

13LNM40-S500-7+90CR-635-3-H10-M60-C-6

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: 150 mm
Line width: 66 μm
Wavelength: 635 nm
Working distance: 483 mm
Depth of focus: 14.4 mm

Macro Line Generator for extended depth of focus



DESCRIPTION

The laser diode beam source type 13LNM40-S500-7+90CR-635-3-H10-M60-C-6 has a fan angle of 15.8°, 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 84 %. Across the laser line the intensity distribution is Gaussian.

The laser has integrated electronics <u>type C</u> for control of the laser output power. The output power can be controlled using the <u>modulation input ports (TTL and analog)</u> 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-S500-7+90CR-635-3-H10-M60-C-6

Line type Laser Macro Line Wavelength 635 ±10/-10 nr Laser output power 3 mV Laser safety class 3f Fan angle α 15.8 de Focussing range 483-483 mr Working distance 483 mr Line length 150 mr Line width 0.066 mr Depth of focus 14.4 mr Edge intensity 84.9 Diameter laser module 25/28 mr Module length 118.4 mr Installation length 601.4 mr Cable length 1.5 mr Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2° Max. current consumption 0.25 / Working temperature 0 - 40°	Series	13LNM40		
Line type Laser Macro Line Wavelength 635 ± 10/-10 nm Laser output power 3 mV Laser safety class 3F Fan angle α 15.8 de Focussing range 483-483 mm Working distance 483 mm Line length 150 mm Line width 0.066 mm Depth of focus 14.4 mm Edge intensity 84 % Diameter laser module 25/28 mm Module length 118.4 mm Installation length 601.4 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 m Max. current consumption 0.25 / Working temperature 0 - 40 °	Order Code	13LNM40-S500-7+90CR-635-3-H10-M60-C-6		
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Laser safety class 38 Fan angle α 15.8 deg Focussing range 483-483 mm Working distance 483 mm Line length 150 mm Line width 0.066 mm Depth of focus 14.4 mm Edge intensity 84 % Diameter laser module 25/28 mm Module length 118.4 mm Installation length 601.4 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	Wavelength	635 +10/-10 nm		
Fan angle α 15.8 dec Focussing range 483-483 mm Working distance 483 mm Line length 150 mm Line width 0.066 mm Depth of focus 14.4 mm Edge intensity 84 9 Diameter laser module 25/28 mm Module length 118.4 mm Installation length 601.4 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 mm Working temperature 0 - 40 mm	Laser output power	3 mW		
Focussing range 483-483 mm Working distance 483 mm Line length 150 mm Line width 0.066 mm Depth of focus 14.4 mm Edge intensity 84 % Diameter laser module 25/28 mm Module length 118.4 mm Installation length 601.4 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-10 Supply voltage 5 ± 0.2 % Max. current consumption 0.25 % Working temperature 0 - 40 %	Laser safety class	3R		
Working distance Line length 150 mm Line width 0.066 mm Depth of focus 14.4 mm Edge intensity 84 9 Diameter laser module 25/28 mm Module length 118.4 mm Installation length 601.4 mm Cable length 1.5 m Connector type Lumberg SV50 IEC 61076-2-100 Supply voltage 5 ± 0.2 Max. current consumption 0.25 A Working temperature	Fan angle α	15.8 deg		
Line length150 mmLine width0.066 mmDepth of focus14.4 mmEdge intensity84 %Diameter laser module25/28 mmModule length118.4 mmInstallation length601.4 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 °c	Focussing range	483-483 mm		
Line width0.066 mmDepth of focus14.4 mmEdge intensity84 %Diameter laser module25/28 mmModule length118.4 mmInstallation length601.4 mmCable length1.5 mConnector typeLumberg SV50 IEC 61076-2-100Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 °c	Working distance	483 mm		
Depth of focus Edge intensity 84 9 Diameter laser module 25/28 mm Module length 118.4 mm Installation length 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	Line length	150 mm		
Edge intensity84 %Diameter laser module25/28 mmModule length118.4 mmInstallation length601.4 mmCable length1.5 mmConnector typeLumberg SV50 IEC 61076-2-10Supply voltage5 ± 0.2 mmMax. current consumption0.25 mmWorking temperature0 - 40 °C	Line width	0.066 mm		
Diameter laser module $25/28 \mathrm{mm}$ Module length $118.4 \mathrm{mm}$ Installation length $601.4 \mathrm{mm}$ Cable length $1.5 \mathrm{mm}$ Connector typeLumberg SV50 IEC 61076-2-10Supply voltage $5 \pm 0.2 \mathrm{mm}$ Max. current consumption $0.25 \mathrm{mm}$ Working temperature $0 - 40 \mathrm{mm}$	Depth of focus	14.4 mm		
Module length $118.4 \mathrm{mm}$ Installation length $601.4 \mathrm{mm}$ Cable length $1.5 \mathrm{m}$ Connector typeLumberg SV50 IEC 61076-2-10Supply voltage $5 \pm 0.2 \mathrm{m}$ Max. current consumption $0.25 \mathrm{m}$ Working temperature $0 - 40 \mathrm{m}$	Edge intensity	84 %		
Installation length $601.4 \mathrm{mm}$ Cable length $1.5 \mathrm{m}$ Connector typeLumberg SV50 IEC 61076-2-100Supply voltage $5 \pm 0.2 \mathrm{Max}$ Max. current consumption $0.25 \mathrm{Max}$ Working temperature $0 - 40 \mathrm{cm}$	Diameter laser module	25/28 mm		
Cable length1.5 mConnector typeLumberg SV50 IEC 61076-2-100Supply voltage $5 \pm 0.2 \text{ Max. current consumption}$ Working temperature $0 - 40 \text{ °C}$	Module length	118.4 mm		
Connector typeLumberg SV50 IEC 61076-2-10Supply voltage 5 ± 0.2 Max. current consumptionWorking temperature $0.25 A$	Installation length	601.4 mm		
Supply voltage $5 \pm 0.2 \text{Max. current consumption}$ Max. current consumption 0.25Max. current Working temperature $0 - 40 \text{G}$	Cable length	1.5 m		
Max. current consumption 0.25 A Working temperature 0 - 40 °C	Connector type	Lumberg SV50 IEC 61076-2-106		
Working temperature 0 - 40 °C	Supply voltage	5 ± 0.2 V		
	Max. current consumption	0.25 A		
Modulation inputs Analog TT	Working temperature		0 - 40 °C	
<u> </u>	Modulation inputs	Analog	TTL	
Input resistance 22 kOhm 22 kOhm	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	

ACCESSORIES

9D-12 Screwdriver WS 1.2



PS051003E Power Supply 5 V

RELATED PRODUCTS

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

Thin lines

LASER MODULES SERIES LNC-13LNM ■ Macro Line Generator, small fan angle

Uniform intensity distributionExtended 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 angleGaussian intensity distribution

Extended depth of focus

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

Extended depth of focus



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