High Power Fiber Coupled Diode Laser

LM Series (With Pilot Beam)

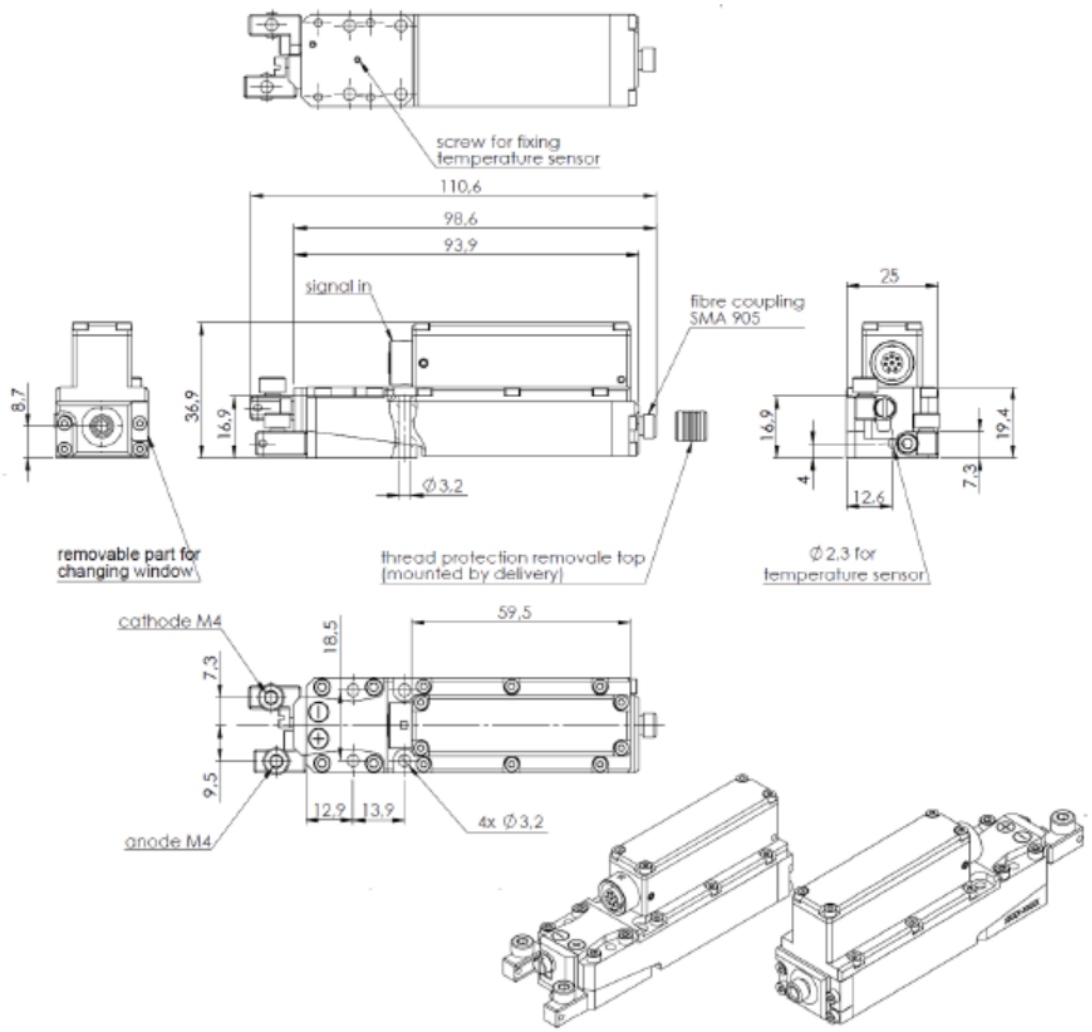
Features

- High brightness
- High E/O efficiency
- Compact housing
- Hermetically sealed housing
- Conduction Cooling
- Plug and play fiber connector

Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

Product Dimensions (mm)



Remark: The structure drawing is for reference only. Please feel free to contact us for any special requirements.

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Product Specifications

Product Code		FCS000014	FCS000015	FCS000013 [2]
Part No. [1]		FL-LM2047-25-808-200	FL-LM2048-50-980-200	FL-LM2045-40-980-400
Optical Data	**Unit**	**Value**	**Value**	**Value**
CW-nominal output power	W	25	50	40
Centroid wavelength	nm	808	980	980
Wavelength tolerance (±)	nm	10	10	10
Spectral width (FWHM)	nm	≤5	≤5	≤5
Wavelength Temp. drift	nm/°C	~0.28	~0.34	~0.34
Wavelength stabilization		/	/	/
Operation Conditions				
Nominal diode heat sink Temp.	°C	25	25	25
Diode heat sink operation Temp. [3]	°C	+15 ... +30	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	60	100	90
Electrical Data				
Max. operation current start of life	A	≤40	≤70	≤55
Max. operation current end of life	A	≤48	≤84	≤66
Typical threshold current	A	≤10	≤8	≤8
Typical operation voltage	V	≤2	≤2	≤2
Typical slope	W/A	≥0.9	≥0.8	≥0.9
Typical E/O efficiency	%	≥39	≥43	≥44
Fiber connection				
Fiber included		/	/	/
Fiber core diameter	μm	200	200	400
Numerical aperture		0.22	0.22	0.22
Fiber optic connector		SMA905	SMA905	SMA905
Package				
Dimensions	mm^3	110.6×25×36.9	110.6×25×36.9	110.6×25×36.9
Weight basic package	kg	0.35	0.35	0.35
Storage Temp.	°C	-20 ... +60	-20 ... +60	-20 ... +60
Additional Features				
Temp. sensors		NTC & Pt100	NTC & Pt100	NTC & Pt100
Monitor diode (driver: 5V)		Output signal: 0...2.5V	Output signal: 0...2.5V	Output signal: 0...2.5V
Pilot beam (driver: 3.3V, 25mA)		>0.7mW, 650±20nm	>0.7mW, 650±20nm	>0.7mW, 650±20nm
Fiber detection sensor (PNP)		12V, ≤100mA	12V, ≤100mA	12V, ≤100mA
Accessories package [4]		Yes	Yes	Yes
Measurement				
Fiber		non AR coated, 200μm	non AR coated, 200μm	non AR coated, 400μm
Diode heat sink Temp.	°C	25	25	25

[1] Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

[2] Typical customization of products.

[3] Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

[4] In the accessory package, the positive and negative electrodes of the "diode" need to be reversely connected to the negative and positive electrodes of the module; The insulation and thermal conductivity of the "carbon film" are very important to the installation and use of the laser, as the housing of the laser is connected to its anode.

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High Power Fiber Coupled Diode Laser

LM Series (With PD, without Pilot Beam)

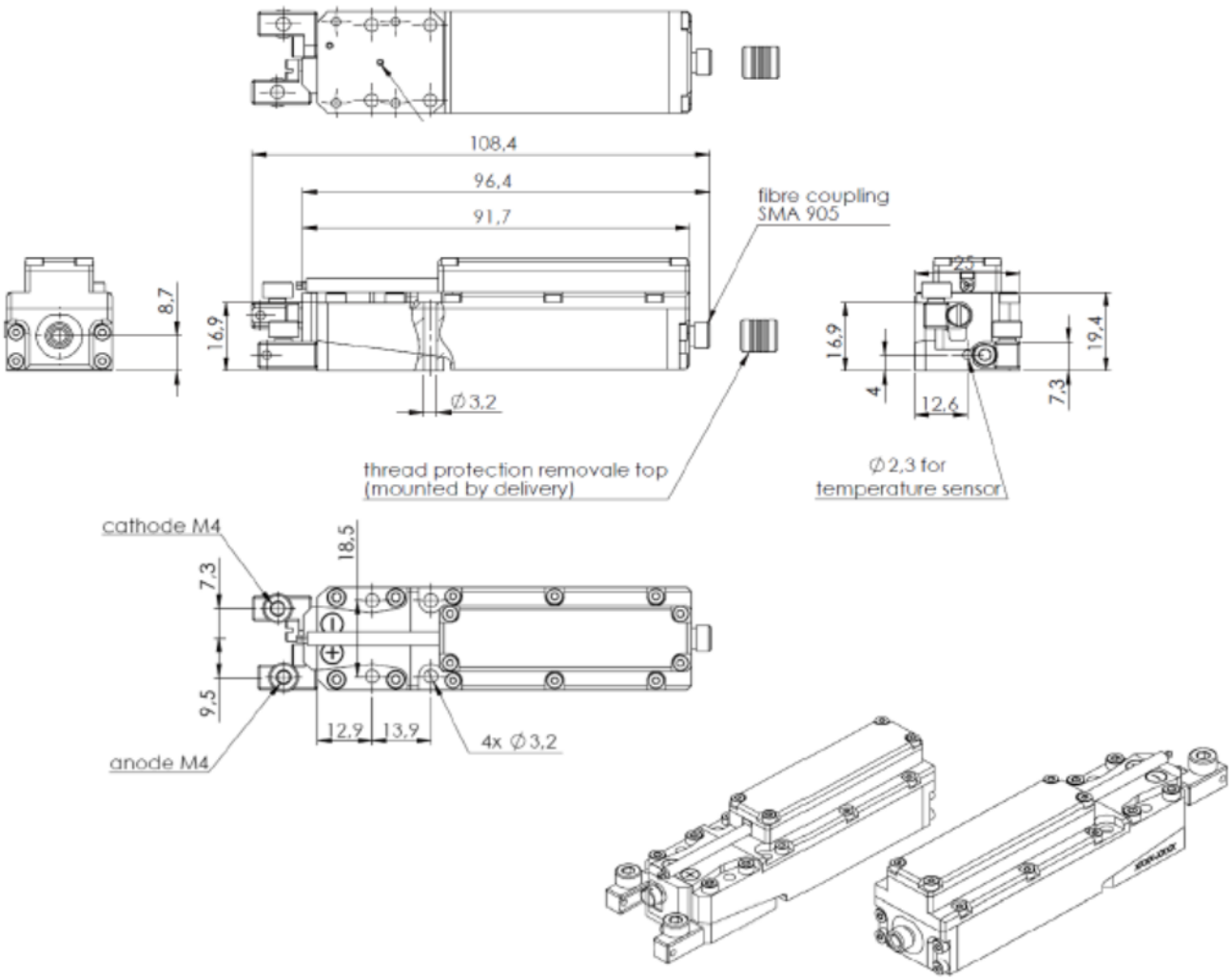
Features

- High brightness
- High E/O efficiency
- Compact housing
- Hermetically sealed housing
- Conduction Cooling
- Plug and play fiber connector

Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

Product Dimensions (mm)



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Product Specifications

Product Code		FCS000009 [2]	FCS000008 [2]	FCS000011 [2]
Part No. [1]		FL-LM2002-15-976-200	FL-LM2001-20-981-200	FL-LM2012-55-976-200
Optical Data	**Unit**	**Value**	**Value**	**Value**
CW-nominal output power	W	15	20	55
Centroid wavelength	nm	976	981	976
Wavelength tolerance (±)	nm	1	1	1
Spectral width (FWHM)	nm	≤1	≤1	≤1
Wavelength Temp. drift	nm/°C	~0.01	~0.01	~0.01
Wavelength stabilization		Yes (spectral efficiency≥ 90%)	Yes (spectral efficiency≥ 90%)	Yes (spectral efficiency≥ 90%)
Operation Conditions				
Nominal diode heat sink Temp.	°C	25	25	25
Diode heat sink operation Temp. [3]	°C	+15 ... +30	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	50	70	130
Electrical Data				
Max. operation current start of life	A	≤30	≤40	≤85
Max. operation current end of life	A	≤36	≤50	≤102
Typical threshold current	A	≤6	≤6	≤8
Typical operation voltage	V	≤2	≤2	≤2
Typical slope	W/A	≥0.7	≥0.8	≥0.7
Typical E/O efficiency	%	≥33	≥33	≥38
Fiber connection				
Fiber included		/	/	/
Fiber core diameter	µm	200	200	200
Numerical aperture		0.22	0.22	0.22
Fiber optic connector		SMA905	SMA905	SMA905
Fiber length	m	/	/	/
Package				
Dimensions	mm^3	108.4×25×28	108.4×25×28	108.4×25×28
Weight basic package	kg	0.35	0.35	0.35
Storage Temp.	°C	-20 ... +60	-20 ... +60	-20 ... +60
Additional Features				
High reflection bandwidth (> 99% S&P polarized)	nm	1030 ... 1130	1030 ... 1130	1030 ... 1130
Temp. sensors		NTC & Pt100	NTC & Pt100	NTC & Pt100
Monitor diode (driver: 5V)		Output signal: 0...2.5V	Output signal: 0...2.5V	Output signal: 0...2.5V
Accessories package [4]		Yes	Yes	Yes
Measurement				
Fiber		non AR coated, 200µm	non AR coated, 200µm	non AR coated, 200µm
Diode heat sink Temp.	°C	25	25	25

[1] Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

[2] Typical customization of products.

[3] Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

[4] In the accessory package, the positive and negative electrodes of the "diode" need to be reversely connected to the negative and positive electrodes of the module; The insulation and thermal conductivity of the "carbon film" are very important to the installation and use of the laser, as the housing of the laser is

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High Power Fiber Coupled Diode Laser

LM Series (Basic A)

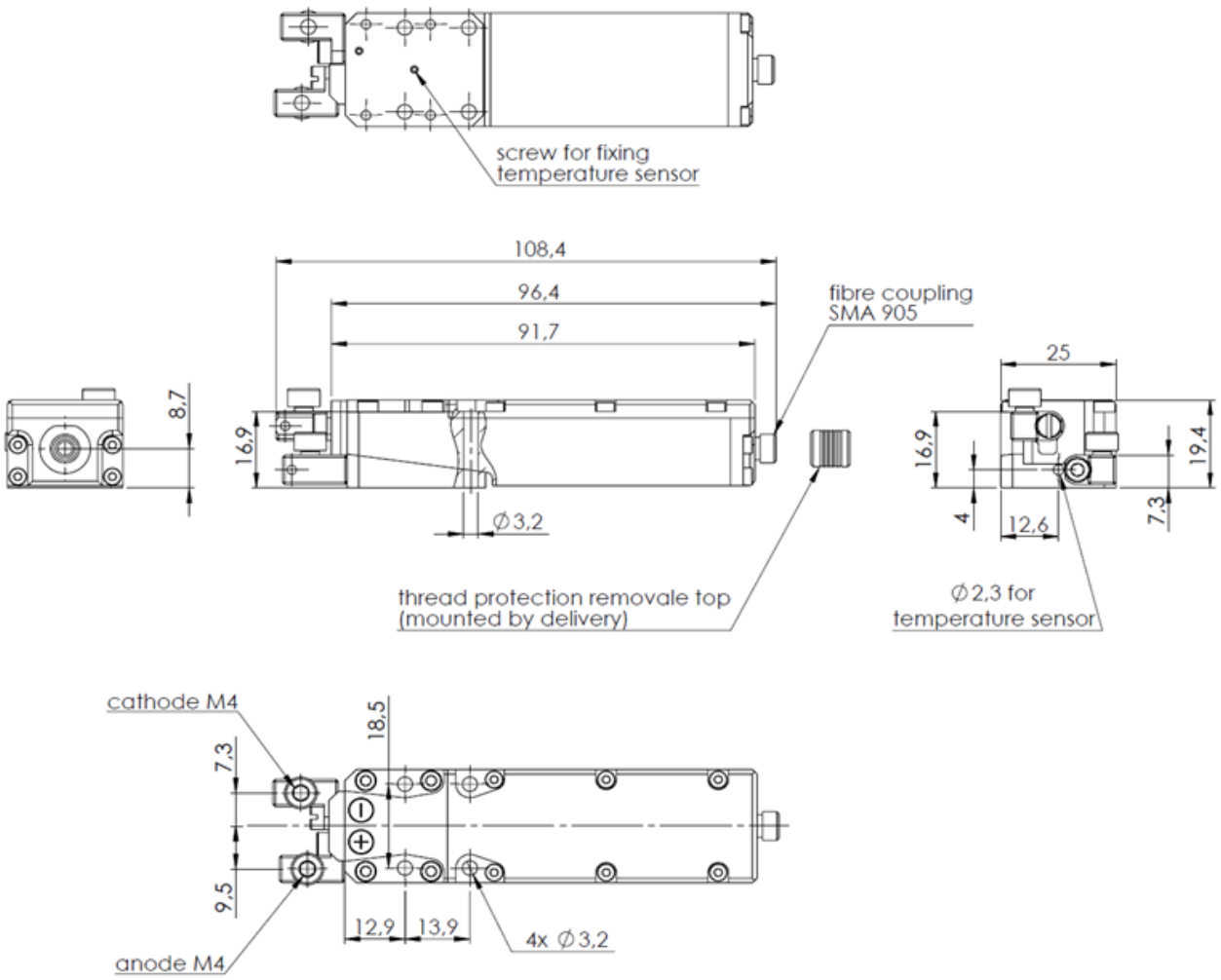
Features

- High brightness
- High E/O efficiency
- Compact housing
- Hermetically sealed housing
- Conduction Cooling
- Plug and play fiber connector

Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

Product Dimensions (mm)



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Product Specifications

Product Code		**FCS000012**	**FCS000010** [2]	**FCS000007** [2]
Part No. [1]		FL-LM2024-32-808-400	FL-LM2004-35-976-200	FL-LM1889-40-981-200
Optical Data	**Unit**	**Value**	**Value**	**Value**
CW-nominal output power	W	32	35	40
Centroid wavelength	nm	808	976	981
Wavelength tolerance (±)	nm	3	1	1
Spectral width (FWHM)	nm	≤4	≤1	≤1
Wavelength Temp. drift	nm/°C	~0.28	~0.01	~0.01
Wavelength stabilization		/	Yes (spectral efficiency≥ 90%)	Yes (spectral efficiency≥ 90%)
Operation Conditions				
Nominal diode heat sink Temp.	°C	25	25	25
Diode heat sink operation Temp. [3]	°C	+15 ... +30	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	60	90	100
Electrical Data				
Max. operation current start of life	A	≤43	≤58	≤63
Max. operation current end of life	A	≤52	≤70	≤76
Typical threshold current	A	≤8	≤8	≤8
Typical operation voltage	V	≤2	≤2	≤2
Typical slope	W/A	≥0.9	≥0.7	≥0.7
Typical E/O efficiency	%	≥44	≥39	≥38
Fiber connection				
Fiber included		/	/	Yes (fixed)
Fiber core diameter	µm	400	200	200
Numerical aperture		0.22	0.22	0.22
Fiber optic connector[4]		SMA905	SMA905	SMA905(SH/SH)
Fiber length	m	/	/	0.05±0.1
Package				
Dimensions	mm^3	108.4×25×17	108.4×25×17	108.4×25×17
Weight basic package	kg	0.3	0.3	0.3
Storage Temp.	°C	-20 ... +60	-20 ... +60	-20 ... +60
Additional Features				
High reflection bandwidth (> 99% S&P polarized)	nm	1030 ... 1130	1030 ... 1130	1030 ... 1130
Temp. sensors		NTC & Pt100	NTC & Pt100	NTC & Pt100
Accessories package [5]		Yes	Yes	Yes
Measurement				
Fiber		non AR coated, 400µm	non AR coated, 200µm	non AR coated, 200µm
Diode heat sink Temp.	°C	25	25	25

[1] Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

[2] Typical customization of products.

[3] Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

[4] SH: air gap.

[5] In the accessory package, the positive and negative electrodes of the "diode" need to be reversely connected to the negative and positive electrodes of the module; The insulation and thermal conductivity of the "carbon film" are very important to the installation and use of the laser, as the housing of the laser is connected to its anode.

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Product Specifications

Product Code		FCS000016 [2]	FCS000006 [2]
Part No. [1]		FL-LM6001-20-981-200	FL-LM1713-20-981-200
Optical Data	**Unit**	**Value**	**Value**
CW-nominal output power	W	20	20
Centroid wavelength	nm	981	981
Wavelength tolerance (±)	nm	1	1
Spectral width (FWHM)	nm	≤1	≤1
Wavelength Temp. drift	nm/°C	~0.01	~0.01
Wavelength stabilization		Yes (spectral efficiency≥90%)	Yes (spectral efficiency≥90%)
Operation Conditions			
Nominal diode heat sink Temp.	°C	25	28
Diode heat sink operation Temp. [3]	°C	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	70	70
Electrical Data			
Max. operation current start of life	A	≤40	≤35
Max. operation current end of life	A	≤50	≤42
Typical threshold current	A	≤6	≤6
Typical operation voltage	V	≤2	≤2
Typical slope	W/A	≥0.8	≥0.8
Typical E/O efficiency	%	≥33	≥33
Fiber connection			
Fiber included		/	Yes (fixed)
Fiber core diameter	µm	200	200
Numerical aperture		0.22	0.22
Fiber optic connector [4]		SMA905	SMA905(SH/SH)
Fiber Length		/	0.05±0.1
Package			
Dimensions	mm^3	108.4×25×17	108.4×25×17
Weight basic package	kg	0.3	0.3
Storage Temp.	°C	-20 ... +60	-20 ... +60
Additional Features			
High reflection bandwidth (> 99% S&P polarized)	nm	1030 ... 1130	/
Temp. sensors		NTC & Pt100	NTC & Pt100
Accessories package [5]		Yes	Yes
Measurement			
Fiber		non AR coated, 200µm	non AR coated, 200µm
Diode heat sink Temp.	°C	25	28

[1] Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

[2] Typical customization of products.

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[5] In the accessory package, the positive and negative electrodes of the "diode" need to be reversely connected to the negative and positive electrodes of the module; The insulation and thermal conductivity of the "carbon film" are very important to the installation and use of the laser, as the housing of the laser is connected to its anode.

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High Power Fiber Coupled Diode Laser

LM Series (Basic B)

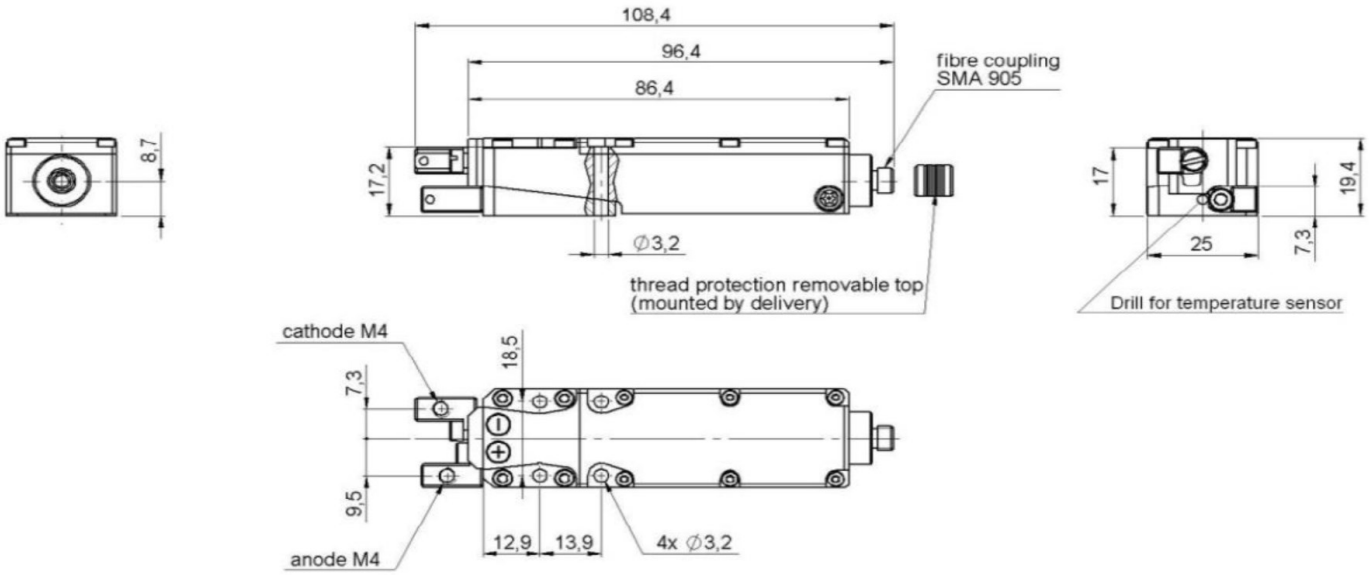
Features

- High brightness
- High E/O efficiency
- Compact housing
- Hermetically sealed housing
- Conduction Cooling
- Plug and play fiber connector

Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

Product Dimensions (mm)



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Product Specifications

Product Code		**FCS000005** [2]
Part No. [1]		FL-LM1524-15-981-200

Optical Data	**Unit**	**Value**
CW-nominal output power	W	15
Centroid wavelength	nm	981
Wavelength tolerance (±)	nm	1
Spectral width (FWHM)	nm	≤1
Wavelength Temp. drift	nm/K	0.01
Wavelength stabilization		Yes (spectral efficiency≥90%)
Operation Conditions		
Nominal diode heat sink Temp.	°C	25
Diode heat sink operation Temp. [3]	°C	+15 … +30
Minimum heat sink capacity	W	50
Electrical Data		
Max. operation current start of life	A	≤30
Max. operation current end of life	A	≤36
Typical threshold current	A	≤6
Typical operation voltage	V	≤2
Typical slope	W/A	≥0.8
Typical E/O efficiency	%	≥33
Fiber connection		
Fiber included		Yes (fixed)
Fiber core diameter	µm	200
Numerical aperture		0.22
Fiber optic connector [4]		SMA905(SH)
Fiber length	m	0.5±0.1
Package		
Dimensions	mm^3	108.4 × 25 × 19.4
Weight basic package	kg	0.3
Storage Temp.	°C	-20 … +60
Additional Features		
High reflection bandwidth (› 99% S&P polarized)	nm	/
Temp. sensors		NTC & Pt100
Accessories package [5]		Yes
Measurement		
Fiber		non AR coated, 200µm
Diode heat sink Temp.	°C	25

[1] Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

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