

# 5M-S88+55CM-405-88-X15-A7.5-PS-7

Compact Laser Micro Focus Generator with elliptical Gaussian beam profile



#### **FEATURES**

Compact Laser spot with elliptical Gaussian beam profile.

Spot diameter: 0.011 x 0.023 mm

Wavelength: 405 nmWorking distance: 82 mm

- Micro Focus Generator for small spot widths and high power density in the focal plane
- With RS232 interface





### DESCRIPTION

The laser diode beam source type 5M-S88+55CM-405-88-X15-A7.5-PS-7 produces an elliptical laser spot with elliptical Gaussian intensity distribution.

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 the spot diameter increases proportionally to the working distance. A fine-adjustment of the distance between laser and target is recommended for fine-focusing.

### **TECHNICAL DATA**

5M-S88+55CM-405-88-X15-A7.5-PS-7



Line profileGaussian Intensity DistributWavelength405 +5/-5Laser output power88 mLaser safety class70-125 mFocussing range70-125 mWorking distance82 mSpot height0.023 mSpot width0.011 mRayleigh range0.437 mDiameter laser module25/28 mModule length73.1 mInstallation length1.5Cable length1.5Connector typeLumberg SV70 IEC 61076-2-1Supply voltage5 ± 0.Max. current consumption0.Working temperature15 - 40Modulation inputsAnalog	Series	es 5M		
Wavelength         405 +5/-5           Laser output power         88 m           Laser safety class         70-125 m           Focussing range         70-125 m           Working distance         82 m           Spot height         0.023 m           Spot width         0.011 m           Rayleigh range         0.437 m           Diameter laser module         25/28 m           Module length         73.1 m           Installation length         185.1 m           Cable length         1.5           Connector type         Lumberg SV70 IEC 61076-2-1           Supply voltage         5 ± 0.           Max. current consumption         0.           Working temperature         15 - 40           Modulation inputs         Analog	Order Code	5M-S88+55CM-405-88-X15-A7.5-PS-7		
Laser safety class  Focussing range 70-125 r  Working distance 82 r  Spot height 0.023 r  Spot width 0.011 r  Rayleigh range 0.437 r  Diameter laser module 25/28 r  Module length 73.1 r  Installation length 1.5  Cable length 1.5  Connector type Lumberg SV70 IEC 61076-2-1  Supply voltage 5±0.  Max. current consumption 0.  Working temperature 15-40  Modulation inputs Analog 75	Line profile	Gaussian Intensity Distribution		
Laser safety class  Focussing range 70-125 r  Working distance 82 r  Spot height 0.023 r  Spot width 0.011 r  Rayleigh range 0.437 r  Diameter laser module 25/28 r  Module length 73.1 r  Installation length 1.5.1 r  Cable length 1.5.2 r  Connector type Lumberg SV70 IEC 61076-2-3 r  Supply voltage 5 ± 0.  Max. current consumption 0.  Working temperature 15 - 40 r  Modulation inputs Analog 7	Wavelength	405 +5/-5 nm		
Focussing range         70-125 m           Working distance         82 m           Spot height         0.023 m           Spot width         0.011 m           Rayleigh range         0.437 m           Diameter laser module         25/28 m           Module length         73.1 m           Installation length         185.1 m           Cable length         1.5           Connector type         Lumberg SV70 IEC 61076-2-1           Supply voltage         5 ± 0.           Max. current consumption         0.           Working temperature         15 - 40           Modulation inputs         Analog         T	Laser output power	88 mW		
Working distance 82 m  Spot height 0.023 m  Spot width 0.011 m  Rayleigh range 0.437 m  Diameter laser module 25/28 m  Module length 73.1 m  Installation length 1.5  Cable length 1.5  Connector type Lumberg SV70 IEC 61076-2-1  Supply voltage 5 ± 0.  Max. current consumption 0.  Working temperature 15 - 40  Modulation inputs Analog 7	Laser safety class	3B		
Spot height         0.023 r           Spot width         0.011 r           Rayleigh range         0.437 r           Diameter laser module         25/28 r           Module length         73.1 r           Installation length         185.1 r           Cable length         1.5           Connector type         Lumberg SV70 IEC 61076-2-3           Supply voltage         5 ± 0.           Max. current consumption         0.           Working temperature         15 - 40           Modulation inputs         Analog         T	Focussing range	70-125 mm		
Spot width0.011 rRayleigh range0.437 rDiameter laser module25/28 rModule length73.1 rInstallation length185.1 rCable length1.5Connector typeLumberg SV70 IEC 61076-2-1Supply voltage5 ± 0.Max. current consumption0.Working temperature15 - 40Modulation inputsAnalog	Working distance	82 mm		
Rayleigh range 0.437 m  Diameter laser module 25/28 m  Module length 73.1 m  Installation length 185.1 m  Cable length 1.5  Connector type Lumberg SV70 IEC 61076-2-1  Supply voltage 5 ± 0.  Max. current consumption 0.  Working temperature 15 - 40  Modulation inputs Analog 7	Spot height	0.023 mm		
Diameter laser module25/28 rModule length73.1 rInstallation length185.1 rCable length1.5Connector typeLumberg SV70 IEC 61076-2-1Supply voltage5 ± 0.Max. current consumption0.Working temperature15 - 40Modulation inputsAnalog	Spot width	0.011 mm		
Module length73.1 mInstallation length185.1 mCable length1.9Connector typeLumberg SV70 IEC 61076-2-1Supply voltage5 ± 0.Max. current consumption0.Working temperature15 - 40Modulation inputsAnalog	Rayleigh range	0.437 mm		
Installation length  Cable length  Connector type  Lumberg SV70 IEC 61076-2-1  Supply voltage  5 ± 0.  Max. current consumption  O.  Working temperature  Analog	Diameter laser module	25/28 mm		
Cable length  Connector type  Lumberg SV70 IEC 61076-2-1  Supply voltage  5 ± 0.  Max. current consumption  O.  Working temperature  15 - 40  Modulation inputs  Analog	Module length	73.1 mm		
Connector typeLumberg SV70 IEC 61076-2-1Supply voltage5 ± 0.Max. current consumption0.Working temperature15 - 40Modulation inputsAnalog	Installation length	185.1 mm		
Supply voltage $5 \pm 0.$ Max. current consumption $0.$ Working temperature $15 - 40.$ Modulation inputsAnalog	Cable length	1.5 m		
Max. current consumption0.Working temperature15 - 40Modulation inputsAnalogT	Connector type	Lumberg SV70 IEC 61076-2-106		
Working temperature15 - 40Modulation inputsAnalogT	Supply voltage	5 ± 0.2 V		
Modulation inputs Analog 7	Max. current consumption	0.5 A		
	Working temperature		15 - 40 °C	
	Modulation inputs	Analog	TTL	
Input resistance 9 kOhm 9 kO	Input resistance	9 kOhm	9 kOhm	
Max. modulation frequency0.001 kHz250 k	Max. modulation frequency	0.001 kHz	250 kHz	
Modulation delay ON/OFF         3000/3000 μs         0.6/0.2	Modulation delay ON/OFF	3000/3000 μs	0.6/0.2 μs	
Rise / Fall time         200000/200000 μs         0.2/0.2	Rise / Fall time	200000/200000 μs	0.2/0.2 μs	
Interface RS2	Interface	RS232		

# **ACCESSORIES**

**60EX-4** Eccentric key with a stroke of  $\pm$  0.5 mm.

**60EX-4-L** Alternative eccentric key with long handle with a

stroke of ± 0.5 mm.

**9D-12** Screwdriver WS 1.2

# **RELATED PRODUCTS**



LASER MODULES

Compact Laser Macro Focus Generator

**SERIES 5MM** 

Circular beam profile andExtended depth of focus

LASER MODULES

Micro Focus Generator

**SERIES 13MC** 

Rotationally symmetric, Gaussian beam profile

LASER MODULES

Compact Laser Micro Focus Generator

**SERIES 5MC** 

Rotationally symmetric, Gaussian beam profile

**LASER MODULES** 

Micro Focus Generator

**SERIES 13M** 

Elliptical Gaussian beam profile

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