

13LN40-M125+90CM-685-17-H13-M60-C-6

Micro Line Generator with a fan angle



FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and very thin lines.

Line length: 38 mm
Line width: 9 μm
Wavelength: 685 nm
Working distance: 119 mm

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



DESCRIPTION

The laser diode beam source type 13LN40-M125+90CM-685-17-H13-M60-C-6 has a fan angle of 11.2° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 75 %. Across the laser line the intensity distribution is Gaussian. The line width is constant along 60 % of the central are, outside this area the line width differs up to 30 %.

The laser has integrated electronics $\underline{type\ C}$ for control of the laser output power. The output power can be controlled using the $\underline{modulation\ input\ ports\ (TTL\ and\ analog)}$ or manually using the potentiometer.

For this laser type the working distance is fixed. A fine-adjustment of the distance between laser and target is recommended for fine-focusing in order to achieve minimal line width.



TECHNICAL DATA

13LN40-M125+90CM-685-17-H13-M60-C-6

Line type Laser Micro Line Wavelength 685 ±10/-10 nr Laser output power 17 mV Laser safety class 31 Fan angle α 11.2 de Focussing range 119-119 mr Working distance 119 mr Line length 38 mr Line width 0.009 mr Rayleigh range 0.139 mr Edge intensity 75 % Diameter laser module 25/28 mr Module length 1.5 mr Cable length 1.5 mr Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 V Max. current consumption 0.25 / Modulation inputs Analog TT	Series	13LN40	
Line type Laser Micro Line Wavelength 685 ±10/-10 nm Laser output power 17 mV Laser safety class 31 Fan angle α 11.2 de Focussing range 119-119 mm Working distance 119 mm Line length 38 mm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 mm Max. current consumption 0.25/ Working temperature 0 - 40 °c Modulation inputs Analog TT	Order Code	13LN40-M125+90CM-685-17-H13-M60-C-6	
Wavelength685 +10/-10 nrLaser output power17 mVLaser safety class31Fan angle α112- deFocussing range119-119 mrWorking distance119 mrLine length38 mrLine width0.009 mrRayleigh range0.139 mrEdge intensity75 9Diameter laser module25/28 mrModule length125.9 mrInstallation length274.9 mrCable length1.5 rConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 vMax. current consumption0.25 fWorking temperature0 - 40 °cModulation inputsAnalogTT	Line profile	Constant Intensity Distribution	
Laser output power 17 mV Laser safety class 38 Fan angle α 11.2 degree Focussing range 119-119 mm Working distance 119 mm Line length 38 mm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 mm Max. current consumption 0.25 mm Working temperature 0 - 40 °C Modulation inputs Analog TT	Line type	Laser Micro Line	
Laser safety class 31 Fan angle α 11.2 dec Focussing range 119-119 mm Working distance 119 mm Line length 38 mm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 9 Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 mm Max. current consumption 0.25 mm Working temperature 0 - 40 mm Modulation inputs Analog TT	Wavelength	685 +10/-10 nm	
Fan angle α 11.2 dec Focussing range 119-119 mm Working distance 119 mm Line length 38 mm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 % Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 mm Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 mm Max. current consumption 0.25 mm Working temperature 0 - 40 ° cm Modulation inputs Analog TT	Laser output power	17 mW	
Focussing range Working distance Line length Samm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 9 Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-100 Supply voltage 5 ± 0.2 v Max. current consumption 0.25 A Working temperature 0 - 40 ° c Modulation inputs	Laser safety class	3В	
Working distance 119 mm Line length 38 mm Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 9 Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-100 Supply voltage 5 ± 0.2 9 Max. current consumption 0.25 A Working temperature 0 - 40 ° 0 Modulation inputs Analog TT	Fan angle α	11.2 deg	
Line length38 mmLine width0.009 mmRayleigh range0.139 mmEdge intensity75 %Diameter laser module25/28 mmModule length125.9 mmInstallation length274.9 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 ° cmModulation inputsAnalog	Focussing range	119-119 mm	
Line width 0.009 mm Rayleigh range 0.139 mm Edge intensity 75 9 Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-100 Supply voltage 5 ± 0.2 m Max. current consumption 0.25 A Working temperature 0 - 40 ° c Modulation inputs Analog TT	Working distance	119 mm	
Rayleigh range0.139 mmEdge intensity75 %Diameter laser module25/28 mmModule length125.9 mmInstallation length274.9 mmCable length1.5 mConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 mMax. current consumption0.25 mWorking temperature0 - 40 ° cModulation inputsAnalogTT	Line length	38 mm	
Edge intensity 75 9 Diameter laser module 25/28 mm Module length 125.9 mm Installation length 274.9 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-100 Supply voltage 5 ± 0.2 m Max. current consumption 0.25 A Working temperature 0 - 40 ° 0 Modulation inputs Analog TT	Line width	0.009 mm	
Diameter laser module25/28 mmModule length125.9 mmInstallation length274.9 mmCable length1.5 mConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 mMax. current consumption0.25 mWorking temperature0 - 40 ° cModulation inputsAnalog	Rayleigh range	0.139 mm	
Module length125.9 mmInstallation length274.9 mmCable length1.5 mConnector typeLumberg SV50 IEC 61076-2-100Supply voltage5 ± 0.2 mMax. current consumption0.25 mWorking temperature0 - 40 ° cModulation inputsAnalog	Edge intensity	75 %	
Installation length $274.9 \mathrm{mm}$ Cable length $1.5 \mathrm{m}$ Connector typeLumberg SV50 IEC 61076-2-100Supply voltage $5 \pm 0.2 \mathrm{m}$ Max. current consumption $0.25 \mathrm{m}$ Working temperature $0 - 40 \mathrm{m}$ Modulation inputsAnalog	Diameter laser module	25/28 mm	
Cable length1.5 mConnector typeLumberg SV50 IEC 61076-2-10Supply voltage $5 \pm 0.2 \text{ M}$ Max. current consumption0.25 AWorking temperature0 - 40 °CModulation inputsAnalog	Module length	125.9 mm	
Connector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 VMax. current consumption0.25 AWorking temperature0 - 40 °CModulation inputsAnalogTT	Installation length	274.9 mm	
Supply voltage $5 \pm 0.2 \text{Max. current consumption}$ $5 \pm 0.2 \text{Max. current consumption}$ Working temperature $0 - 40 \text{C}$ Modulation inputsAnalogTT	Cable length	1.5 m	
Max. current consumption 0.25 A Working temperature 0 - 40 °C Modulation inputs Analog	Connector type	Lumberg SV50 IEC 61076-2-106	
Working temperature 0 - 40 °C Modulation inputs Analog TT	Supply voltage	5 ± 0.2 V	
Modulation inputs Analog TT	Max. current consumption	0.25 A	
	Working temperature	0 - 40 °C	
Innut registers	Modulation inputs	Analog	TTL
input resistance 22 KOnm 22 KOnm	Input resistance	22 kOhm	22 kOhm
Max. modulation frequency100 kHz100 kHz	Max. modulation frequency	100 kHz	100 kHz
Modulation delay ON/OFF 1/0.5 μ s 2/1 μ	Modulation delay ON/OFF	1/0.5 µs	2/1 μs
Rise / Fall time $3/2 \mu s$ $3/2 \mu$	Rise / Fall time	3/2 μs	3/2 µs



DOWNLOADS



ACCESSORIES

9D-12 Screwdriver WS 1.2

PS051003E Power Supply 5 V

RELATED PRODUCTS

LASER MODULES Micro Line Generator, small fan angle

SERIES 13LNM Uniform intensity distribution

Extended depth of focus

Micro Line, small fan angle LASER MODULES **SERIES LNC-13LN**

Uniform intensity distribution

Thin lines Low noise

LASER MODULES

Micro Line Generator, fan angle **SERIES 13LR** Uniform intensity distribution

LASER MODULES Compact Micro Line, small fan angle

SERIES 5LM+25CM Gaussian intensity distribution

LASER MODULES Compact Micro Line, large fan angle

SERIES 5LP+25CM Gaussian intensity distribution

LASER MODULES ■ Micro Line, small fan angle

SERIES 5LM Gaussian intensity distribution

LASER MODULES ■ Micro Line, large fan angle

SERIES 5LP Gaussian intensity distribution



This is a printout of the page https://sukhamburg.com/products/details/13LN40-M125_90CM-685-17-H13-M60-C-6 from 4/24/2024

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]