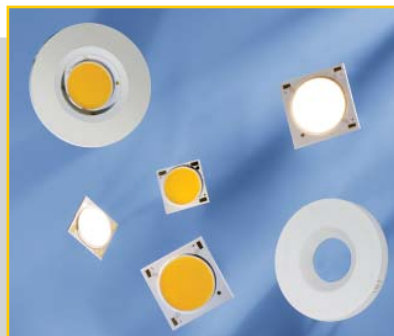


## LED MODULES

LUGA SHOP GEN. 5

DMS128

SPECIAL COLOUR **FOOD**



LUGA SHOP GEN. 5

DMS128

SPECIAL COLOUR **FOOD**

### Typical Applications

#### DMS128\*\*\*G

- Integration in reflector luminaires
- Shop lighting (special colour)

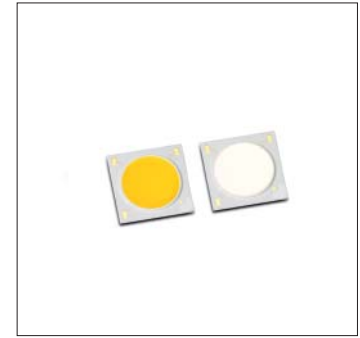
### LUGA Shop Gen. 5 – DMS128 – Food

- **SPECIAL COLOURS**
- **LONG SERVICE LIFETIME: UP TO 100,000 HOURS**
- **NARROW COLOUR TOLERANCES:  
3 STEP MACADAM**
- **HIGH ELECTRICAL ISOLATION DUE TO  
CERAMIC COB TECHNOLOGY**

## LUGA Shop Gen. 5 – Food

### Technical Notes

- LED module for integration into luminaires
- Dimensions: 19x19 mm
- Light emitting surface (LES): Ø 14 mm
- Typ. beam angle: 120°
- Use of external LED constant current driver



### Electrical Characteristics

at  $t_p = 65\text{ °C}$

Type	Typ. voltage DC				Temperature coefficient mV/K	Typ. power consumption			
	350 mA V	500 mA V	700 mA V	1050 mA V		350 mA W	500 mA W	700 mA W	1050 mA W
DMS128_XXXX_G-V	33.4	34.1	35	36.1		11.7	17	24.5	37.9

Voltage and power tolerance:  $\pm 10\%$

### Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at $t_c$ point		Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		°C min.	°C max.	°C min.	°C max.	°C min.	°C max.	
DMS128_XXXX_G-V	350	-40	+120	-40	+40	-40	+105	1600
	500		+115					
	700		+110					
	1050		+95					

### Operating Life

at  $t_p = 65\text{ °C}$

Lumen maintenance	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours
<b>DMS128_XXXX_G-V (at <math>I_f</math>)</b>				
L90/B10	92,000	86,000	78,000	63,000
L80/B10	> 100,000	> 100,000	> 100,000	94,500
L70/B10	> 100,000	> 100,000	> 100,000	> 100,000

### Optical Characteristics

at  $t_p = 65\text{ °C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. CRI $R_a$	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA			
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W		
DMS128P40G-V	<b>564440</b>	"white effect"	4000	985	84	1365	80	1825	74	2520	66	70 (spec. spectrum: HiGa)	740/349
DMS128P19G-V	<b>564441</b>	"pink effect"	2000	890	76	1235	73	1660	68	2300	61	82	820/349

\* Colour tolerance: 3 MacAdam | \*\* Production tolerance of luminous flux and efficiency:  $\pm 10\%$  | Min. CRI  $R_a$ : > 80 / > 65

**Minimum order quantity: 175 pcs.**

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

# LUGA Shop Gen. 5 – Food

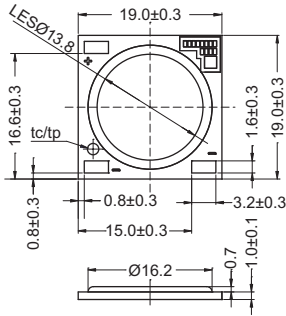
## Mechanical Dimensions

### DMS128

The clearance and creepage distances are designed for working voltages up to:

Type	Basic insulation	Reinforced insulation
DMS128	235 V DC	60 V DC

Thickness of PCB is included in calculation.

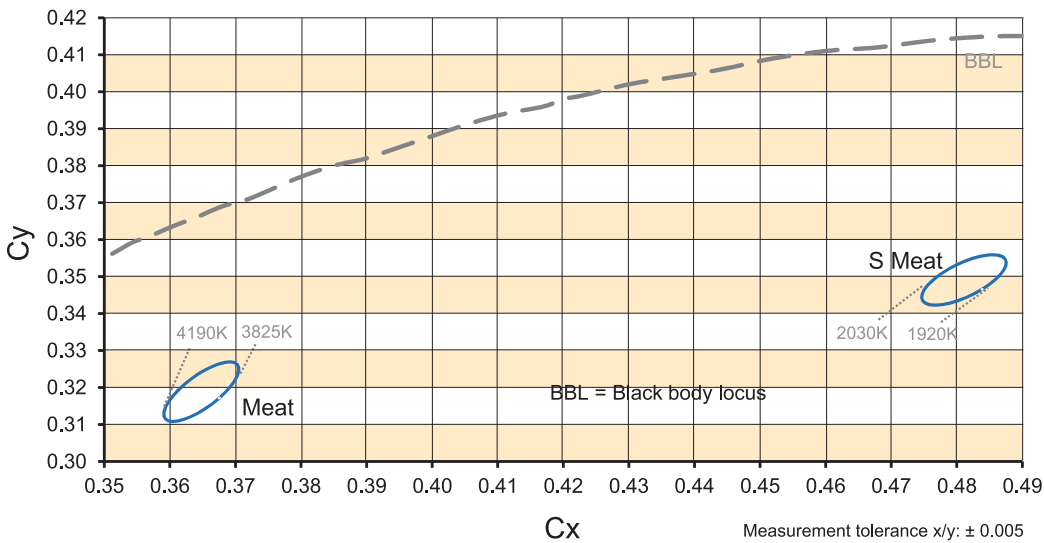


## Production Code



Product	Product Code
DMS128P40G-V	28P40G
DMS128P19G-V	28P19G

## Bins



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## LUGA Shop Gen. 5 – Food

### Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
  - do not treat as bulk cargo
  - avoid shear and compressive forces during handling and installation
  - do not damage circuit paths
  - do not touch the yellow phosphorus layer
- The module must be fixed onto a thermally conductive surface.
- Safe operation only possible by the use of external constant current sources ( $I_{max}$ , see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
  - Short-circuit protection
  - Overload protection
  - Overheating protection
  - SELV (Safety Extra Low Voltage);  $U_{max} \leq 60$  V
  - $I_{max}$  (see table "Maximum Ratings") must not be exceeded.
- When operating devices will be selected care has been taken to ensure that the maximum values (see table "Maximum Ratings") will not be exceeded.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- Measurement tolerances:
  - luminous flux:  $\pm 7$  %
  - voltage:  $\pm 3$  %
  - CRI:  $\pm 1$  %
- Maximum allowed number of switching cycles: 15,000
- A parallel connection of the modules is not allowed.
- To ensure problem-free operation, the specified maximum temperature at the  $t_c$  point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Detailed information can be found in our "Chemical Incompatibility" PDF on our website [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471  
Rating in accordance with IEC / TR 62778: risk group 1

### Product Guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage ([www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)).  
We will be happy to send you these conditions upon request.

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## LUGA Shop Gen. 5

### Reflectors:

- ACL-Lichttechnik GmbH  
[www.reflektor.com](http://www.reflektor.com)
- Jordan Luxar GmbH & Co. KG  
[www.jordan-luxar.de](http://www.jordan-luxar.de)
- JORDAN REFLEKTOREN GmbH & Co. KG  
[www.jordan-reflektoren.de](http://www.jordan-reflektoren.de)
- LEDIL  
[www.ledil.com](http://www.ledil.com)

### Heat sinks with active cooling:

- AVC  
[www.avc-europa.de](http://www.avc-europa.de)
- Nuventix, Inc.  
[www.nuventix.com](http://www.nuventix.com)
- Sunon  
[www.sunon.com](http://www.sunon.com)
- MechaTronix  
[www.led-heatsink.com](http://www.led-heatsink.com)
- Colliance, Inc.  
[www.cooliance.eu](http://www.cooliance.eu)

### Heat sinks with passive cooling:

- AVC  
[www.avc-europa.de](http://www.avc-europa.de)
- Fischer Elektronik GmbH & Co. KG  
[www.fischerelektronik.de](http://www.fischerelektronik.de)
- Frigo Dynamics  
[www.frigodynamics.com](http://www.frigodynamics.com)
- MechaTronix  
[www.led-heatsink.com](http://www.led-heatsink.com)

## LED Constant Current Drivers

Please visit our homepage for details for suitable

LED constant current drivers: [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)