

Value Flex Protect --- VFP1200S/2400S-G3

Preliminary Technical Datasheet



Benefits

- Energy saving low-power LED flexible strip
- Easy installation with Track
- Multi cut-able with waterproof connectors
- Available in warm white and cold white
- 120° viewing angle per module
- IP66 Protection
- Dimmable

Applications

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

Technical Operating Data

Product	Color	No. of LEDs	Voltage [V DC]*	Power [W]*	Current [A]*	Wavelength Color Temp [K]*	Lum. Flux [lm]/meter *	Lum. Flux [lm]/chain*
VFP1200S-G3-824-06	White	700	24	60.0	2.5	2400 K	900	5,400
VFP1200S-G3-827-06	White	700	24	60.0	2.5	2700 K	1,000	6,000
VFP1200S-G3-830-06	White	700	24	60.0	2.5	3000 K	1,050	6,300
VFP1200S-G3-840-06	White	700	24	60.0	2,5	4000 K	1,100	6,600
VFP1200S-G3-865-06	White	700	24	60.0	2.5	6500 K	1,100	6,600
VFP2400S-G3-827-03	White	350	24	60.0	2.5	2700 K	1,800	5,400
VFP2400S-G3-830-03	White	350	24	60.0	2.5	3000 K	2,100	6,300
VFP2400S-G3-840-03	White	350	24	60.0	2.5	4000 K	2,200	6,600
VFP2400S-G3-865-03	White	350	24	60.0	2.5	6500 K	2,200	6,600

*) All Data are related to the entire module.

Due to the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

Technical Features

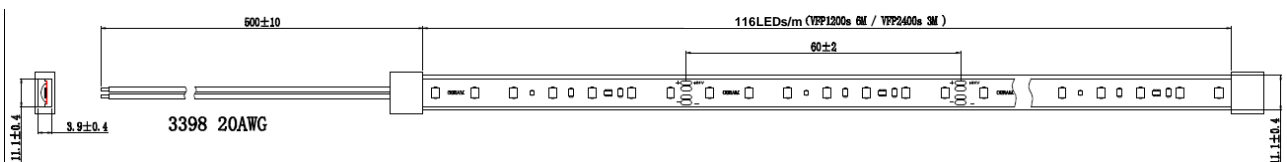
- Size of printed circuit board (L x W x H):
VFP1200S: 6,000 mm x 11 mm x 4 mm
VFP2400S: 3,000 mm x 11 mm x 4 mm
- Size of smallest unit : 60mm
- The LED pitch is 8.57mm
- Connection possible at the reel end or at the cut points
- 24V Constant Voltage LED modules
- Colour consistency <4 SCDM
- CRI 80
- Linear LED strip on flexible printed circuit board with self-adhesive tape at the back allow for easy mounting
- Up to 35,000 hrs lifetime @ tc max 80°C
Up to 50,000 hrs lifetime @ tc 54°C
- Accessories:
 - End cap x 10pcs
 - Mounting clips: 4pcs per meter
 - 2.5mm x 10mm Screws: 8pcs per meter

Minimum / Maximum Ratings

Product	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Voltage Range [V dc]*	Reverse Voltage [V dc]*
VFP1200S-G3-824-06	-25 ... 80	-30 ... 85	23 ... 25	25
VFP1200S-G3-827-06	-25 ... 80	-30 ... 85	23 ... 25	25
VFP1200S-G3-830-06	-25 ... 80	-30 ... 85	23 ... 25	25
VFP1200S-G3-840-06	-25 ... 80	-30 ... 85	23 ... 25	25
VFP1200S-G3-865-06	-25 ... 80	-30 ... 85	23 ... 25	25
VFP2400S-G3-827-03	-25 ... 80	-30 ... 85	23 ... 25	25
VFP2400S-G3-830-03	-25 ... 80	-30 ... 85	23 ... 25	25
VFP2400S-G3-840-03	-25 ... 80	-30 ... 85	23 ... 25	25
VFP2400S-G3-865-03	-25 ... 80	-30 ... 85	23 ... 25	25

*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Modules. Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Modules. The temperature of the LED modules must be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Dimension



Safety Information

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

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

In order to drive OSRAM LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized 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:

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

Also check for the mark of an independent authorized certification institute.

Please see the relevant application guides for more detailed information.

When using power supplies other than OPTOTRONIC® the following basic safety features are required, in addition to any other application specific concerns and local safety codes.

OSRAM OPTOTRONIC® electronic control gear complies to all relevant standards and guarantees safe operation.

- Installation of LED modules (with power supplies) needs to be made with regard to 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.
- The maximum length of VFP1200S-G3 is 6M with power feed at one end. The maximum length of VFP2400S-G3 is 3M with power feed at one end.
- When mounting on metallic or otherwise conductive surfaces, there needs to be a 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 the following OSRAM control gears: OPTOTRONIC® OT DIM, OT DALI DIM, OT DALI DIM LI.
- 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.

Assembly Information

- The smallest electrical unit (SEU) (60mm - 7 LEDs) can be removed by cutting at the printed marks at the side.
- After cutting connect the module via IP54/IP67 CONNECTsystem. Insert module into connector and apply pressure on a hard surface until locked.
- The mounting of the single LED coupons is facilitated by means of the double-sided adhesive on the back surface of the module. Care must be taken to provide a clean and dry mounting surface, free of oils or silicone coatings as well as dirt particle. The mounting substrate must have sufficient structural integrity. Take care to completely remove the adhesive backing. Once the module is appropriately positioned, press on the module with about 20N/cm² (refer to application techniques of Tesa adhesive transfer tapes). To support adhesion at higher temperatures, use additional mounting brackets if temperature exceeds $T_c = 80^{\circ}\text{C}$.
- The minimum bending radius is 3 cm.
- When installing in environments with large variations in temperature (e.g. outdoor applications) and operating length of more than 2 m, the use of adequate mounting surfaces is necessary . Otherwise it is advisable to use an additional thicker adhesive tape to absorb the stress of any mismatch in expansion.
- If temperature exceeds $T_c = 80^{\circ}\text{C}$, additional mounting brackets are needed.
- Pay attention to avoid highly corrosive atmospheres, e.g. permanent high humidity or Hydrogen Sulfide (H₂S). With current LED technology, H₂S is causing accelerated corrosion which will lead to shortened time life or premature failure. Sources for H₂S may be rubber, foamed rubber, soft-foam-tapes, sealing on rubber basis, natural sources (e.g. sulfur springs), etc. To avoid H₂S from sulfur-vulcanized rubber it is necessary to switch to silicon based materials or rubber that is Peroxid-crosslinked.
- Indication may be found in the material datasheet of the rubber supplier.

SLIMCONNECT (IP54) System

Product code	EAN 10*	S-Unit*
FX-SC08-G2-CT2PFE-IP54-0500	4052899488236	20
FX-SC08-G2-CT4PJ	4052899464858	25
FX-SC08-G2-BTJ-IP54	4052899464919	25

**Board to board connection
through combination of both!**

CONNECT (IP67) System

Product code	EAN 10*	S-Unit*
LF-2PIN IP67 LP	4052899125711	5
LF-2CONN IP67 LP	4052899125735	5

Ordering Guide

Product code	Product name	EAN 10*	S-Unit*
VFP1200S-G3-824-06	Value Flex Protect 1200lm/m 2400K	4052899518971	20
VFP1200S-G3-827-06	Value Flex Protect 1200lm/m 2700K	4052899518995	20
VFP1200S-G3-830-06	Value Flex Protect 1200lm/m 3000K	4052899519015	20
VFP1200S-G3-840-06	Value Flex Protect 1200lm/m 4000K	4052899519039	20
VFP1200S-G3-865-06	Value Flex Protect 1200lm/m 6500K	4052899519053	20
VFP2400S-G3-827-03	Value Flex Protect 2400lm/m 2700K	4052899519091	20
VFP2400S-G3-830-03	Value Flex Protect 2400lm/m 3000K	4052899519114	20
VFP2400S-G3-840-03	Value Flex Protect 2400lm/m 4000K	4052899519138	20
VFP2400S-G3-865-03	Value Flex Protect 2400lm/m 6500K	4052899519152	20

* EAN 10: Ordering number per single sale unit

* S-Unit: Modules / accessory number per shipping unit

Note: Typical performance data are subject to change without any further notice, particularly as LED technology evolves.

Sales and Technical Support**OSRAM Asia Pacific**

2F, Block B, Jianxing Building
No.3151, Shahe West Road, Xili
Nanshan District, Shenzhen, 518055,
P.R. China

www.osram.asia

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local OSRAM subsidiaries.
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