

## 13LNM40-M100-7+90CM-685-12-H13-M60-CS-7

Macro Line Generator with a fan angle

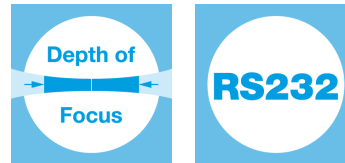


### FEATURES

Laser line with a fan angle, approx. uniform intensity distribution and extended depth of focus.

- Line length: 30 mm
- Line width: 14  $\mu\text{m}$
- Wavelength: 685 nm
- Working distance: 83.5 mm
- Depth of focus: 0.623 mm

- Macro Line Generator for extended depth of focus
- With RS232 interface



## DESCRIPTION

The laser diode beam source type 13LNM40-M100-7+90CM-685-12-H13-M60-CS-7 has a fan angle of  $10^\circ$ , approx. uniform intensity distribution along the laser line and extended depth of focus.

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 laser has integrated electronics [type CS](#) for control of the laser output power and serial interface (RS232). The output power can be controlled using the [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**

13LNM40-M100-7+90CM-685-12-H13-M60-CS-7

<b>Series</b>	13LNM40	
<b>Order Code</b>	13LNM40-M100-7+90CM-685-12-H13-M60-CS-7	
<b>Line profile</b>	Constant Intensity Distribution	
<b>Line type</b>	Laser Macro Line	
<b>Wavelength</b>	685 +10/-10 nm	
<b>Laser output power</b>	12 mW	
<b>Laser safety class</b>	3B	
<b>Fan angle <math>\alpha</math></b>	10 deg	
<b>Focussing range</b>	83.5-83.5 mm	
<b>Working distance</b>	83.5 mm	
<b>Line length</b>	30 mm	
<b>Line width</b>	0.014 mm	
<b>Depth of focus</b>	0.623 mm	
<b>Edge intensity</b>	75 %	
<b>Diameter laser module</b>	25/28 mm	
<b>Module length</b>	134.4 mm	
<b>Installation length</b>	247.9 mm	
<b>Cable length</b>	1.5 m	
<b>Connector type</b>	Lumberg SV70 IEC 61076-2-106	
<b>Supply voltage</b>	5 $\pm$ 0.2 V	
<b>Max. current consumption</b>	0.25 A	
<b>Working temperature</b>	0 - 40 °C	
<b>Modulation inputs</b>	Analog	TTL
<b>Input resistance</b>	9 kOhm	9 kOhm
<b>Max. modulation frequency</b>	0.001 kHz	250 kHz
<b>Modulation delay ON/OFF</b>	3000/3000 $\mu$ s	0.5/0.2 $\mu$ s
<b>Rise / Fall time</b>	200000/200000 $\mu$ s	0.8/0.4 $\mu$ s
<b>Interface</b>	RS232	

## DOWNLOADS



[951210000051.pdf](#)

## ACCESSORIES

9D-12

Screwdriver WS 1.2

PS051007E

Power Supply 5 V for laser modules with RS232 interface

## RELATED PRODUCTS

LASER MODULES  
SERIES 13LN

- Micro Line, **small** fan angle
- Uniform intensity distribution
- Thin lines

LASER MODULES  
SERIES LNC-13LNM

- Macro Line Generator, **small** fan angle
- Uniform intensity distribution
- Extended depth of focus
- Low noise

LASER MODULES  
SERIES 13LRM

- Macro Line Generator, fan angle
- Uniform intensity distribution
- Extended depth of focus

LASER MODULES  
SERIES 5LMM+25CM

- **Compact** Micro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus

LASER MODULES  
SERIES 5LPM+25CM

- **Compact** Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

LASER MODULES  
SERIES 5LMM

- Macro Line, **small** fan angle
- Gaussian intensity distribution
- Extended depth of focus

LASER MODULES  
SERIES 5LPM

- Macro Line, **large** fan angle
- Gaussian intensity distribution
- Extended depth of focus

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