



ORIGINAL  
**ASSMANN**  
QUALITY



**Optoelectronic  
Components**  
**LED-BULB Shortform Catalogue**

# ASSMANN

**Features:**

- Wide view angle (130°)
- High luminous output
- Five kind of colour
- Free to differentiate anode and cathode ( BI-Polar)
- Solid-state Vibration resistant
- Saving power
- Long life

**Materials:**

- LED Lens: UV Resistent Epoxy
- Colour Holder: Nylon 66, UL94V-2
- Bulb Base: Copper

**Ratings:**

- Operating temperature: -25°C to +85°C
- Storage temperature: -35°C to +100°C

To make a competition with LED Bulb and traditional lamp (Table 1), led bulbs are high efficiency, saving power, long-life, and quakeproof.

Although the initial cost is higher, however, the LED bulb can reduce the cost of repair, electricity expenses and replacements. Therefore, the total cost still lower than traditional lamp for the long run.

That's why LED bulbs are getting more and more important in the lighting market..

	Life	Power Consumption
<b>Traditional Lamp</b>	7,000hours	1.1 watts
<b>LED Lamp</b> - Red - - Yellow -	50,000hours (Luminous reduces to 50%)	0.12 watts
<b>LED Lamp</b> -Green - - Blue - -White -	20,000hours (Luminous reduces to 50%)	0.12 watts

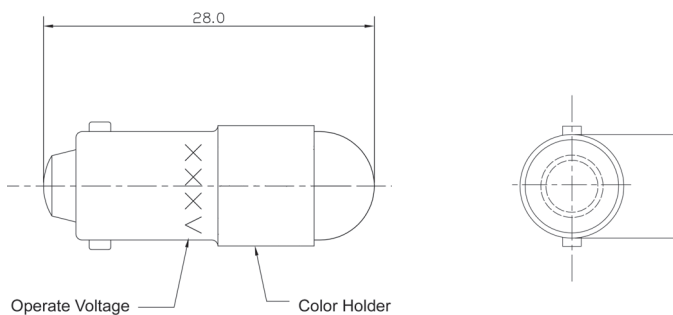
Table 1 Competition between led lamp and traditional lamp

### Electrical and Optical Characteristics at TA = 25°

#### SINGLE LAMP LED BULB

Ordercode	Base Model (x)	Material & Emitting Colour	Operating Voltage (V)	Wavelength Typ. IF @20mA (nm)		Current @ Vin (mA)	Luminous Intesity @ Vin			
				$\lambda_D$	$\Delta\lambda$		typ.	min.	typ.	
A-B1R-006-x	A = BA9S B = E10 C = E12	AlGaInP Red	6	630	20	17	400	550	B I P O L A R	
A-B1R-024-x			24			14	300	400		
A-B1R-230-x			220			2,5	30	50		
A-B1Y-006-x		AlGaInP Yellow	6	587	20	17	400	550		
A-B1Y-024-x			24			14	300	400		
A-B1Y-230-x			220			2,5	30	50		
A-B1G-006-x		InGaN / SiC Green	6	525	20	9	250	350		
A-B1G-024-x			24			14	500	800		
A-B1G-230-x			220			2,5	50	70		
A-B1B-006-x		InGaN / SiC Blue	6	470	30	9	250	350		
A-B1B-024-x			24			14	400	550		
A-B1B-230-x			220			2,5	30	50		
A-B1W-006-x		InGaN / SiC White	6		Chromaticity Coordinates		9	250		350
A-B1W-024-x			24		X	Y	14	500		800
A-B1W-230-x			220		0.31	0.32	2,5	30		50

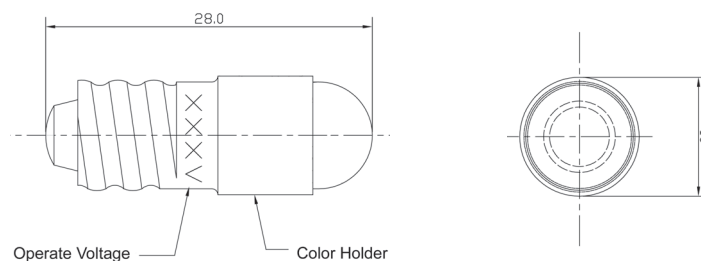
insert for x: A, B, C



Bestellcode: **A-B1x-xxx-A**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 2  
 Complete ordercode see page 2

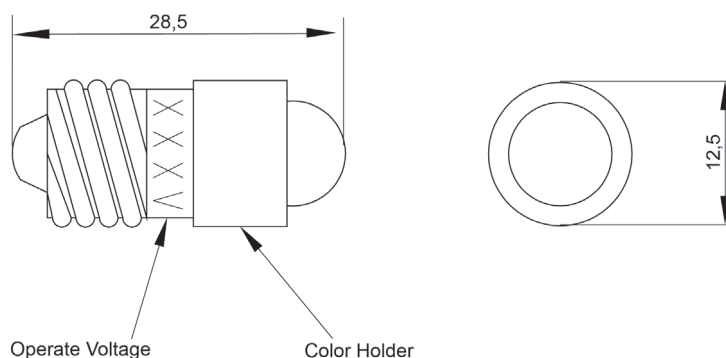
**Ba9s**



Bestellcode: **A-B1x-xxx-B**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 2  
 Complete ordercode see page 2

**E10**



Bestellcode: **A-B1x-xxx-C**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 2  
 Complete ordercode see page 2

**E12**

**Features:**

- Wide view angle (45° each lamp)
- High luminous output
- Five kind of colour
- Free to differentiate anode and cathode ( BI-Polar)
- Solid-state Vibration resistant
- Saving power
- Long life

**Materials:**

- LED Lens: UV Resistent Epoxy
- Colour Holder: Nylon 66, UL94V-2
- Bulb Base: Copper

**Ratings:**

- Operating temperature: -25°C to +85°C
- Storage temperature: -35°C to +100°C

To make a competition with LED Bulb and traditional lamp (Table 1), led bulbs are high efficiency, saving power, long-life, and quakeproof.

Although the initial cost is higher, however, the LED bulb can reduce the cost of repair, electricity expenses and replacements. Therefore, the total cost still lower than traditional lamp for the long run.

That's why LED bulbs are getting more and more important in the lighting market.

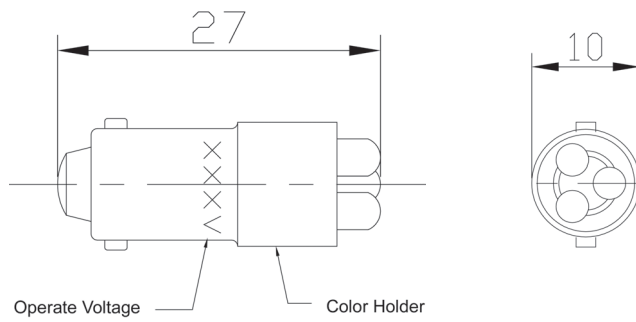
	Life	Power Consumption
<b>Traditional Lamp</b>	7,000hours	1.1 watts
<b>LED Lamp</b> - Red - - Yellow -	50,000hours (Luminous reduces to 50%)	0.12 watts
<b>LED Lamp</b> -Green - - Blue - -White -	20,000hours (Luminous reduces to 50%)	0.12 watts

Table 1 Competition between led lamp and traditional lamp

**Electrical and Optical Characteristics at TA = 25°**
**Three LAMP LED BULB**

Ordercode	Base Model (x)	Material & Emitting Colour	Operating Voltage (V)	Wavelength Typ. IF @20mA (nm)		Current @ Vin (mA)	Luminous Intesity @ Vin		
				λD	Δλ		typ.	min.	typ.
A-B3R-006-x	A = BA9S B = E10 C = E12	AlGaInP Red	6	628	30	72	15000	21000	B I P O L A R
A-B3R-024-x			24			20	15000	21000	
A-B3R-230-x			230			2,5	1000	1500	
A-B3Y-006-x		AlGaInP Yellow	6	588	30	72	15000	21000	
A-B3Y-024-x			24			20	15000	21000	
A-B3Y-230-x			230			2,5	1000	1500	
A-B3G-006-x		InGaN / SiC Green	6	525	30	65	12000	17000	
A-B3G-024-x			24			20	12000	17000	
A-B3G-230-x			230			2,5	900	1400	
A-B3B-006-x		InGaN / SiC Blue	6	470	30	65	3000	4500	
A-B3B-024-x			24			20	3000	4500	
A-B3B-230-x			230			2,5	200	350	
A-B3W-006-x		InGaN / SiC White	6	Chromaticity Coordinates		65	7200	10000	
A-B3W-024-x			24	X	Y	20	7200	10000	
A-B3W-230-x			230	0.31	0.32	2,5	550	750	

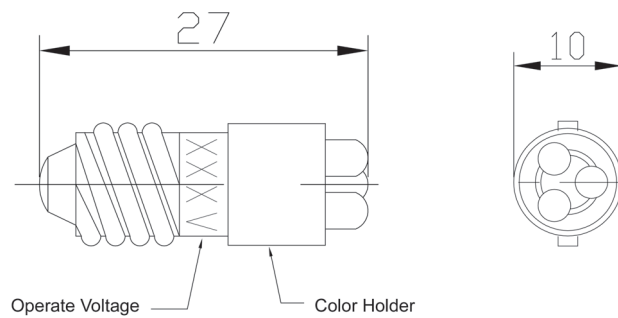
insert for x: A, B, C



Bestellcode: **A-B3x-xxx-A**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 4  
 Complete ordercode see page 4

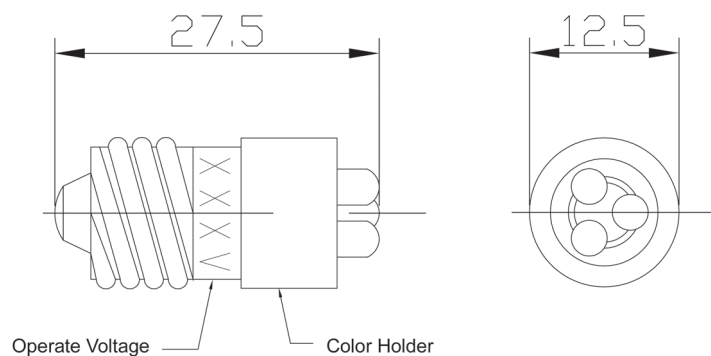
**Ba9s**



Bestellcode: **A-B3x-xxx-B**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 4  
 Complete ordercode see page 4

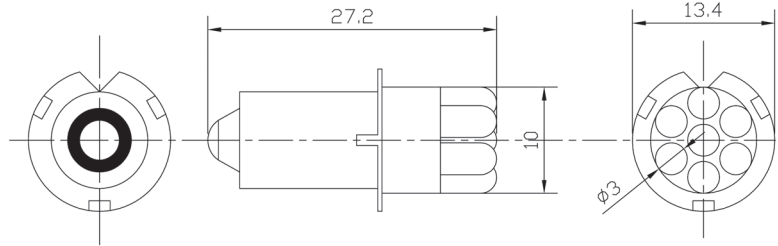
**E10**



Bestellcode: **A-B3x-xxx-C**  
 Ordercode :

Vollständige Bestell-Nummer siehe Seite 4  
 Complete ordercode see page 4

**E12**



These LED Bulbs are specifically designed for flashlight. Operating voltages are 3V DC , 4.5V DC and 6V DC The angle (45° each lamp) and high luminous intensity ensure that these devices are excellent for wide viewing angle and readability in sunlight are essential. Every lamp is made with an an advanced optical grade epoxy offering superior high shock and high temperature resistance in outdoor applications.

**Materials:**

- LED Lens: UV Resistent Epoxy
- Colour Holder: Nylon 66, UL94V-2
- Bulb Base: Copper

**Ratings:**

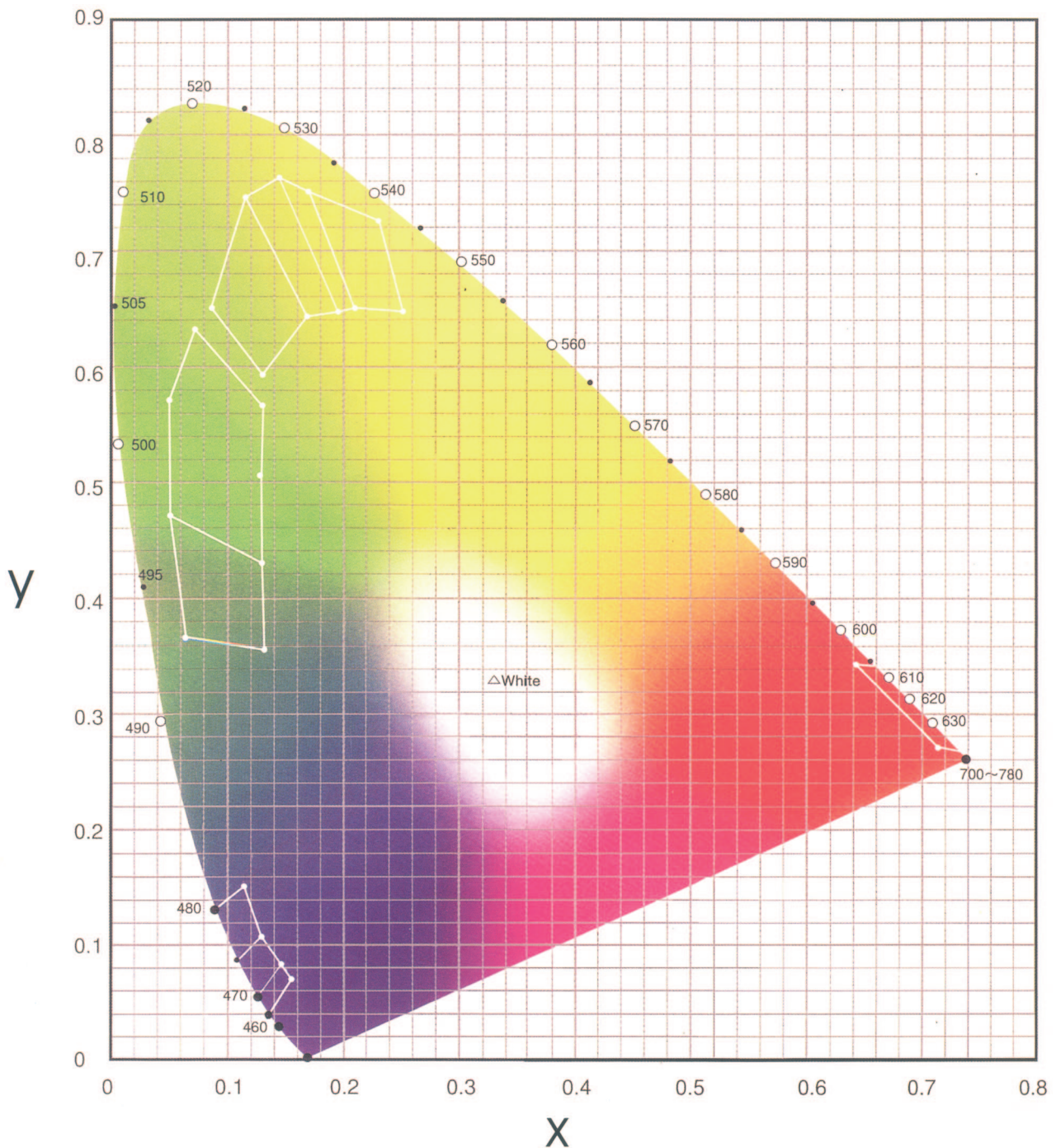
- Operating temperature: -25°C to +85°C
- Storage temperature: -35°C to +100°C
- LED Bulb life: White - 20000 Hours  
(Luminance reduces to 50%)

**Electrical and Optical Characteristics at TA = 25°  
Flashlite LED BULB**

Ordercode	Base Model ( x )	Material & Emitting Colour	Operating Voltage (V)	Wavelength (nm)	Current @ Vin (mA)	Luminous Intesity @ Vin (mcd)	
					typ.	min.	
A-B13W-3V	P13.5s	InGaN White	3	X:0.31	100	13	D C
A-B13W-4.5V			4,5		140	17	
A-B13W-6V			6	Y:0.32	140	17	

Bestellcode: **A-B13W-x-V**  
Ordercode :

**P13.5s**



## Reliability test item and condition

NO	Item	Test Conditions	Test Hours/Cycle
1	Solder	TEMP : 260°C ± 5°C	10SEC
2	Temperature Cycle	H : +85°C 30min~5min L : -55°C 30min	50CYCLE
3	Thermal Shock	H : +100°C 5min~10min L : -10°C 5min	50CYCLE
4	High Temperature Storage	TEMP : 100°C	1000HRS
5	Low Temperature Storage	TEMP : -55°C	1000HRS
7	DC Operating Life	IF = 20 mA	1000HRS
8	High Temperature / High Humidity	85°C / 85%RH	1000HRS

## Our main Catalogues:



### Electronic Components "Main catalogue"

- D-Sub Connectors and accessories
- IDC-Connectors (Assmann Multiflex®)
- Modular Connectors
- DIN- & Mini-DIN-Connectors
- IC-Sockets etc.



### Thermal Management Products "Main catalogue "

- Stamped Heatsinks
- Extruded Heatsinks
- Extruded Profile Heatsinks
- Mounting accessories
- Distance Spacers etc.



### Computer Network Peripherals "Main catalogue"

- active / passive Network products
- Fiber optic
- USB / Firewire / SCSI products
- KVM- / Data- Switches
- Cables and adaptors
- Computer accessories



### DIN 41612 & Hard Metric 2.00mm "Supplementary catalogue"

- full range DIN41612 connectors
- full range Hard Metric connectors (2.00mm) according to IEC 917 and IEC 61706-4-101 standards

For further Informations or current catalogues  
please contact your distribution partner:

distributed by: