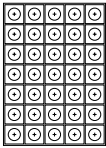

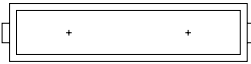
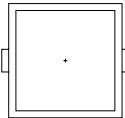
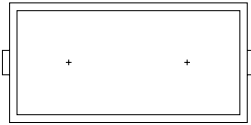
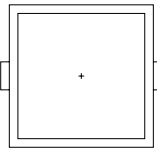
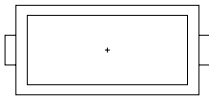
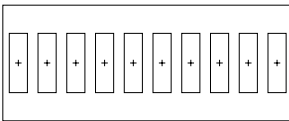
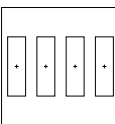
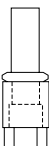
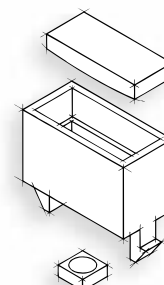
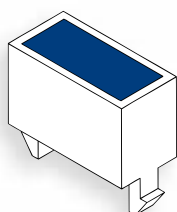


Package Outline Drawing	Part No.	No. of LEDS	Color (nm)	Effective Viewing (Module Dimensions) mm.	Lens	Page No.
	KLB100	35	467 to 660	Ø 3mm (for 1 LEDS) (25,40 x 35,56 h= 8 to 56)	Clear	20
	KLB300	1	430 to 700	8,89 x 3,81 x 10,16 (10,16 x 4,953 x 10,16)	Diffused	4
	KLB400	2	430 to 700	19,05 x 3,81 x 10,16 (20,32 x 4,953 x 10,16)	Diffused	6
	KLB500	1	430 to 700	8,89 x 8,89 x 10,16 (10,16 x 10,16 x 10,16)	Diffused	8
	KLB600	2	430 to 700	19,05 x 8,89 x 10,16 (20,32 x 10,16 x 10,16)	Diffused	10
	KLB700	1	430 to 700	14 x 14 x 10,16 (15 x 15 x 10,16)	Diffused	12
	KLB800	1	430 to 700	13 x 6,50 x 10,16 (14 x 7,50 x 10,16)	Diffused	14
	KLB900	10	467 to 660	5,08 x 1,52 x 8,13 (for 1 LEDS) (24,40 x 10,16 x 8,13)	Diffused	16
	KLB930	3	467 to 660	5,08 x 1,52 x 8,13 (for 1 LEDS) (7,62 x 10,16 x 8,13)	Diffused	17
	KLB940	4	467 to 660	5,08 x 1,52 x 8,13 (for 1 LEDS) (10,16 x 10,16 x 8,13)	Diffused	18
	KSMJ KSMD	1 to 8	467 to 660	Ø 3 mm (for 1 LEDS) h = 6,5 to 54,5 mm	Clear	22

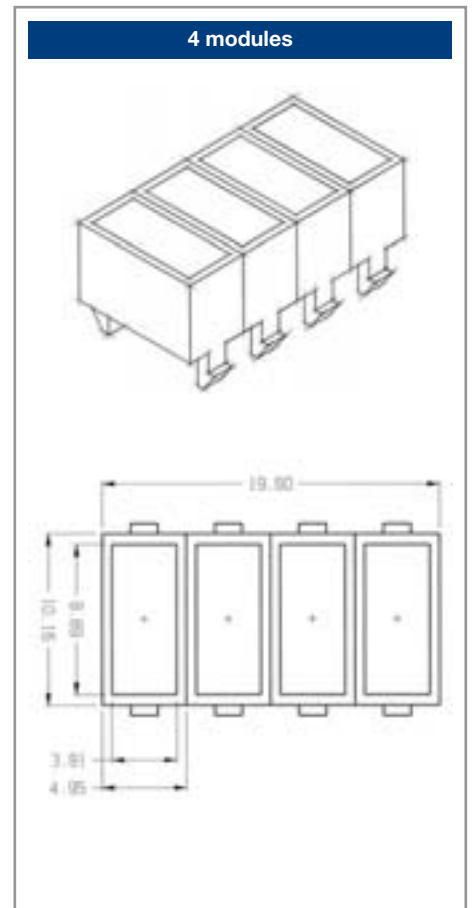
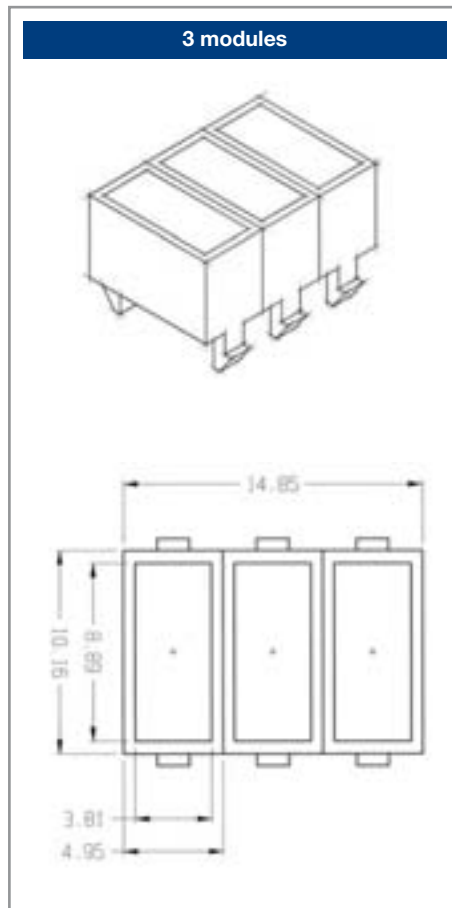
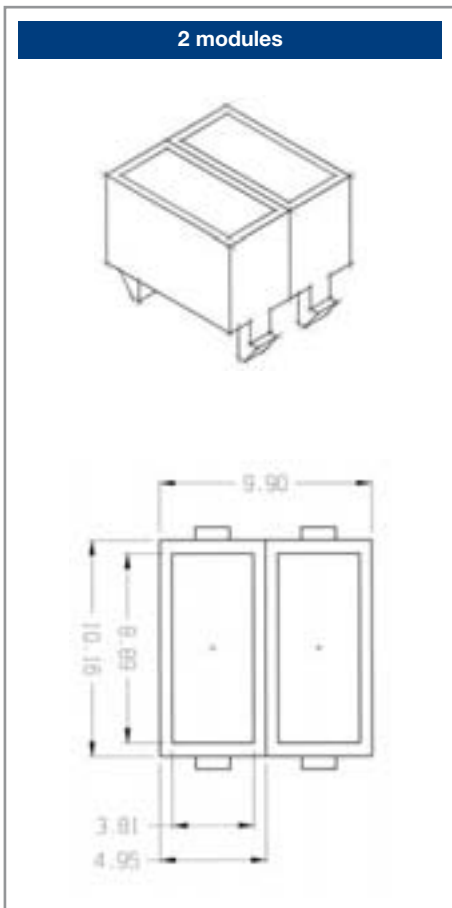
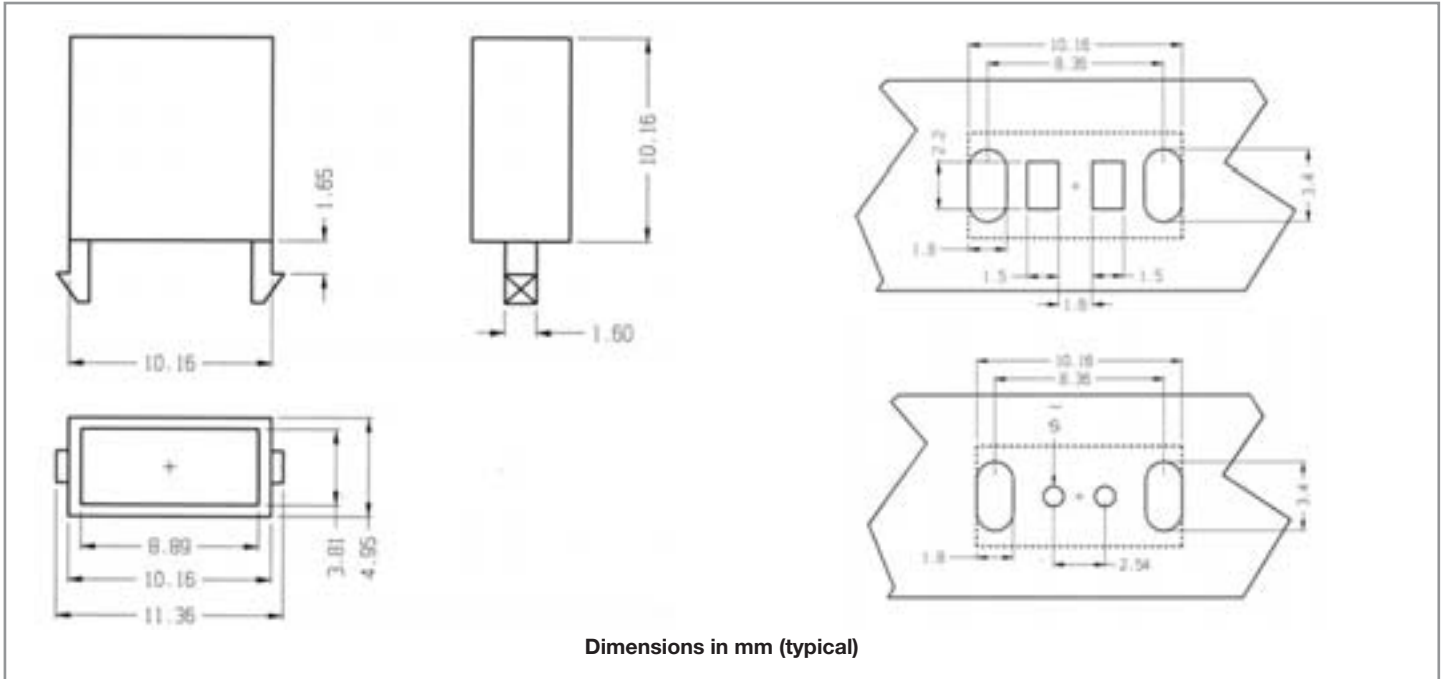
FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ Excellent on/off contrast
- ▶ Choise of 9 bright colors
- ▶ Uniform light area
- ▶ Easily mounted on PCB by snap-in
- ▶ Arrangeable in rows
- ▶ Industry Standard Footprint
- ▶ Designed for low current operation
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ LEDs color can be mixed in a single housing
- ▶ Reduce insertion cost
- ▶ Case in different colors
- ▶ Flush mountable
- ▶ Custom version without cost



Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.		Iv (mcd) Typ	IF (mA) Typ	Vf (Volt) @ 20mA	Case Colour
SMD (PLCC2 3,2x2,8)									
KLB300 W-Y	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	138	20	2,2	White
KLB300 Y-Y	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	138	20	2,2	Yellow
KLB300 W-YL	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	5	2	2,1	White
KLB300 Y-YL	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	5	2	2,1	Yellow
KLB300 W-A	10,16x4,953x10,16	8,89x3,81	1	Amber	615	149	20	2,1	White
KLB300 Y-A	10,16x4,953x10,16	8,89x3,81	1	Amber	615	149	20	2,1	Yellow
KLB300 W-W	10,16x4,953x10,16	8,89x3,81	1	White	X=0,30 y=0,32 180	20	20	4,2	White
KLB300 W-R	10,16x4,953x10,16	8,89x3,81	1	Red	630	90	20	2,2	White
KLB300 R-R	10,16x4,953x10,16	8,89x3,81	1	Red	630	90	20	2,2	Red
KLB300 W-RL	10,16x4,953x10,16	8,89x3,81	1	Red	628	5	2	2,2	White
KLB300 R-RL	10,16x4,953x10,16	8,89x3,81	1	Red	628	5	2	2,2	Red
KLB300 W-U	10,16x4,953x10,16	8,89x3,81	1	Blue	470	47	20	4,5	White
KLB300 U-U	10,16x4,953x10,16	8,89x3,81	1	Blue	470	47	20	4,5	Blue
KLB300 W-G	10,16x4,953x10,16	8,89x3,81	1	Green	570	120	20	2,1	White
KLB300 G-G	10,16x4,953x10,16	8,89x3,81	1	Green	570	120	20	2,1	Green
KLB300 W-GL	10,16x4,953x10,16	8,89x3,81	1	Green	570	5	2	2,1	White
KLB300 G-GL	10,16x4,953x10,16	8,89x3,81	1	Green	570	5	2	2,1	Green
KLB300 W-I	10,16x4,953x10,16	8,89x3,81	1	Super red	635	185	20	2,2	White
KLB300 R-I	10,16x4,953x10,16	8,89x3,81	1	Super red	635	185	20	2,2	Red
KLB300 W-B	10,16x4,953x10,16	8,89x3,81	1	Red-Green	630/570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
KLB310 W-Y	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	25	20	2,2	White
KLB310 Y-Y	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	25	20	2,2	Yellow
KLB310 W-YL	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	5	2	2,1	White
KLB310 Y-YL	10,16x4,953x10,16	8,89x3,81	1	Yellow	590	5	2	2,1	Yellow
KLB310 W-A	10,16x4,953x10,16	8,89x3,81	1	Amber	615	136	20	2,1	White
KLB310 Y-A	10,16x4,953x10,16	8,89x3,81	1	Amber	615	136	20	2,1	Yellow
KLB310 W-W	10,16x4,953x10,16	8,89x3,81	1	White	X=0,30 y=0,32 300	20	20	4,2	White
KLB310 W-R	10,16x4,953x10,16	8,89x3,81	1	Red	625	32	20	2,2	White
KLB310 R-R	10,16x4,953x10,16	8,89x3,81	1	Red	625	32	20	2,2	Red
KLB310 W-RL	10,16x4,953x10,16	8,89x3,81	1	Red	625	5	2	2,2	White
KLB310 R-RL	10,16x4,953x10,16	8,89x3,81	1	Red	625	5	2	2,2	Red
KLB310 W-U	10,16x4,953x10,16	8,89x3,81	1	Blue	470	405	20	4,3	White
KLB310 U-U	10,16x4,953x10,16	8,89x3,81	1	Blue	470	405	20	4,3	Blue
KLB310 W-G	10,16x4,953x10,16	8,89x3,81	1	Green	565	30	20	2,1	White
KLB310 G-G	10,16x4,953x10,16	8,89x3,81	1	Green	565	30	20	2,1	Green
KLB310 W-GL	10,16x4,953x10,16	8,89x3,81	1	Green	565	5	2	2,1	White
KLB310 G-GL	10,16x4,953x10,16	8,89x3,81	1	Green	565	5	2	2,1	Green
KLB310 W-I	10,16x4,953x10,16	8,89x3,81	1	Super red	625	85	20	2,2	White
KLB310 R-I	10,16x4,953x10,16	8,89x3,81	1	Super red	625	85	20	2,2	Red
KLB310 W-B	10,16x4,953x10,16	8,89x3,81	1	Red-Green	625/565	30/30	20	2,2	White



OPTIONS AVAILABLE

- ◆ Different Lengths & Shape
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 3.000 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Light Push Button
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature: -40 to +125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to +125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

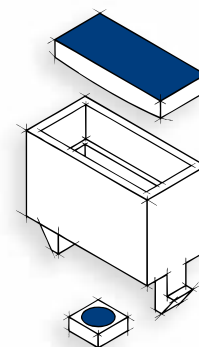
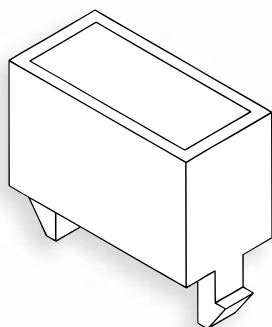
APPLICATIONS

- ◆ Business Machine Message Annunciators
- ◆ Telecommunication Indicators
- ◆ Front Panel Process Status Indicators
- ◆ PC Board Identifiers
- ◆ Light Push Button
- ◆ Portable Data Entry Device
- ◆ Medical Equipment
- ◆ Transportation Equipment

FEATURES

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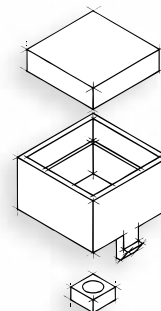
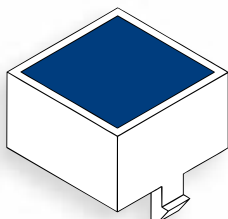
Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.		Iv (mcd) Typ	IF (mA) Typ	Vf (Volt) @ 20mA	Case Colour
SMD (PLCC2 3,2x2,8)									
KLB400 W-Y	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	138	20	2,2	White
KLB400 Y-Y	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	138	20	2,2	Yellow
KLB400 W-YL	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	5	2	2,1	White
KLB400 Y-YL	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	5	2	2,1	Yellow
KLB400 W-A	20,32x4,953x10,16	19,050x3,81	2	Amber	615	149	20	2,1	White
KLB400 Y-A	20,32x4,953x10,16	19,050x3,81	2	Amber	615	149	20	2,1	Yellow
KLB400 W-W	20,32x4,953x10,16	19,050x3,81	2	White	X=0,30 y=0,32 180	20	20	4,2	White
KLB400 W-R	20,32x4,953x10,16	19,050x3,81	2	Red	630	90	20	2,2	White
KLB400 R-R	20,32x4,953x10,16	19,050x3,81	2	Red	630	90	20	2,2	Red
KLB400 W-RL	20,32x4,953x10,16	19,050x3,81	2	Red	628	5	2	2,2	White
KLB400 R-RL	20,32x4,953x10,16	19,050x3,81	2	Red	628	5	2	2,2	Red
KLB400 W-U	20,32x4,953x10,16	19,050x3,81	2	Blue	470	47	20	4,5	White
KLB400 U-U	20,32x4,953x10,16	19,050x3,81	2	Blue	470	47	20	4,5	Blue
KLB400 W-G	20,32x4,953x10,16	19,050x3,81	2	Green	570	120	20	2,1	White
KLB400 G-G	20,32x4,953x10,16	19,050x3,81	2	Green	570	120	20	2,1	Green
KLB400 W-GL	20,32x4,953x10,16	19,050x3,81	2	Green	570	5	2	2,1	White
KLB400 G-GL	20,32x4,953x10,16	19,050x3,81	2	Green	570	5	2	2,1	Green
KLB400 W-I	20,32x4,953x10,16	19,050x3,81	2	Super red	635	185	20	2,2	White
KLB400 R-I	20,32x4,953x10,16	19,050x3,81	2	Super red	635	185	20	2,2	Red
KLB400 W-B	20,32x4,953x10,16	19,050x3,81	2	Bi-color	630/570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
KLB410 W-Y	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	25	20	2,2	White
KLB410 Y-Y	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	25	20	2,2	Yellow
KLB410 W-YL	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	5	2	2,1	White
KLB410 Y-YL	20,32x4,953x10,16	19,050x3,81	2	Yellow	590	5	2	2,1	Yellow
KLB410 W-A	20,32x4,953x10,16	19,050x3,81	2	Amber	615	136	20	2,1	White
KLB410 Y-A	20,32x4,953x10,16	19,050x3,81	2	Amber	615	136	20	2,1	Yellow
KLB410 W-W	20,32x4,953x10,16	19,050x3,81	2	White	X=0,30 y=0,32 300	20	20	4,2	White
KLB410 W-R	20,32x4,953x10,16	19,050x3,81	2	Red	625	32	20	2,2	White
KLB410 R-R	20,32x4,953x10,16	19,050x3,81	2	Red	625	32	20	2,2	Red
KLB410 W-RL	20,32x4,953x10,16	19,050x3,81	2	Red	625	5	2	2,2	White
KLB410 R-RL	20,32x4,953x10,16	19,050x3,81	2	Red	625	5	2	2,2	Red
KLB410 W-U	20,32x4,953x10,16	19,050x3,81	2	Blue	470	405	20	4,3	White
KLB410 U-U	20,32x4,953x10,16	19,050x3,81	2	Blue	470	405	20	4,3	Blue
KLB410 W-G	20,32x4,953x10,16	19,050x3,81	2	Green	565	30	20	2,1	White
KLB410 G-G	20,32x4,953x10,16	19,050x3,81	2	Green	565	30	20	2,1	Green
KLB410 W-GL	20,32x4,953x10,16	19,050x3,81	2	Green	565	5	2	2,1	White
KLB410 G-GL	20,32x4,953x10,16	19,050x3,81	2	Green	565	5	2	2,1	Green
KLB410 W-I	20,32x4,953x10,16	19,050x3,81	2	Super red	625	85	20	2,2	White
KLB410 R-I	20,32x4,953x10,16	19,050x3,81	2	Super red	625	85	20	2,2	Red
KLB410 W-B	20,32x4,953x10,16	19,050x3,81	2	Bi-color	625/565	30/30	20	2,2	White

FEATURES

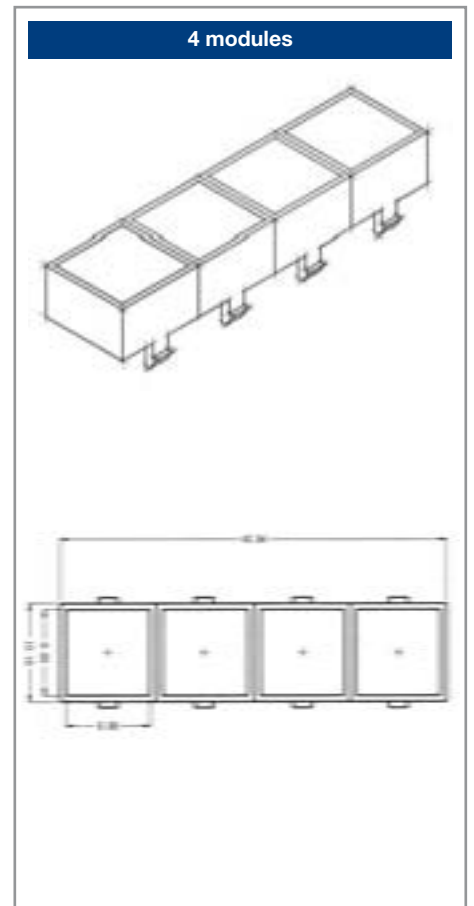
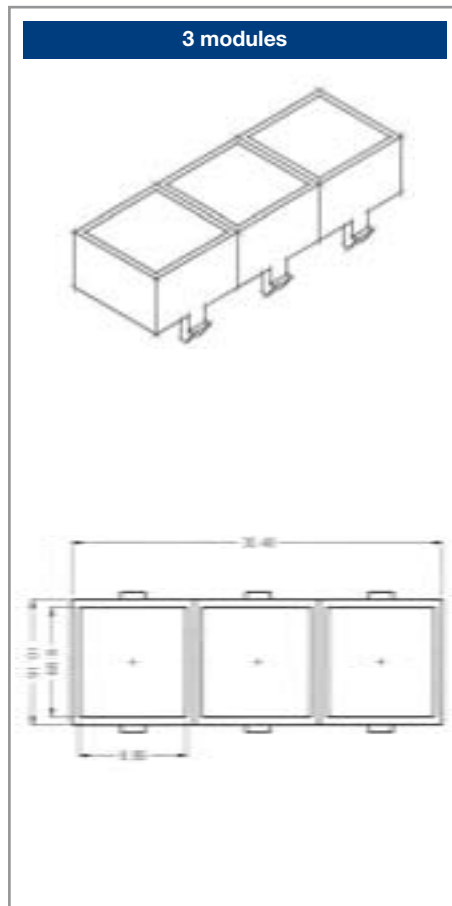
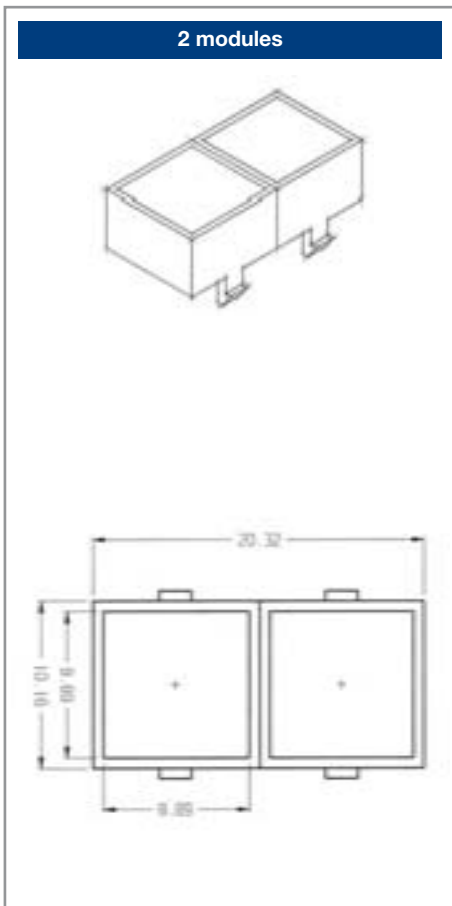
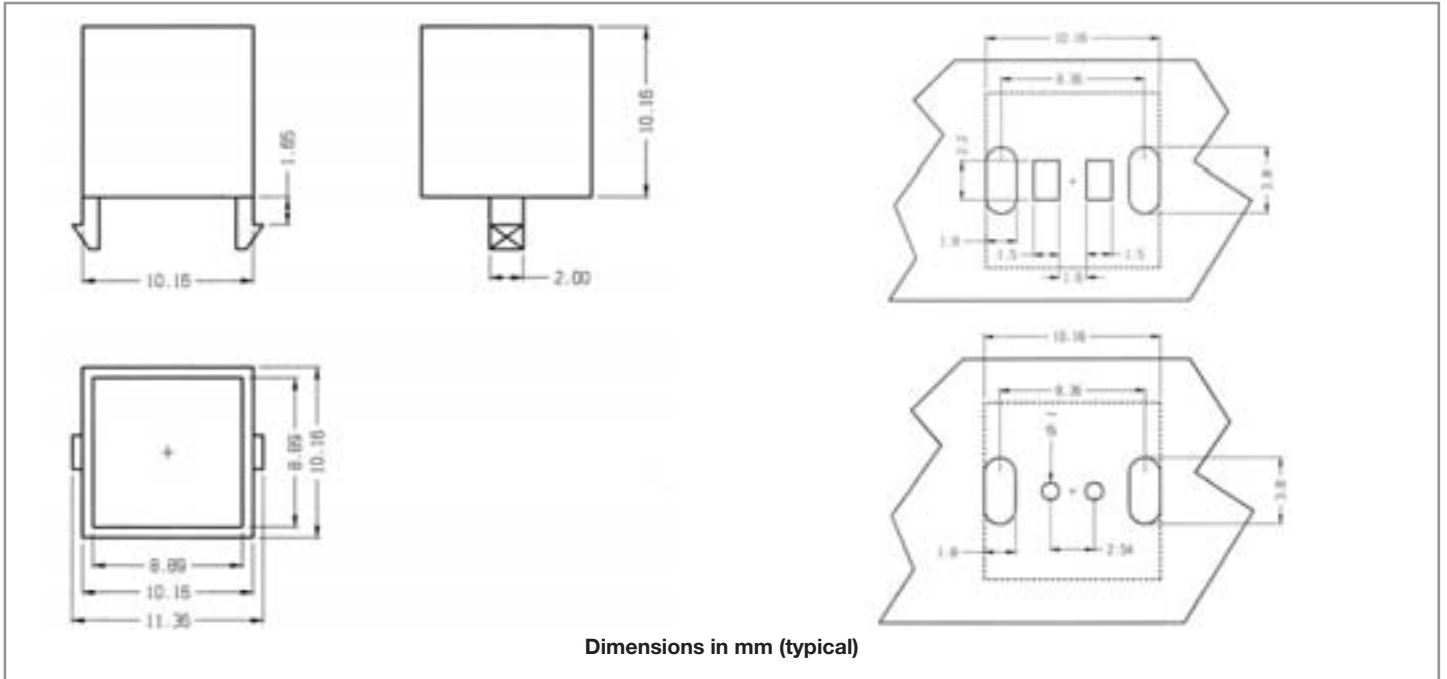
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SMD (PLCC2 3,2x2,8)									
KLB500 W-Y	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	138	20	2,2	White
KLB500 Y-Y	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	138	20	2,2	Yellow
KLB500 W-YL	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	5	2	2,1	White
KLB500 Y-YL	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	5	2	2,1	Yellow
KLB500 W-A	10,16x10,16x10,16	8,89x8,89	1	Amber	615	149	20	2,1	White
KLB500 Y-A	10,16x10,16x10,16	8,89x8,89	1	Amber	615	149	20	2,1	Yellow
KLB500 W-W	10,16x10,16x10,16	8,89x8,89	1	White	X=0,30 y=0,32 180	20	20	4,2	White
KLB500 W-R	10,16x10,16x10,16	8,89x8,89	1	Red	630	90	20	2,2	White
KLB500 R-R	10,16x10,16x10,16	8,89x8,89	1	Red	630	90	20	2,2	Red
KLB500 W-RL	10,16x10,16x10,16	8,89x8,89	1	Red	628	5	2	2,2	White
KLB500 R-RL	10,16x10,16x10,16	8,89x8,89	1	Red	628	5	2	2,2	Red
KLB500 W-U	10,16x10,16x10,16	8,89x8,89	1	Blue	470	47	20	4,5	White
KLB500 U-U	10,16x10,16x10,16	8,89x8,89	1	Blue	470	47	20	4,5	Blue
KLB500 W-G	10,16x10,16x10,16	8,89x8,89	1	Green	570	120	20	2,1	White
KLB500 G-G	10,16x10,16x10,16	8,89x8,89	1	Green	570	120	20	2,1	Green
KLB500 W-GL	10,16x10,16x10,16	8,89x8,89	1	Green	570	5	2	2,1	White
KLB500 G-GL	10,16x10,16x10,16	8,89x8,89	1	Green	570	5	2	2,1	Green
KLB500 W-I	10,16x10,16x10,16	8,89x8,89	1	Super red	635	185	20	2,2	White
KLB500 R-I	10,16x10,16x10,16	8,89x8,89	1	Super red	635	185	20	2,2	Red
KLB500 W-B	10,16x10,16x10,16	8,89x8,89	1	Bi-color	630/570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
KLB510 W-Y	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	25	20	2,2	White
KLB510 Y-Y	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	25	20	2,2	Yellow
KLB510 W-YL	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	5	2	2,1	White
KLB510 Y-YL	10,16x10,16x10,16	8,89x8,89	1	Yellow	590	5	2	2,1	Yellow
KLB510 W-A	10,16x10,16x10,16	8,89x8,89	1	Amber	615	136	20	2,1	White
KLB510 Y-A	10,16x10,16x10,16	8,89x8,89	1	Amber	615	136	20	2,1	Yellow
KLB510 W-W	10,16x10,16x10,16	8,89x8,89	1	White	X=0,30 y=0,32 300	20	20	4,2	White
KLB510 W-R	10,16x10,16x10,16	8,89x8,89	1	Red	625	32	20	2,2	White
KLB510 R-R	10,16x10,16x10,16	8,89x8,89	1	Red	625	32	20	2,2	Red
KLB510 W-RL	10,16x10,16x10,16	8,89x8,89	1	Red	625	5	2	2,2	White
KLB510 R-RL	10,16x10,16x10,16	8,89x8,89	1	Red	625	5	2	2,2	Red
KLB510 W-U	10,16x10,16x10,16	8,89x8,89	1	Blue	470	405	20	4,3	White
KLB510 U-U	10,16x10,16x10,16	8,89x8,89	1	Blue	470	405	20	4,3	Blue
KLB510 W-G	10,16x10,16x10,16	8,89x8,89	1	Green	565	30	20	2,1	White
KLB510 G-G	10,16x10,16x10,16	8,89x8,89	1	Green	565	30	20	2,1	Green
KLB510 W-GL	10,16x10,16x10,16	8,89x8,89	1	Green	565	5	2	2,1	White
KLB510 G-GL	10,16x10,16x10,16	8,89x8,89	1	Green	565	5	2	2,1	Green
KLB510 W-I	10,16x10,16x10,16	8,89x8,89	1	Super red	625	85	20	2,2	White
KLB510 R-I	10,16x10,16x10,16	8,89x8,89	1	Super red	625	85	20	2,2	Red
KLB510 W-B	10,16x10,16x10,16	8,89x8,89	1	Bi-color	625/565	30/30	20	2,2	White



OPTIONS AVAILABLE

- ◆ Different Lengths & Shape
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 3.000 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Light Push Button
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature: -40 to +125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to +125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

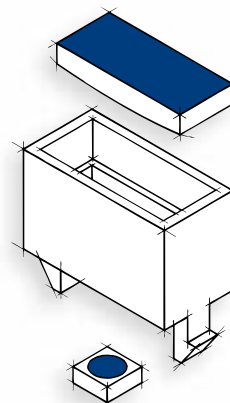
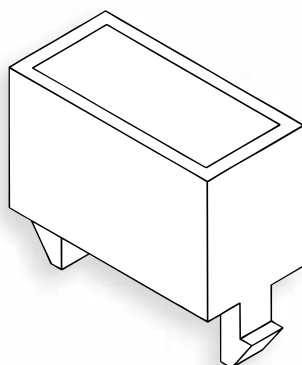
APPLICATIONS

- ◆ Business Machine Message Annunciators
- ◆ Telecommunication Indicators
- ◆ Front Panel Process Status Indicators
- ◆ PC Board Identifiers
- ◆ Light Push Button
- ◆ Portable Data Entry Device
- ◆ Medical Equipment
- ◆ Transportation Equipment

FEATURES

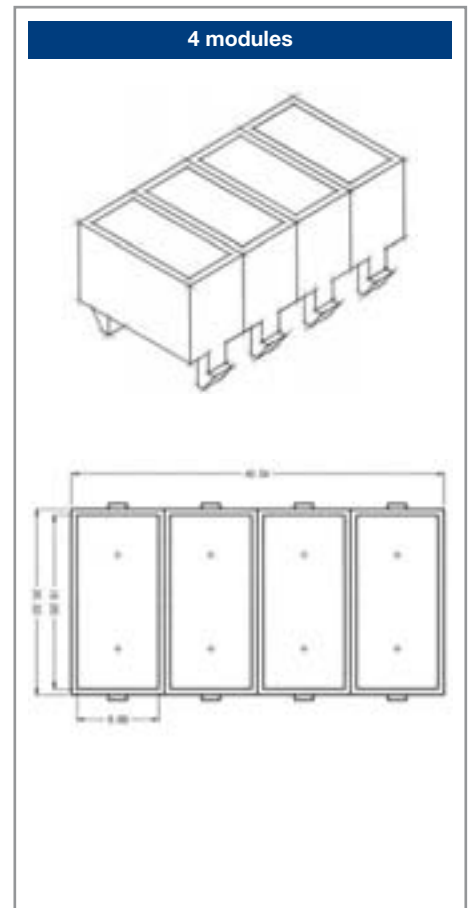
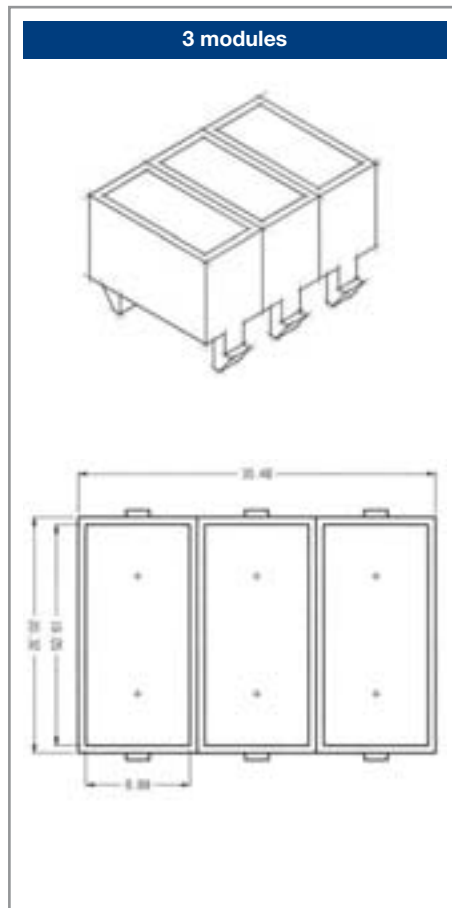
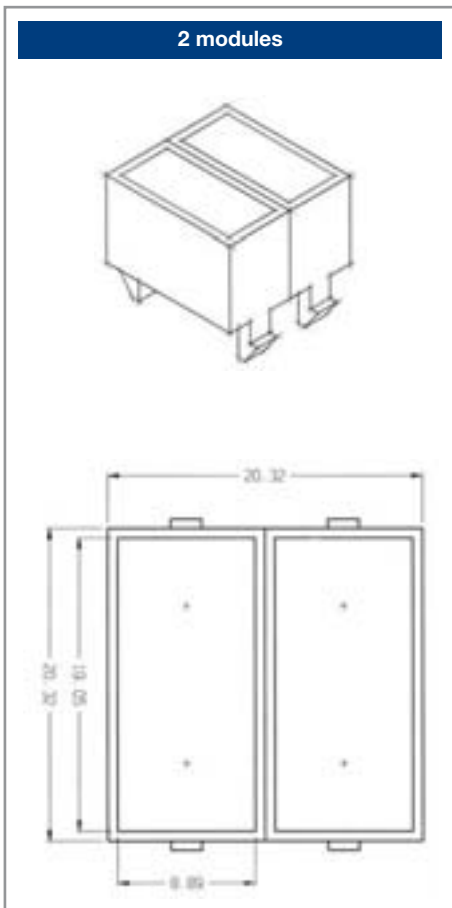
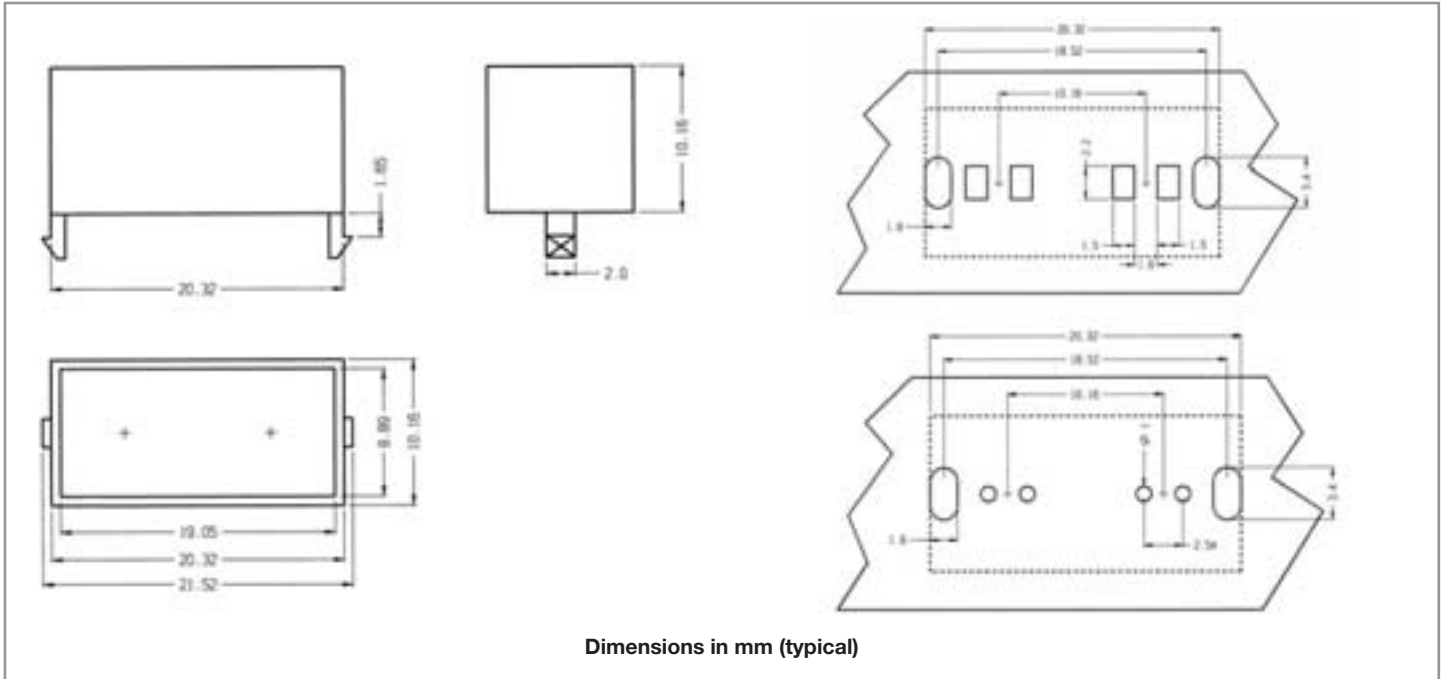
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- ▶ Excellent on/off contrast
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- ▶ Uniform light area
- ▶ Easily mounted on PCB by snap-in
- ▶ Arrangeable in rows
- ▶ Industry Standard Footprint

- ▶ Designed for low current operation
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- ▶ Flush mountable
- ▶ Custom version without cost



Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.		Iv (mcd) Typ	IF (mA) Typ	Vf (Volt) @ 20mA	Case Colour
SMD (PLCC2 3,2x2,8)									
KLB600 W-Y	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	138	20	2,2	White
KLB600 Y-Y	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	138	20	2,2	Yellow
KLB600 W-YL	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	5	2	2,1	White
KLB600 Y-YL	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	5	2	2,1	Yellow
KLB600 W-A	20,32x10,16x10,16	19,05x8,89	2	Amber	615	149	20	2,1	White
KLB600 Y-A	20,32x10,16x10,16	19,05x8,89	2	Amber	615	149	20	2,1	Yellow
KLB600 W-W	20,32x10,16x10,16	19,05x8,89	2	White	X=0,30 y=0,32 180	20	20	4,2	White
KLB600 W-R	20,32x10,16x10,16	19,05x8,89	2	Red	630	90	20	2,2	White
KLB600 R-R	20,32x10,16x10,16	19,05x8,89	2	Red	630	90	20	2,2	Red
KLB600 W-RL	20,32x10,16x10,16	19,05x8,89	2	Red	628	5	2	2,2	White
KLB600 R-RL	20,32x10,16x10,16	19,05x8,89	2	Red	628	5	2	2,2	Red
KLB600 W-U	20,32x10,16x10,16	19,05x8,89	2	Blue	470	47	20	4,5	White
KLB600 U-U	20,32x10,16x10,16	19,05x8,89	2	Blue	470	47	20	4,5	Blue
KLB600 W-G	20,32x10,16x10,16	19,05x8,89	2	Green	570	120	20	2,1	White
KLB600 G-G	20,32x10,16x10,16	19,05x8,89	2	Green	570	120	20	2,1	Green
KLB600 W-GL	20,32x10,16x10,16	19,05x8,89	2	Green	570	5	2	2,1	White
KLB600 G-GL	20,32x10,16x10,16	19,05x8,89	2	Green	570	5	2	2,1	Green
KLB600 W-I	20,32x10,16x10,16	19,05x8,89	2	Super red	635	185	20	2,2	White
KLB600 R-I	20,32x10,16x10,16	19,05x8,89	2	Super red	635	185	20	2,2	Red
KLB600 W-B	20,32x10,16x10,16	19,05x8,89	2	Red - Green	630-570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
KLB610 W-Y	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	25	20	2,2	White
KLB610 Y-Y	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	25	20	2,2	Yellow
KLB610 W-YL	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	5	2	2,1	White
KLB610 Y-YL	20,32x10,16x10,16	19,05x8,89	2	Yellow	590	5	2	2,1	Yellow
KLB610 W-A	20,32x10,16x10,16	19,05x8,89	2	Amber	615	136	20	2,1	White
KLB610 Y-A	20,32x10,16x10,16	19,05x8,89	2	Amber	615	136	20	2,1	Yellow
KLB610 W-W	20,32x10,16x10,16	19,05x8,89	2	White	X=0,30 y=0,32 300	20	20	4,2	White
KLB610 W-R	20,32x10,16x10,16	19,05x8,89	2	Red	625	32	20	2,2	White
KLB610 R-R	20,32x10,16x10,16	19,05x8,89	2	Red	625	32	20	2,2	Red
KLB610 W-RL	20,32x10,16x10,16	19,05x8,89	2	Red	625	5	2	2,2	White
KLB610 R-RL	20,32x10,16x10,16	19,05x8,89	2	Red	625	5	2	2,2	Red
KLB610 W-U	20,32x10,16x10,16	19,05x8,89	2	Blue	470	405	20	4,3	White
KLB610 U-U	20,32x10,16x10,16	19,05x8,89	2	Blue	470	405	20	4,3	Blue
KLB610 W-G	20,32x10,16x10,16	19,05x8,89	2	Green	565	30	20	2,1	White
KLB610 G-G	20,32x10,16x10,16	19,05x8,89	2	Green	565	30	20	2,1	Green
KLB610 W-GL	20,32x10,16x10,16	19,05x8,89	2	Green	565	5	2	2,1	White
KLB610 G-GL	20,32x10,16x10,16	19,05x8,89	2	Green	565	5	2	2,1	Green
KLB610 W-I	20,32x10,16x10,16	19,05x8,89	2	Super red	625	85	20	2,2	White
KLB610 R-I	20,32x10,16x10,16	19,05x8,89	2	Super red	625	85	20	2,2	Red
KLB610 W-B	20,32x10,16x10,16	19,05x8,89	2	Red- Green	625/565	30/30	20	2,2	White



OPTIONS AVAILABLE

- ◆ Different Lengths & Shape
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 3.000 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Light Push Button
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature – 40 to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

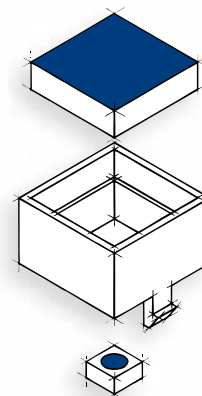
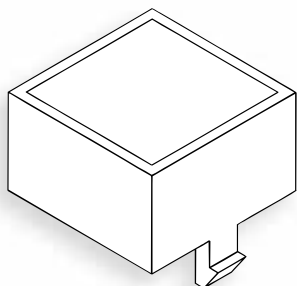
APPLICATIONS

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- ◆ Telecommunication Indicators
- ◆ Front Panel Process Status Indicators
- ◆ PC Board Identifiers
- ◆ Light Push Button
- ◆ Portable Data Entry Device
- ◆ Medical Equipment
- ◆ Transportation Equipment

FEATURES

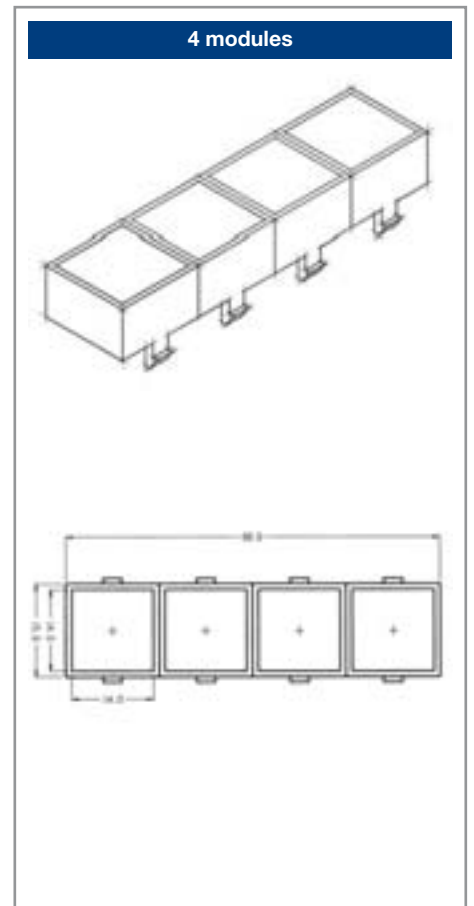
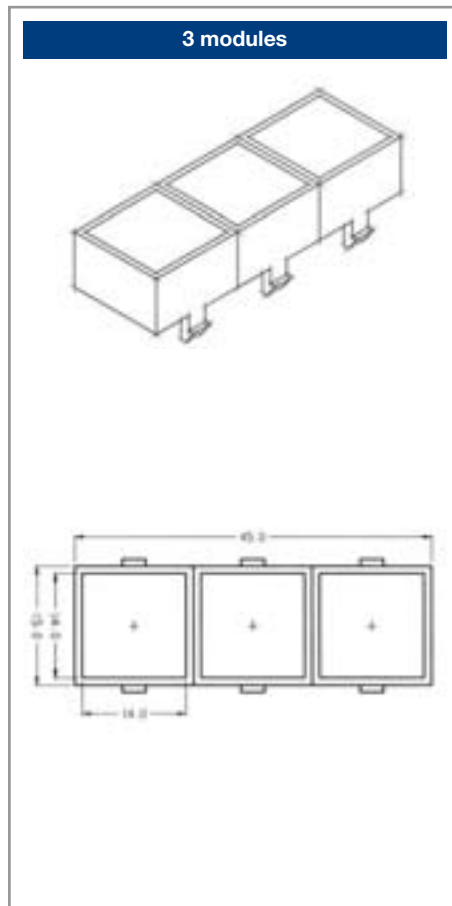
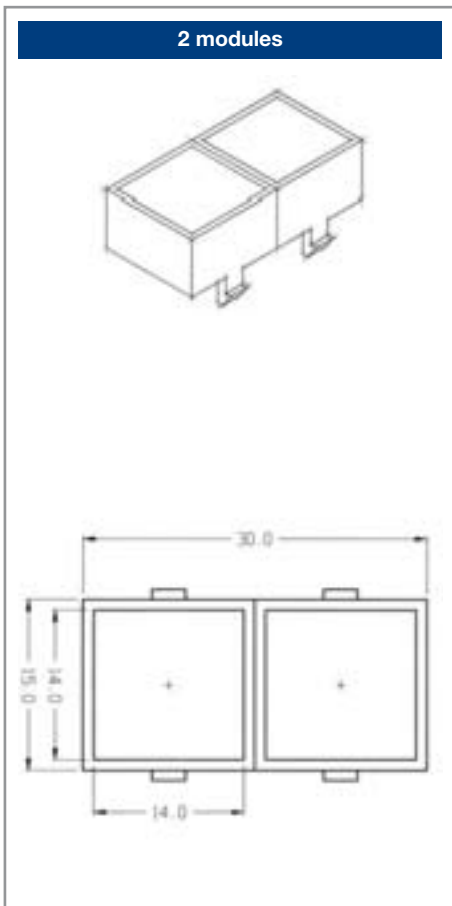
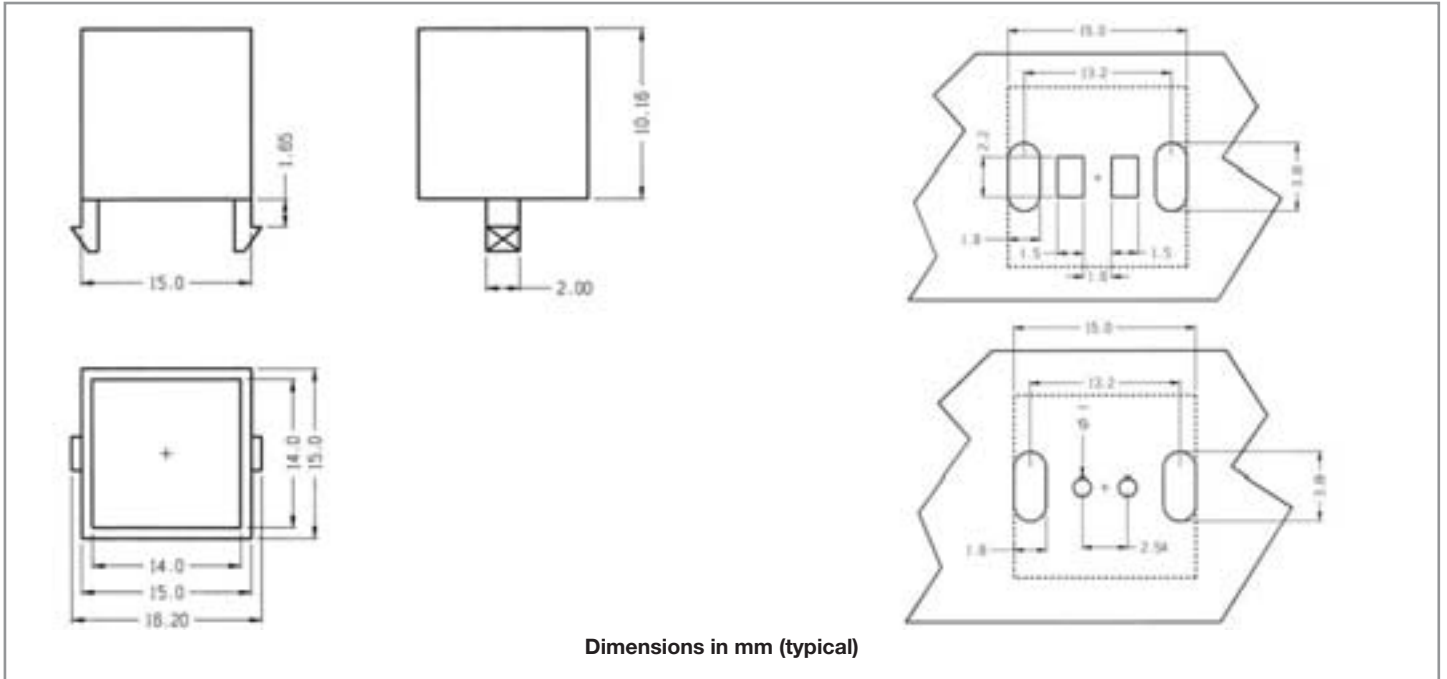
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Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.		Iv (mcd) Typ	IF (mA) Typ	Vf (Volt) @ 20mA	Case Colour
SMD (PLCC2 3,2x2,8)									
KLB700 W-Y	15x15x10,16	14x14	1	Yellow	590	138	20	2,2	White
KLB700 Y-Y	15x15x10,16	14x14	1	Yellow	590	138	20	2,2	Yellow
KLB700 W-YL	15x15x10,16	14x14	1	Yellow	590	5	2	2,1	White
KLB700 Y-YL	15x15x10,16	14x14	1	Yellow	590	5	2	2,1	Yellow
KLB700 W-A	15x15x10,16	14x14	1	Amber	615	149	20	2,1	White
KLB700 Y-A	15x15x10,16	14x14	1	Amber	615	149	20	2,1	Yellow
KLB700 W-W	15x15x10,16	14x14	1	White	X=0,30 y=0,32	180	20	4,2	White
KLB700 W-R	15x15x10,16	14x14	1	Red	630	90	20	2,2	White
KLB700 R-R	15x15x10,16	14x14	1	Red	630	90	20	2,2	Red
KLB700 W-RL	15x15x10,16	14x14	1	Red	628	5	2	2,2	White
KLB700 R-RL	15x15x10,16	14x14	1	Red	628	5	2	2,2	Red
KLB700 W-U	15x15x10,16	14x14	1	Blue	470	47	20	4,5	White
KLB700 U-U	15x15x10,16	14x14	1	Blue	470	47	20	4,5	Blue
KLB700 W-G	15x15x10,16	14x14	1	Green	570	120	20	2,1	White
KLB700 G-G	15x15x10,16	14x14	1	Green	570	120	20	2,1	Green
KLB700 W-GL	15x15x10,16	14x14	1	Green	570	5	2	2,1	White
KLB700 G-GL	15x15x10,16	14x14	1	Green	570	5	2	2,1	Green
KLB700 W-I	15x15x10,16	14x14	1	Super red	635	185	20	2,2	White
KLB700 R-I	15x15x10,16	14x14	1	Super red	635	185	20	2,2	Red
KLB700 W-B	15x15x10,16	14x14	1	Red - Green	630/570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
KLB710 W-Y	15x15x10,16	14x14	1	Yellow	590	25	20	2,2	White
KLB710 Y-Y	15x15x10,16	14x14	1	Yellow	590	25	20	2,2	Yellow
KLB710 W-YL	15x15x10,16	14x14	1	Yellow	590	5	2	2,1	White
KLB710 Y-YL	15x15x10,16	14x14	1	Yellow	590	5	2	2,1	Yellow
KLB710 W-A	15x15x10,16	14x14	1	Amber	615	136	20	2,1	White
KLB710 Y-A	15x15x10,16	14x14	1	Amber	615	136	20	2,1	Yellow
KLB710 W-W	15x15x10,16	14x14	1	White	X=0,30 y=0,32	300	20	4,2	White
KLB710 W-R	15x15x10,16	14x14	1	Red	625	32	20	2,2	White
KLB710 R-R	15x15x10,16	14x14	1	Red	625	32	20	2,2	Red
KLB710 W-RL	15x15x10,16	14x14	1	Red	625	5	2	2,2	White
KLB710 R-RL	15x15x10,16	14x14	1	Red	625	5	2	2,2	Red
KLB710 W-U	15x15x10,16	14x14	1	Blue	470	405	20	4,3	White
KLB710 U-U	15x15x10,16	14x14	1	Blue	470	405	20	4,3	Blue
KLB710 W-G	15x15x10,16	14x14	1	Green	565	30	20	2,1	White
KLB710 G-G	15x15x10,16	14x14	1	Green	565	30	20	2,1	Green
KLB710 W-GL	15x15x10,16	14x14	1	Green	565	5	2	2,1	White
KLB710 G-GL	15x15x10,16	14x14	1	Green	565	5	2	2,1	Green
KLB710 W-I	15x15x10,16	14x14	1	Super red	625	85	20	2,2	White
KLB710 R-I	15x15x10,16	14x14	1	Super red	625	85	20	2,2	Red
KLB710 W-B	15x15x10,16	14x14	1	Red - Green	625/565	30/30	20	2,2	White



OPTIONS AVAILABLE

- ◆ Different Lengths & Shape
- ◆ Special LEDs on request
- ◆ Bin Selection
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MATERIAL SPECIFICATION

- ◆ Housing: PC
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- ◆ Storage Temperature: -60° to +125°C
- ◆ MTBF: 100.000 hours @ 20mA
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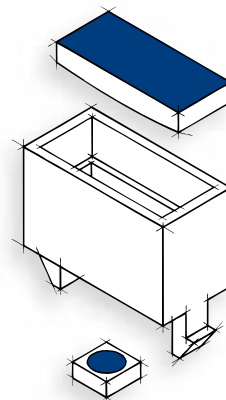
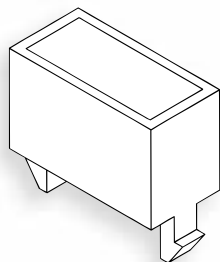
APPLICATIONS

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FEATURES

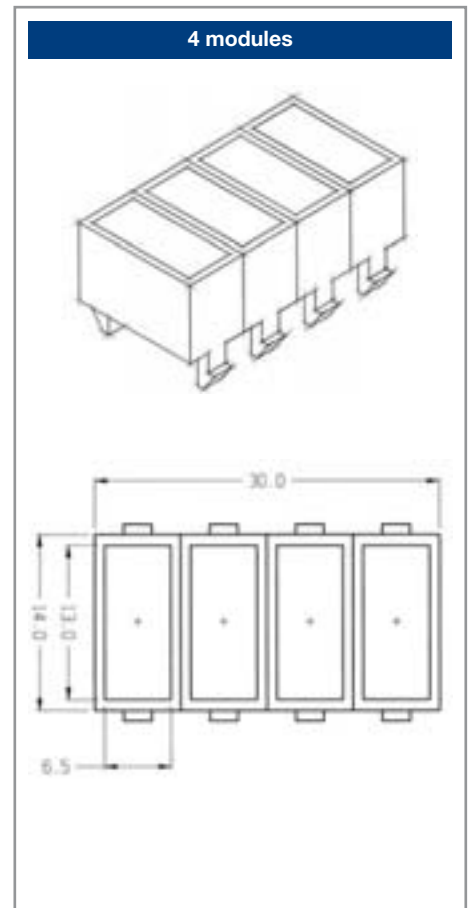
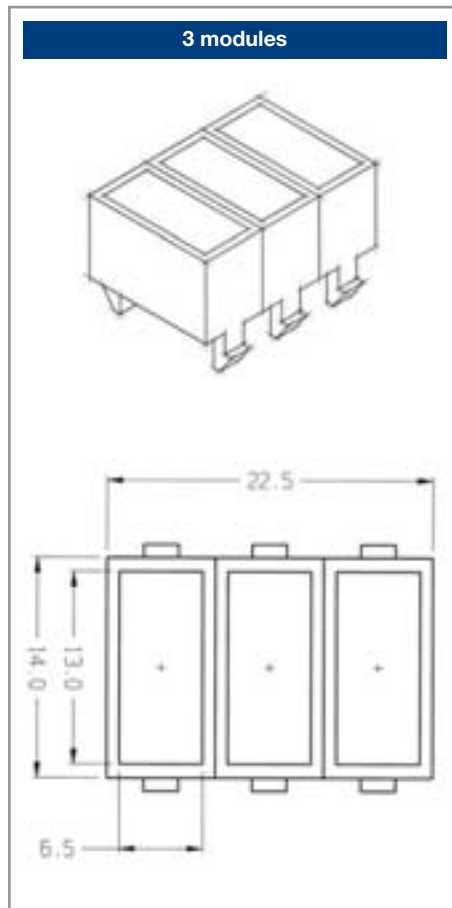
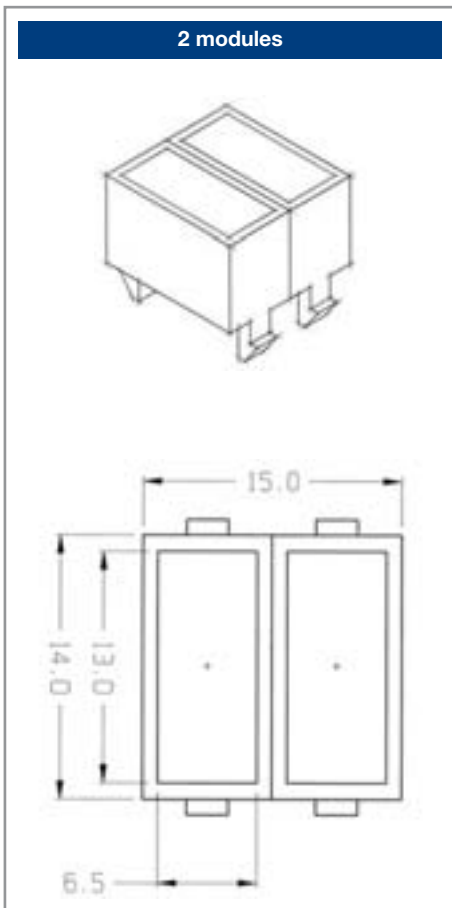
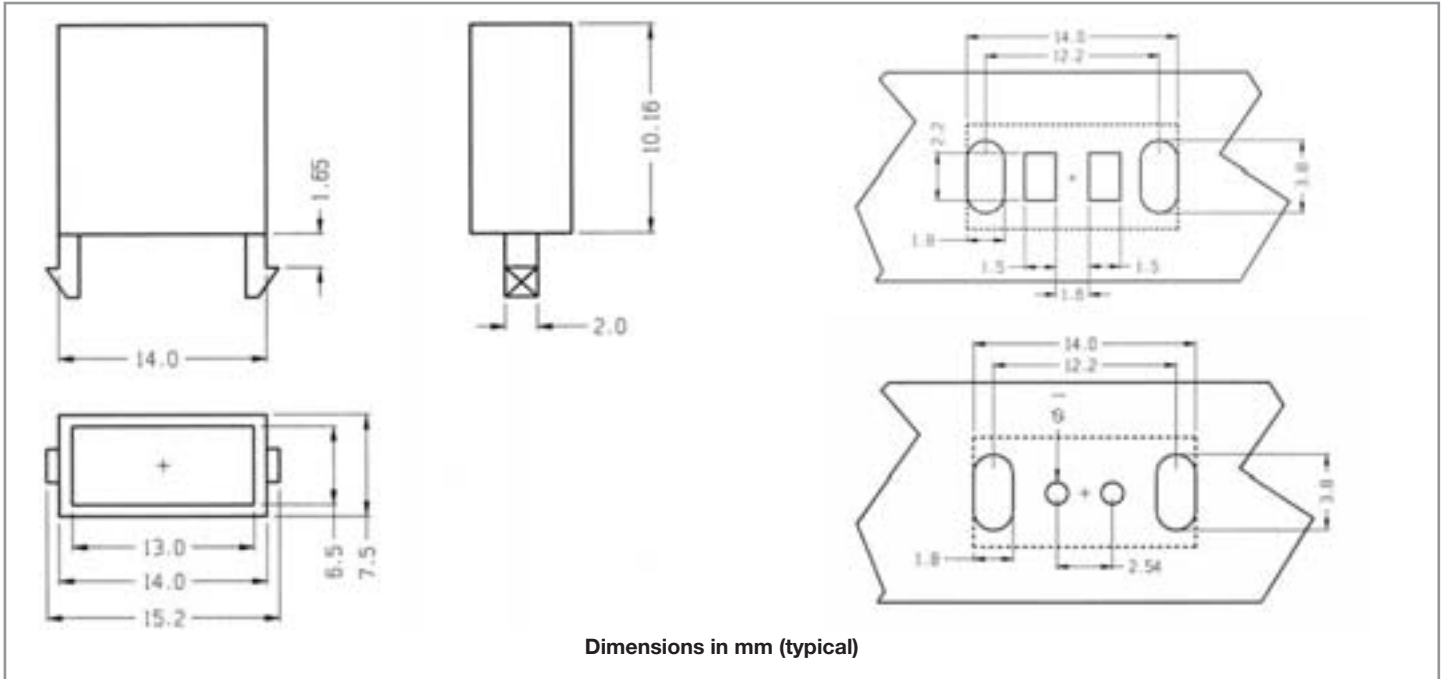
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SMD (PLCC2 3,2x2,8)									
KLB800 W-Y	14x7,50x10,16	13x6,50	1	Yellow	590	138	20	2,2	White
KLB800 Y-Y	14x7,50x10,16	13x6,50	1	Yellow	590	138	20	2,2	Yellow
KLB800 W-YL	14x7,50x10,16	13x6,50	1	Yellow	590	5	2	2,1	White
KLB800 Y-YL	14x7,50x10,16	13x6,50	1	Yellow	590	5	2	2,1	Yellow
KLB800 W-A	14x7,50x10,16	13x6,50	1	Amber	615	149	20	2,1	White
KLB800 Y-A	14x7,50x10,16	13x6,50	1	Amber	615	149	20	2,1	Yellow
KLB800 W-W	14x7,50x10,16	13x6,50	1	White	X=0,30 y=0,32	180	20	4,2	White
KLB800 W-R	14x7,50x10,16	13x6,50	1	Red	630	90	20	2,2	White
KLB800 R-R	14x7,50x10,16	13x6,50	1	Red	630	90	20	2,2	Red
KLB800 W-RL	14x7,50x10,16	13x6,50	1	Red	628	5	2	2,2	White
KLB800 R-RL	14x7,50x10,16	13x6,50	1	Red	628	5	2	2,2	Red
KLB800 W-U	14x7,50x10,16	13x6,50	1	Blue	470	47	20	4,5	White
KLB800 U-U	14x7,50x10,16	13x6,50	1	Blue	470	47	20	4,5	Blue
KLB800 W-G	14x7,50x10,16	13x6,50	1	Green	570	120	20	2,1	White
KLB800 G-G	14x7,50x10,16	13x6,50	1	Green	570	120	20	2,1	Green
KLB800 W-GL	14x7,50x10,16	13x6,50	1	Green	570	5	2	2,1	White
KLB800 G-GL	14x7,50x10,16	13x6,50	1	Green	570	5	2	2,1	Green
KLB800 W-I	14x7,50x10,16	13x6,50	1	Super red	635	185	20	2,2	White
KLB800 R-I	14x7,50x10,16	13x6,50	1	Super red	635	185	20	2,2	Red
KLB800 W-B	14x7,50x10,16	13x6,50	1	Red - Green	630/570	20/20	10	2,2	White

PTH (ø 3 mm LED)									
Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.		Iv (mcd) Typ	IF (mA) Typ	Vf (Volt) @ 20mA	Case Colour
KLB810 W-Y	14x7,50x10,16	13x6,50	1	Yellow	590	25	20	2,2	White
KLB810 Y-Y	14x7,50x10,16	13x6,50	1	Yellow	590	25	20	2,2	Yellow
KLB810 W-YL	14x7,50x10,16	13x6,50	1	Yellow	590	5	2	2,1	White
KLB810 Y-YL	14x7,50x10,16	13x6,50	1	Yellow	590	5	2	2,1	Yellow
KLB810 W-A	14x7,50x10,16	13x6,50	1	Amber	615	136	20	2,1	White
KLB810 Y-A	14x7,50x10,16	13x6,50	1	Amber	615	136	20	2,1	Yellow
KLB810 W-W	14x7,50x10,16	13x6,50	1	White	X=0,30 y=0,32	300	20	4,2	White
KLB810 W-R	14x7,50x10,16	13x6,50	1	Red	625	32	20	2,2	White
KLB810 R-R	14x7,50x10,16	13x6,50	1	Red	625	32	20	2,2	Red
KLB810 W-RL	14x7,50x10,16	13x6,50	1	Red	625	5	2	2,2	White
KLB810 R-RL	14x7,50x10,16	13x6,50	1	Red	625	5	2	2,2	Red
KLB810 W-U	14x7,50x10,16	13x6,50	1	Blue	470	405	20	4,3	White
KLB810 U-U	14x7,50x10,16	13x6,50	1	Blue	470	405	20	4,3	Blue
KLB810 W-G	14x7,50x10,16	13x6,50	1	Green	565	30	20	2,1	White
KLB810 G-G	14x7,50x10,16	13x6,50	1	Green	565	30	20	2,1	Green
KLB810 W-GL	14x7,50x10,16	13x6,50	1	Green	565	5	2	2,1	White
KLB810 G-GL	14x7,50x10,16	13x6,50	1	Green	565	5	2	2,1	Green
KLB810 W-I	14x7,50x10,16	13x6,50	1	Super red	625	85	20	2,2	White
KLB810 R-I	14x7,50x10,16	13x6,50	1	Super red	625	85	20	2,2	Red
KLB810 W-B	14x7,50x10,16	13x6,50	1	Red - Green	625/565	309/30	20	2,2	White



OPTIONS AVAILABLE

- ◆ Different Lengths & Shape
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 3.000 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Light Push Button
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature: -40 to +125 °C
- ◆ Soldering Temperature: 260 °C ≤ 6 sec.
- ◆ Storage Temperature: -60° to +125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

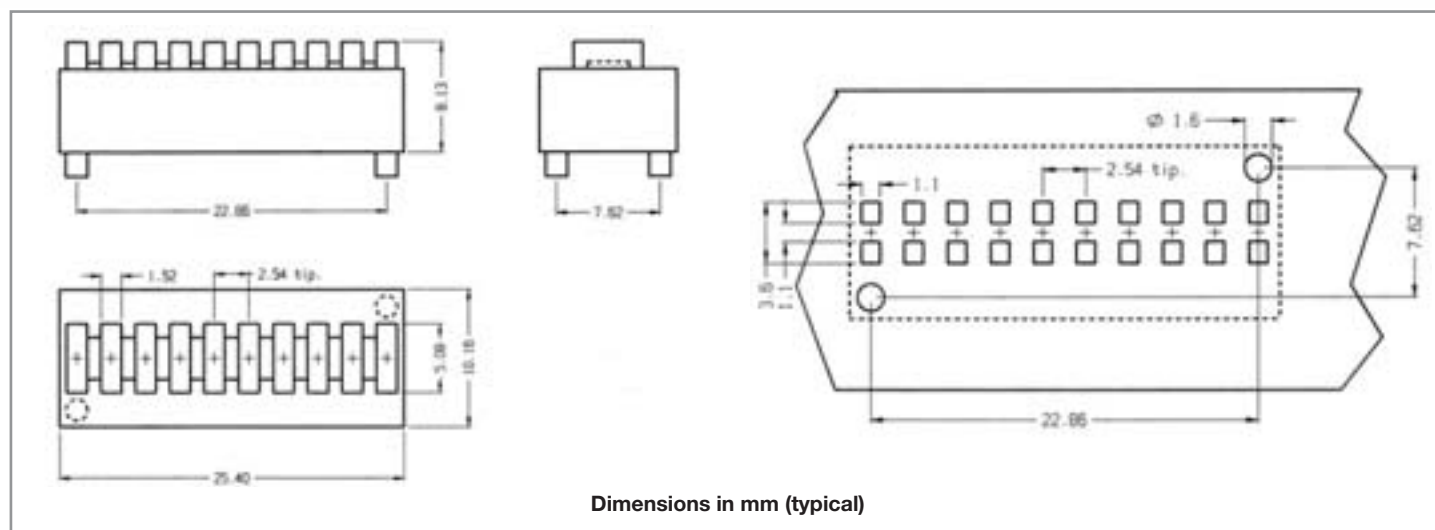
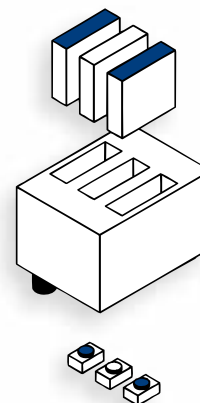
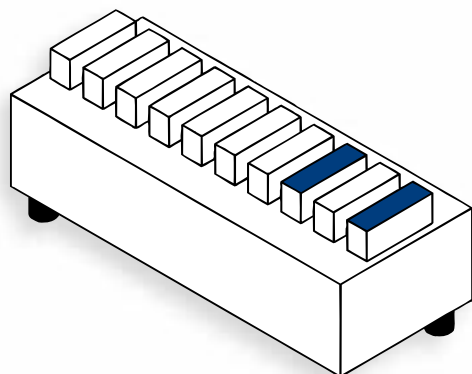
APPLICATIONS

- ◆ Business Machine Message Annunciators
- ◆ Telecommunication Indicators
- ◆ Front Panel Process Status Indicators
- ◆ PC Board Identifiers
- ◆ Light Push Button
- ◆ Portable Data Entry Device
- ◆ Medical Equipment
- ◆ Transportation Equipment

FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ Excellent on/off contrast
- ▶ Choise of 9 bright colors
- ▶ Uniform light area
- ▶ Easily mounted on PCB by press-fit
- ▶ Arrangeable in rows
- ▶ Suitable for level indicators

- ▶ Designed for low current operation
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ LEDs color can be mixed in a single housing
- ▶ Reduce insertion cost
- ▶ Case in different colors
- ▶ Industry standard footprint
- ▶ Custom version without cost



Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ	IF (mA) Typ
SMD (0805)						
KLB900 R	25,40x10,16x8,13	1,52x5,08x10led	10	Red 660	11,7	20
KLB900 O	25,40x10,16x8,13	1,52x5,08x10led	10	Orange 605	3,7	20
KLB900 Y	25,40x10,16x8,13	1,52x5,08x10led	10	Yellow 580	3,7	20
KLB900 YG	25,40x10,16x8,13	1,52x5,08x10led	10	Yellow-Green 570	11,7	20
KLB900 G	25,40x10,16x8,13	1,52x5,08x10led	10	Green 560	6,4	20
KLB900 PG	25,40x10,16x8,13	1,52x5,08x10led	10	Pure-Green 555	2,7	20
KLB900 UG	25,40x10,16x8,13	1,52x5,08x10led	10	Blue-Green 502	34	20
KLB900 U	25,40x10,16x8,13	1,52x5,08x10led	10	Blu 467	14	20
KLB900 M	25,40x10,16x8,13	1,52x5,08x10led	10	Multicolor	Indicate your colours	

OPTIONS AVAILABLE

- ◆ Different lengths
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Infrared-phototransistor
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature - 40° to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

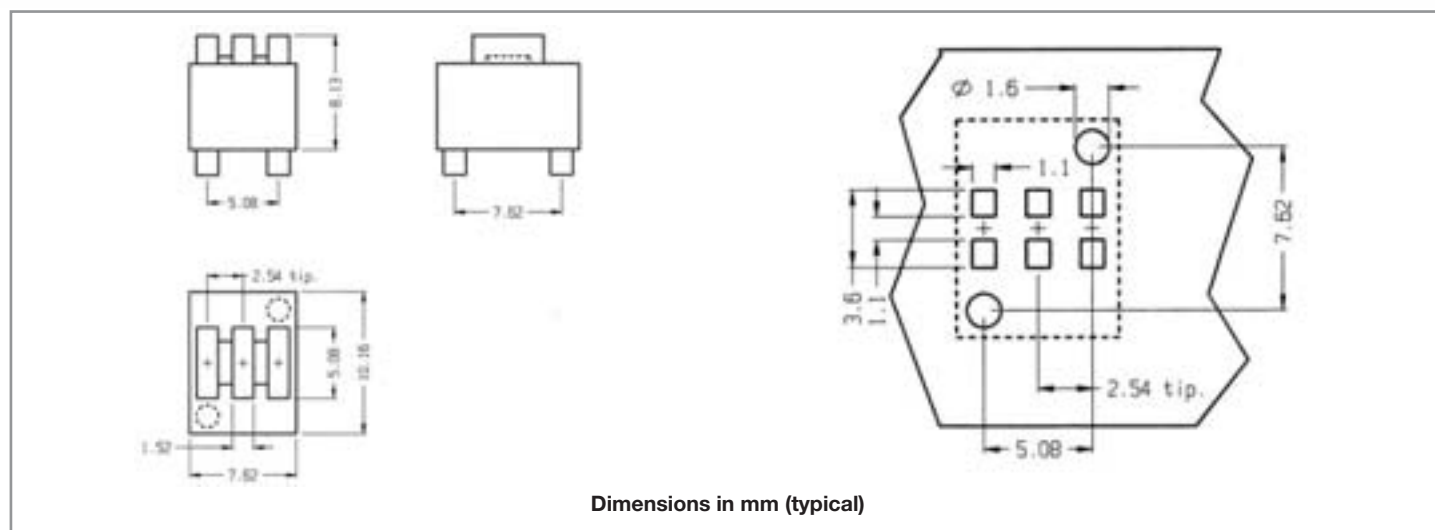
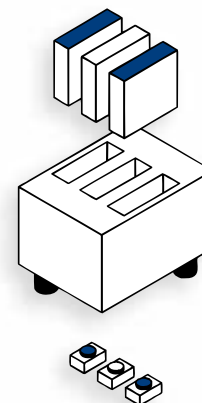
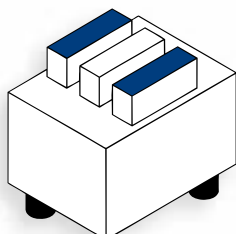
APPLICATIONS

- ◆ Industrial Controls
- ◆ Instrumentation
- ◆ Office automation
- ◆ Computer Peripherals
- ◆ Consumer Product
- ◆ Medical Equipment
- ◆ Test Equipment
- ◆ Process Control Equipment

FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ Excellent on/off contrast
- ▶ Choise of 9 bright colors
- ▶ Uniform light area
- ▶ Easily mounted on PCB by press-fit
- ▶ Arrangeable in rows
- ▶ Suitable for level indicators

- ▶ Designed for low current operation
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ LEDs color can be mixed in a single housing
- ▶ Reduce insertion cost
- ▶ Case in different colors
- ▶ Industry standard footprint
- ▶ Custom version without cost



Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ	IF (mA) Typ
SMD (0805)						
KLB930 R	7,62x10,16x8,13	1,52x5,08x3led	3	Red 660	11,7	20
KLB930 O	7,62x10,16x8,13	1,52x5,08x3led	3	Orange 605	3,7	20
KLB930 Y	7,62x10,16x8,13	1,52x5,08x3led	3	Yellow 580	3,7	20
KLB930 YG	7,62x10,16x8,13	1,52x5,08x3led	3	Yellow-Green 570	11,7	20
KLB930 G	7,62x10,16x8,13	1,52x5,08x3led	3	Green 560	6,4	20
KLB930 PG	7,62x10,16x8,13	1,52x5,08x3led	3	Pure-Green 555	2,7	20
KLB930 UG	7,62x10,16x8,13	1,52x5,08x3led	3	Blue-Green 502	34	20
KLB930 U	7,62x10,16x8,13	1,52x5,08x3led	3	Blu 467	14	20
KLB930 M	7,62x10,16x8,13	1,52x5,08x3led	3	Multicolor	Indicate your colours	

OPTIONS AVAILABLE

- ◆ Different lengths
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Infrared-phototransistor
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature - 40° to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

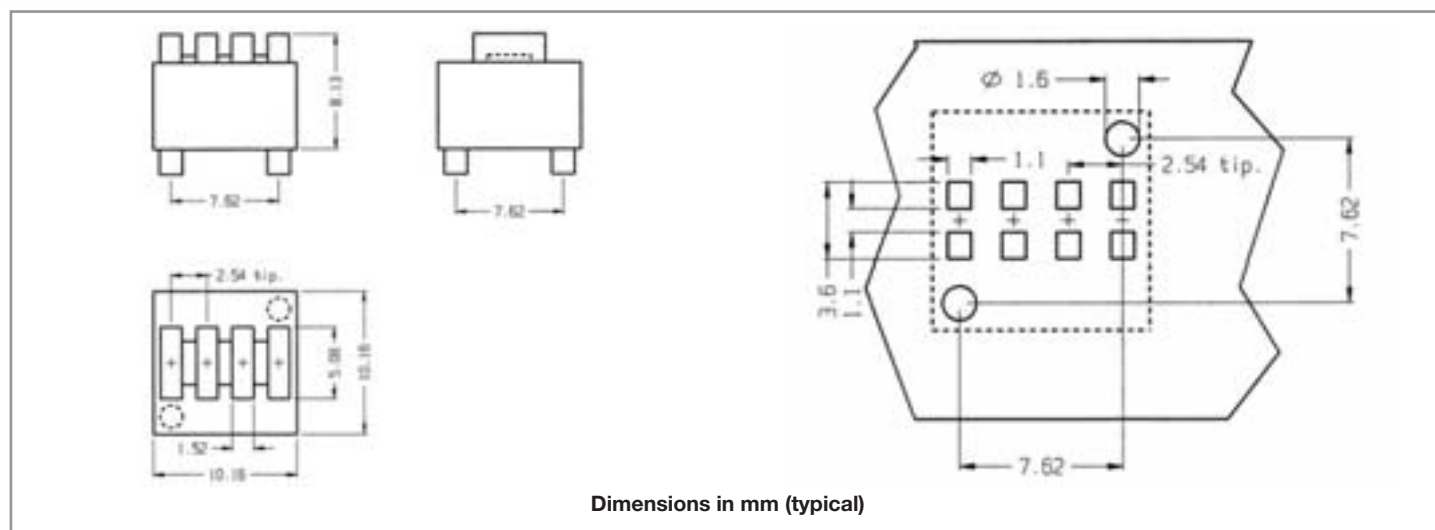
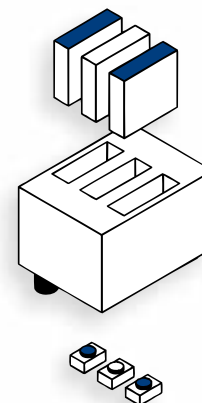
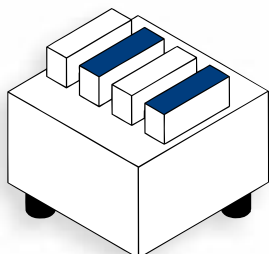
APPLICATIONS

- ◆ Industrial Controls
- ◆ Instrumentation
- ◆ Office automation
- ◆ Computer Peripherals
- ◆ Consumer Product
- ◆ Medical Equipment
- ◆ Test Equipment
- ◆ Process Control Equipment

FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ Excellent on/off contrast
- ▶ Choise of 9 bright colors
- ▶ Uniform light area
- ▶ Easily mounted on PCB by press-fit
- ▶ Arrangeable in rows
- ▶ Suitable for level indicators

- ▶ Designed for low current operation
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ LEDs color can be mixed in a single housing
- ▶ Reduce insertion cost
- ▶ Case in different colors
- ▶ Industry standard footprint
- ▶ Custom version without cost



Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ	IF (mA) Typ
SMD (0805)						
KLB940 R	10,16x10,16x8,13	1,52x5,08x4led	4	Red 660	11,7	20
KLB940 O	10,16x10,16x8,13	1,52x5,08x4led	4	Orange 605	3,7	20
KLB940 Y	10,16x10,16x8,13	1,52x5,08x4led	4	Yellow 580	3,7	20
KLB940 YG	10,16x10,16x8,13	1,52x5,08x4led	4	Yellow-Green 570	11,7	20
KLB940 G	10,16x10,16x8,13	1,52x5,08x4led	4	Green 560	6,4	20
KLB940 PG	10,16x10,16x8,13	1,52x5,08x4led	4	Pure-Green 555	2,7	20
KLB940 UG	10,16x10,16x8,13	1,52x5,08x4led	4	Blue-Green 502	34	20
KLB940 U	10,16x10,16x8,13	1,52x5,08x4led	4	Blu 467	14	20
KLB940 M	10,16x10,16x8,13	1,52x5,08x4led	4	Multicolor	Indicate your colours	

OPTIONS AVAILABLE

- ◆ Different lengths
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Infrared-phototransistor
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

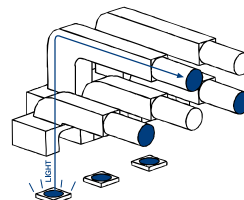
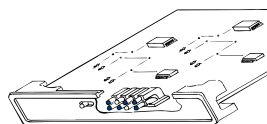
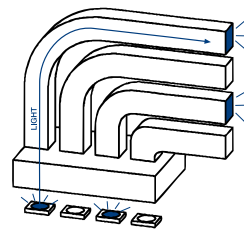
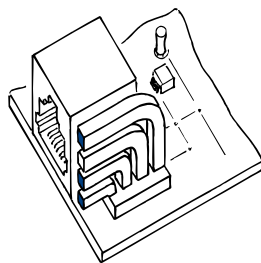
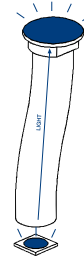
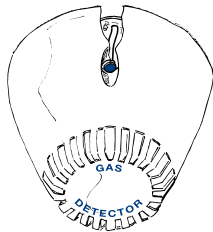
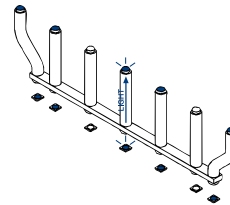
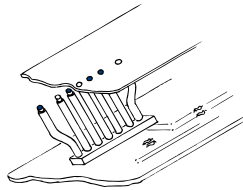
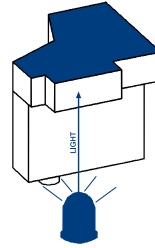
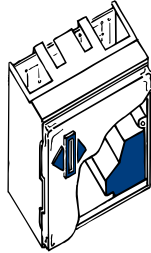
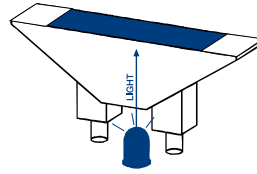
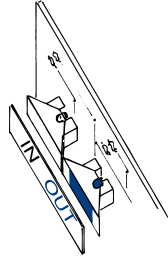
MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature - 40° to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

APPLICATIONS

- ◆ Industrial Controls
- ◆ Instrumentation
- ◆ Office automation
- ◆ Computer Peripherals
- ◆ Consumer Product
- ◆ Medical Equipment
- ◆ Test Equipment
- ◆ Process Control Equipment

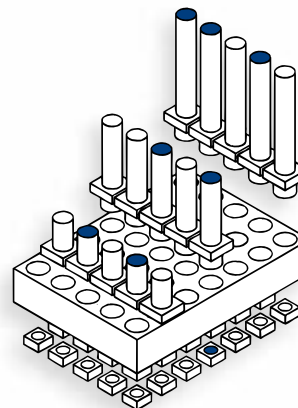
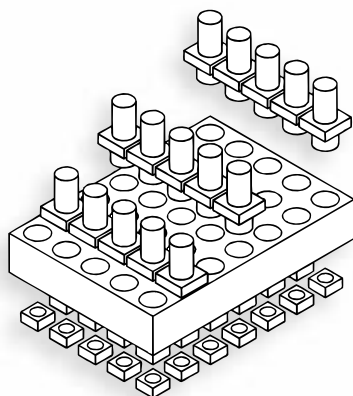
Main applications..



FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ Excellent on/off contrast
- ▶ Choice of 9 bright colors
- ▶ Optical Cable Version
- ▶ Easily mounted on PCB by press-fit
- ▶ Stackable vertically and horizontally
- ▶ Industry standard footprint

- ▶ Designed for low current operation
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ LEDs color can be mixed in a single housing
- ▶ Reduce insertion cost
- ▶ Case in different colors
- ▶ Available in 19 lengths standard
- ▶ Custom version without cost

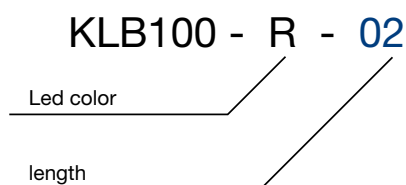


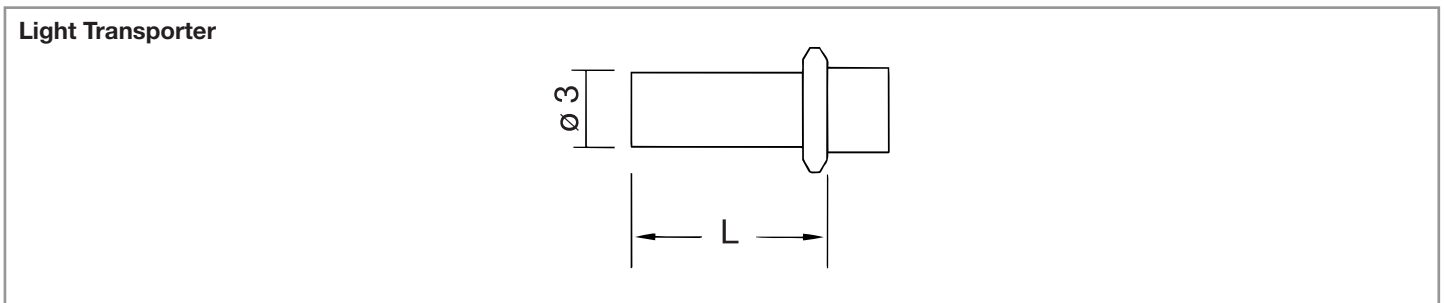
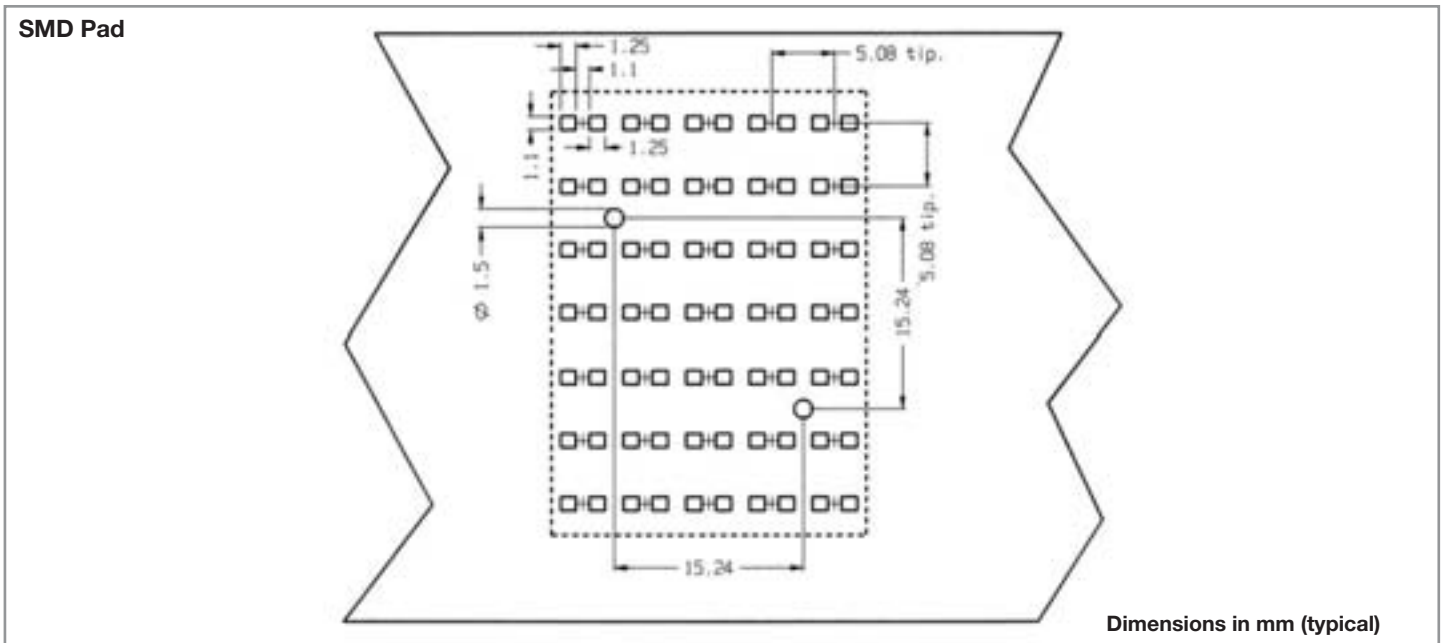
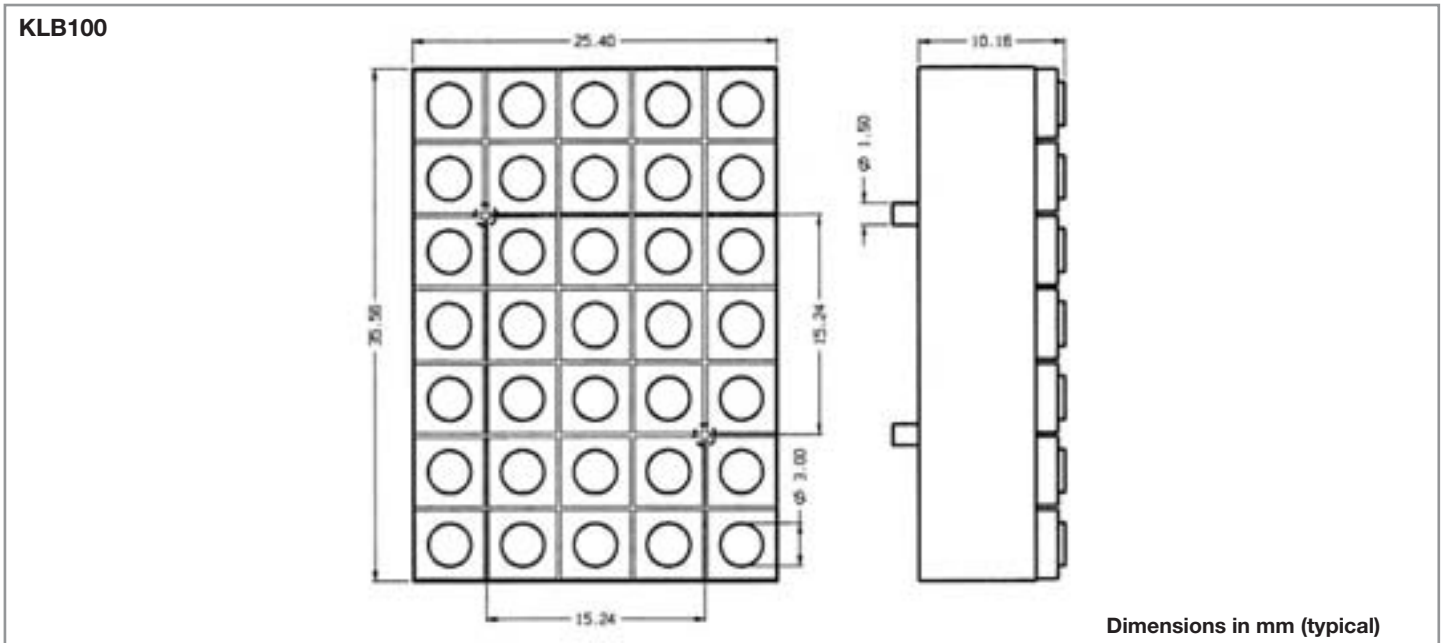
Code	Module Dimensions L x H x T (mm)	Effective Viewing (mm)	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ	IF (mA) Typ
SMD (0805)						
KLB100- R	35,56x25,40x8,16	ø 3x35led	35	Red 660	11,7	20
KLB100- O	35,56x25,40x8,16	ø 3x35led	35	Orange 605	3,7	20
KLB100- Y	35,56x25,40x8,16	ø 3x35led	35	Yellow 580	3,7	20
KLB100- YG	35,56x25,40x8,16	ø 3x35led	35	Yellow-Green 570	11,7	20
KLB100- G	35,56x25,40x8,16	ø 3x35led	35	Green 560	6,4	20
KLB100- PG	35,56x25,40x8,16	ø 3x35led	35	Pure-Green 555	2,7	20
KLB100- UG	35,56x25,40x8,16	ø 3x35led	35	Blue-Green 502	34	20
KLB100- U	35,56x25,40x8,16	ø 3x35led	35	Blu 467	14	20
KLB100- M	35,56x25,40x8,16	ø 3x35led	35	Multicolor	Indicate your colours	

Code	Length (mm)
LIGHT TRANSPORTER LENGTH	
02	L= 2 mm
04	L= 4 mm
054	L= 5,4 mm
06	L= 6 mm
085	L= 8,5 mm
10	L= 10 mm
13	L= 13 mm
15	L= 15 mm

Code	Length (mm)
LIGHT TRANSPORTER LENGTH	
17	L= 17 mm
20	L= 20 mm
30	L= 30 mm
37	L= 37,9mm
40	L= 40 mm
50	L= 50 mm
Your length	L=

PART NUMBER EXAMPLES





OPTIONS AVAILABLE

- ◆ Different Lengths & Shapes
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ 3,3 x 3,3 mm square version
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature - 60° to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 6 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000 hours @ 2mA
- ◆ Plastic Color & Material on Request

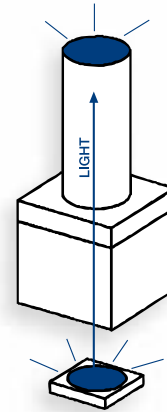
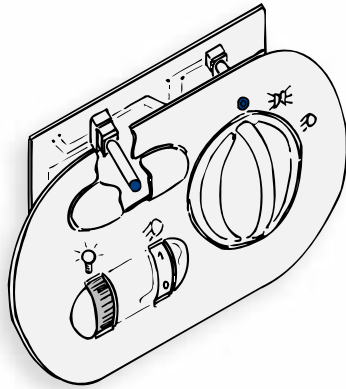
APPLICATIONS

- ◆ Moving Message Panel
- ◆ Restaurant drive-through sign
- ◆ Exchange Rate information board
- ◆ Movie Theatre signs
- ◆ Trains platform signs
- ◆ Fitness Equipment
- ◆ Medical Instruments
- ◆ Aeroportual platform signs

FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ High transmissivity
- ▶ Low cost
- ▶ Uniform light area
- ▶ Easily mounted on PCB by press-fit
- ▶ Arrangeable in rows
- ▶ Suitable for level indicators

- ▶ ESD protection electrostatic discharge
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ Wide viewing angle
- ▶ Reduce insertion cost
- ▶ Special shapes and symbols
- ▶ Creates attractive appearance
- ▶ Custom version without cost

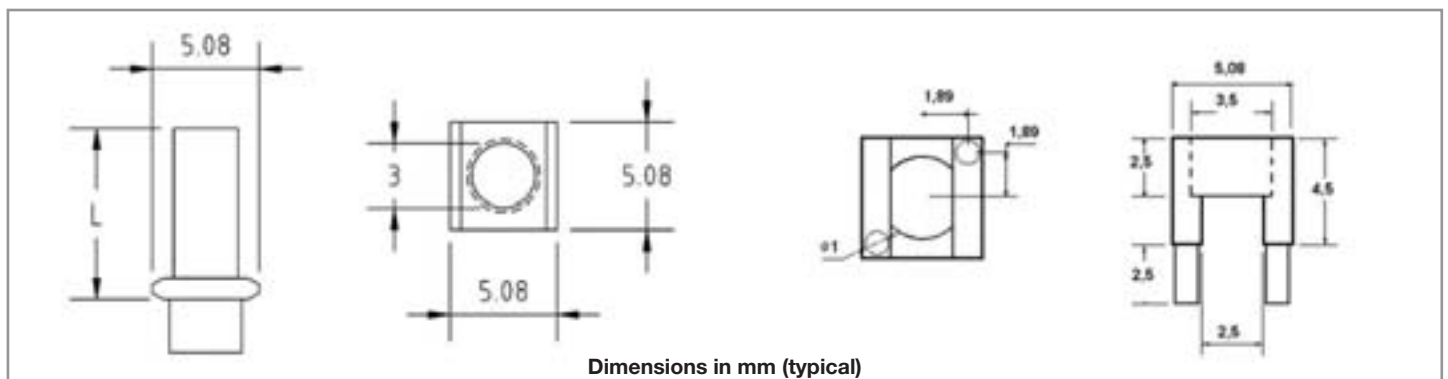
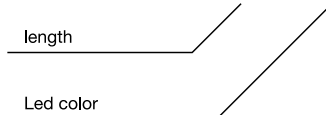


Code	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ.	IF (mA) Typ	
DEVICE CODE					
KSMJ01-XX-R	1	Red	660	11,7	20
KSMJ01-XX-O	1	Orange	605	3,7	20
KSMJ01-XX-Y	1	Yellow	580	3,7	20
KSMJ01-XX-YG	1	Yellow-Green	570	11,7	20
KSMJ01-XX-G	1	Green	560	6,4	20
KSMJ01-XX-PG	1	Pure-Green	555	2,7	20
KSMJ01-XX-UG	1	Blue-Green	502	34	20
KSMJ01-XX-U	1	Blu	467	14	20

Code	Length (mm)	Code	Length (mm)
LIGHT TRANSPORTER LENGTH			
02	L= 2 mm	17	L= 17 mm
04	L= 4 mm	20	L= 20 mm
054	L= 5,4 mm	30	L= 30 mm
06	L= 6 mm	37	L= 37,9mm
085	L= 8,5 mm	40	L= 40 mm
10	L= 10 mm	50	L= 50 mm
13	L= 13 mm	Your length	L=
15	L= 15 mm		

PART NUMBER EXAMPLES

KSMJ01 - 02 - R



Dimensions in mm (typical)

OPTIONS AVAILABLE

- ◆ Different lengths
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Infrared-Phototransistor
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

- ◆ Housing: PC
- ◆ Lens: PC Optic
- ◆ Operating Temperature - 60° to + 125 °C
- ◆ Soldering Temperature: 260 °C ≤ 5 sec.
- ◆ Storage Temperature: -60° to + 125°C
- ◆ MTBF: 100.000 hours @ 20mA
250.000hours @ 2mA
- ◆ Plastic Color & Material on Request

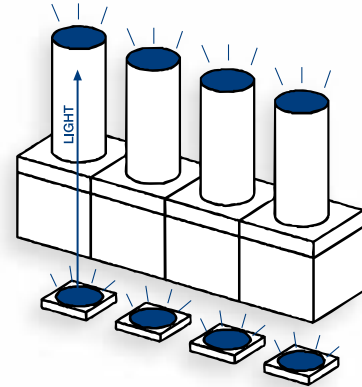
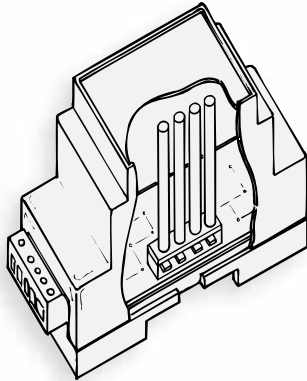
APPLICATIONS

- ◆ Industrial Controls
- ◆ Communications Systems
- ◆ Office Automation
- ◆ Process Control Equipment
- ◆ Consumer Product
- ◆ Test Equipment
- ◆ Transportations Equipment
- ◆ Computer Peripherals

FEATURES

- ▶ Helps to eliminate mixed technology PCB processing
- ▶ High transmissivity
- ▶ Low cost
- ▶ Uniform light area
- ▶ Easily mounted on PCB by press-fit
- ▶ Arrangeable in rows
- ▶ Suitable for level indicators

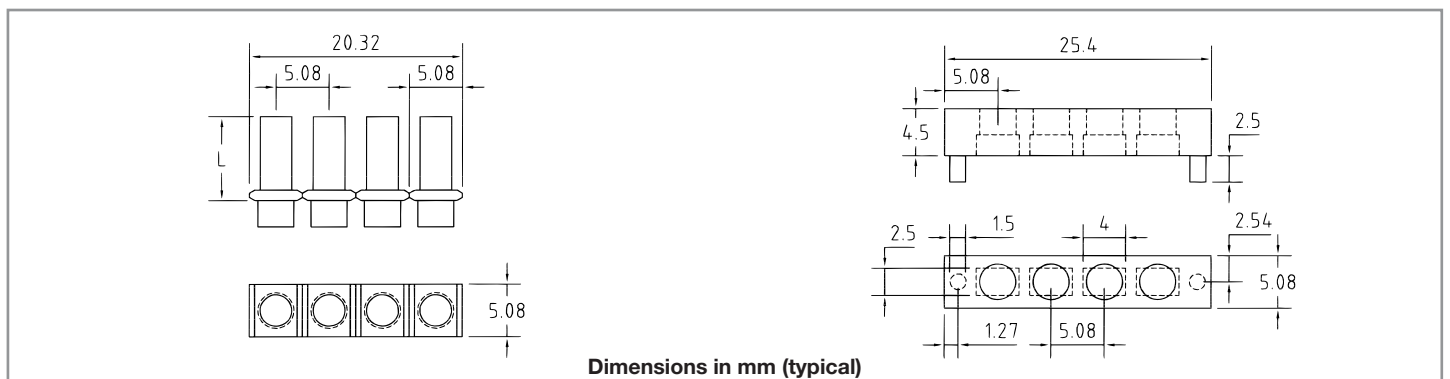
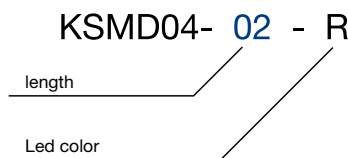
- ▶ ESD protection electrostatic discharge
- ▶ Dominant wavelength from 430 nm to 700 nm
- ▶ Wide viewing angle
- ▶ Reduce insertion cost
- ▶ Special shapes and symbols
- ▶ Creates attractive appearance
- ▶ Custom version without cost



Code	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ	IF (mA) Typ	
DEVICE CODE					
KSMD04-XX-R	1	Red	660	11,7	20
KSMD04-XX-O	1	Orange	605	3,7	20
KSMD04-XX-Y	1	Yellow	580	3,7	20
KSMD04-XX-YG	1	Yellow-Green	570	11,7	20
KSMD04-XX-G	1	Green	560	6,4	20
KSMD04-XX-PG	1	Pure-Green	555	2,7	20
KSMD04-XX-UG	1	Blue-Green	502	34	20
KSMD04-XX-U	1	Blu	467	14	20

Code	Length (mm)	Code	Length (mm)
LIGHT TRANSPORTER LENGTH			
02	L= 2 mm	17	L= 17 mm
04	L= 4 mm	20	L= 20 mm
054	L= 5,4 mm	30	L= 30 mm
06	L= 6 mm	37	L= 37,9mm
085	L= 8,5 mm	40	L= 40 mm
10	L= 10 mm	50	L= 50 mm
13	L= 13 mm	Your length	L=
15	L= 15 mm		

PART NUMBER EXAMPLES



OPTIONS AVAILABLE

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- ◆ MTBF: 100.000 hours @ 20mA
250.000hours @ 2mA
- ◆ Plastic Color & Material on Request

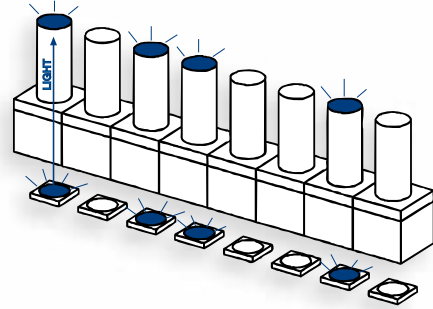
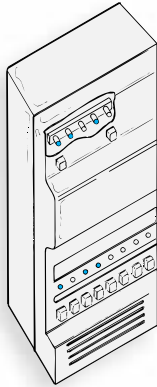
APPLICATIONS

- ◆ Industrial Controls
- ◆ Communications Systems
- ◆ Office Automation
- ◆ Process Control Equipment
- ◆ Consumer Product
- ◆ Test Equipment
- ◆ Transportations Equipment
- ◆ Computer Peripherals

FEATURES

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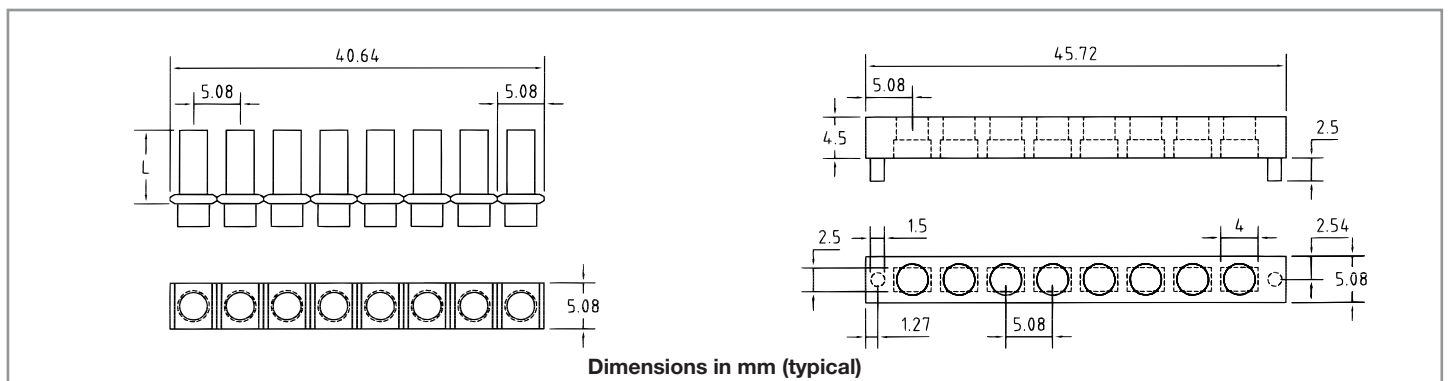
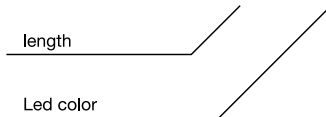


Code	LEDs Q.ty	Led Color (nm) Typ.	Iv (mcd) Typ.	IF (mA) Typ	
DEVICE CODE					
KSMD08-XX-R	1	Red	660	11,7	20
KSMD08-XX-O	1	Orange	605	3,7	20
KSMD08-XX-Y	1	Yellow	580	3,7	20
KSMD08-XX-YG	1	Yellow-Green	570	11,7	20
KSMD08-XX-G	1	Green	560	6,4	20
KSMD08-XX-PG	1	Pure-Green	555	2,7	20
KSMD08-XX-UG	1	Blue-Green	502	34	20
KSMD08-XX-U	1	Blu	467	14	20

Code	Length (mm)	Code	Length (mm)
LIGHT TRANSPORTER LENGTH			
02	L= 2 mm	17	L= 17 mm
04	L= 4 mm	20	L= 20 mm
054	L= 5,4 mm	30	L= 30 mm
06	L= 6 mm	37	L= 37,9mm
085	L= 8,5 mm	40	L= 40 mm
10	L= 10 mm	50	L= 50 mm
13	L= 13 mm	Your length	L=
15	L= 15 mm		

PART NUMBER EXAMPLES

KSMD08- 02- R



OPTIONS AVAILABLE

- ◆ Different lengths
- ◆ Special LEDs on request
- ◆ Bin Selection
- ◆ Ultrabright (from 300 to 1.900 mcd)
- ◆ Bicolor-Tricolor and Full Color
- ◆ Infrared-Phototransistor
- ◆ Blinking LEDs
- ◆ 5V & 12V Integrated Resistor

MATERIAL SPECIFICATION

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250.000hours @ 2mA
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APPLICATIONS

- ◆ Industrial Controls
- ◆ Communications Systems
- ◆ Office Automation
- ◆ Process Control Equipment
- ◆ Consumer Product
- ◆ Test Equipment
- ◆ Transportations Equipment
- ◆ Computer Peripherals