

Basic Flex G4 24V RGBW IP00



1. Product Description

Basic Flex G4 RGBW is designed for high uniformity up to 140 LEDs per meter, and widely used for embedded lighting as a cost-effective solution. This family provides 3SDCM, CRI90 and R9>50, and up to 50,000hrs lifetime.

2. Key Features & Benefits

SDCM<3 and CRI/Ra>90, R9>50.

L70B50 up to 50,000 hrs.

Switch times up to 1,000,000

High Efficiency up to 120lm/W

3. Certificates

CE/CB/ENEC/BIS

4. Applications

- Hospitality lighting
- Cabinet lighting
- Signage
- Architecture lighting
- Wall integration

5. Photometrical data

Product Name	CRI/Ra	Color	Cx	Cy	SDCM	Luminous flux / M [lm]	Nominal wattage /M [W]	Luminous flux/reel [lm]	Luminous efficacy [lm/w]
BF1000RGBW-G4-927-24-05	>90	2700K	0.4578	0.4101	< 3	1000	9.5	3600	105
	RED	619-629nm	-	-	-	115	2.6	470	45
	GREEN	520-530nm	-	-	-	235	2.6	940	91
	BLUE	462-472nm	-	-	-	60	2.6	250	24
BF1000RGBW-G4-930-24-05	>90	3000	0.4578	0.4101	< 3	1050	9.5	3800	110
	RED	619-629nm	-	-	-	115	2.6	470	45
	GREEN	520-530nm	-	-	-	235	2.6	940	91
	BLUE	462-472nm	-	-	-	60	2.6	250	24
BF1000RGBW-G4-930-24-05	>90	4000	0.4578	0.4101	< 3	1150	9.5	4000	120
	RED	619-629nm	-	-	-	115	2.6	470	45
	GREEN	520-530nm	-	-	-	235	2.6	940	91
	BLUE	462-472nm	-	-	-	60	2.6	250	24
BF1000RGBW-G4-930-24-05	>90	6500	0.4578	0.4101	< 3	1150	9.5	4000	120
	RED	619-629nm	-	-	-	115	2.6	470	45
	GREEN	520-530nm	-	-	-	235	2.6	940	91
	BLUE	462-472nm	-	-	-	60	2.6	250	24

6. Electrical Data

Product Name		Nominal voltage [V, DC]	Input voltage range [V, DC]	Reverse Voltage [V, DC]	Nominal wattage per meter [W]	Nominal wattage [W]	Nominal current per meter [mA, DC]	Nominal current [mA, DC]	Dimmable
BF1000RGBW-G4-927-24-05	2700	24	23~25	25	9.5	38	396	1590	Yes
	RED	24	23~25	25	2.6	11	108	430	
	GREEN	24	23~25	25	2.6	11	108	430	
	BLUE	24	23~25	25	2.6	11	108	430	
BF1000RGBW-G4-927-24-05	2700	24	23~25	25	9.5	38	396	1590	Yes
	RED	24	23~25	25	2.6	11	108	430	
	GREEN	24	23~25	25	2.6	11	108	430	
	BLUE	24	23~25	25	2.6	11	108	430	
BF1000RGBW-G4-927-24-05	2700	24	23~25	25	9.5	38	396	1590	Yes
	RED	24	23~25	25	2.6	11	108	430	
	GREEN	24	23~25	25	2.6	11	108	430	
	BLUE	24	23~25	25	2.6	11	108	430	
BF1000RGBW-G4-927-24-05	2700	24	23~25	25	9.5	38	396	1590	Yes
	RED	24	23~25	25	2.6	11	108	430	
	GREEN	24	23~25	25	2.6	11	108	430	
	BLUE	24	23~25	25	2.6	11	108	430	

7. Temperatures & operating conditions & lifespan

Product Name	ta ¹⁾ [°C]	tp ²⁾ [°C]	tc_max ³⁾ [°C]	ts ⁴⁾ [°C]	Lifetime[hrs] L70B50 @tc_max	Switch Times ⁵⁾	ESD Protection
BF1000RGBW-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV

1) Ambient temperature range

2) Performance temp. acc. to IEC 62717

3) Maximum temperature at tc test point

4) Temperature range at storage

5) 1s ON, 1s OFF

8. Lumen maintenance

Operating voltage	Operating Temperature	L90			L80			L70		
		B10	B30	B50	B10	B30	B50	B10	B30	B50
24V	ta = 25°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000
	ta = 35°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000
	ta = 50°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000

9. Light distribution

Product Name	Light Distribution Graph	Beam Angle (2Xθ1/2)
BF1000RGBW-G4-9XX-24-05		115° ± 10°

10. LED Module Information

Product Name	Number of LEDs per smallest unit	Number of LEDs per meter	Number of LEDs per module	Flux variability on the full length	LED Pitch	Prewired Cable Length [mm]	Conductor cross section	Lowest bending radius [mm]
BF1000RGBW-G4-9XX-24-05	7	140	700	< 20%	7.94	>300	0.5mm ²	25

11. Dimensions & Weight

BF1000RGBW-G4-9XX-24-05									
Dimension/mm	L	L1	L2	L3	L4	L5	H	H1	W
Min.	4992	25	340	13.3	99	9.8	5.3	6.8	13.7
Typ.	5012	26	350	14.3	100	10.0	5.5	7.1	14.0
Max.	5032	27	360	15.3	101	10.3	5.7	7.4	14.3

12. Max Cable Length

Product Name	Flex Length(m)	20AWG(0.52mm ²)		18AWG(0.81mm ²)		16AWG(1.32mm ²)		14AWG(2.07mm ²)	
		m	ft	m	ft	m	ft	m	ft
BF1000RGBW-G4-9XX-24-05	1	10	32	13	42	21	68	25	82
	2	8	26	11	36	18	59	20	65
	3	5	16	8	26	12	39	15	49
	4	3	9	5	16	8	26	10	32
	5	1	3	2	6	3	9	5	16

13. Maximum Infeed Length

NO.	Product Name	Example based on 0,5 mm ² wire cross-section				
		0m	1m	3m	6m	10m
1	BF1000RGBW-G4-9XX-24-05	14	13	12	8.5	4

14. Standards / Normative Requirements

Eye security: IEC/TR 62778

Flammability IEC/EN 61347- 1

Protection class: IEC/EN 60529

Safety Requirements: IEC/EN 62031

IEC/EN 60598- 1

IEC/EN 61347- 1

EMC / immunity: IEC/EN 61547

15. Safety Information

- The LED module itself and all its components must not be mechanically stressed.

The LED module incorporates no protection against short circuits, overload or overheating.

In order to drive Inventronics LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized SELV power supply protecting against short circuits, overload and overheating.

For dimming applications attention should be paid to specific references in "OPTOTRONIC® Technical Guide".

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules must carry the CE mark.

In Europe the declarations of conformity must include the following standards:

EN 61347-2-13, EN 55015, EN 61547 and EN 61000-3-2.

- Assembly must not damage or destroy conducting paths on the circuit board.
- To avoid mechanical damage, the LED modules should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Installation of LED modules (with power supplies) need to be made regarding all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Observe correct polarity! Incorrect polarity will lead to no light emission and may cause damage of the LED module.
- Parallel connection is highly recommended as safe electrical operation mode. Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the LED module.
- When mounting on metallic or otherwise conductive surfaces, there needs to be an electrical isolation at soldering points between module and the mounting surface,
- Pay attention to ESD steps when mounting the module.
- Please ensure that the power supply is of adequate power to operate the total load.
- LED modules are dimmable by means of PWM (pulse width modulation). It is recommended using SELV CV drivers from Inventronics.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For applications involving exposure to humidity and dust the module must be protected by a fixture or housing with a suitable protection class.

16. Ordering Information

Item	Product Name	Family Code	Basic Code	EAN10	EAN40	S/Unit
1	BF1000RGBW-G4-927-24-05	D30087335	AM51199	6977770433687	6977770433694	20
2	BF1000RGBW-G4-930-24-05	D30087335	AM51200	6977770433700	6977770433717	20
3	BF1000RGBW-G4-940-24-05	D30087335	AM51201	6977770433724	6977770433731	20
4	BF1000RGBW-G4-965-24-05	D30087335	AM51202	6977770433748	6977770433755	20

These modules are designed to be used with the following power supplies,

Item	Types	EAN10	Product Name	Dimming Mode
1	AC-DC Dimmable CV drivers	4062172274289	OTi DALI 50/220-240/24 4CH DT6/8 G3	DT8 RGBW
2		4062172274302	OTi DALI 80/220-240/24 4CH DT6/8 G3	DT8 RGBW
3		4052899632066	OT Wi 50/220-240/24 4CH CA	RGBW
4		4052899632059	OT Wi 80/220-240/24 4CH CA	RGBW
5	DC-DC Dimmable CV drivers (Dimmers)	4062172166010	OTi DALI DIM 1-4CH D	DT8 RGBW
6		4062172382274	OT Wi DIM 5CH CA	RGBW
7		6977078993838	OT DMX DIM 5CH	RGBW

Disclaimer

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.inventronics-light.com.