

5LP60-S88+55CM-450-53-O06-A7.5-PS-7

Micro Line Generator with a large fan angle



FEATURES

Laser line with a large fan angle and Gaussian intensity distribution.

Line length: 92 mm
Line width: 30 μm
Wavelength: 450 nm
Working distance: 82 mm

- Micro Line Generator for small laser line widths and high power density in the focal plane
- With RS232 interface





DESCRIPTION

The laser diode beam source type 5LP60-S88+55CM-450-53-O06-A7.5-PS-7 has a fan angle of 62°.

The intensity profile is Gaussian in line direction clipped by an aperture with an edge intensity of 15 %. The line width is constant along the laser line. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics <u>type PS</u> with micro-controller for control of the laser output power and serial interface (RS232). The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> or manually using the potentiometer.

The working distance can be adjusted by adjusting the focus setting. Please note that beam parameters like line length and line width increase proportionally to the working distance. A fine-adjustment of the distance between laser and target is recommended for fine-focusing.



TECHNICAL DATA

5LP60-S88+55CM-450-53-O06-A7.5-PS-7

Order Code 5LP60-S88+55CM-450-53-O06-A7.5-PS-7 Line profile Gaussian Intensity Distribution Line type Laser Micro Line Wavelength 450 +10/-10 nm Laser output power 53 mW Laser safety class 3B Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF </th <th>Series</th> <th></th> <th>5LP</th>	Series		5LP	
Line type Laser Micro Line Wavelength 450 +10/-10 nm Laser output power 53 mW Laser safety class 3B Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Order Code	5LP60-S88+55CM-450-53	5LP60-S88+55CM-450-53-O06-A7.5-PS-7	
Wavelength 450 +10/-10 nm Laser output power 53 mW Laser safety class 3B Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Line profile	Gaussian Intensity Distribution		
Laser safety class 3B Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Line type	Laser Micro Line		
Laser safety class 3B Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Wavelength		450 +10/-10 nm	
Fan angle α 62 deg Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Laser output power	53 mW		
Focussing range 70-125 mm Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Laser safety class	3B		
Working distance 82 mm Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Fan angle α	62 deg		
Line length 92 mm Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Focussing range	70-125 mm		
Line width 0.03 mm Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Working distance	82 mm		
Rayleigh range 3.2 mm Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5 A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Line length	92 mm		
Edge intensity 15 % Diameter laser module 25/28 mm Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Line width	0.03 mm		
Diameter laser module25/28 mmModule length86.1 mmInstallation length198.1 mmCable length1.5 mConnector typeLumberg SV70 IEC 61076-2-106Supply voltage $5 \pm 0.2 \text{ V}$ Max. current consumption0.5 AWorking temperature $15 - 40 \text{ °C}$ Modulation inputsAnalogTTLInput resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF $3000/3000 \text{ μs}$ $0.6/0.2 \text{ μs}$ Rise / Fall time $200000/200000 \text{ μs}$ $0.2/0.2 \text{ μs}$	Rayleigh range	3.2 mm		
Module length 86.1 mm Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5 A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Edge intensity	15 %		
Installation length 198.1 mm Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5 A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 2000000/200000 μs 0.2/0.2 μs	Diameter laser module	25/28 mm		
Cable length 1.5 m Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5 A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Module length	86.1 mm		
Connector type Lumberg SV70 IEC 61076-2-106 Supply voltage 5 ± 0.2 V Max. current consumption 0.5 A Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 2000000/200000 μs 0.2/0.2 μs	Installation length	198.1 mm		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Cable length	1.5 m		
Max. current consumption0.5 AWorking temperature15 - 40 °CModulation inputsAnalogTTLInput resistance9 kOhm9 kOhmMax. modulation frequency0.001 kHz250 kHzModulation delay ON/OFF3000/3000 μs0.6/0.2 μsRise / Fall time200000/200000 μs0.2/0.2 μs	Connector type	Lumberg SV70 II	Lumberg SV70 IEC 61076-2-106	
Working temperature 15 - 40 °C Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Supply voltage	5 ± 0.2 V		
Modulation inputs Analog TTL Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Max. current consumption		0.5 A	
Input resistance 9 kOhm 9 kOhm Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Working temperature		15 - 40 °C	
Max. modulation frequency 0.001 kHz 250 kHz Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Modulation inputs	Analog	TTL	
Modulation delay ON/OFF 3000/3000 μs 0.6/0.2 μs Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Input resistance	9 kOhm	9 kOhm	
Rise / Fall time 200000/200000 μs 0.2/0.2 μs	Max. modulation frequency	0.001 kHz	250 kHz	
<u> </u>	Modulation delay ON/OFF	3000/3000 μs	0.6/0.2 μs	
Interface RS232	Rise / Fall time	200000/200000 μs	0.2/0.2 μs	
	Interface	RS232		

ACCESSORIES



50HD-15 Hex key WS 1.5

9D-12 Screwdriver WS 1.2

13MK-25-36-10-F Mounting Console with flat base plate

13MK-25-36-10-M Mounting Console with base plate with dovetail

profile

PS051007E Power Supply 5 V for laser modules with RS232

interface

RELATED PRODUCTS

LASER MODULES SERIES 5LPM Macro Line, large fan angleGaussian intensity distribution

Extended depth of focus

LASER MODULES
SERIES LNC-5LP

Micro Line, large fan angleGaussian intensity distribution

Low noise

LASER MODULES SERIES 13LR Micro Line Generator, fan angleUniform intensity distribution

LASER MODULES SERIES 13LN Micro Line, small fan angleUniform intensity distribution

Thin lines

LASER MODULES SERIES 5LM+25CM ■ Compact Micro Line, small fan angle

Gaussian intensity distribution

LASER MODULES
SERIES 5LP+25CM

■ Compact Micro Line, large fan angle

Gaussian intensity distribution

LASER MODULES SERIES 5LM Micro Line, small fan angle

Gaussian intensity distribution



This is a printout of the page https://sukhamburg.com/products/details/5LP60-S88 55CM-450-53-006-A7 5-PS-7 from 5/2/2024

CONTACT

For more information please contact: Schäfter + Kirchhoff GmbH Kieler Str. 212 22525 Hamburg Germany

Tel: +49 40 85 39 97-0 Fax: +49 40 85 39 97-79

info@sukhamburg.de www.sukhamburg.com

LEGAL NOTICE

Copyright 2020 Schäfter+Kirchhoff GmbH. All rights reserved.

Text, image, graphic, sound, video and animation files and their arrangement on Schäfter+Kirchhoff GmbH webpages are protected by copyright and other protective laws. The content may not be copied for commercial use or reproduced, modified or used on other websites. [more]