

# SIGNAL TOWERS

## BR 50




- Modular design with sturdy housing for all indoor and outdoor applications in tough conditions.
- Wherever machine status needs to be displayed and warning signals given.
- High protection system IP 54 (optionally IP 65).
- Flexible building kit system guarantees easy handling.
- Up to 5 modules with 6 lens colours can be combined as desired by simply plugging together, even retrospectively.
- Mechanical and electronic components are uncoupled, resulting in a more stable structure that is less sensitive to vibration.
- Many different variations are possible, can be fixed by means of tubular stand, tube or direct mounting.
- Made of environmentally-friendly materials as per DIN ISO 14000.
- Monitored module for greater safety; the light bulb has two separate LED strands. If one strand fails, the alarm contact is activated and the second strand continues to light.



protection system

operating temperature

PRODUCT		BR 50 (standard modules)					
Module		continuous light		blinking light 1.5 Hz		flashing light	sounder
Segment stages (total)		max. 5 (order and colour can be selected individually)					
Dispersion		360°					
Light source <sup>1</sup>		bulb BA15d	LED	bulb BA15d	LED		
Rated power	per stage	7 W	depending on voltage	7 W	depending on voltage		
	per stage if 5 stages	5 W		5 W			
Flash energy	230 V / 115 V AC					0,6 J	
	24 V AC/DC					24 V: 1 J	
Flash frequency						approx. 1 Hz	
Sound pressure level							85 dB (A)
Alarm tones							7
Nominal current consumption (50/60 Hz)	230 V AC	35 mA	15 mA	35 mA	–	10,5 mA	15 mA
	115 V AC	64 mA	15 mA	–	–	20 mA	15 mA
	operating range	–15 % ... +10 %				–10 % ... +15 %	–15 % ... +10 %
Nominal current consumption	24 V	DC: 300 mA	DC: 30 mA	DC: 250 mA	DC: 30 mA	AC/DC: 100 mA	12 mA
	operating range	–15 % ... +20 %		10–30 V		AC: 10–27 V DC: 10–35 V	–15 % ... +20 %
Operating temperature	with bulb	–25 °C ... +50 °C		–25 °C ... +50 °C			–10 °C ... +45 °C
	with LED	–30 °C ... +60 °C					
Relative humidity		90 %					
Protection system (EN 60529)		IP 54					IP 43
Duty cycle		100 %					
Service life of light source		approx. 1,500 hrs	approx. 50,000 hrs	approx. 1,500 hrs	approx. 50,000 hrs	light emission still 70 % after 8,000,000 flashes	
Material	base	acrylonitrile butadiene styrene (ABS)					
	lens	 polycarbonate (PC), UV resistant					
	tube	stainless steel					
Tube thread		30 mm, M16 x 1.5					
Mounting		vertical or horizontal					
Mounting information		the sounder module or the monitored module is always the uppermost module; a maximum of 1 monitored module may be used per signal tower					
Weight	module	80 g		90 g		90 g	230 g
	base	mounting stand: approx. 220 g / tube mounting: approx. 200 g / direct mounting: approx. 180 g					

<sup>1</sup> please order light source separately

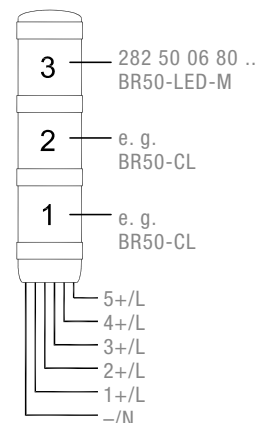
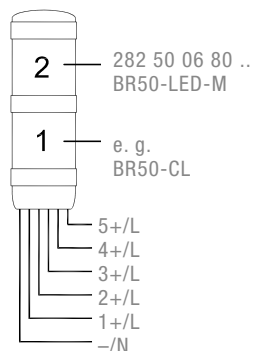
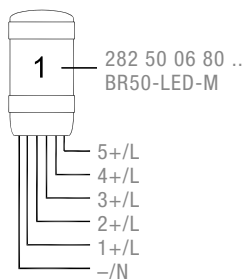
PRODUCT		BR 50 (special modules)	
Modules	monitored continuous light	BR 50 AS-i Bus slave	
		AS-i	AS-i-AB
Module types	2x 8 LED, monitored continuous light ● ●	LED, sounder, continuous light, blinking light	
Segment stages (total)	max. 3	max. 4	max. 3
Dispersion	360°		
AS-i profile		S-8.F.E	S-8.A.E
AS-i specification		AS-i 3.0 / EN 50295	
Programming		DC-Jack, Ø 1.3 mm	
Max. slave/master		31	62
Alarm output	max. 230 V / 80 mA, R <sub>ONmax</sub> = 35 Ω (closed at error-free operation)		
Rated voltage	24 V DC		
Nominal current consumption	approx. 35 mA	<0.25 A	
Operating range	-15 % ... +20 %	26.5–31.6 V	
Operating temperature	-30 °C ... +60 °C		
Relative humidity	90 %		
Protection system (EN 60529)	IP 54		
Duty cycle	100 %		
Service life of light source	50,000 hrs @ 24 °C, 40 % R.H.		
Material	Socket	acrylonitrile butadiene styrene (ABS)	
	Haube	polycarbonate (PC)	
Mounting	vertical or horizontal		
Mounting information	the AS-i / AS-i-AB module is always used as the lowest module		
Weight	90 g	90 g	

### Connection and configuration options for monitored modules.

- Use of one monitored module per signal tower:
  - configuration as “top” module (top module is monitored).
  - configuration “bottom” module (bottom module is monitored).
- Use of 2 monitored modules per signal tower.

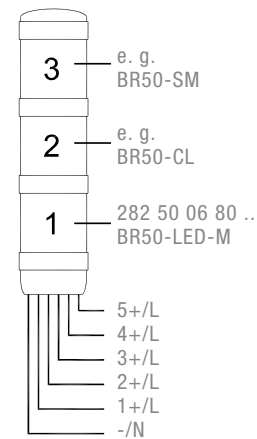
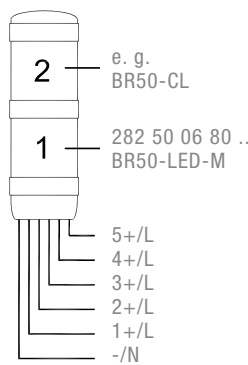
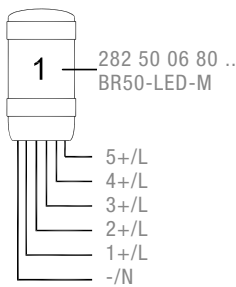
#### CONFIGURATION AS “TOP” MODULE (top module is monitored)

Base module + 1 <sup>st</sup> stage monitored		Base module + 1 <sup>st</sup> stage not monitored, 2 <sup>nd</sup> stage monitored		Base module + 1 <sup>st</sup> /2 <sup>nd</sup> stage not monitored, 3 <sup>rd</sup> stage monitored	
-/N	supply voltage (-), common connection for all stages	-/N	supply voltage (-), common connection for all stages	-/N	supply voltage (-), common connection for all stages
1+/L	supply voltage (+), activation of monitored module	1+/L	supply voltage (+), activation of 1 <sup>st</sup> stage	1+/L	supply voltage (+), activation of 1 <sup>st</sup> stage
2+/L	potential-free alarm output contact 1	2+/L	supply voltage (+), activation of 2 <sup>nd</sup> stage (monitored)	2+/L	supply voltage (+), activation of 2 <sup>nd</sup> stage
3+/L	potential-free alarm output contact 2	3+/L	potential-free alarm output contact 1	3+/L	supply voltage (+), activation of 3 <sup>rd</sup> stage (monitored)
4+/L	n.c.	4+/L	potential-free alarm output contact 2	4+/L	potential-free alarm output contact 1
5+/L	n.c.	5+/L	n.c.	5+/L	potential-free alarm output contact 2



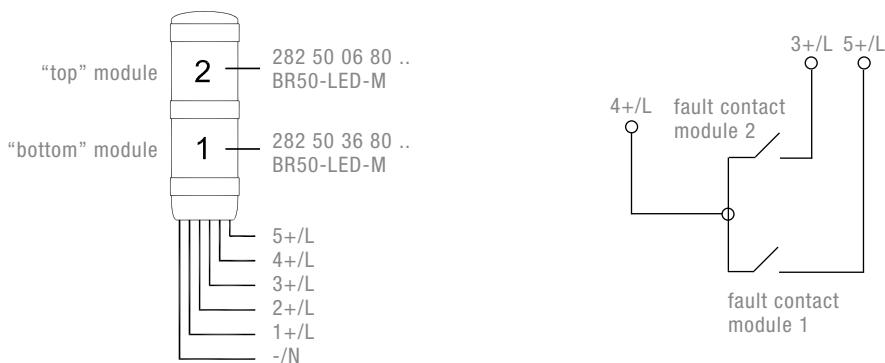
## CONFIGURATION AS "BOTTOM" MODULE (bottom module is monitored)

Base module + 1 <sup>st</sup> stage monitored		Base module + 1 <sup>st</sup> stage monitored, 2 <sup>nd</sup> stage not monitored		Base module + 1 <sup>st</sup> stage monitored, 2 <sup>nd</sup> /3 <sup>rd</sup> stage not monitored	
-/N	supply voltage (-), common connection for all stages	-/N	supply voltage (-), common connection for all stages	-/N	supply voltage (-), common connection for all stages
1+/L	supply voltage (+), activation of monitored module	1+/L	supply voltage (+), activation of 1 <sup>st</sup> stage (monitored)	1+/L	supply voltage (+), activation of 1 <sup>st</sup> stage (monitored)
2+/L	n.c.	2+/L	supply voltage (+), activation of 2 <sup>nd</sup> stage	2+/L	supply voltage (+), activation of 2 <sup>nd</sup> stage
3+/L	n.c.	3+/L	n.c.	3+/L	supply voltage (+), activation of 3 <sup>rd</sup> stage
4+/L	potential-free alarm output contact 1	4+/L	potential-free alarm output contact 1	4+/L	potential-free alarm output contact 1
5+/L	potential-free alarm output contact 2	5+/L	potential-free alarm output contact 2	5+/L	potential-free alarm output contact 2



## USE OF 2 MONITORED MODULES PER SIGNAL TOWER

Base module + 1 <sup>st</sup> /2 <sup>nd</sup> stage monitored	
-/N	supply voltage (-), common connection for all stages
1+/L	supply voltage (+), activation of 1 <sup>st</sup> stage (monitored)
2+/L	supply voltage (+), activation of 2 <sup>nd</sup> stage (monitored)
3+/L	alarm output module 2
4+/L	common connection alarm outputs
5+/L	alarm output module 1

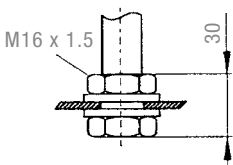
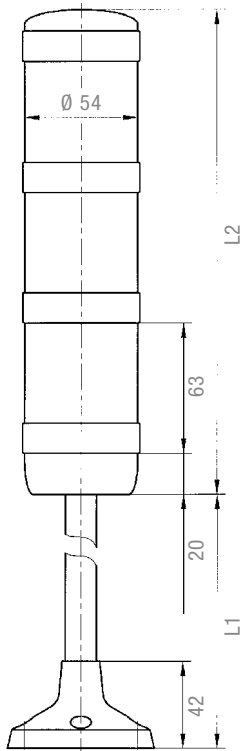


The alarm outputs of both levels have a shared contact!

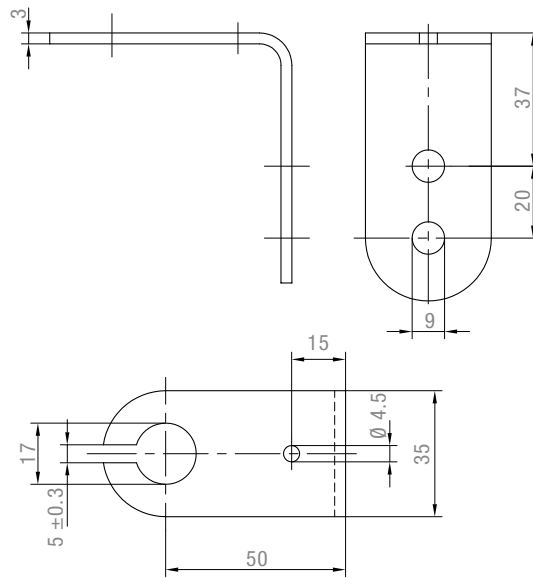
**Caution:** Max. 2 modules can be utilised.

**DIMENSIONS**

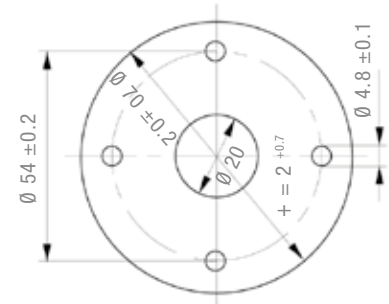
	L1 tube mounting	L1 mounting stand
Tube length 100	78	88
Tube length 250	228	238
Tube length 400	378	388
L2		
1-stage	107	
2-stage	170	
3-stage	233	
4-stage	296	
5-stage	359	



Mounting bracket



Stand mounting gasket



Bayonet connection allows fast, simple and safe mounting.



# Configuration alternatives

	Sounder module		<b>STAGE 5</b>			
	Flashing light module			<b>STAGE 4</b>		
	Continuous light module with LED			<b>STAGE 3</b>		
	Blinking light module				<b>STAGE 2</b>	
	Continuous light module					<b>STAGE 1</b>

## MOUNTING VARIANTS

Modular design permits quick and easy configuration and assembly.

ARTICLE NO.		BR 50 MODULES	
VERSION		230 V AC	24 V DC
Base and end module	BR50-BC	28250010000	
Continuous light module	 BR50-CL-CL	28250040010	
	 BR50-CL-YE	28250040030	
	 BR50-CL-AM	28250040040	
	 BR50-CL-RE	28250040050	
	 BR50-CL-GR	28250040060	
	 BR50-CL-BL	28250040070	
Blinking light module	 BR50-BL-CL	28250051010	28250058010
	 BR50-BL-YE	28250051030	28250058030
	 BR50-BL-AM	28250051040	28250058040
	 BR50-BL-RE	28250051050	28250058050
	 BR50-BL-GR	28250051060	28250058060
	 BR50-BL-BL	28250051070	28250058070
Flashing light module	 BR50-FL-CL	28250071010	28250078010
	 BR50-FL-YE	28250071030	28250078030
	 BR50-FL-AM	28250071040	28250078040
	 BR50-FL-RE	28250071050	28250078050
	 BR50-FL-GR	28250071060	28250078060
	 BR50-FL-BL	28250071070	28250078070
LED module, monitored (top module)	 BR50-LED-M-YE	-	28250068030
	 BR50-LED-M-RE	-	28250068050
LED module, monitored (bottom module)	 BR50-LED-M-YE	-	28250368030
	 BR50-LED-M-RE	-	28250368050
Sounder module	BR50-SM	28250081000	28250088000
AS-i module	BR50-AS-i	28250148300	
AS-i-AB module	BR50-AS-i-AB	28250178300	
Mounting stand (stainless steel) with plinth	100 mm BR50-S100	28250150010	
	250 mm BR50-S250	28250150020	
	400 mm BR50-S400	28250150040	
Tube with thread and bracket (stainless steel), excl. seal and cable	100 mm BR50-T100	28250160010	
	250 mm BR50-T250	28250160020	
	400 mm BR50-T400	28250160040	
Wall bracket for mounting stand	BR50-W	28250200000	
Mounting kit	BR50-BG	28250210000	
Module gasket IP 65	BR50-MG	28250220000	
Tube gasket IP 65	BR50-TG	28250230000	
Lamp remover	BR50-LS	28250250000	

Filament bulbs or LED lamps for continuous and blinking modules must be ordered separately.







#### OPTIONS/ACCESSORIES



**EAC**

Light source

# Ordering example

SIGNAL TOWER 5-stage, IP 65	Version	ARTICLE NO.	
		230 V AC	24 V DC
 <p>Sounder module</p>	BR50-SM	28250081000	28250088000
		+	
 <p>Flashing light module</p>	BR50-MG + BR50-FL	28250220000	
		28250071050	28250078050
+			
 <p>Continuous light module with bulb or LED</p>	BR50-MG + BR50-CL + bulb or LED BA15d	28250220000	
		28250040060	
		28213000004	28213000000
		28213000018	28213000011
+			
 <p>Blinking light module with bulb or LED</p>	BR50-MG + BR50-BL + bulb or LED BA15d	28250220000	
		28250051030	28250058030
		28213000004	28213000000
		28213000030	28213000007
+			
 <p>Continuous light module with bulb or LED</p>	BR50-MG + BR50-CL + bulb or LED BA15d	28250220000	
		28250040010	
		28213000004	28213000000
	BR50-MG + BR50-BC	28213000014	28213000006
		28250220000	
		28250010000	
		+	
 <p>Mounting stand (100 mm) and seal</p>	BR50-TG	28250230000	
	BR50-S100	28250150010	