

# BR 50 signal tower



- Modular design with a sturdy enclosure for all indoor and outdoor applications where the going gets rough.
- Wherever equipment is required to display machine status and provide warning signals.
- High level of protection against electric shock with IP 54 (IP 65 is optional).
- A flexible modular system guarantees easy operation. Up to five modules with a choice of six globe colours can be simply plugged together in any permutation, even at a later point in time.
- The mechanical and electronic systems are decoupled. From it results a stable construction intensive to vibration (no banana!).
- You have the choice between four different modules:
  - Module with continuous beam max. 7 W
  - Blinking-light module max. 7 W
  - Flashing-light module max. 0,6 joules
  - Acoustic module 85 dB (A)
- Versatility in installation: also the mounting methods will meet all your requirements. Stand, tube or direct mounting.
- The environmentally friendly materials used in manufacture comply with the DIN ISO 14000.

<b>IP 54</b>	<b>IP 65</b>	<b>+45 °C</b>	<b>+60 °C</b>	<b>90%</b>	<b>CE</b> <b>UL</b>
Protective system	Protective system (optional)	<b>-25 °C</b>	<b>-30 °C</b>		
		Operating temperature	Operating temperature (with LED)		

The modular construction guarantees flexible adaptation to any application...



Standmounting gasket

**Dimensions:**

	L1 Tube mounting	L1 Mounting stand	L2
Length of tube 100	78 (3.1")	88 (3.58")	single-stage 107 (4.2")
Length of tube 250	228 (9.0")	238 (9.4")	2-stages 170 (6.7")
Length of tube 400	378 (14.9")	388 (15.2")	3-stages 233 (9.2")
			4-stages 296 (11.6")
			5-stages 359 (14.1")

The bayonet union ensures that you install the modules easily and rapidly

## Technical data:

Globe colours							
Module data	Continuous-beam module Light bulb   LED		Blinking-light module 1.5 Hz Light bulb   LED		Flashing-light module	Acoustic module	
Modular stages	max. 5 (sequence and colour freely selectable)						
Angle of beam	360°						
Percentage duty cycle	100%						
Rated power, max. with 5 stages	7W 5W	depending on voltage	7W 5W	depending on voltage			
Lamp socket	BA 15 d		BA 15 d				
Flashing power					0.6 Joules		
Service life of light bulb/tube	approx. 1500h	approx. 100000h	approx. 1500h	approx. 100000h	after 8 mill. flashes min. 70% light emission		
Sound level at 1 m (39.3") distance						85 dB (A)	
Sound patterns						7	
AC voltage rating 230V	50/60Hz -15% to +10%						
Current capacity rating 230V	0.035 A	0.015 A	0.03 A	-	0.011 A	0.015 A	
AC voltage rating 115V	50/60Hz -15% to +10%						
Current capacity rating 115V	0.064 A	0.015 A	-	-	0.02 A	0.015 A	
DC voltage rating 24V	-15% bis +20%						
Current capacity rating	0.3 A	0.030 A	0.25 A	0.030 A	0.04 A	0.012 A	
Weight of modules	80 g		90 g		90 g	130 g	

The acoustic module is always installed at the top of the signal tower.

## Other data:

Installation	Vertical or horizontal - mounting stand, tube mounting, direct mounting
Accessories	Gasket for light module + basic module IP 65, gasket for tubular stand on plinth IP 65, gasket for direkt mounting IP 65 (IP 65 not for sound modul) Wall bracket with hood
Weight of plinth	Stand mounting (w/o module): approx. 220 g Tube mounting (w/o module): approx. 200 g Direct mounting (w/o module): approx. 180 g
Materials	Globe: polycarbonate, Plinth: ABS, Tube: stainless steel Tube thread 30mm (1.18"), M16 x 1.5

### Lamp remover

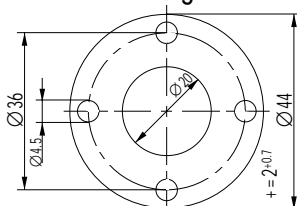


### Base and end module



Order No.: 28250010000

### Gasket and installation material for direct mounting



Order No.: 28250210000

### Wall bracket with hood for mounting stand



Order No.: 28250200000

### Wall bracket for direct mounting (optional IP 65) and for double side mounting, up to 10 modules



Available starting approximately from May

### Option with IP 65:

- Ring gasket for light module / base module (1 per light module plus 1 base module), order no.: 28250220000
- Ring gasket for mounting tube (only applies to stand or tube mounting), order no.: 28250230000

How to order: select your signal tower from the variety of combinations as modular kit, customized to meet

Product description		Order designation	Order No.
<b>MODULAR KIT</b>			
Base and end module		BR50-BC	28250010000
Continuous-beam module	transparent	BR50-CL-CL	28250040010
Continuous-beam module	yellow	BR50-CL-YE	28250040030
Continuous-beam module	amber	BR50-CL-AM	28250040040
Continuous-beam module	red	BR50-CL-RE	28250040050
Continuous-beam module	green	BR50-CL-GR	28250040060
Continuous-beam module	blue	BR50-CL-BL	28250040070
Blinking-light module 24V	transparent	BR50-BL-CL 24V	28250058010
Blinking-light module 24V	yellow	BR50-BL-YE 24V	28250058030
Blinking-light module 24V	amber	BR50-BL-AM 24V	28250058040
Blinking-light module 24V	red	BR50-BL-RE 24V	28250058050
Blinking-light module 24V	green	BR50-BL-GR 24V	28250058060
Blinking-light module 24V	blue	BR50-BL-BL 24V	28250058070
Blinking-light module 230V	transparent	BR50-BL-CL 230V	28250051010
Blinking-light module 230V	yellow	BR50-BL-YE 230V	28250051030
Blinking-light module 230V	amber	BR50-BL-AM 230V	28250051040
Blinking-light module 230V	red	BR50-BL-RE 230V	28250051050
Blinking-light module 230V	green	BR50-BL-GR 230V	28250051060
Blinking-light module 230V	blue	BR50-BL-BL 230V	28250051070
Flashing-light module 24V	transparent	BR50-FL-CL 24V	28250078010
Flashing-light module 24V	yellow	BR50-FL-YE 24V	28250078030
Flashing-light module 24V	amber	BR50-FL-AM 24V	28250078040
Flashing-light module 24V	red	BR50-FL-RE 24V	28250078050
Flashing-light module 24V	green	BR50-FL-GR 24V	28250078060
Flashing-light module 24V	blue	BR50-FL-BL 24V	28250078070
Flashing-light module 115V	transparent	BR50-FL-CL 115V	28250071610
Flashing-light module 115V	yellow	BR50-FL-YE 115V	28250071630
Flashing-light module 115V	amber	BR50-FL-AM 115V	28250071640
Flashing-light module 115V	red	BR50-FL-RE 115V	28250071650
Flashing-light module 115V	green	BR50-FL-GR 115V	28250071660
Flashing-light module 115V	blue	BR50-FL-BL 115V	28250071670
Flashing-light module 230V	transparent	BR50-FL-CL 230V	28250071010
Flashing-light module 230V	yellow	BR50-FL-YE 230V	28250071030
Flashing-light module 230V	amber	BR50-FL-AM 230V	28250071040
Flashing-light module 230V	red	BR50-FL-RE 230V	28250071050
Flashing-light module 230V	green	BR50-FL-GR 230V	28250071060
Flashing-light module 230V	blue	BR50-FL-BL 230V	28250071070
Acoustic module 24V		BR50-SM 24V	28250088000
Acoustic module 115V		BR50-SM 115V	28250081600
Acoustic module 230V		BR50-SM 230V	28250081000
Light bulb BA15d 24V DC / 7W		BR50-L 24 7W	030303022
Light bulb BA15d 115V AC / 7W		BR50-L 115 7W	030303032
Light bulb BA15d 230V AC / 7W		BR50-L 230 7W	030303042
Light bulb BA15d 24V DC / 5W		BR50-L 24 5W	030303023
Light bulb BA15d 115V AC / 5W		BR50-L 115 5W	030303033
Light bulb BA15d 230V AC / 5W		BR50-L 230 5W	030303043

your individual requirements.

Product description		Order designation	Order No.
<b>ACCESSORIES</b>			
LED light bulbs BA15d / 24V	transparent	BR50-LED-WH	
LED light bulbs BA15d / 24V	yellow	BR50-LED-YE	
LED light bulbs BA15d / 24V	red	BR50-LED-RE	
LED light bulbs BA15d / 24V	green	BR50-LED-GR	
LED light bulbs BA15d / 24V	blue	BR50-LED-BL	
LED light bulbs BA15d / 115V	transparent	BR50-LED-WH	
LED light bulbs BA15d / 115V	yellow	BR50-LED-YE	
LED light bulbs BA15d / 115V	red	BR50-LED-RE	
LED light bulbs BA15d / 115V	green	BR50-LED-GR	
LED light bulbs BA15d / 115V	blue	BR50-LED-BL	
LED light bulbs BA15d / 230V	transparent	BR50-LED-WH	
LED light bulbs BA15d / 230V	yellow	BR50-LED-YE	
LED light bulbs BA15d / 230V	red	BR50-LED-RE	
LED light bulbs BA15d / 230V	green	BR50-LED-GR	
LED light bulbs BA15d / 230V	blue	BR50-LED-BL	
Tubular stand with plinth	100 mm (3.93")	BR50-S100	28250150010
Tubular stand with plinth	250 mm (9.82")	BR50-S250	28250150020
Tubular stand with plinth	400 mm (15.7")	BR50-S400	28250150040
Threaded tubular stand with bracket (without seal and cable)	100 mm (3.93")	BR50-T100	28250160010
Threaded tubular stand with bracket (without seal and cable)	250 mm (9.82")	BR50-T250	28250160020
Threaded tubular stand with bracket (without seal and cable)	400 mm (15.7")	BR50-T400	28250160040
Wall bracket with hood for mounting stand		BR50-W	28250200000
Gasket for light module + base module IP 65		BR50-MG	28250220000
Tube gasket IP 65		BR50-TG	28250230000
Mounting kit with gasket for direct mounting IP 65		BR50-BG	28250210000

The new LEDs do not fit into the 115V and 230V blinking modules

How to order:


**Mounting stand**



Sample order for mounting stand:

1x base and end module	Order No. 28250010000
1x stand with plinth 250 mm	28250150020
1x continuous-beam module red	28250040050
1x continuous-beam module yellow	28250040030
1x continuous-beam module green	28250040060
3x light bulb 24V/7W	030303022


**Direct mounting**



Sample order for plinth/direct mounting:

1x base and end module	Order No. 28250010000
1x continuous-beam green	28250040060
1x continuous-beam red	28250040050
1x continuous-beam clear	28250040010
1x continuous-beam amber	28250040040
1x continuous-beam blue	28250040070
5x light bulb 24V/5W	030303023
1x assembly kit	28250210000

**Tube mounting**



Sample order for tube mounting:

1x base and end module	Order No. 28250010000
1x continuous-beam red	28250040050
1x continuous-beam clear	28250040010
1x continuous-beam amber	28250040040
1x threaded tubular stand with bracket	28250160020
3x light bulb 24V/7W	030303022



## LED Generation – Multi LED BA 15d



Energy- and cost-saving  
high-performance SMD LED replace light bulbs

- Extremely long service life (> 50.000 hours)
- Low power consumption (e.g. 0.72 W at 24 V DC)
- Resistant to shock, vibration and flashing
- Selection of colours: white, yellow, red, blue and green
- Same level of brightness at same level of voltage
- AC/DC operation
- Resistant to environmental influences

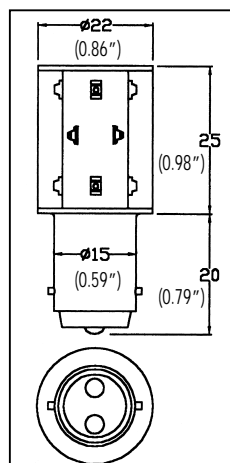
Colours (λp) chip structure	Ratings		Light intensity level (in Lm)
	Voltage (V)	Current (mA)	
White x = 0.31 / Y = 0.32 GaN/Al	24	30	6600
	115	15	6600
	230	15	6600
Yellow / 520 nm GaN/AlP	24	30	2500
	115	15	2500
	230	15	2500
Red / 645 nm GaN/AlP	24	30	6000
	115	15	6000
	230	15	6000
Green / 520 nm GaN/Al	24	30	6600
	115	15	6600
	230	15	6600
Blue / 468 nm GaN/Al	24	30	6600
	115	15	6600
	230	15	6600

Electrooptical characteristic data measured  
at  $T_u = 25^\circ\text{C}$

Maximum overvoltage 5%

Storage temperature:  $-30^\circ\text{C} \sim 90^\circ\text{C}$

Operating temperature:  $-30^\circ\text{C} \sim 60^\circ\text{C}$

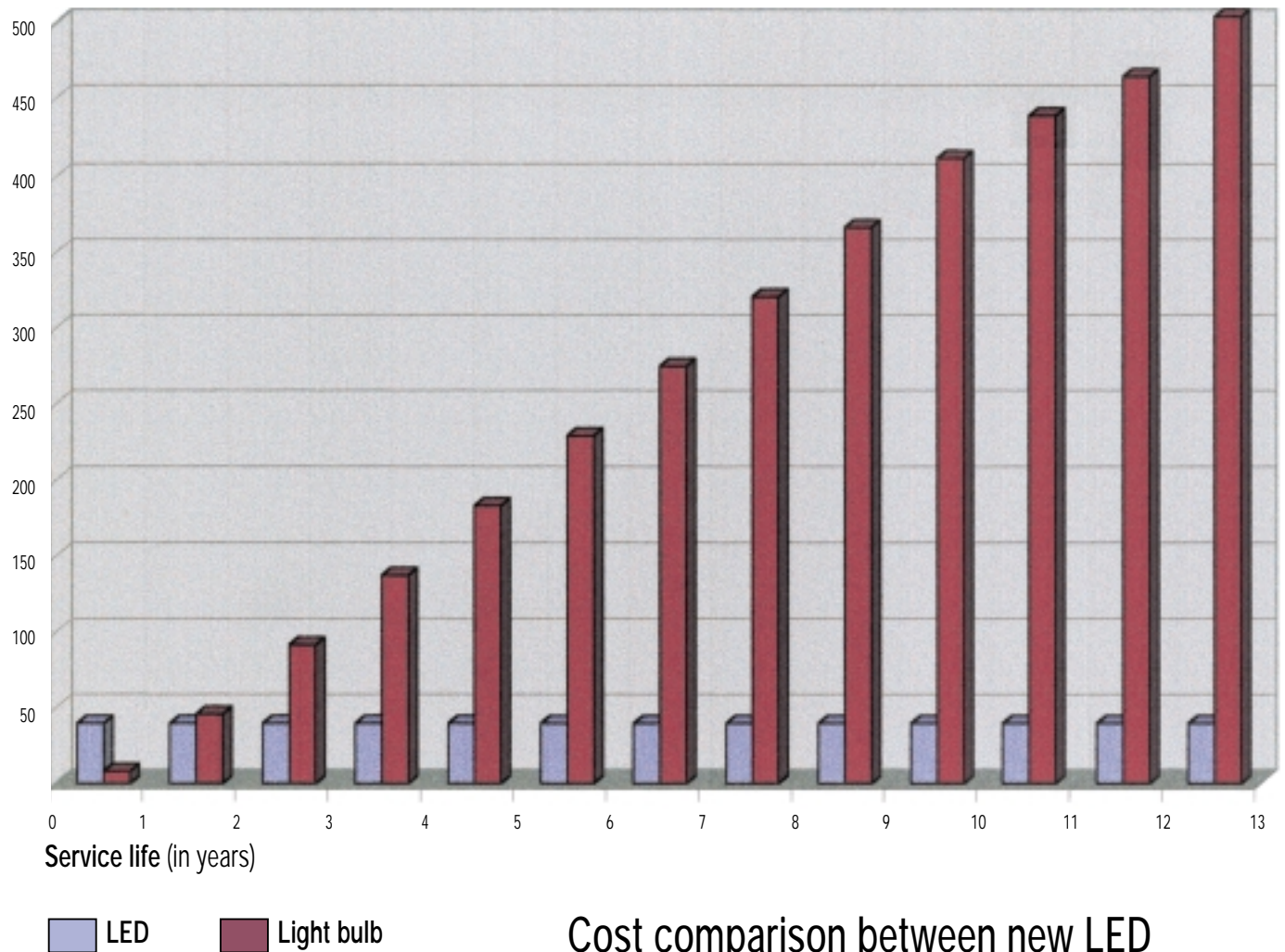


# LED or light bulb?

A cost comparison shows your profit!

A case taken of the practice shows the most economical solution.

Total cost (\$)



## Cost comparison between new LED and light bulb

The new LED from PDG provides at least 50 000 hours of operation (Tests resulting in 100 000 h) and costs 43,- \$.

A good light bulb provides approx. 1500 hours of operation and costs 6,- \$.

An LED, therefore, gives you approx. 33 times as much service life as a light bulb.

The light bulbs have to be replaced 33 times; we have assumed per replacement a service cost of 30,- \$.

Based on a 2-shift operation (3840 hours p.a.), the LED has a service life of **13 years (!)** and a benefit of approx. 700,- \$.