

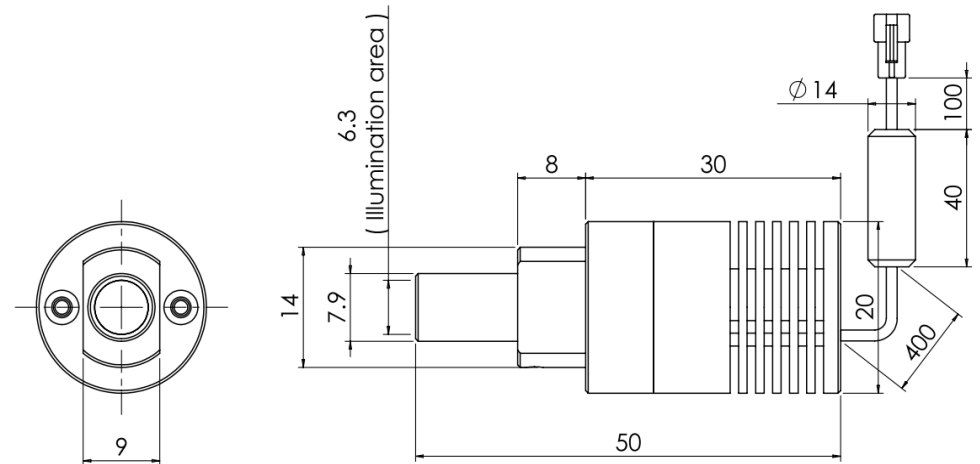
High Brightness Spot Light

 **FHLV-Si20**

Lighting Picture



Lighting Dimension



Mechanical Information	
Casing Material	Aluminum + Acrylic
Storage Temperature Range	Temp 0-35°C, Humidity 20-85%
Weight	25 g
Lighting Dimension, ØxH	Ø20.0 x 50.0 mm
IP Rating	IP 50

Unit in mm

Optical Information				
Led Color	RED (R)	GREEN (G)	BLUE (B)	WHITE (W)
Wavelength	630nm	525nm	470nm	xy=(0.31,0.32)
Illumination (number of LED)	1	1	1	1
Illumination Area, Diameter Ø	Ø6.3 mm			
Led Package	SMD			
Eye Safety (EN 62471:2008)	RG-2 (Moderate Risk): Caution. Do not stare at exposed lamp in operation. May be harmful to eyes.			


Electrical Information	R	G/B/W
Lighting Supply Voltage (constant voltage mode)	12V ± 2%	
Supply Ripple Voltage	≤ Vs ± 5%	
Reverse Battery Protection	YES	
Typical Lighting Forward voltage, Vf (for zero internal resistor value)	2.2 V	3.0 V
Continuous Current	0.35A (MAX)	0.35A (MAX)
Power Consumption	0.77 W	1.05 W
Lighting casing temperature, Operating after 60 minutes	45°C	45°C


Strobe Mode Specification	R	G/B/W
Max. Lighting Supply Voltage (Constant voltage power supply)	Pulsing at 12VDC to 24VDC, 0-10% Duty Cycle Recommended at 15VDC	
Pulse Current, (Max. 10msec) (Constant current power supply)	0.88A (MAX)	0.88A (MAX)
Constant Current Power Supply Voltage Level	3.2V (1V higher than the lighting Vf)	4.0V (1V higher than the lighting Vf)
Max. Trigger Pulse Duration, msec	10 msec	
Duty Cycle	0 - 10%	

Over Driving Mode	R	G/B/W
Constraints	Major constraint in over current mode is tremendous heat generated on the lighting and results the led in permanent damage.	
Maximum Current, (Constant current power supply)	0.70A (MAX)	0.70A (MAX)
Constant Current Power Supply Voltage Level	(1.0V higher than the lighting Vf)	
Max. Turn On Duration, sec	10 Sec	
Duty Cycle	50%	



Ordering Option	
FHLV-Si20-R/W/G/B	Lighting come with no internal resistor

Accessories Option	R		G/B/W	
	Vs=5VDC	Vs=12VDC	Vs=5VDC	Vs=12VDC
External Resistor part number, Driving with (0.35 A)	FRB-i8.2	FRB-i27	FRB-i5.1	FRB-i22
External Resistor part number, Driving with (0.70 A)	FRB-i3.3	FRB-i15	FRB-i2.7	FRB-i12
	No resistor needed if lighting work with constant current controller			

Connection	R/G/B/W		
Connector Type (Default):	JST SMR-03V		
Cable Length out from lighting:	540 mm		
Pin Configuration: 	Pin	Signal	Cable Color
	1	LED +	Black/White
	2	LED -	Black
	3	N.C.	---

Additional Information	R/G/B/W
Additional Cooling Method	Attached to machine part for better heat dissipation
Life span in continuous mode	20,000 hours
Life span in strobe light mode Lighting drop to 50% intensity (at 25°C ambient temperature)	50,000 hours
Intensity Controller Selection	PSA-Series, PSD-Series, LIC-Series
CE Conformity	YES
RoHS Compliance	YES
ISO 9001:2008	SG11/03751

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