

## 13LN40-S500+90CM-639-8-H18-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: 150 mm
Line width: 29 μm
Wavelength: 639 nm
Working distance: 401

Working distance: 491.5 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-S500+90CM-639-8-H18-M60-C-6 has a fan angle of 15.8° and approx. uniform intensity distribution along the laser line.

More precisely, it is Gaussian clipped by an aperture with an edge intensity of 87 %. 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-S500+90CM-639-8-H18-M60-C-6

Line type       Laser Micro Line         Wavelength       639 +10/-10 nm         Laser output power       8 mW         Laser safety class       38         Fan angle α       15.8 deg         Focussing range       491.5-491.5 mm         Working distance       491.5 mm         Line length       150 mm         Line width       0.029 mm         Rayleigh range       2.08 mm         Edge intensity       87 %         Diameter laser module       25/28 mm         Module length       125.9 mm         Installation length       647.4 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       Analog       TTI         Input resistance       22 kOhm       22 kOhm         Max. modulation frequency       100 kHz       100 kHz	Series	13LN40	
Line type       Laser Micro Line         Wavelength       639 ±10/-10 nm         Laser output power       8 mW         Laser safety class       3E         Fan angle α       15.8 deg         Focussing range       491.5-491.5 mm         Working distance       491.5 mm         Line length       150 mm         Line width       0.029 mm         Rayleigh range       2.08 mm         Edge intensity       87 %         Diameter laser module       25/28 mm         Module length       125.9 mm         Installation length       647.4 mm         Cable length       1.5 m         Connector type       Lumberg SV50 IEC 61076-2-106         Supply voltage       5 ± 0.2 V         Max. current consumption       0.25 A         Working temperature       0 - 40 °C         Modulation inputs       Analog       TTI         Input resistance       22 kOhm       22 kOhm         Max. modulation frequency       100 kHz       100 kHz	Order Code	13LN40-S500+90CM-639-8-H18-M60-C-6	
Wavelength         639 ±10/-10 nm           Laser output power         8 mW           Laser safety class         3E           Fan angle α         15.8 deg           Focussing range         491.5-491.5 mm           Working distance         491.5 mm           Line length         150 mm           Line width         0.029 mm           Rayleigh range         2.08 mm           Edge intensity         87 %           Diameter laser module         25/28 mm           Module length         125.9 mm           Installation length         647.4 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         Analog         TTI           Input resistance         22 kOhm         22 kOhm           Max. modulation frequency         100 kHz         100 kHz	Line profile	Constant Intensity Distribution	
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· · · · · · · · · · · · · · · · · · ·	Input resistance	22 kOhm	22 kOhm
Modulation delay ON/OFF 1/0.5 μs 2/1 μs	Max. modulation frequency	100 kHz	100 kHz
	Modulation delay ON/OFF	1/0.5 μs	2/1 μs
Rise / Fall time $3/2 \mu s$ $3/2 \mu s$	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



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