	Available other Ø

FEATURES

- ◆ No Solder
- ◆ Only 3 operations for mounting
- ◆ No connection and no soldering
- ◆ From SMD to front panel
- ◆ No vibration problems
- ◆ ESD protection
- ◆ Low mounting costs
- ◆ Water proof available
- ◆ High visibility 180°
- ◆ Reduced pitch

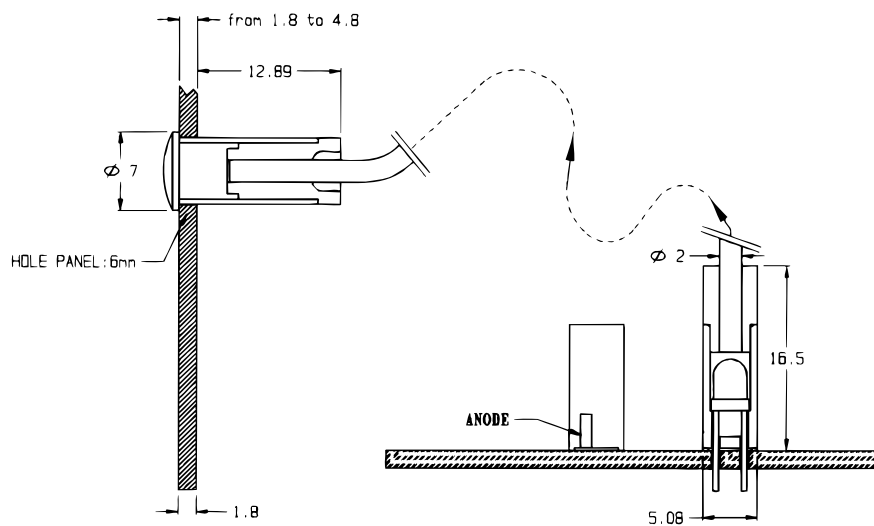
WR

Dimensions in mm (typical)



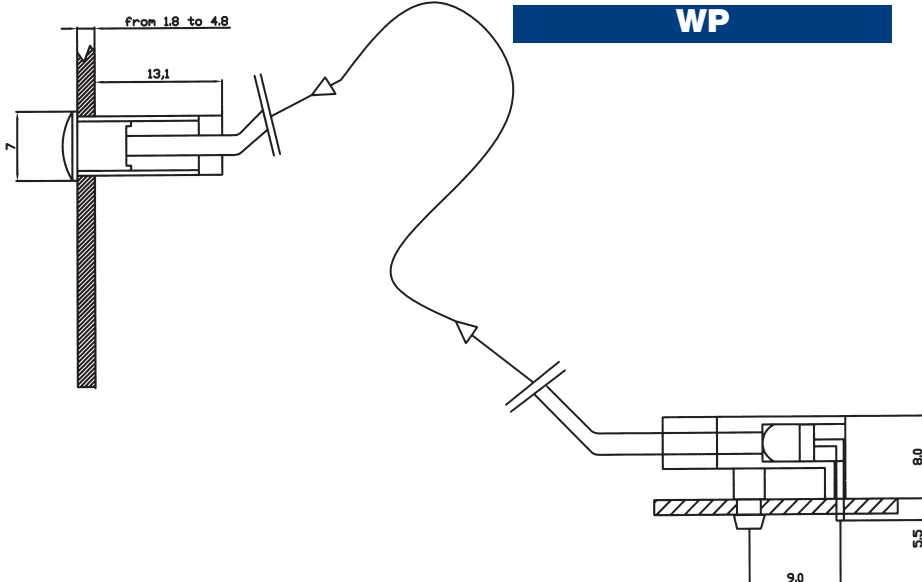
WA

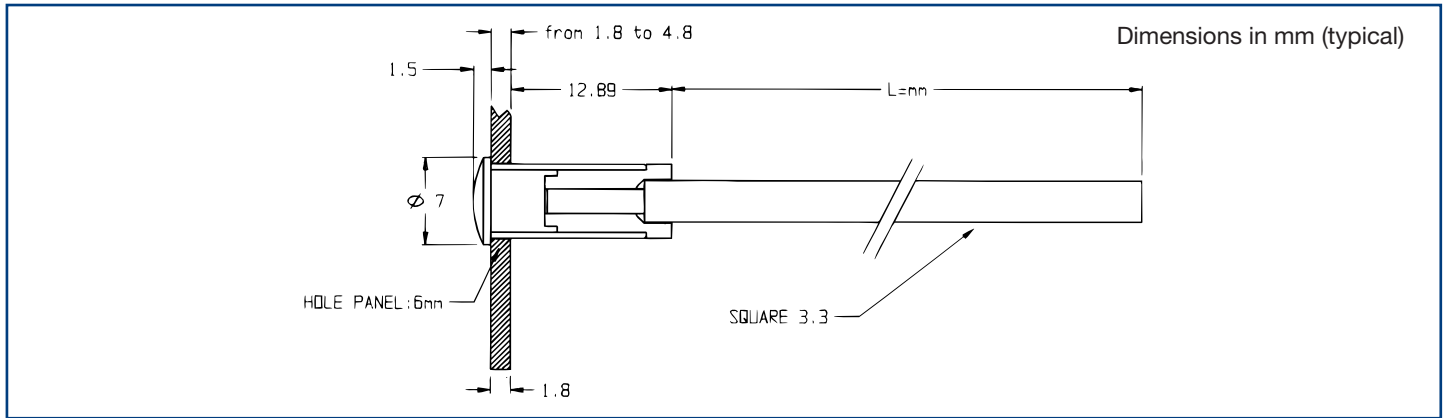
Dimensions in mm (typical)



WP

Dimensions in mm (typical)





Make up your code

K
Series

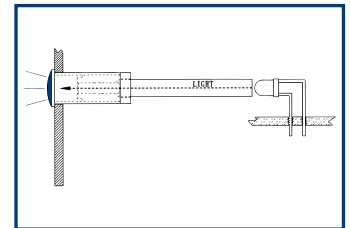
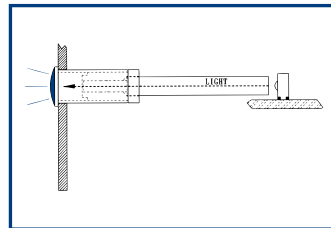
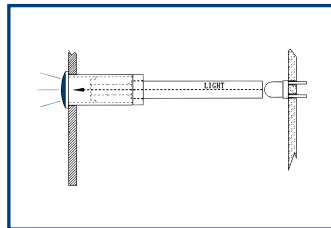
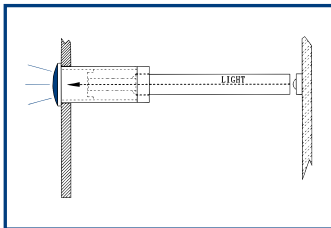
LX
Lens

DXXX
Optical Spacer

Code	Color	Lens Ø Lens (mm)	Ø Hole (mm)	Material
L71	Red	Ø 7	Ø 6	Transparent UL94 V-O Operating temperature -60°C +125°C
L72	Green	Ø 7	Ø 6	
L73	Yellow	Ø 7	Ø 6	
L74	Clear	Ø 7	Ø 6	
L75	Blue	Ø 7	Ø 6	
L..	Special Color			

Optical Spacer

Code	Length L=mm	Code	Length L=mm	Code	Length L=mm	Code	Length L=mm
D050	5,0	D300	30,0	D550	55,0	D800	80,0
D075	7,5	D325	32,5	D575	57,5	D825	82,5
D100	10,0	D350	35,0	D600	60,0	D850	85,0
D125	12,5	D375	37,5	D625	62,5	D875	87,5
D150	15,0	D400	40,0	D650	65,0	D900	90,0
D175	17,5	D425	42,5	D675	67,5	D925	92,5
D200	20,0	D450	45,0	D700	70,0	D950	95,0
D225	22,5	D475	47,5	D725	72,5	D975	97,5
D250	25,0	D500	50,0	D750	75,0	D1000	100
D275	27,5	D525	52,5	D775	77,5	DXX	Your length



Versatility

KPAN lenses , installed in display panel, are used with PCB mounted LEDs.

Lenses remain attached to the display or panel door while LEDs are fixed to the PCB.

Brightness

KPAN lenses utilize Fresnel rings to increase apparent brightness and viewing angle up to 180 degrees with either diffused or non diffused LEDs.

Protection

KPAN lenses help prevent IC failures caused by electrostatic discharge (ESD). Introduction of ESD thru an exposed panel mounted LED is capable of damaging or destroying a semiconductor. KPAN lenses mounted LED help guard components from ESD up to 16kV while affording the LED physical protection.

Installation

KPAN lenses are inserted thru panel opening, retaining ring pressed into place. PCB mounted LEDs slide into lenses when the panel cover is closed or the PCB card is inserted into the case.

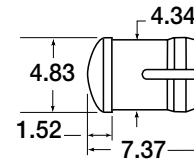
Make Up your code

KPAN0XX-XX

Model:	Color:
KPAN031	R = Red transparent
KPAN032	A = Amber transparent
KPAN033	G = Green transparent
KPAN051	B = Blue transparent
KPAN052	Y = Yellow transparent
	C = Clear transparent

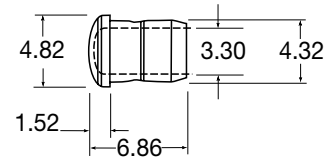
Code	Hole	Panel
KPAN031	4,3 mm	0,8 ÷ 6,3
KPAN032	4,4 mm	0,8 ÷ 2,3
KPAN033	4,3 mm	0,8 ÷ 1,6
KPAN051	6,3 mm	0,8 ÷ 6,3
KPAN052	7,2 mm	0,8 ÷ 3,2

KPAN031

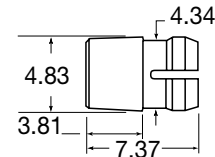


Dimensions in mm (typical)

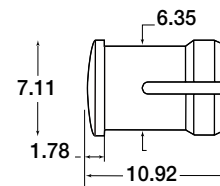
KPAN032



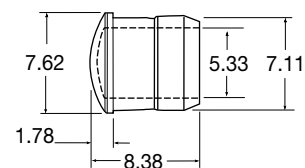
KPAN033



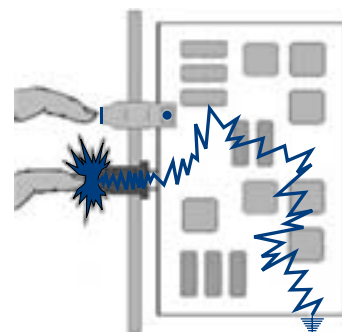
KPAN051

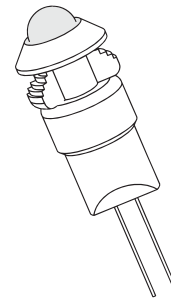
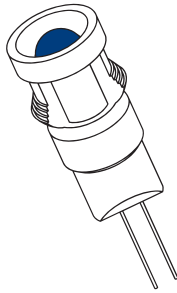


KPAN052



ESD PROTECTION





Make up your code

KSP	X	05	XXX	XX	XXX
Series	1 = concave 2 = convex	LED diameter	LED color	Operating Voltage 02* 05 12 24 48	Cable length ** (Standard 200 mm)

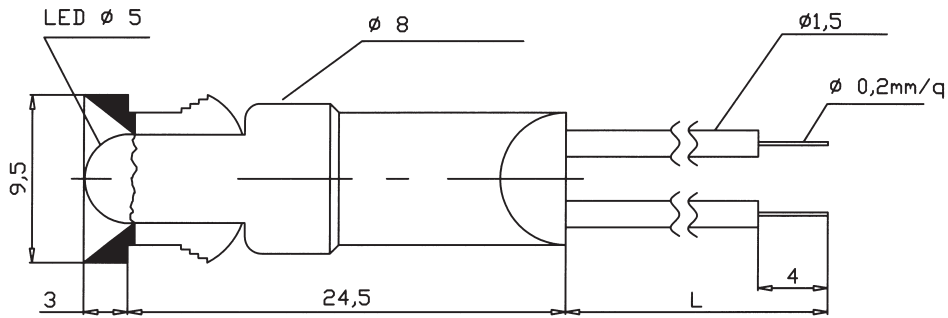
* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
B01	GaP	700/Red	Red Diffused	40	80	120°
B02	GaP	565/Green	Green Diffused	35	70	120°
B03	GaAsP/GaP	590/Yellow	Yellow Diffused	35	70	120°
B04	GaAsP/GaP	625/Red	Red Transparent	80	120	60°
B05	GaP	565/Green	Green Transparent	70	100	60°
B06	GaAsP/GaP	590/Yellow	Yellow Transparent	70	100	60°
B07	GaAsP/GaP	625/Orange	Orange Diffused	40	80	120°
B08	GaN	430/Blue	Blue Diffused	40	80	120°
B09	Gan	X=0.40 Y=0.43 White	White Diffused	120	200	60°
B10	GaAsP/GaP	625/Red	White Diffused	20	60	120°
Bicolor	Gap	565/Green		20	50	

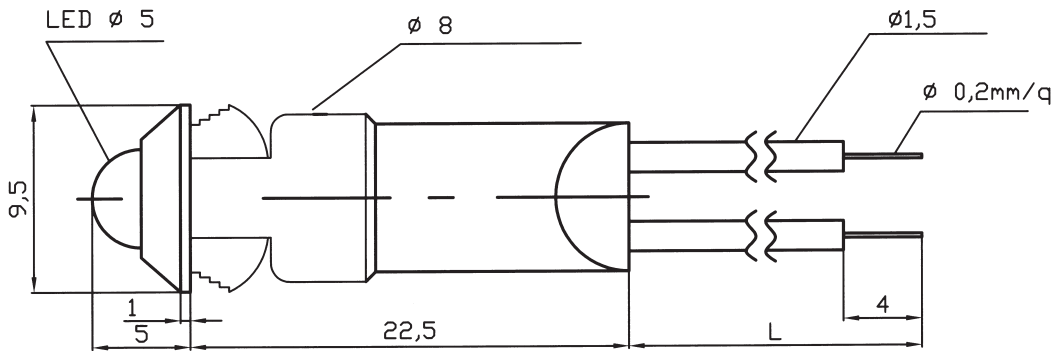
Concave = 1

Dimensions in mm (typical)



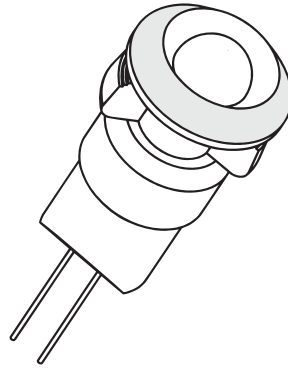
Convex = 2

Dimensions in mm (typical)



OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright form 330 to 7000mcd
- ◆ Bicolor – Tricolor and Full color
- ◆ Different shape
- ◆ Waterproof IP66/67 on request
- ◆ Different operating voltage
- ◆ Customized version on request
- ◆ Blinking LEDs
- ◆ Different color cable (standard + red / - Black)
- ◆ Led case: transparent and water clear
- ◆ Flat top
- ◆ Bicolor tripolar
- ◆ Infrared

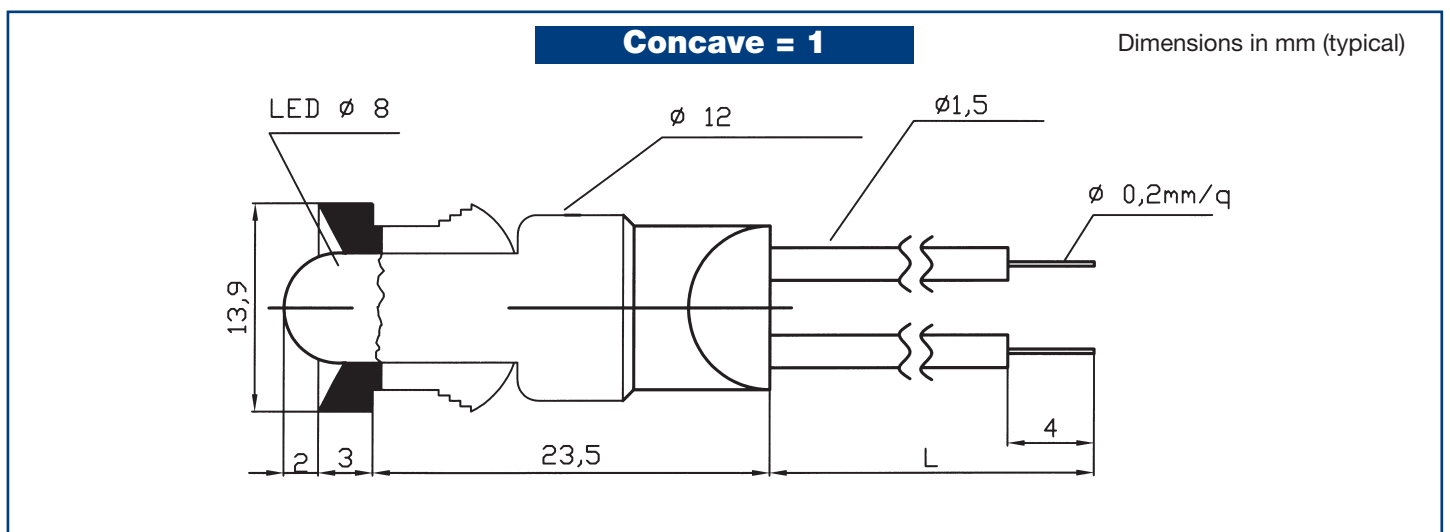


Make up your code

KSP	X	08	X	XX	-XXX
Series	1 = concave	LED diameter	LED color	Operating Voltage	Cable length ** (Standard 200 mm)
				02 05 12 24 48	

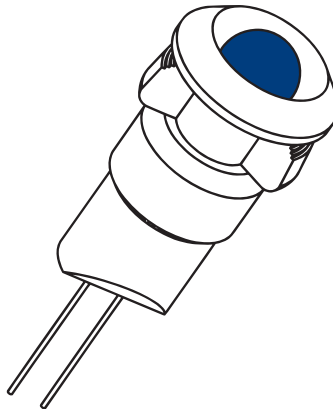
** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
C01	GaAsP/GaP	625/Red	Red Diffused	40	100	120°
C02	GaP	565/Green	Green Diffused	20	60	120°
C03	GaAsP/GaP	590/Yellow	Yellow Diffused	20	50	120°
C04	GaAsP/GaP	625/Orange	Orange Diffused	40	100	120°
C05	GaAsP/GaP	625/Red	White diffused	30	80	100°
Bicolor	GaP	565/Green		20	50	



OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 7000 mcd
- ◆ Bicolor – Tricolor and Full color
- ◆ Different shape
- ◆ Waterproof IP66/67 on request
- ◆ Different operating voltage
- ◆ Customized version on request
- ◆ Blinking LEDs
- ◆ Different color cable
(standard + red / - Black)
- ◆ LED case: transparent and water clear
- ◆ Flat top
- ◆ Bicolor tripolar
- ◆ Infrared

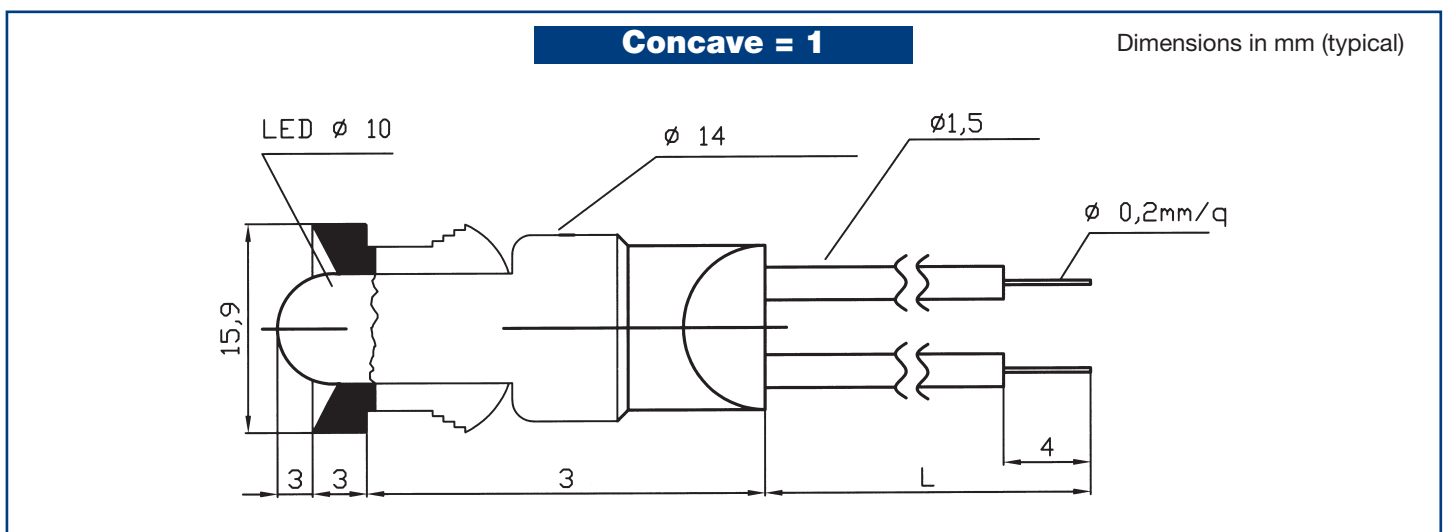


Make up your code

KSP	X	10	X	XX	XXX
Series	1 = concave	LED diameter	LED Color	Operating Voltage	Cable length** (Standard 200 mm)
				02 05 12 24 48	

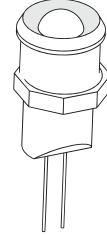
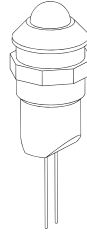
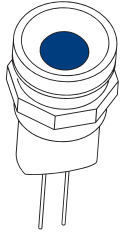
** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
D1	GaAsP/GaP	625/Red	Red Diffused	40	110	40°
D2	GaP	570/Green	Green Diffused	40	110	40°
D3	GaAsP/GaP	590/Yellow	Yellow Diffused	40	110	40°



OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 7000 mcd
- ◆ Bicolor – Tricolor and Full color
- ◆ Different shape
- ◆ Waterproof IP66/67 on request
- ◆ Different operating voltage
- ◆ Customized version on request
- ◆ Blinking LEDs
- ◆ Different color cable
(standard + red / - Black)
- ◆ LED case: transparent and water clear
- ◆ Flat top
- ◆ Bicolor tripolar
- ◆ Infrared



Make up your code

KS	X	03	X	XXX	XX	XXX
Series	1 = concave 2 = convex 3 = plane	LED diameter	N = Natural chrome finish B = Black chrome finish	LED color	Operating Voltage 02* 05 12 24 48	Cable length** (Standard 200 mm)

* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2Θ
				Min	Typ	
A01	GaP	626/Red	Red Diffused	40	60	120°
A02	GaP	569/Green	Green Diffused	32	55	120°
A03	GaP	585/Yellow	Yellow Diffused	30	55	120°
A04	GaAsP/GaP	625/Red	Red Transparent	40	80	100°
A05	GaP	565/Green	Green Transparent	40	80	100°
A06	GaAsP/GaP	590/Yellow	Yellow Transparent	40	80	100°
A07	GaAsP/Gap	625/Orange	Orange Diffused	25	55	120°
A08	GaN	430/Blue	Blue Diffused	20	60	120°
A09	GaN	X=0,38 Y=.0.38 White	White Diffused	50	180	100°
A10	GaAsP/GaP	625 (Red)	White Diffused	20	40	120°
Bicolor	Gap	565(Green)		20	40	

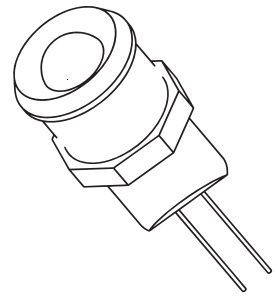
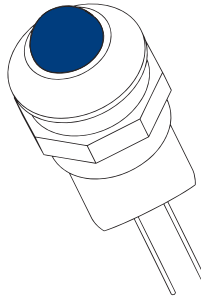
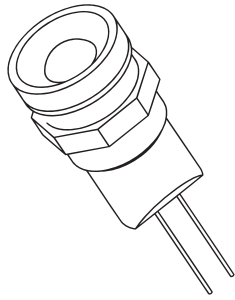
All models listed in this page are referred to the SUPER-STANDARD series only.

We can supply you with custom devices in a short time and at competitive prices as follows:

◆ 3.000 to 10.000 pcs by no. 4CNC lathes

◆ More than 10.000 pcs by no. 30 lathes with sliding headstock.

Therefore on your request we can realize any device on the grounds of your drawing with any material: metal & plastic.



Make up your code

KS	X	05	X	XXX	XX	XXX
Series	1 = concave 2 = convex 3 = plane	LED diameter	N = Natural chrome finish B = Black chrome finish	LED code	Operating Voltage 02* 05 12 24 48	Cable Length** (Standard 200 mm)

* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2Θ
				Min	Typ	
B01	GaP	700/Red	Red Diffused	40	80	120°
B02	GaP	565/Green	Green Diffused	35	70	120°
B03	GaAsP/GaP	590/Yellow	Yellow Diffused	35	70	120°
B04	GaAsP/GaP	625/Red	Red Transparent	80	120	60°
B05	GaP	565/Green	Green Transparent	70	100	60°
B06	GaAsP/GaP	590/Yellow	Yellow Transparent	70	100	60°
B07	GaAsP/GaP	625/Orange	Orange Diffused	40	80	120°
B08	GaN	430/Blue	Blue Diffused	40	80	120°
B09	Gan	X=0.40 Y=0.43 White	White Diffused	120	200	60°
B10	GaAsP/GaP	625/Red	White Diffused	20	60	120°
Bicolor	Gap	565/Green		20	50	

All models listed in this page are referred to the SUPER-STANDARD series only.

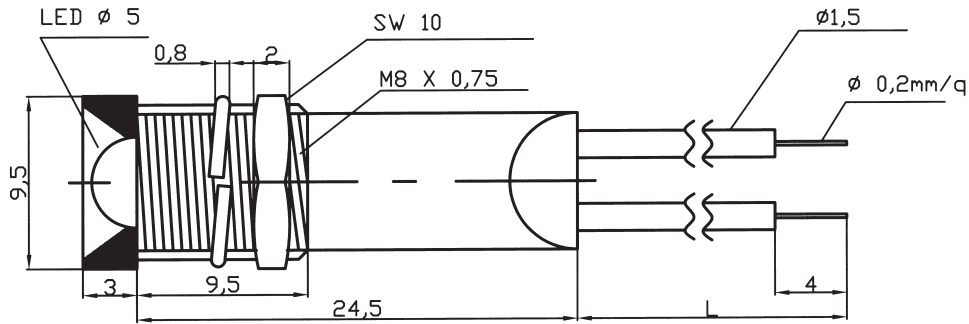
We can supply you with custom devices in a short time and at competitive prices as follows:

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- ◆ More than 10.000 pcs by no. 30 lathes with sliding headstock.

Therefore on your request we can realize any device on the grounds of your drawing with any material: metal & plastic.

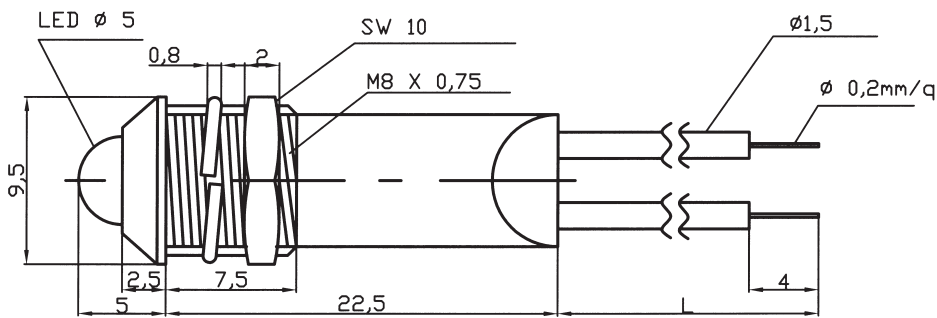
Concave = 1

Dimensions in mm (typical)



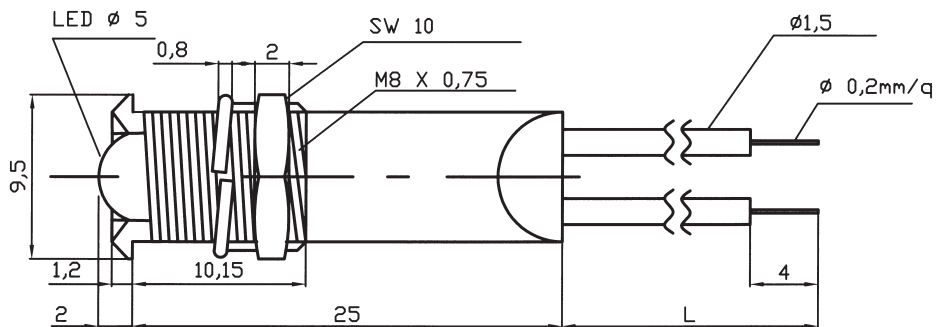
Convex = 2

Dimensions in mm (typical)



Plane = 3

Dimensions in mm (typical)

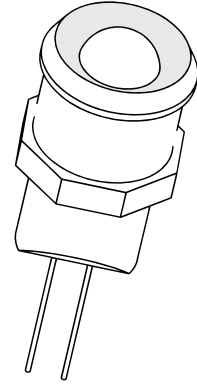
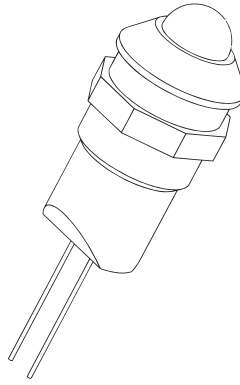
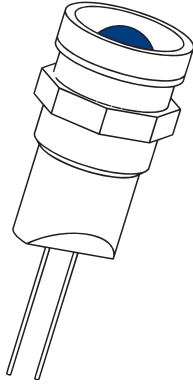


OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 3000 mcd
- ◆ Bicolor-Tricolor and Full color
- ◆ Blinking LEDs

- ◆ Waterproof IP66/67 on request
- ◆ Low Power < 0,9 W
- ◆ Customized version on request
- ◆ Different shape

- ◆ Body: standard material brass CW614N.
On request: Aluminium AL116, Still AWP
9SMnPb28/36, Teflon PTFE, Delrin, CuTe



Make up your code

<u>KS</u>	<u>X</u>	<u>08</u>	<u>X</u>	<u>XXX</u>	<u>XX</u>	<u>XXX</u>
Series	1 = concave 2 = convex 3 = plane	LED diameter	N = Natural chrome finish B = Black chrome finish	LED code	Operating Voltage 02* 05 12 24 48	Cable length** (Standard 200 mm)

* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
C01	GaAsP/GaP	625/Red	Red Diffused	40	100	120°
C02	GaP	565/Green	Green Diffused	20	60	120°
C03	GaAsP/GaP	590/Yellow	Yellow Diffused	20	50	120°
C04	GaAsP/GaP	625/Orange	Orange Diffused	40	100	120°
C05	GaAsP/GaP	625/Red	White diffused	30	80	100°
Bicolor	GaP	565/Green		20	50	

All models listed in this page are referred to the SUPER-STANDARD series only.

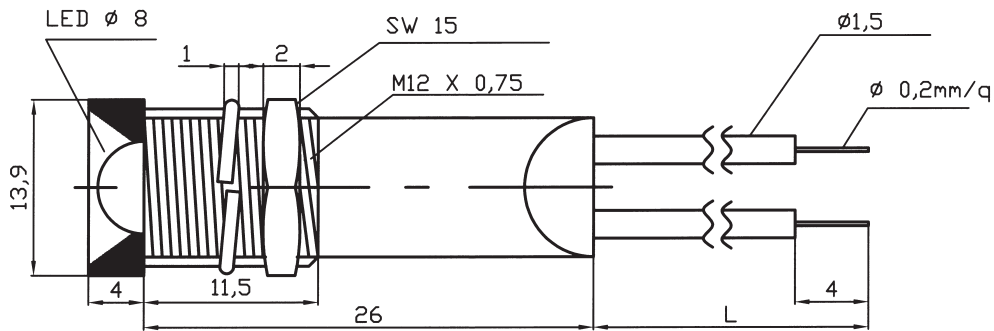
We can supply you with custom devices in a short time and at competitive prices as follows:

- ◆ 3.000 to 10.000 pcs by no. 4CNC lathes
- ◆ More than 10.000 pcs by no. 30 lathes with sliding headstock.

Therefore on your request we can realize any device on the grounds of your drawing with any material: metal & plastic.

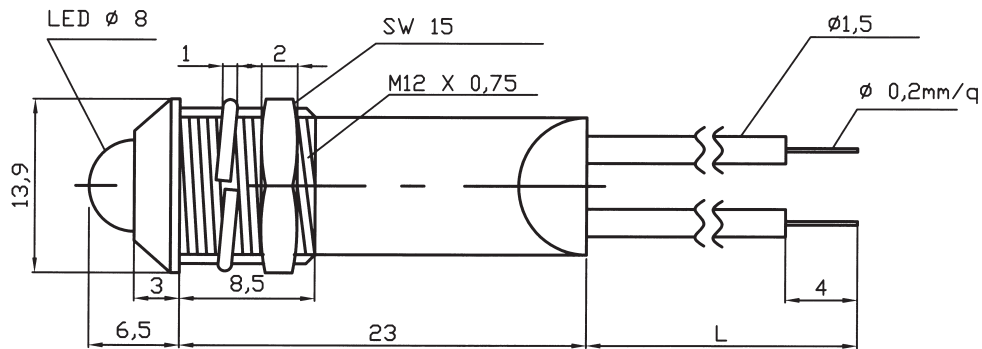
Concave = 1

Dimensions in mm (typical)



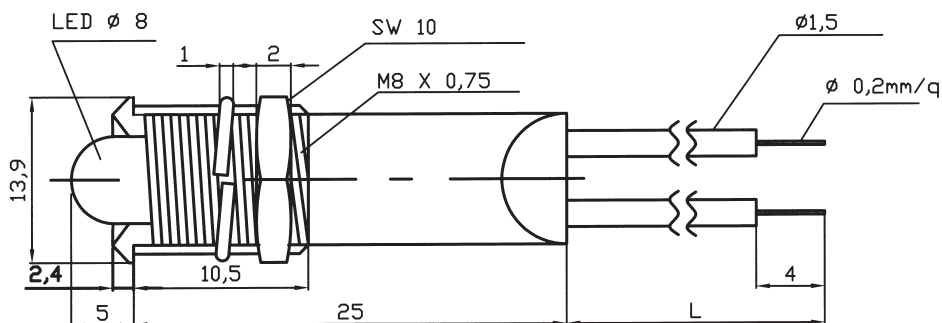
Convex = 2

Dimensions in mm (typical)



Plane = 3

Dimensions in mm (typical)

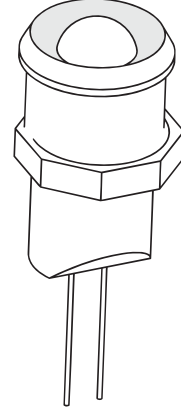
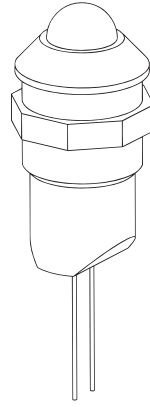
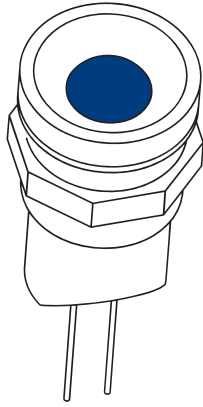


OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 3000 mcd
- ◆ Bicolor-Tricolor and Full color
- ◆ Blinking LEDs

- ◆ Waterproof IP66/67 on request
- ◆ Low Power < 0,9 W
- ◆ Customized version on request
- ◆ Different shape

- ◆ Body: standard material brass CW614N.
On request: Aluminium AL116, Still AWP
9SMnPb28/36, Teflon PTFE, Delrin, CuTe



Make up your code

<u>KS</u>	<u>X</u>	<u>10</u>	<u>X</u>	<u>XXX</u>	<u>XX</u>	<u>XXX</u>
Series	1 = concave 2 = convex 3 = plane	LED diameter	N = Natural chrome finish B = Black chrome finish	LED cod	Operating Voltage 02* 05 12 24 48	Cable length** (Standard 200 mm)

* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm Color)	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
D1	GaAsP/GaP	625/Red	Red Diffused	40	110	40°
D2	GaP	570/Green	Green Diffused	40	110	40°
D3	GaAsP/GaP	590/Yellow	Yellow Diffused	40	110	40°
D4	GaAsP/GaP	625/Red	White Diffused	40	80	100°
Bicolor	GaP	565/Green		40	80	

All models listed in this page are referred to the SUPER-STANDARD series only.

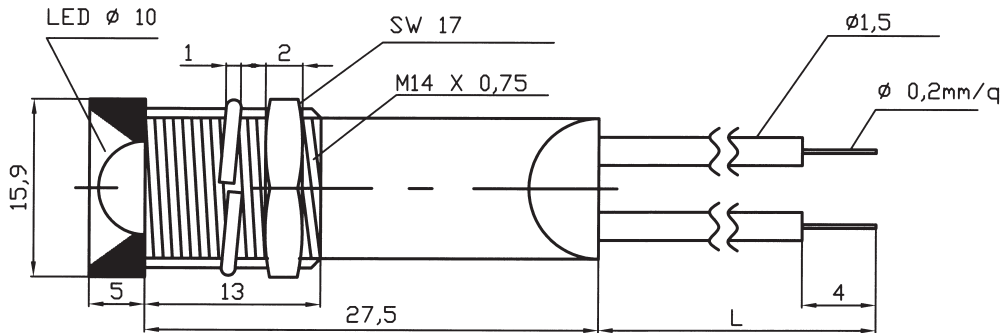
We can supply you with custom devices in a short time and at competitive prices as follows:

- ◆ 3.000 to 10.000 pcs by no. 4CNC lathes
- ◆ More than 10.000 pcs by no. 30 lathes with sliding headstock.

Therefore on your request we can realize any device on the grounds of your drawing with any material: metal & plastic.

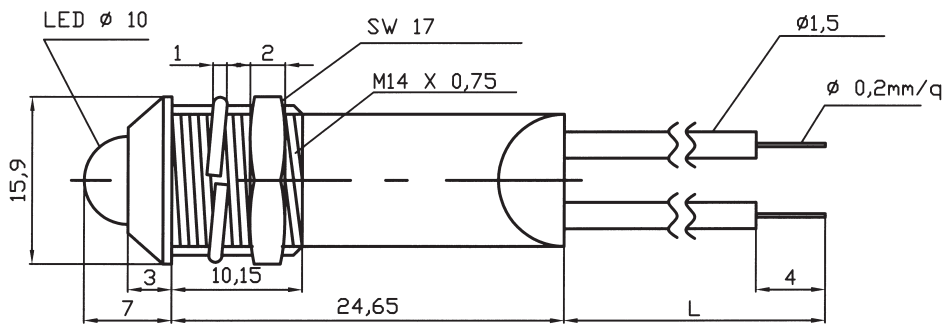
Concave = 1

Dimensions in mm (typical)



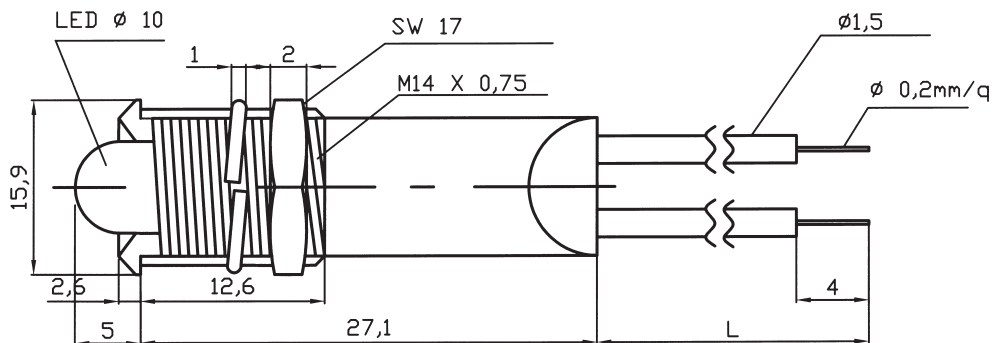
Convex = 2

Dimensions in mm (typical)



Plane = 3

Dimensions in mm (typical)

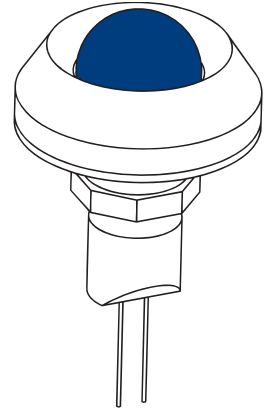
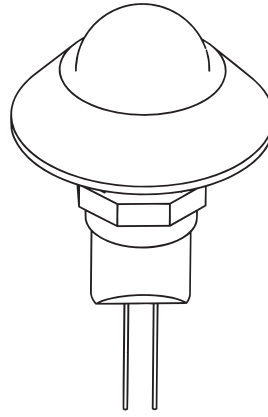
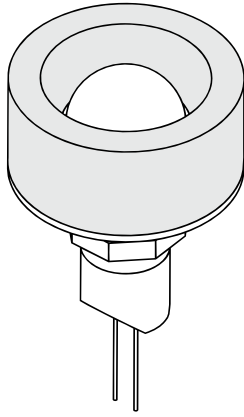


OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 3000 mcd
- ◆ Bicolor-Tricolor and Full color
- ◆ Blinking LEDs

- ◆ Waterproof IP66/67 on request
- ◆ Low Power < 0,9 W
- ◆ Customized version on request
- ◆ Different shape

- ◆ Body: standard material brass CW614N.
On request: Aluminium AL116, Still AWP
9SMnPb28/36, Teflon PTFE, Delrin, CuTe



Make up your code

KS	X	20	X	XXX	XX	XXX
Series	1 = concave 2 = convex 3 = plane	LED diameter	N = Natural chrome finish B = Black chrome finish	LED code	Operating Voltage 02* 05 12 24 48	Cable length** (Standard 200 mm)

* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
E01	GaAsP/GaP	625/Red	Red Diffused	10	45	120°
E02	GaP	565/Green	Green Diffused	8	40	120°
E03	GaAsP/GaP	590/Yellow	Yellow Diffused	6	30	120°
E04	GaAsP/GaP	625/Orange	Orange Diffused	10	45	120°

All models listed in this page are referred to the SUPER-STANDARD series only.

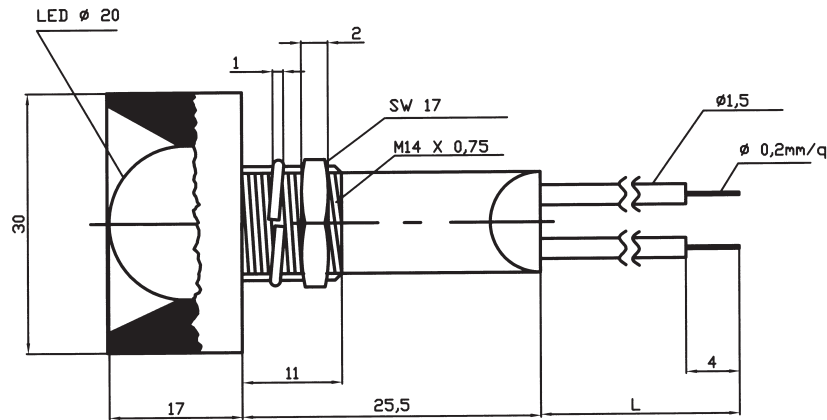
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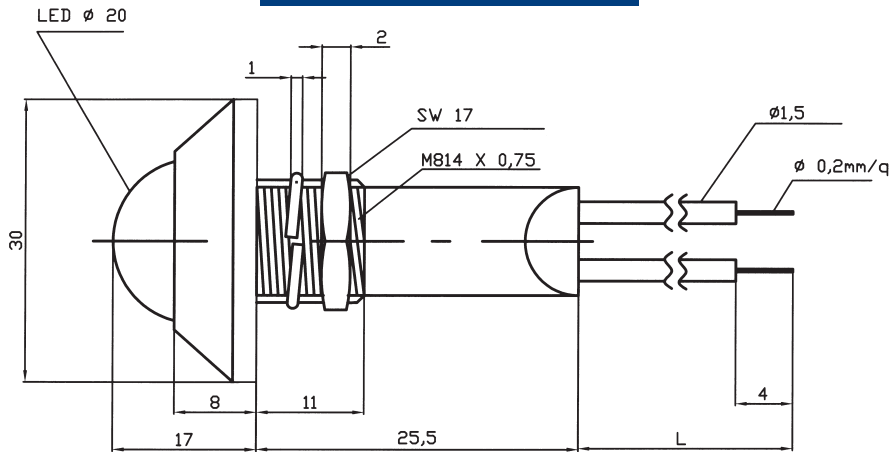
Concave = 1

Dimensions in mm (typical)



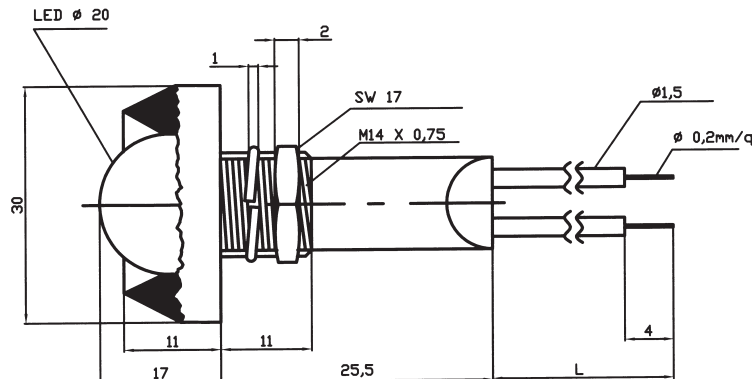
Convex = 2

Dimensions in mm (typical)



Plane = 3

Dimensions in mm (typical)

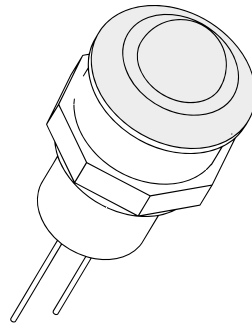


OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 3000 mcd
- ◆ Bicolor-Tricolor and Full color
- ◆ Blinking LEDs

- ◆ Waterproof IP66/67 on request
- ◆ Low Power < 0,9 W
- ◆ Customized version on request
- ◆ Different shape

- ◆ Body: standard material brass CW614N.
On request: Aluminium AL116, Still AWP
9SMnPb28/36, Teflon PTFE, Delrin, CuTe



Make up your code

KSE

Series

X

2 = convex

05

LED diameter

XXX

LED color

XX

Operating Voltage

02*

05

12

24

48

XXX

Cable length**

(Standard 200 mm)

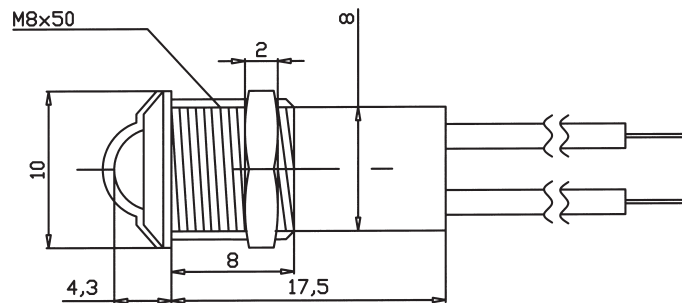
* not available for BLUE and WHITE

** without cable = Z

LED Code	Material	Wave length (nm) Color	Lens Type	Iv (mcd) @ 20mA		Viewing Angle 2θ
				Min	Typ	
B01	GaP	700/Red	Red Diffused	40	80	120°
B02	GaP	565/Green	Green Diffused	35	70	120°
B03	GaAsP/GaP	590/Yellow	Yellow Diffused	35	70	120°
B04	GaAsP/GaP	625/Red	Red Transparent	80	120	60°
B05	GaP	565/Green	Green Transparent	70	100	60°
B06	GaAsP/GaP	590/Yellow	Yellow Transparent	70	100	60°
B07	GaAsP/GaP	625/Orange	Orange Diffused	40	80	120°
B08	GaN	430/Blue	Blue Diffused	40	80	120°
B09	Gan	X=0.40 Y=0.43 White	White Diffused	120	200	60°
B10	GaAsP/GaP	625/Red	White Diffused	20	60	120°
Bicolor	Gap	565/Green		20	50	

Convex = 2

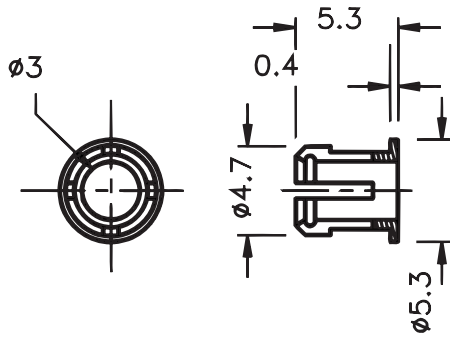
Dimensions in mm (typical)



OPTIONS AVAILABLE

- ◆ Special LED on request
- ◆ Ultrabright from 330 to 3000 mcd
- ◆ Bicolor-Tricolor and Full color
- ◆ Blinking LEDs
- ◆ Waterproof IP66/67 on request
- ◆ Low Power < 0,9 W
- ◆ Customized version on request
- ◆ Different shape

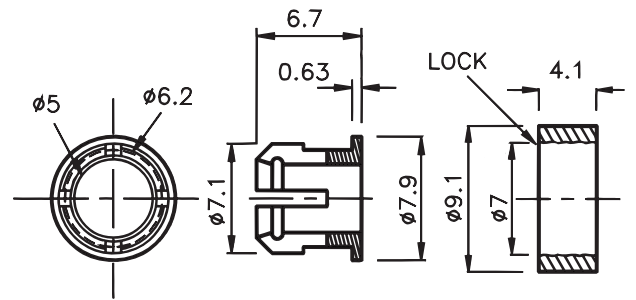
KPAN035



Ø Hole 4.4 mm

Dimensions in mm (typical)

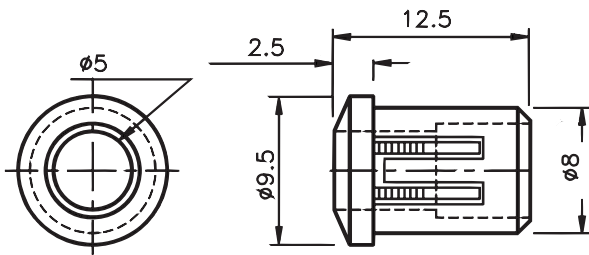
KPAN055



Ø Hole 6.8 mm

Dimensions in mm (typical)

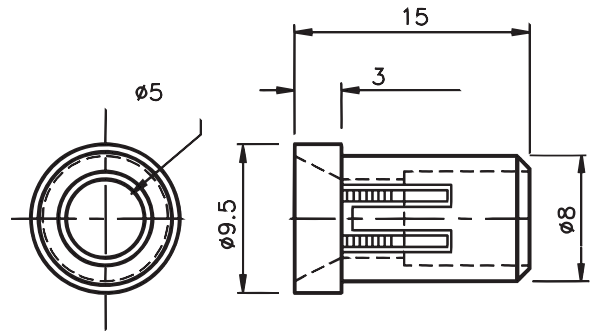
KPAN056



Ø Hole 8.0 mm

Dimensions in mm (typical)

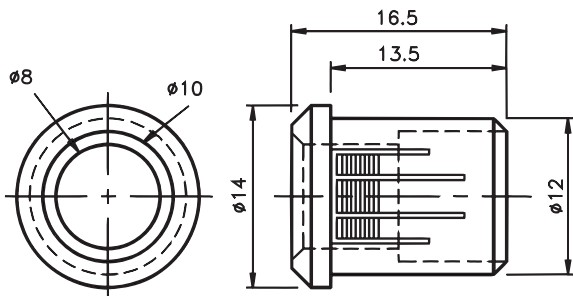
KPAN057



Ø Hole 8.0 mm

Dimensions in mm (typical)

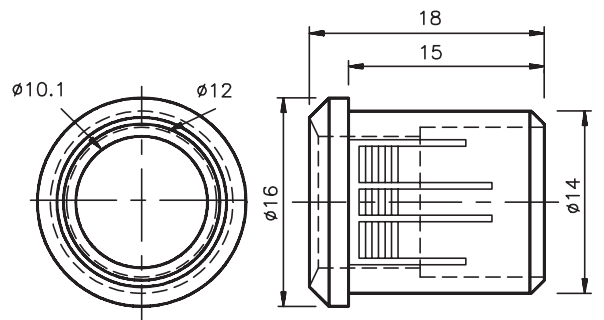
KPAN080



Ø Hole 12.0 mm

Dimensions in mm (typical)

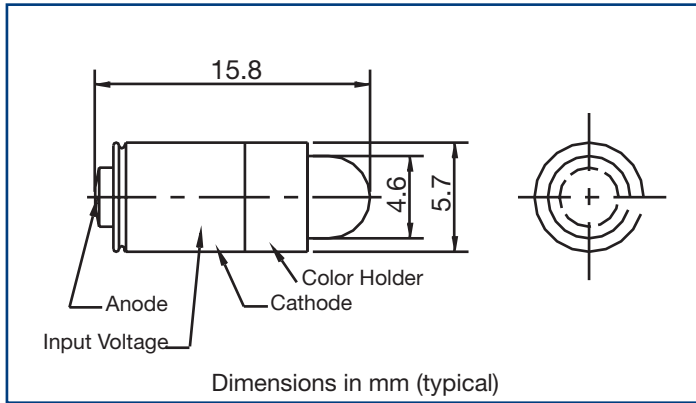
KPAN010



Ø Hole 14.0 mm

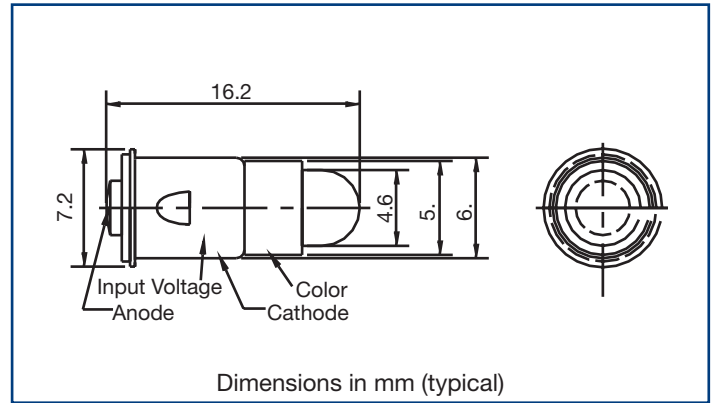
Dimensions in mm (typical)

K04XXXBLMG



MG Bases

K05XXXBLMF



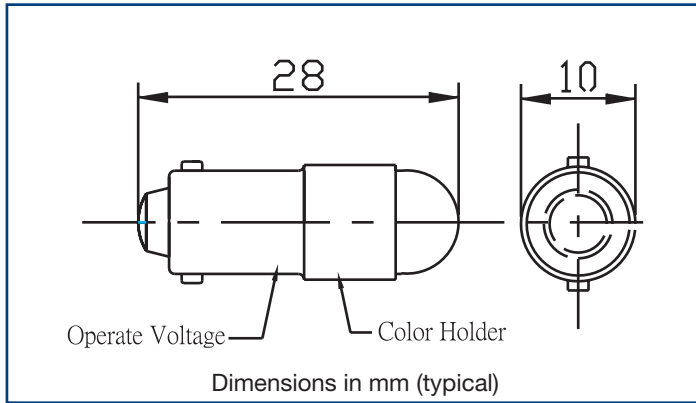
MF Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC	
					Min	Typ			
K04R06BLMG	Red/AlGaInP	630	Water Clear	06	250	350	12	Bi-polar	
K04R12BLMG	Red/AlGaInP	630	Water Clear	12	40	550	20		
K04R24BLMG	Red/AlGaInP	630	Water Clear	24	250	350	13		
K04Y06BLMG	Yellow/AlGaInP	587	Water Clear	06	250	350	12		
K04Y12BLMG	Yellow/AlGaInP	587	Water Clear	12	400	550	20		
K04Y24BLMG	Yellow/AlGaInP	587	Water Clear	24	250	350	13		
K04G06BLMG	Green / InGaN/SiC	525	Water Clear	06	350	500	9		
K04G12BLMG	Green / InGaN/SiC	525	Water Clear	12	500	800	18		VDC
K04G24BLMG	Green / InGaN/SiC	525	Water Clear	24	400	550	13		
K04U06BLMG	Blue / InGaN/SiC	470	Water Clear	06	250	350	9		
K04U12BLMG	Blue / InGaN/SiC	470	Water Clear	12	400	550	18		
K04U24BLMG	Blue / InGaN/SiC	470	Water Clear	24	350	500	13		
K04W06BLMG	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	06	250	350	9		
K04W12BLMG	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	12	400	550	18		
K04W24BLMG	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	24	350	500	13		
K05R06BLMF	Red/AlGaInP	630	Water Clear	06	250	350	12	VDC	
K05R12BLMF	Red/AlGaInP	630	Water Clear	12	40	550	20		
K05R24BLMF	Red/AlGaInP	630	Water Clear	24	250	350	13		
K05Y06BLMF	Yellow/AlGaInP	587	Water Clear	06	250	350	12		
K05Y12BLMF	Yellow/AlGaInP	587	Water Clear	12	400	550	20		
K05Y24BLMF	Yellow/AlGaInP	587	Water Clear	24	250	350	13		
K05G06BLMF	Green / InGaN/SiC	525	Water Clear	06	350	500	9		
K05G12BLMF	Green / InGaN/SiC	525	Water Clear	12	500	800	18		
K05G24BLMF	Green / InGaN/SiC	525	Water Clear	24	400	550	13		
K05U06BLMF	Blue / InGaN/SiC	470	Water Clear	06	250	350	9		
K05U12BLMF	Blue / InGaN/SiC	470	Water Clear	12	400	550	18		
K05U24BLMF	Blue / InGaN/SiC	470	Water Clear	24	350	500	13		
K05W06BLMF	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	06	250	350	9		
K05W12BLMF	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	12	400	550	18		
K05W24BLMF	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	24	350	500	13		

All items listed in this page are for you reference only- we have a wide range of LED lamps available (more than 30 base size models & 200 base type models in 9 colors).

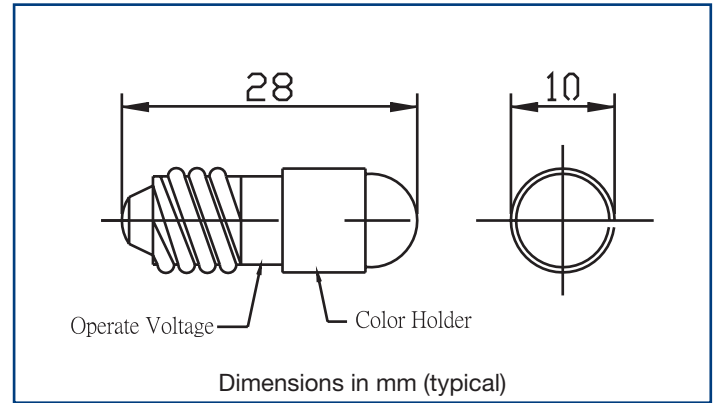
Therefore for any requirement you may have , we please you to let us have your request and we will immediately provide to send you drawings of our compatible model.

K13XXXBLLB



Ba9s Bases

K14XXXBLLS



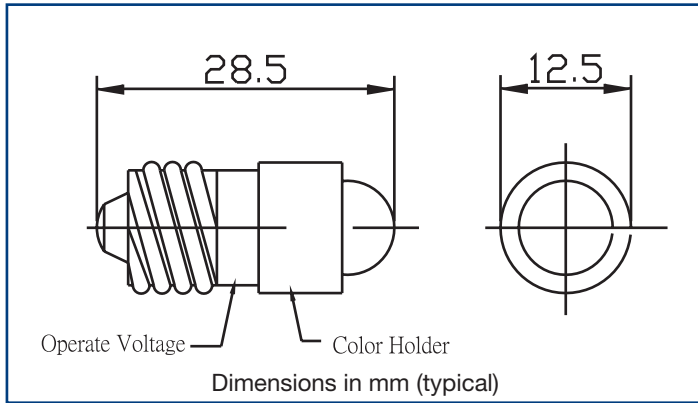
E10 Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC
					Min	Typ		
K13R06BLLB	Red/AlGaInP	630	Red	06	400	550	17	Bi-polar
K13R24BLLB	Red/AlGaInP	630	Red	24	300	400	14	
K13R110BLLB	Red/AlGaInP	630	Red	110	70	100	4.8	
K13R220BLLB	Red/AlGaInP	630	Red	220	30	50	2.5	
K13Y06BLLB	Yellow/AlGaInP	587	Yellow	06	400	550	17	
K13Y24BLLB	Yellow/AlGaInP	587	Yellow	24	300	400	14	
K13Y110BLLB	Yellow/AlGaInP	587	Yellow	110	70	100	4.8	
K13Y220BLLB	Yellow/AlGaInP	587	Yellow	220	30	50	2.5	
K13G06BLLB	Green / InGaN/SiC	525	Green	06	250	350	9	
K13G24BLLB	Green / InGaN/SiC	525	Green	24	500	800	14	
K13G110BLLB	Green / InGaN/SiC	525	Green	110	200	130	4.8	
K13G220BLLB	Green / InGaN/SiC	525	Green	220	50	70	2.5	
K13U06BLLB	Blue / InGaN/SiC	470	Blue	06	250	350	9	
K13U24BLLB	Blue / InGaN/SiC	470	Blue	24	400	550	14	
K13U110BLLB	Blue / InGaN/SiC	470	Blue	110	70	100	4.8	
K13U220BLLB	Blue / InGaN/SiC	470	Blue	220	30	50	2.5	
K13W06BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	06	250	350	9	
K13W24BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	24	500	800	14	
K13W110BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	110	100	130	4.8	
K13W220BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	220	30	50	2.5	
K14R06BLLS	Red/AlGaInP	630	Red	06	400	550	17	Bi-polar
K14R24BLLS	Red/AlGaInP	630	Red	24	300	400	14	
K14R110BLLS	Red/AlGaInP	630	Red	110	70	100	4.8	
K14R220BLLS	Red/AlGaInP	630	Red	220	30	50	2.5	
K14Y06BLLS	Yellow/AlGaInP	587	Yellow	06	400	550	17	
K14Y24BLLS	Yellow/AlGaInP	587	Yellow	24	300	400	14	
K14Y110BLLS	Yellow/AlGaInP	587	Yellow	110	70	100	4.8	
K14Y220BLLS	Yellow/AlGaInP	587	Yellow	220	30	50	2.5	
K14G06BLLS	Green / InGaN/SiC	525	Green	06	250	350	9	
K14G24BLLS	Green / InGaN/SiC	525	Green	24	500	800	14	
K14G110BLLS	Green / InGaN/SiC	525	Green	110	200	130	4.8	
K14G220BLLS	Green / InGaN/SiC	525	Green	220	50	70	2.5	
K14U06BLLS	Blue / InGaN/SiC	470	Blue	06	250	350	9	
K14U24BLLS	Blue / InGaN/SiC	470	Blue	24	400	550	14	
K14U110BLLS	Blue / InGaN/SiC	470	Blue	110	70	100	4.8	
K14U220BLLS	Blue / InGaN/SiC	470	Blue	220	30	50	2.5	
K14W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	06	250	350	9	
K14W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	24	500	800	14	
K14W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	110	100	130	4.8	
K14W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	220	30	50	2.5	

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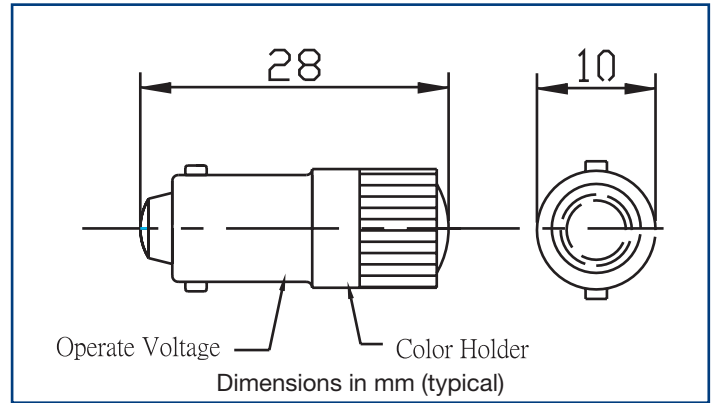
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K15XXXBLLS



E12 Bases

K16XXXBLLB



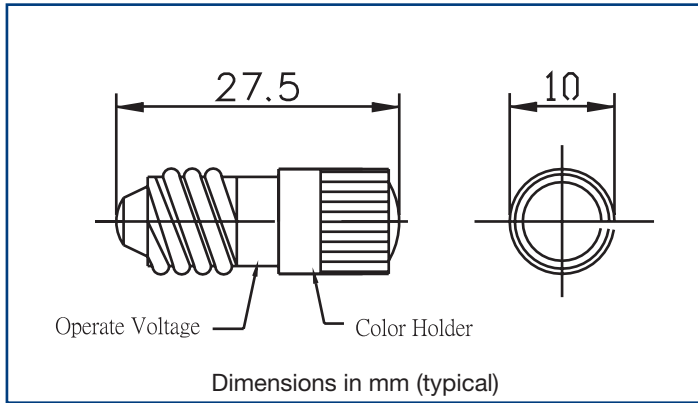
Ba9s Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC	
					Min	Typ			
K15R06BLLS	Red/AlGaInP	630	Red	06	400	550	17	Bi-polar	
K15R24BLLS	Red/AlGaInP	630	Red	24	300	400	14		
K15R110BLLS	Red/AlGaInP	630	Red	110	70	100	4.8		
K15R220BLLS	Red/AlGaInP	630	Red	220	30	50	2.5		
K15Y06BLLS	Yellow/AlGaInP	587	Yellow	06	400	550	17		
K15Y24BLLS	Yellow/AlGaInP	587	Yellow	24	300	400	14		
K15Y110BLLS	Yellow/AlGaInP	587	Yellow	110	70	100	4.8		
K15Y220BLLS	Yellow/AlGaInP	587	Yellow	220	30	50	2.5		
K15G06BLLS	Green / InGaN/SiC	525	Green	06	250	350	9		
K15G24BLLS	Green / InGaN/SiC	525	Green	24	500	800	14		
K15G110BLLS	Green / InGaN/SiC	525	Green	110	200	130	4.8		
K15G220BLLS	Green / InGaN/SiC	525	Green	220	50	70	2.5		
K15U06BLLS	Blue / InGaN/SiC	470	Blue	06	250	350	9		
K15U24BLLS	Blue / InGaN/SiC	470	Blue	24	400	550	14		
K15U110BLLS	Blue / InGaN/SiC	470	Blue	110	70	100	4.8		
K15U220BLLS	Blue / InGaN/SiC	470	Blue	220	30	50	2.5		
K15W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	06	250	350	9		
K15W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	24	500	800	14		
K15W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	110	100	130	4.8		
K15W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	220	30	50	2.5		
K16R06BLLB	Red/AlGaInP-GaAs	630	Red	06	300	400	20		Bi-polar
K16R12BLLB	Red/AlGaInP-GaAs	630	Red	12	300	400	20		
K16R24BLLB	Red/AlGaInP-GaAs	630	Red	24	400	400	10		
K16R110BLLB	Red/AlGaInP-GaAs	630	Red	110	100	150	4.8		
K16R220BLLB	Red/AlGaInP-GaAs	630	Red	220	50	80	2.5		
K16Y06BLLB	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20		
K16Y06BLLB	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20		
K16Y24BLLB	Yellow/AlGaInP-GaAs	587	Yellow	24	300	400	10		
K16Y110BLLB	Yellow/AlGaInP-GaAs	587	Yellow	110	100	150	4.8		
K16Y220BLLB	Yellow/AlGaInP-GaAs	587	Yellow	220	50	80	2.5		
K16G06BLLB	Green / InGaN/Gap	575	Green	06	300	150	20		
K16G12BLLB	Green / InGaN/Gap	575	Green	12	300	150	20		
K16G24BLLB	Green / InGaN/Gap	575	Green	24	300	150	10		
K16G110BLLB	Green / InGaN/Gap	575	Green	110	40	55	4.8		
K16G220BLLB	Green / InGaN/Gap	575	Green	220	20	30	2.5		

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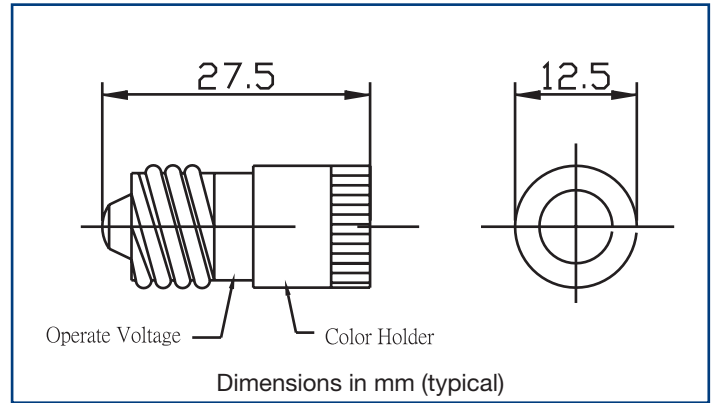
Therefore for any requirement you may have , we please you to let us have your request and we will immediately provide to send you drawings of our compatible model.

K17XXXBLLS



E10 Bases

K18XXXBLLS



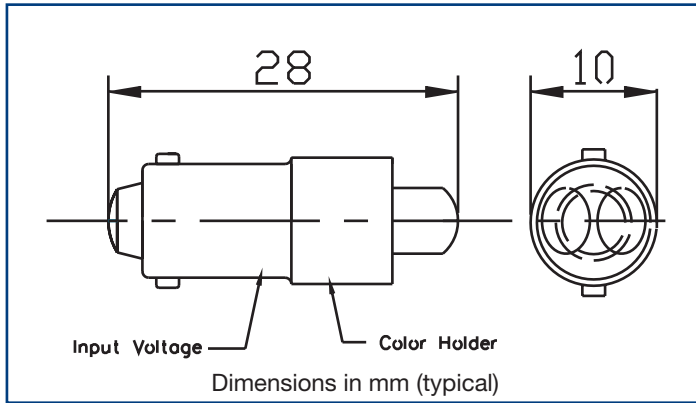
E12 Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC
					Min	Typ		
K17R06BLLS	Red/AlGaInP-GaAs	630	Red	06	300	400	20	Bi-polar
K17R12BLLS	Red/AlGaInP-GaAs	630	Red	12	300	400	20	
K17R24BLLS	Red/AlGaInP-GaAs	630	Red	24	400	400	10	
K17R110BLLS	Red/AlGaInP-GaAs	630	Red	110	100	150	4.8	
K17R220BLLS	Red/AlGaInP-GaAs	630	Red	220	50	80	2.5	
K17Y06BLLS	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20	
K17Y06BLLS	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20	
K17Y24BLLS	Yellow/AlGaInP-GaAs	587	Yellow	24	300	400	10	
K17Y110BLLS	Yellow/AlGaInP-GaAs	587	Yellow	110	100	150	4.8	
K17Y220BLLS	Yellow/AlGaInP-GaAs	587	Yellow	220	50	80	2.5	
K17G06BLLS	Green / InGaN/Gap	575	Green	06	300	150	20	
K17G12BLLS	Green / InGaN/Gap	575	Green	12	300	150	20	
K17G24BLLS	Green / InGaN/Gap	575	Green	24	300	150	10	
K17G110BLLS	Green / InGaN/Gap	575	Green	110	40	55	4.8	
K17G220BLLS	Green / InGaN/Gap	575	Green	220	20	30	2.5	
K18R06BLLS	Red/AlGaInP-GaAs	630	Red	06	300	400	20	Bi-polar
K18R12BLLS	Red/AlGaInP-GaAs	630	Red	12	300	400	20	
K18R24BLLS	Red/AlGaInP-GaAs	630	Red	24	400	400	10	
K18R110BLLS	Red/AlGaInP-GaAs	630	Red	110	100	150	4.8	
K18R220BLLS	Red/AlGaInP-GaAs	630	Red	220	50	80	2.5	
K18Y06BLLS	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20	
K18Y06BLLS	Yellow/AlGaInP-GaAs	587	Yellow	06	300	400	20	
K18Y24BLLS	Yellow/AlGaInP-GaAs	587	Yellow	24	300	400	10	
K18Y110BLLS	Yellow/AlGaInP-GaAs	587	Yellow	110	100	150	4.8	
K18Y220BLLS	Yellow/AlGaInP-GaAs	587	Yellow	220	50	80	2.5	
K18G06BLLS	Green / InGaN/Gap	575	Green	06	300	150	20	
K18G12BLLS	Green / InGaN/Gap	575	Green	12	300	150	20	
K18G24BLLS	Green / InGaN/Gap	575	Green	24	300	150	10	
K18G110BLLS	Green / InGaN/Gap	575	Green	110	40	55	4.8	
K18G220BLLS	Green / InGaN/Gap	575	Green	220	20	30	2.5	

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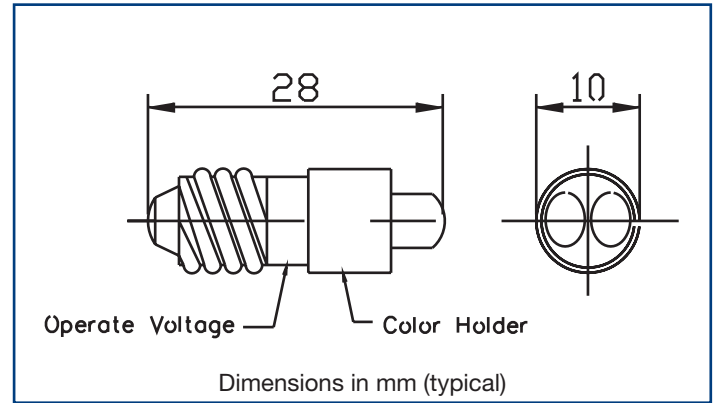
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K20XXXBLLB



Ba9s Bases

K21XXXBLLS



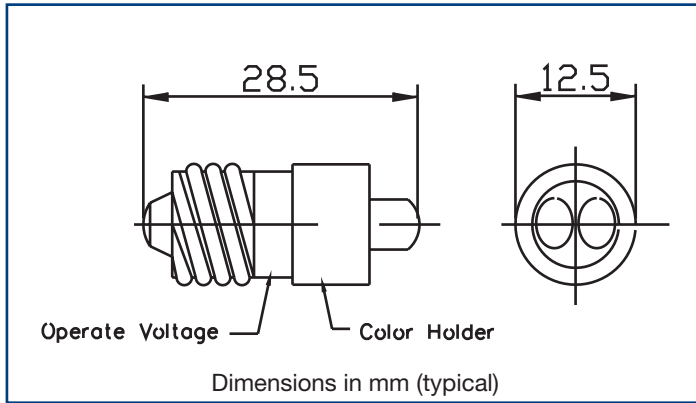
E10 Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC Bi-polar
					Min	Typ		
K20R06BLLB	Red/AlGaInP	628	Red	06	5600	8000	40	
K20R24BLLB	Red/AlGaInP	628	Red	24	5600	8000	20	
K20R110BLLB	Red/AlGaInP	628	Red	110	1000	1400	4.8	
K20R220BLLB	Red/AlGaInP	628	Red	220	400	600	2.5	
K20Y06BLLB	Yellow/AlGaInP	588	Yellow	06	5200	7500	40	
K20Y24BLLB	Yellow/AlGaInP	588	Yellow	24	5200	7500	20	
K20Y110BLLB	Yellow/AlGaInP	588	Yellow	110	900	1300	4.8	
K20Y220BLLB	Yellow/AlGaInP	588	Yellow	220	350	550	2.5	
K20G06BLLB	Green / InGaN/SiC	525	Green	06	6300	9000	40	
K20G24BLLB	Green / InGaN/SiC	525	Green	24	6300	9000	20	
K20G110BLLB	Green / InGaN/SiC	525	Green	110	1100	1600	4.8	Bi-polar
K20G220BLLB	Green / InGaN/SiC	525	Green	220	500	700	2.5	
K20U06BLLB	Blue / InGaN/SiC	470	Blue	06	1400	2000	40	
K20U24BLLB	Blue / InGaN/SiC	470	Blue	24	1400	2000	20	
K20U110BLLB	Blue / InGaN/SiC	470	Blue	110	250	350	4.8	
K20U220BLLB	Blue / InGaN/SiC	470	Blue	220	100	150	2.5	
K20W06BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	06	2400	3500	40	
K20W24BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	24	2400	3500	20	
K20W110BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	110	400	600	4.8	
K20W220BLLB	White / InGaN/SiC	X=0.31 Y=0.32	White	220	200	250	2.5	
<hr/>								
K21R06BLLS	Red/AlGaInP	628	Red	06	5600	8000	40	
K21R24BLLS	Red/AlGaInP	628	Red	24	5600	8000	20	
K21R110BLLS	Red/AlGaInP	628	Red	110	1000	1400	4.8	
K21R220BLLS	Red/AlGaInP	628	Red	220	400	600	2.5	
K21Y06BLLS	Yellow/AlGaInP	588	Yellow	06	5200	7500	40	
K21Y24BLLS	Yellow/AlGaInP	588	Yellow	24	5200	7500	20	
K21Y110BLLS	Yellow/AlGaInP	588	Yellow	110	900	1300	4.8	
K21Y220BLLS	Yellow/AlGaInP	588	Yellow	220	350	550	2.5	
K21G06BLLS	Green / InGaN/SiC	525	Green	06	6300	9000	40	
K21G24BLLS	Green / InGaN/SiC	525	Green	24	6300	9000	20	
K21G110BLLS	Green / InGaN/SiC	525	Green	110	1100	1600	4.8	Bi-polar
K21G220BLLS	Green / InGaN/SiC	525	Green	220	500	700	2.5	
K21U06BLLS	Blue / InGaN/SiC	470	Blue	06	1400	2000	40	
K21U24BLLS	Blue / InGaN/SiC	470	Blue	24	1400	2000	20	
K21U110BLLS	Blue / InGaN/SiC	470	Blue	110	250	350	4.8	
K21U220BLLS	Blue / InGaN/SiC	470	Blue	220	100	150	2.5	
K21W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	06	2400	3500	40	
K21W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	24	2400	3500	20	
K21W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	110	400	600	4.8	
K21W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	220	200	250	2.5	

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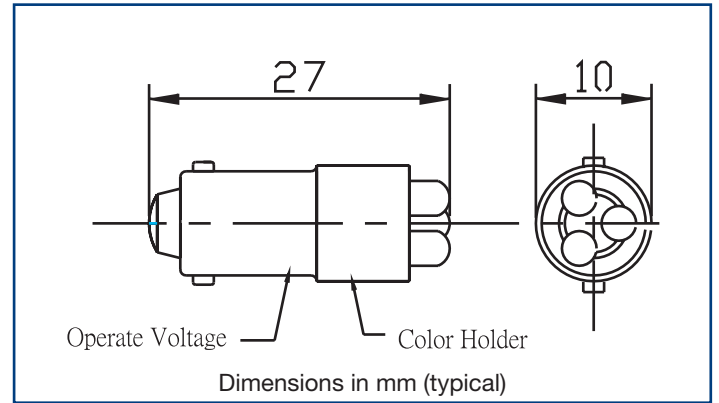
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K22XXXBLLS



E12 Bases

K30XXXBLLB



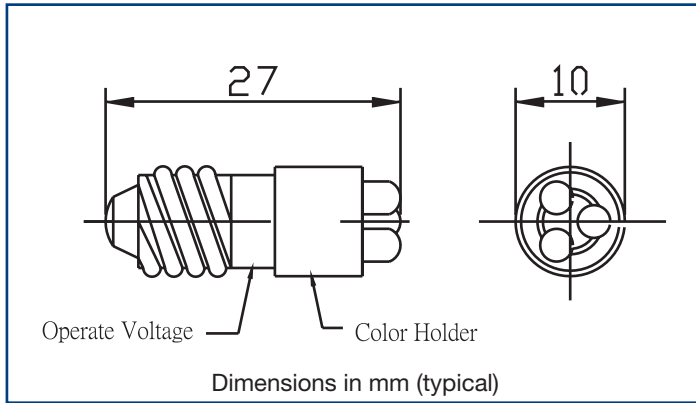
Ba9s Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC	
					Min	Typ			
K22R06BLLS	Red/AlGaInP	628	Red	06	5600	8000	40	Bi-polar	
K22R24BLLS	Red/AlGaInP	628	Red	24	5600	8000	20		
K22R110BLLS	Red/AlGaInP	628	Red	110	1000	1400	4.8		
K22R220BLLS	Red/AlGaInP	628	Red	220	400	600	2.5		
K22Y06BLLS	Yellow/AlGaInP	588	Yellow	06	5200	7500	40		
K22Y24BLLS	Yellow/AlGaInP	588	Yellow	24	5200	7500	20		
K22Y110BLLS	Yellow/AlGaInP	588	Yellow	110	900	1300	4.8		
K22Y220BLLS	Yellow/AlGaInP	588	Yellow	220	350	550	2.5		
K22G06BLLS	Green / InGaN/SiC	525	Green	06	6300	9000	40		
K22G24BLLS	Green / InGaN/SiC	525	Green	24	6300	9000	20		
K22G110BLLS	Green / InGaN/SiC	525	Green	110	1100	1600	4.8		
K22G220BLLS	Green / InGaN/SiC	525	Green	220	500	700	2.5		
K22U06BLLS	Blue / InGaN/SiC	470	Blue	06	1400	2000	40		
K22U24BLLS	Blue / InGaN/SiC	470	Blue	24	1400	2000	20		
K22U110BLLS	Blue / InGaN/SiC	470	Blue	110	250	350	4.8		
K22U220BLLS	Blue / InGaN/SiC	470	Blue	220	100	150	2.5		
K22W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	06	2400	3500	40		
K22W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	24	2400	3500	20		
K22W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	110	400	600	4.8		
K22W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	White	220	200	250	2.5		
K30R06BLLB	Red/AlGaInP	628	Water Clear	06	15000	21000	72		Bi-polar
K30R24BLLB	Red/AlGaInP	628	Water Clear	24	15000	21000	20		
K30R110BLLB	Red/AlGaInP	628	Water Clear	110	2500	3500	4.8		
K30R220BLLB	Red/AlGaInP	628	Water Clear	220	1000	1500	2.5		
K30Y06BLLB	Yellow/AlGaInP	588	Water Clear	06	15000	21000	72		
K30Y24BLLB	Yellow/AlGaInP	588	Water Clear	24	15000	21000	20		
K30Y110BLLB	Yellow/AlGaInP	588	Water Clear	110	2500	3500	4.8		
K30Y220BLLB	Yellow/AlGaInP	588	Water Clear	220	1000	1500	2.5		
K30G06BLLB	Green / InGaN/SiC	525	Water Clear	06	12000	17000	65		
K30G24BLLB	Green / InGaN/SiC	525	Water Clear	24	12000	17000	20		
K30G110BLLB	Green / InGaN/SiC	525	Water Clear	110	2000	3000	4.8		
K30G220BLLB	Green / InGaN/SiC	525	Water Clear	220	900	1400	2.5		
K30U06BLLB	Blue / InGaN/SiC	470	Water Clear	06	3000	4500	65		
K30U24BLLB	Blue / InGaN/SiC	470	Water Clear	24	3000	4500	20		
K30U110BLLB	Blue / InGaN/SiC	470	Water Clear	110	500	800	4.8		
K30U220BLLB	Blue / InGaN/SiC	470	Water Clear	220	200	350	2.5		
K30W06BLLB	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	06	7200	10000	65		
K30W24BLLB	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	24	7200	10000	20		
K30W110BLLB	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	110	1300	1800	4.5		
K30W220BLLB	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	220	550	750	2.5		

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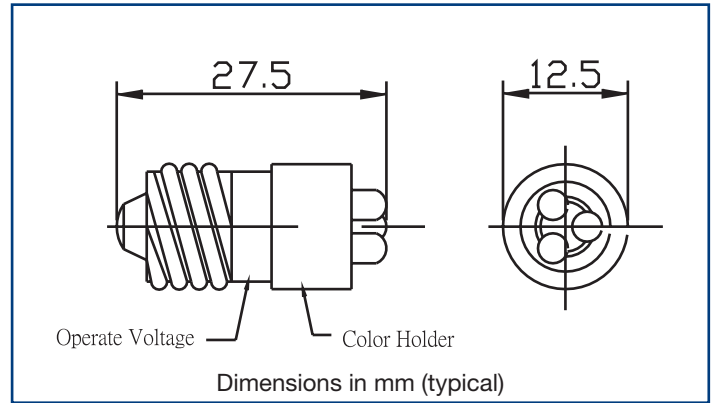
Therefore for any requirement you may have , we please you to let us have your request and we will immediately provide to send you drawings of our compatible model.

K31XXXBLLS



E10 Bases

K32XXXBLLS



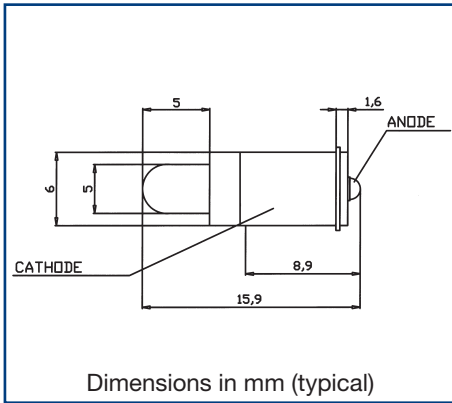
E12 Bases

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Lumi.Intensity @ VIN (mcd)		Forward Current@VIN (mA)	VDC VAC
					Min	Typ		
K31R06BLLS	Red/AlGaInP	628	Water Clear	06	15000	21000	72	Bi-polar
K31R24BLLS	Red/AlGaInP	628	Water Clear	24	15000	21000	20	
K31R110BLLS	Red/AlGaInP	628	Water Clear	110	2500	3500	4.8	
K31R220BLLS	Red/AlGaInP	628	Water Clear	220	1000	1500	2.5	
K31Y06BLLS	Yellow/AlGaInP	588	Water Clear	06	15000	21000	72	
K31Y24BLLS	Yellow/AlGaInP	588	Water Clear	24	15000	21000	20	
K31Y110BLLS	Yellow/AlGaInP	588	Water Clear	110	2500	3500	4.8	
K31Y220BLLS	Yellow/AlGaInP	588	Water Clear	220	1000	1500	2.5	
K31G06BLLS	Green / InGaN/SiC	525	Water Clear	06	12000	17000	65	
K31G24BLLS	Green / InGaN/SiC	525	Water Clear	24	12000	17000	20	
K31G110BLLS	Green / InGaN/SiC	525	Water Clear	110	2000	3000	4.8	
K31G220BLLS	Green / InGaN/SiC	525	Water Clear	220	900	1400	2.5	
K31U06BLLS	Blue / InGaN/SiC	470	Water Clear	06	3000	4500	65	
K31U24BLLS	Blue / InGaN/SiC	470	Water Clear	24	3000	4500	20	
K31U110BLLS	Blue / InGaN/SiC	470	Water Clear	110	500	800	4.8	
K31U220BLLS	Blue / InGaN/SiC	470	Water Clear	220	200	350	2.5	
K31W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	06	7200	10000	65	
K31W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	24	7200	10000	20	
K31W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	110	1300	1800	4.5	
K31W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	220	550	750	2.5	
K32R06BLLS	Red/AlGaInP	628	Water Clear	06	15000	21000	72	
K32R24BLLS	Red/AlGaInP	628	Water Clear	24	15000	21000	20	
K32R110BLLS	Red/AlGaInP	628	Water Clear	110	2500	3500	4.8	
K32R220BLLS	Red/AlGaInP	628	Water Clear	220	1000	1500	2.5	
K32Y06BLLS	Yellow/AlGaInP	588	Water Clear	06	15000	21000	72	
K32Y24BLLS	Yellow/AlGaInP	588	Water Clear	24	15000	21000	20	
K32Y110BLLS	Yellow/AlGaInP	588	Water Clear	110	2500	3500	4.8	
K32Y220BLLS	Yellow/AlGaInP	588	Water Clear	220	1000	1500	2.5	
K32G06BLLS	Green / InGaN/SiC	525	Water Clear	06	12000	17000	65	
K32G24BLLS	Green / InGaN/SiC	525	Water Clear	24	12000	17000	20	
K32G110BLLS	Green / InGaN/SiC	525	Water Clear	110	2000	3000	4.8	
K32G220BLLS	Green / InGaN/SiC	525	Water Clear	220	900	1400	2.5	
K32U06BLLS	Blue / InGaN/SiC	470	Water Clear	06	3000	4500	65	
K32U24BLLS	Blue / InGaN/SiC	470	Water Clear	24	3000	4500	20	
K32U110BLLS	Blue / InGaN/SiC	470	Water Clear	110	500	800	4.8	
K32U220BLLS	Blue / InGaN/SiC	470	Water Clear	220	200	350	2.5	
K32W06BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	06	7200	10000	65	
K32W24BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	24	7200	10000	20	
K32W110BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	110	1300	1800	4.5	
K32W220BLLS	White / InGaN/SiC	X=0.31 Y=0.32	Water Clear	220	550	750	2.5	

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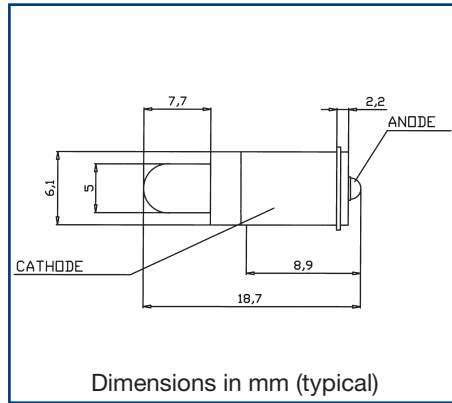
K50XXXBLLF



Dimensions in mm (typical)

5mm Flange Base

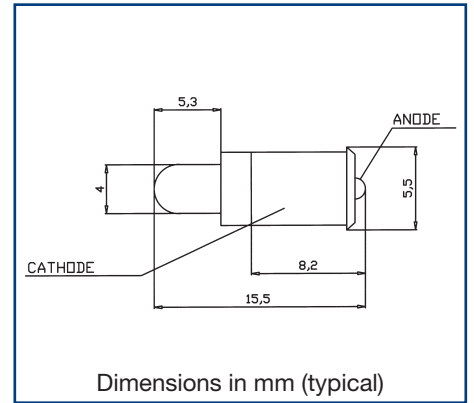
K51XXXBLLF



Dimensions in mm (typical)

5mm Flange Base

K40XXXBLLF



Dimensions in mm (typical)

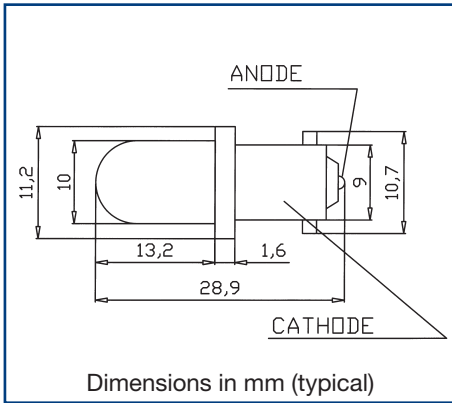
4mm Flange Base

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Iv(mcd) V=6/12/24V		Viewing Angle 2θ
					Min	Typ	
K50R06BLLF	InGaAIP/Red	640	Water Clear	6	1000	2000	60°
K50R12BLLF	InGaAIP/Red	640	Water Clear	12	1000	2000	60°
K50R24BLLF	InGaAIP/Red	640	Water Clear	24	1000	2000	60°
K50G06BLLF	InGaAIP/Green	565	Water Clear	6	400	1000	60°
K50G12BLLF	InGaAIP/Green	565	Water Clear	12	400	1000	60°
K50G24BLLF	InGaAIP/Green	565	Water Clear	24	400	1000	60°
K50Y06BLLF	InGaAIP/Yellow	590	Water Clear	6	400	1000	60°
K50Y12BLLF	InGaAIP/Yellow	590	Water Clear	12	400	1000	60°
K50Y24BLLF	InGaAIP/Yellow	590	Water Clear	24	400	1000	60°
K51R06BLLF	InGaAIP/Red	640	Water Clear	6	1000	2000	90°
K51R12BLLF	InGaAIP/Red	640	Water Clear	12	1000	2000	90°
K51R24BLLF	InGaAIP/Red	640	Water Clear	24	1000	2000	90°
K51G06BLLF	InGaAIP/Green	565	Water Clear	6	400	1000	90°
K51G12BLLF	InGaAIP/Green	565	Water Clear	12	400	1000	90°
K51G24BLLF	InGaAIP/Green	565	Water Clear	24	400	1000	90°
K51Y06BLLF	InGaAIP/Yellow	590	Water Clear	6	400	1000	90°
K51Y12BLLF	InGaAIP/Yellow	590	Water Clear	12	400	1000	90°
K51Y24BLLF	InGaAIP/Yellow	590	Water Clear	24	400	1000	90°
K40R06BLLF	InGaAIP/Red	640	Water Clear	6	1000	2000	60°
K40R12BLLF	InGaAIP/Red	640	Water Clear	12	1000	2000	60°
K40R24BLLF	InGaAIP/Red	640	Water Clear	24	1000	2000	60°
K40G06BLLF	InGaAIP/Green	565	Water Clear	6	400	1000	60°
K40G12BLLF	InGaAIP/Green	565	Water Clear	12	400	1000	60°
K40G24BLLF	InGaAIP/Green	565	Water Clear	24	400	1000	60°
K40Y06BLLF	InGaAIP/Yellow	590	Water Clear	6	400	1000	60°
K40Y12BLLF	InGaAIP/Yellow	590	Water Clear	12	400	1000	60°
K40Y24BLLF	InGaAIP/Yellow	590	Water Clear	24	400	1000	60°

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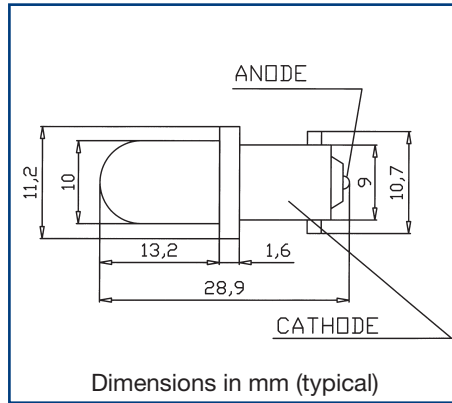
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K10XXXBLLB



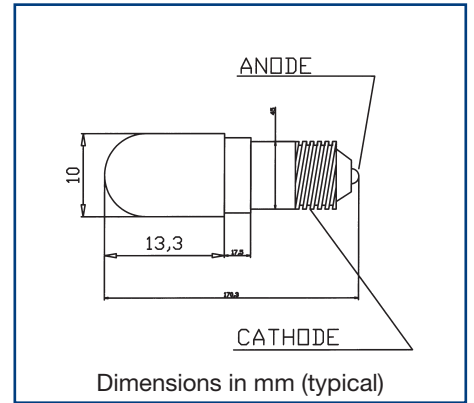
10mm Bayonet Base

K11XXXBLLB



10mm Bayonet Base

K12XXXBLLS



10mm Screw Base

Code	Emitting color + Material	Wave length (nm)	Lens Type	Operate Voltage (V)	Iv(mcd) V=6/12/24V		Viewing Angle 2θ
					Min	Typ	
K10R06BLLB	InGaAIP/Red	640	Water Clear	6	1000	2500	40°
K10R12BLLB	InGaAIP/ Red	640	Water Clear	12	1000	2500	40°
K10R24BLLB	InGaAIP/Red	640	Water Clear	24	1000	2500	40°
K10G06BLLB	InGaAIP/Green	565	Water Clear	6	500	1000	40°
K10G12BLLB	InGaAIP/Green	565	Water Clear	12	500	1000	40°
K10G24BLLB	InGaAIP/Green	565	Water Clear	24	500	1000	40°
K10Y06BLLB	InGaAIP/Yellow	590	Water Clear	6	700	1500	40°
K10Y12BLLB	InGaAIP/Yellow	590	Water Clear	12	700	1500	40°
K10Y24BLLB	InGaAIP/Yellow	590	Water Clear	24	700	1500	40°
K11R06BLLB	InGaAIP/Red	640	Water Clear	6	1000	2500	80°
K11R12BLLB	InGaAIP/Red	640	Water Clear	12	1000	2500	80°
K11R24BLLB	InGaAIP/Red	640	Water Clear	24	1000	2500	80°
K11G06BLLB	InGaAIP/Green	565	Water Clear	6	500	1000	80°
K11G12BLLB	InGaAIP/Green	565	Water Clear	12	500	1000	80°
K11G24BLLB	InGaAIP/Green	565	Water Clear	24	500	1000	80°
K11Y06BLLB	InGaAIP/Yellow	590	Water Clear	6	700	1500	80°
K11Y12BLLB	InGaAIP/Yellow	590	Water Clear	12	700	1500	80°
K11Y24BLLB	InGaAIP/Yellow	590	Water Clear	24	700	1500	80°
K12R06BLLS	InGaAIP/Red	640	Water Clear	6	1000	2500	40°
K12R12BLLS	InGaAIP/Red	640	Water Clear	12	1000	2500	40°
K12R24BLLS	InGaAIP/Red	640	Water Clear	24	1000	2500	40°
K12G06BLLS	InGaAIP/Green	565	Water Clear	6	500	1000	40°
K12G12BLLS	InGaAIP/Green	565	Water Clear	12	500	1000	40°
K12G24BLLS	InGaAIP/Green	565	Water Clear	24	500	1000	40°
K12Y06BLLS	InGaAIP/Yellow	590	Water Clear	6	700	1500	40°
K12Y12BLLS	InGaAIP/Yellow	590	Water Clear	12	700	1500	40°
K12Y24BLLS	InGaAIP/Yellow	590	Water Clear	24	700	1500	40°

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