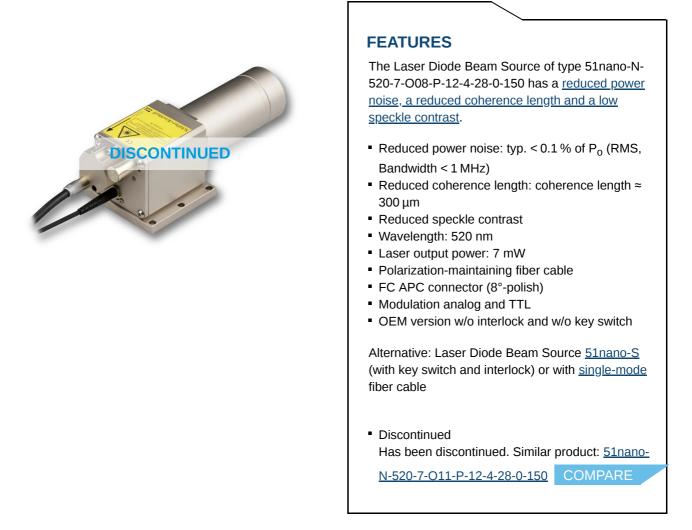
51nano-N-520-7-008-P-12-4-28-0-150

Fiber-coupled low coherence laser source with polarization-maintaining fiber cable (OEM version)



This product has been discontinued. Requests will be managed according to the residual stock. Contact us to discuss any specific need. Similar product: <u>51nano-N-520-7-011-P-12-4-28-0-150</u>

DESCRIPTION

The fiber-coupled Laser Diode Beam Source of type 51nano-N-520-7-O08-P-12-4-28-0-150 has a reduced power noise (typ. < 0.1 % of P₀ (RMS, Bandwidth < 1 MHz)), reduced coherence length (\approx 300 µm) and a lowered speckle contrast.



Electrical features

The output power is adjustable using a potentiometer or using the two modulation inputs for analog and TTL.

Fiber cable

The source is fiber-coupled to a polarization-maintaining fiber cable (standard, polarization extinction ratio ≥ 21 dB). As a result the beam profile is rotationally symmetric with Gaussian intensity distribution. The fiber cable is equipped with an FC APC type connector (8°-polish) and an <u>end cap</u> to prevent fiber damage. The fiber cable has a strain-relief and a protective sleeving (Ø 3 mm). Standard cable length is 150 cm.

Options:

- Single-mode fiber
- Core-centered (single-mode only)
- Multiple fiber output cables (51nanoC, single-mode only)
- Other connector types including FC PC, DIN or AVIO, or E2000
- Other fiber cable lengths
- Incorporated vacuum feed-through

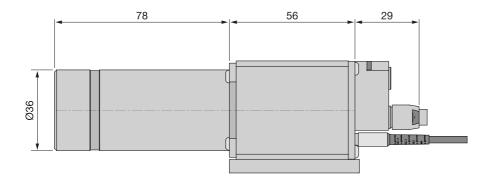
Laser safety

This OEM version has no key switch or interlock and is not conform to EN 60825-1.

It can be operated conform to EN 60825-1 by using a switchbox.

As an alternative, a version with key switch and with interlock (conform to EN 60825-1) is available

as type <u>51nano-S</u>.



TECHNICAL DATA

51nano-N-520-7-O08-P-12-4-28-0-150

Order Code	51nano-N-520-7-008-P-12-4-28-0-150
Will replace	51nanoFCM-N-520-7-008-P-12-4-28-0-150
Series	51nano-N (PM)
Laser class	3В
Center wavelength	520 ± 10 nm

Schäfter+Kirchhoff

DATA SHEET

Output powertyp. 7 mWPower adjustment< 1 - 100 %Power noisetyp. < 0.1 % of P_0 (RMS, BW < 1 MHz)Coherence length= 300 µmFiber cablepolarization-maintainingFiber cablePMC-E-460SiNominal fiber NA0.09Effective fiber NAe20.061 ± 10 % (1/e ²)Mode field diameter MFD5.4 µm ± 10 % (1/e ²)Mode field diameter MFD5.4 µm ± 10 % (1/e ²)PER≥ 21 dBFiber cable length1.5 ± 0.05 m (standard)Fiber cable typeØ 3 mm with Kevlar strain-reliefFiber cable typeØ 3 mm with Kevlar strain-reliefFiber connector typeFC APC (standard)Power stabilitymax. 12 % power variation between 15°C and 35°CElectronics typeHPElectr. cable length1.5 ± 0.1 m (standard)Connector type4 pin (male, Lumberg SV40)Supply voltage12.0 ± 0.5 VMax. current consumption*260 mAModulation inputsAnalogMax. input voltage6.5 V0.50.5 voltage for P _{min} / P _O 0 V/ 2.5 VVoltage for P _{min} / P _O 0 V/ 2.5 VMax. modulation frequency1 Hz300 kHz3.0 VTime delay ON/OFF*< 2.0/0.5 m< 0.50.5 s0.8/0.3 µs* Typical value. Depends on laser diode.0Operating temperature15 - 35°C ± 0.5°CWarm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight530 gDimensions <th>Band width</th> <th></th> <th>0.7 - 4 nm</th>	Band width		0.7 - 4 nm	
Power noisetyp. < 0.1 % of P_0 (RMS, BW < 1 MHz)	Output power		typ. 7 mW	
Coherence length ≈ 300 μm Fiber cable polarization-maintaining Fiber type PMC-E-460Si Nominal fiber NA 0.09 Effective fiber NA _e 2 0.061 ± 10 % (1/e²) Mode field diameter MFD 5.4 μm ± 10 % (1/e²) PER ≥ 21 dB Fiber cable length 1.5 ± 0.05 m (standard) Fiber cable type Ø 3 mm with Kevlar strain-relief Fiber cable type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Modulation inputs Analog Modulation inputs Analog Max. input voltage 6.5 V Voltage for P _{min} / P _O 0 V / 2.5 V Voltage for P _{min} / P _O 0 V / 2.5 V Voltage for P _{min} / P _O 0.5/0.5 s Max. modulation frequency 1 Hz Max. modulation frequency 1 Hz Size / fall time* 0.5/0.5 s Operating temperature	Power adjustment		< 1 - 100 %	
Fiber cable polarization-maintaining Fiber type PMC-E-460Si Nominal fiber NA 0.09 Effective fiber NAe² 0.061 ± 10 % (1/e²) Mode field diameter MFD 5.4 µm ± 10 % (1/e²) PER ≥ 21 dB Fiber cable length 1.5 ± 0.05 m (standard) Fiber cable type Ø 3 mm with Kevlar strain-relief Fiber connector type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Max. current consumption* 260 mA Modulation inputs Analog TTL Max. input voltage 6.5 V 6.5 V Voltage for P _{min} / P _O 0 V / 2.5 V <0.8 V / > 3.0 V Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* <2.00.5 ms <0.5/0.2 µs * Typical value. Depends on laser diode. Operating temperature 15 - 35°C ± 0.5°C	Power noise	typ. < 0.1 % of P ₀ (RM	S, BW < 1 MHz)	
Fiber typePMC-E-460SiNominal fiber NA0.09Effective fiber NAe² $0.061 \pm 10 \% (1/e²)$ Mode field diameter MFD $5.4 \ \mu m \pm 10 \ \% (1/e²)$ PER $\geq 21 \ dB$ Fiber cable length $1.5 \pm 0.05 \ m (standard)$ Fiber cable length $1.5 \pm 0.05 \ m (standard)$ Fiber cable typeØ 3 mm with Kevlar strain-reliefFiber cable typeØ 3 mm with Kevlar strain-reliefFiber connector typeFC APC (standard)Power stabilitymax. 12 % power variation between 15°C and 35°CElectronics typeHPElectr. cable length $1.5 \pm 0.1 \ m (standard)$ Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \ V$ Max. current consumption*260 \maxModulation inputsAnalogMax. input voltage $6.5 \ V$ $0 \ V/2.5 \ V$ $< 0.8 \ V > 3.0 \ V$ Input impedance $9 \ kOhm$ Max. modulation frequency $1 \ Hz$ Time delay ON/OFF* $< 2.0/0.5 \ ms$ $< 2.0/0.5 \ ms$ $< 0.5/0.2 \ \mus$ Rise / fall time* $0.5/0.5 \ 0.8/0.3 \ \mus$ * Typical value. Depends on laser diode.Operating temperatureOperating temperature $15 - 35^\circ C \pm 0.5^\circ C$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight $530 \ g$	Coherence length		≈ 300 μm	
Nominal fiber NA0.09Effective fiber NAe2 $0.061 \pm 10 \ \% (1/e^2)$ Mode field diameter MFD $5.4 \ \mu m \pm 10 \ \% (1/e^2)$ PER $\geq 21 \ dB$ Fiber cable length $1.5 \pm 0.05 \ m (standard)$ Fiber cable length $1.5 \pm 0.05 \ m (standard)$ Fiber cable length $1.5 \pm 0.05 \ m (standard)$ Fiber cable lengthmax. 12 % power variation between 15°C and 35°CElectronics typeHPElectr. cable length $1.5 \pm 0.1 \ m (standard)$ Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \ V$ Modulation inputsAnalogModulation inputsAnalogMax. input voltage $6.5 \ V$ $6.5 \ V$ $6.5 \ V$ Voltage for P _{min} / P _O $0 \ V / 2.5 \ V$ Input impedance $9 \ kOhm$ Max. modulation frequency $1 \ Hz$ 300 kHz $3.0 \ V$ Time delay ON/OFF* $< 2.0/0.5 \ ms$ $< 0.5/0.2 \ \mus$ * Typical value. Depends on laser diode.Operating temperature $15 - 35^\circ C \pm 0.5^\circ C$ Warm-up timeapprox. 10 minAir humiditymax. 90 \% non-condensingWeight $530 \ g$	Fiber cable	polariza	tion-maintaining	
Effective fiber NA_{e^2} 0.061 ± 10 % (1/e^2)Mode field diameter MFD5.4 µm ± 10 % (1/e^2)PER \geq 21 dBFiber cable length1.5 ± 0.05 m (standard)Fiber cable typeØ 3 mm with Kevlar strain-reliefFiber cable typeØ 3 mm with Kevlar strain-reliefFiber connector typeFC APC (standard)Power stabilitymax. 12 % power variation between 15°C and 35°CElectronics typeHPElectr. cable length1.5 ± 0.1 m (standard)Connector type4 pin (male, Lumberg SV40)Supply voltage12.0 ± 0.5 VMax. current consumption*260 mAModulation inputsAnalogTTLMax. input voltage6.5 V6.5 VVoltage for P_{min} / P_0 0 V / 2.5 V< 0.8 V / > 3.0 VInput impedance9 kOhm9 kOhmMax. modulation frequency1 Hz300 kHzTime delay ON/OFF*< 2.0/0.5 ms	Fiber type		PMC-E-460Si	
Mode field diameter MFD $5.4 \ \mu m \pm 10 \ \% (1/e^2)$ PER $\geq 21 \ dB$ Fiber cable length $1.5 \pm 0.05 \ m$ (standard)Fiber cable length $1.5 \pm 0.05 \ m$ (standard)Fiber cable typeØ 3 mm with Kevlar strain-reliefFiber connector typeFC APC (standard)Power stabilitymax. 12 % power variation between $15^{\circ}C$ and $35^{\circ}C$ Electronics typeHPElectr. cable length $1.5 \pm 0.1 \ m$ (standard)Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \ V$ Max. current consumption* $260 \ mA$ Modulation inputsAnalogMax. input voltage $6.5 \ V$ Ottage for P_{min} / P_O $0 \ V / 2.5 \ V$ Voltage for P_{min} / P_O $0 \ V / 2.5 \ V$ Max. modulation frequency $1 \ Hz$ Max. modulation frequency $1 \ Hz$ Size / fall time* $0.5/0.5 \ S$ Operating temperature $15 - 35^{\circ}C \pm 0.5^{\circ}C$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight $530 \ g$	Nominal fiber NA		0.09	
PER ≥ 21 dB Fiber cable length 1.5 ± 0.05 m (standard) Fiber cable type Ø 3 mm with Kevlar strain-relief Fiber connector type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Max. current consumption* 260 mA Modulation inputs Analog Max. input voltage 6.5 V 0 V / 2.5 V < 0.8 V /> 3.0 V 3.0 V Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* < 2.0/0.5 m < 0.5/0.2 µs Rise / fall time* 0.5/0.5 s 0.8/0.3 µs * Typical value. Depends on laser diode. Operating temperature 15 - 35°C ± 0.5°C Warm-up time approx. 10 min Air humidity max. 90 % non-condensing	Effective fiber NA _{e²}	0.06	0.061 ± 10 % (1/e ²)	
Fiber cable length 1.5 ± 0.05 m (standard) Fiber cable type Ø 3 mm with Kevlar strain-relief Fiber connector type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Max. current consumption* 260 mA Modulation inputs Analog Max. input voltage 6.5 V 6.5 V Voltage for P _{min} / P _O 0 V / 2.5 V < 0.8 V / > 3.0 V Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* < 2.0/0.5 ms < 0.5/0.2 µs Rise / fall time* 0.5/0.5 s 0.8/0.3 µs * Typical value. Depends on laser diode. 15 - 35°C ± 0.5°C Warm-up time Operating temperature 15 - 35°C ± 0.5°C Warm-up time approx.10 min Air humidity max. 90 % non-condensing Weight 530 g	Mode field diameter MFD	5.4 μ	m ± 10 % (1/e ²)	
Fiber cable type Ø 3 mm with Kevlar strain-relief Fiber connector type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Max. current consumption* 260 mA Modulation inputs Analog Max. input voltage 6.5 V 0 V / 2.5 V < 0.8 V / > Notage for P _{min} / P _O 0 V / 2.5 V < 0.8 V / > Nax. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* < 2.0/0.5 ms < 0.5/0.2 µs Rise / fall time* 0.5/0.5 s 0.8/0.3 µs * Typical value. Depends on laser diode. Operating temperature 15 - 35°C ± 0.5°C Warm-up time approx. 10 min Air humidity max. 90 % non-condensing Weight 530 g 530 g 530 g	PER		≥ 21 dB	
Fiber connector type FC APC (standard) Power stability max. 12 % power variation between 15°C and 35°C Electronics type HP Electr. cable length 1.5 ± 0.1 m (standard) Connector type 4 pin (male, Lumberg SV40) Supply voltage 12.0 ± 0.5 V Max. current consumption* 260 mA Modulation inputs Analog TTL Max. input voltage 6.5 V 6.5 V Voltage for Pmin / Po 0 V / 2.5 V < 0.8 V / > 3.0 V Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* < 2.0/0.5 ms < 0.5/0.2 µs Rise / fall time* 0.5/0.5 s 0.8/0.3 µs * Typical value. Depends on laser diode. Operating temperature 15 - 35°C ± 0.5°C Warm-up time approx.10 min Air humidity max. 90 % non-condensing Weight 530 g 530 g 530 g	Fiber cable length	1.5 ± 0.	05 m (standard)	
Power stabilitymax. 12 % power variation between 15°C and 35°CElectronics typeHPElectr. cable length $1.5 \pm 0.1 \text{ m}$ (standard)Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \text{ V}$ Max. current consumption*260 mAModulation inputsAnalogMax. input voltage 6.5 V 6.5 V 6.5 V Voltage for P_{min} / P_0 $0 \text{ V} / 2.5 \text{ V}$ $< 0.8 \text{ V} / > 3.0 \text{ V}$ Input impedance 9 kOhm 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.5 \text{ s}$ $0.8/0.3 \text{ µs}$ * Typical value. Depends on laser diode. $0 \text{ perating temperature}$ $15 - 35°C \pm 0.5°C$ $0.8 \text{ max}. 90 \%$ non-condensingWeight 530 g	Fiber cable type	Ø 3 mm with Ke	evlar strain-relief	
Electronics typeHPElectr. cable length $1.5 \pm 0.1 \text{ m}$ (standard)Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \text{ V}$ Max. current consumption*260 mAModulation inputsAnalogMax. input voltage 6.5 V 6.5 V 6.5 V Voltage for P _{min} / P _O $0 \text{ V} / 2.5 \text{ V}$ $< 0.8 \text{ V} / > 3.0 \text{ V}$ Input impedance 9 kOhm 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.5 \text{ s}$ $0.8/0.3 \mu \text{ s}$ * Typical value. Depends on laser diode. $0 \text{ perating temperature}$ $15 - 35^{\circ} \text{C} \pm 0.5^{\circ} \text{C}$ $40 \text{ max} . 90 \text{ mon-condensing}$ Weight 530 g	Fiber connector type	FC	APC (standard)	
Electr. cable length $1.5 \pm 0.1 \text{ m} \text{ (standard)}$ Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \text{ V}$ Max. current consumption*260 mAModulation inputsAnalogTTLMax. input voltage 6.5 V 6.5 V Voltage for P_{min} / P_O $0 \text{ V} / 2.5 \text{ V}$ $< 0.8 \text{ V} / >$ Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.2 \text{ µs}$ Rise / fall time* $0.5/0.5 \text{ s}$ $0.8/0.3 \text{ µs}$ * Typical value. Depends on laser diode. $0.5/0.5 \text{ s}$ $0.8/0.3 \text{ µs}$ Operating temperature $15 - 35^{\circ}C \pm 0.5^{\circ}C$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight 530 g	Power stability	max. 12 % power variation between	15°C and 35°C	
Connector type4 pin (male, Lumberg SV40)Supply voltage $12.0 \pm 0.5 \vee$ Max. current consumption* 260 mA Modulation inputsAnalogMax. input voltage $6.5 \vee$ $6.5 \vee$ $6.5 \vee$ Voltage for P _{min} / Po $0 \vee / 2.5 \vee$ $< 0.8 \vee / >$ $3.0 \vee$ Input impedance 9 kOhm 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.2 \mu \text{s}$ Rise / fall time* $0.5/0.5 \text{ s}$ $0.8/0.3 \mu \text{s}$ * Typical value. Depends on laser diode.Operating temperature $15 - 35^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight 530 g	Electronics type		HP	
Supply voltage $12.0 \pm 0.5 \vee$ Max. current consumption* 260 mA Modulation inputsAnalogTTLMax. input voltage $6.5 \vee$ $6.5 \vee$ Voltage for P_{min} / P_O $0 \vee / 2.5 \vee$ $< 0.8 \vee / >$ $3.0 \vee$ Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.2 \mu \text{s}$ Rise / fall time* $0.5/0.5 \text{ s}$ $0.8/0.3 \mu \text{s}$ * Typical value. Depends on laser diode. $15 - 35^{\circ} \text{C} \pm 0.5^{\circ} \text{C}$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight 530 g	Electr. cable length	1.5 ± 0.1 m (standard)		
Max. current consumption*260 mAModulation inputsAnalogTTLMax. input voltage $6.5 \vee$ $6.5 \vee$ Voltage for P _{min} / P _O $0 \vee / 2.5 \vee$ $< 0.8 \vee / >$ $3.0 \vee$ Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.2 \mu \text{s}$ Rise / fall time* $0.5/0.5 \text{ s}$ $0.8/0.3 \mu \text{s}$ * Typical value. Depends on laser diode. $15 - 35^{\circ} \text{C} \pm 0.5^{\circ} \text{C}$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight 530 g	Connector type	4 pin (male, Lumberg SV40)		
Modulation inputsAnalogTTLMax. input voltage $6.5 \vee$ $6.5 \vee$ Max. input voltage for P_{min} / P_0 $0 \vee / 2.5 \vee$ $< 0.8 \vee / > 3.0 \vee$ Voltage for P_{min} / P_0 $9 \ kOhm$ $9 \ kOhm$ Max. modulation frequence $9 \ kOhm$ $9 \ kOhm$ Max. modulation frequency $1 \ Hz$ $300 \ kHz$ Time delay ON/OFF* $< 2.0/0.5 \ ms$ $< 0.5/0.2 \ \mu s$ Rise / fall time* $0.5/0.5 \ s$ $0.8/0.3 \ \mu s$ * Typical value. Depends on laser diode. $15 - 35^{\circ}C \pm 0.5^{\circ}C$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight $530 \ g$	Supply voltage		12.0 ± 0.5 V	
Max. input voltage $6.5 \vee$ $6.5 \vee$ Voltage for P_{min} / P_O $0 \vee / 2.5 \vee$ $< 0.8 \vee / >$ $3.0 \vee$ Input impedance 9 kOhm 9 kOhm Max. modulation frequency 1 Hz 300 kHz Time delay ON/OFF* $< 2.0/0.5 \text{ ms}$ $< 0.5/0.2 \text{ µs}$ Rise / fall time* $0.5/0.5 \text{ s}$ $0.8/0.3 \text{ µs}$ * Typical value. Depends on laser diode. $15 - 35^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ Operating temperature $15 - 35^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight 530 g	Max. current consumption*		260 mA	
Voltage for P_{min} / P_O $0 \lor / 2.5 \lor$ $< 0.8 \lor / > 3.0 \lor$ Input impedance9 kOhm9 kOhmMax. modulation frequency1 Hz300 kHzTime delay ON/OFF* $< 2.0/0.5 ms$ $< 0.5/0.2 \ \mu s$ Rise / fall time* $0.5/0.5 \ s$ $0.8/0.3 \ \mu s$ * Typical value. Depends on laser diode. $15 - 35^{\circ}C \pm 0.5^{\circ}C$ Operating temperature $15 - 35^{\circ}C \pm 0.5^{\circ}C$ Warm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight $530 \ g$	Modulation inputs	Analog	TTL	
3.0 VInput impedance9 kOhm9 kOhmMax. modulation frequency1 Hz300 kHzTime delay ON/OFF*< 2.0/0.5 ms< 0.5/0.2 μsRise / fall time*0.5/0.5 s0.8/0.3 μs* Typical value. Depends on laser diode.Operating temperature15 - 35°C ± 0.5°CWarm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight530 g	Max. input voltage	6.5 V	6.5 V	
Max. modulation frequency1 Hz300 kHzTime delay ON/OFF*< 2.0/0.5 ms	Voltage for P _{min} / P _O	0 V / 2.5 V		
Time delay ON/OFF*< 2.0/0.5 ms	Input impedance	9 kOhm	9 kOhm	
Rise / fall time*0.5/0.5 s0.8/0.3 μs* Typical value. Depends on laser diode.Operating temperature15 - 35°C ± 0.5°CWarm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight530 g	Max. modulation frequency	1 Hz	300 kHz	
* Typical value. Depends on laser diode. Operating temperature 15 - 35°C ± 0.5°C Warm-up time approx. 10 min Air humidity max. 90 % non-condensing Weight 530 g	Time delay ON/OFF*	< 2.0/0.5 ms	< 0.5/0.2 µs	
Operating temperature15 - 35°C ± 0.5°CWarm-up timeapprox. 10 minAir humiditymax. 90 % non-condensingWeight530 g	Rise / fall time*	0.5/0.5 s	0.8/0.3 μs	
Warm-up time approx. 10 min Air humidity max. 90 % non-condensing Weight 530 g	* Typical value. Depends on las	ser diode.		
Air humiditymax. 90 % non-condensingWeight530 g	Operating temperature	15 - 35°C ± 0.5°C		
Weight 530 g	Warm-up time		approx. 10 min	
	Air humidity	max. 90 %	non-condensing	
Dimensions 50 x 58 x 166 mm	Weight		530 g	
	Dimensions	50) x 58 x 166 mm	

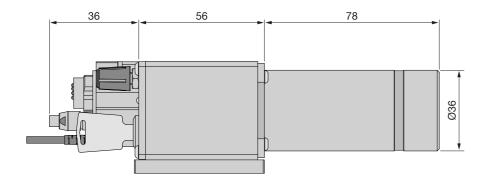


DATA SHEET

Protection Class

IP30

Dimensions (for a complete dimensional drawing please refer to the downloads section)



TECHNOTES

- Fiber-coupled low noise beam source
 Comparison of a low noise laser source to a conventional laser source
- <u>51nano: Electronics Type HP</u>
 <u>Electronic features for electronics type HP</u>

DOWNLOADS



000824000400.pdf (Dimensional drawing)



Conformity_51nano_2023_E_web.PDF (CE certificate)

ACCESSORIES

PS051003E	Power Supply 5 V
SBN050501	For laser diode beam sources of electronics type S/C/P/H and 5 V power supply
FIBER COLLIMATORS SINGLE-MODE/PM	Fiber Collimators for collimating light exiting a single- mode or polarization-maintaining fiber cable



RELATED PRODUCTS

51NANO-N (SINGLE- MODE, OEM)	Fiber-coupled low coherence laser source with single-mode fiber cable (OEM version)
51NANO-S (POLARIZATION- MAINTAINING)	Fiber-coupled low coherence laser source with polarization-maintaining fiber cable
51NANOFI-N WITH FARADAY ISOLATOR (PM/OEM)	Fiber-coupled low coherence laser source with polarization-maintaining fiber cable (OEM version)

This is a printout of the page <u>https://sukhamburg.com/products/details/51nano-N-520-7-O08-P-12-4-28-0-150</u> from 4/30/2024

CONTACT

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