



LINOP Splitter Operating Instructions

Splitter for Cyberbond UV Curing System LINOP U 400



Manual

LINOP Splitter

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General information on LINOP Splitter

The company Cyberbond GmbH will neither supervise the observance of this manual nor the conditions and methods of instalment, operation, use and maintenance of the electronic devices and their components. Thus, we do not bear responsibility, nor liability for loss, damages or other costs that arise from incorrect instalment and improper use or any other damages connected with this manual, installation or use.

The arrangement of information for this document is to the best of our knowledge and belief. However, as errors can occur despite all efforts and best intentions, we would be grateful for any suggestions on improving this manual.

LINOP Splitter

1 Safety precautions and warning notice

- ▼ The unit must always be operated according to the manufacturer's instructions for use.
- ▼ The unit must be operated by, staff who have been trained and who are authorised. They must know the operating instructions and operate the unit accordingly.
- ▼ The operation manual must be kept in a safe place easily accessible to each user.
- ▼ Illegal changes and the use of spare parts as well as accessories that have not been sold or recommended by the manufacturer of this unit can cause fires, electric shocks and injuries. These measures lead to an exclusion of liability and the manufacturer assumes no liability.
- ▼ Basis for the guarantee of the manufacturer is the version of the warranty policy for the unit at the time of purchase. We assume no liability for unsuitable or an incorrect manual or automatic adjustment of parameters of the unit. We also assume no liability for an improper use of the unit.
- ▼ Repairs must be carried out by the manufacturer
- ▼ The user is responsible for placing and installing the dosing unit according to the approved technical regulations of the country or area concerned.

2 General information

2.1 Use

LINOP U 400 is a control unit within a system for the exact dosing of UV- and light-curing adhesives that are used in industry. In combination with up to four single UV light units this device is particularly suitable for the fast curing of small surfaces.

The LINOP U 400 consists of 4 separate I/O-Ports for connection of readily available Splitter devices. In turn another 3 UV- lights can be connected with the relevant Splitter.

Consequently the Splitter has a dispersion function within the LINOP U 400 system, as it allows operation of up to 12 separate UV light units (Cyberlite4 or Cyberlite4 S) within one LINOP U 400 unit.

The LINOP series consists of two modular units with various functions and connectors that are not easily differentiated. Please check and ensure the correct LINOP unit is being used.

2.2 Symbol information

The hazard and safety symbols used in this document are illustrated as follows. [see right column]



Attention!

Safety precaution for device:
Disregard can lead to material damage and affect the reliable functioning of the device.



Danger!

Safety precaution for health:
Disregard can lead to personal and material damage and affect the reliable functioning of the device.



Note!

Important information:
This symbol points to additional information that describes the instructions in a more detailed manner. This allows for a better understanding of the operating procedure of the device

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3 Product content

The following parts belong to the standard product content:

- ▼ 1 LINOP Splitter
- ▼ 1 operating instructions for LINOP Splitter

Please check the content of the packaging for any damage that may have been caused by improper transport or storage.

We recommend keeping the original packaging in case the product needs to be sent back for maintenance or repair.

In order to operate your LINOP Splitter additional components may be necessary. These can be obtained from Cyberbond Europe GmbH upon request.

Dependent on the particular purchase order placed, the following components and/or accessories may be enclosed in the delivery contents, in separate packing units:

- ▼ 5 pin connecting cable, straight (3 m)

Due to the wide range of variants the (optional) components can partly differ from each other in their versions. Please see information on your delivery note and check the relevant order.

4 Installation

The LINOP Splitter should be installed well with easy access and be visible. Please pay attention to the following safety suggestions when installing the unit:

- ▼ Ensure the unit is placed on a safe, sturdy work surface and in a safe upright / standing position! The unit must be placed in a way so that it cannot drop or fall from the work surface.
- ▼ Only operate the unit when it is clearly not damaged in any way.
- ▼ Only operate the unit when all connections and accessories are not damaged.
- ▼ Do not operate the unit out in the open.
- ▼ Do not operate the unit in areas that have the potential for explosions!
- ▼ Avoid additional warming of the unit by sunlight or other sources of heat such as radiators etc. This ensures the safety and life expectancy of the unit.
- ▼ Connectors are not to be left slack, nor running along or over sharp corners, moving or hot / warm parts.
- ▼ Fix cables well to avoid a trip hazard and damage to the cables.

When using the unit within a production line, please pay attention to the following:

- ▼ Specifications of the described interfaces
- ▼ Bear in mind any interactions with other connected systems and controls.



Danger!

Safety precaution for health:
Should the product be damaged this may cause unsafe use. Therefore the product must not be used!

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5 Connections

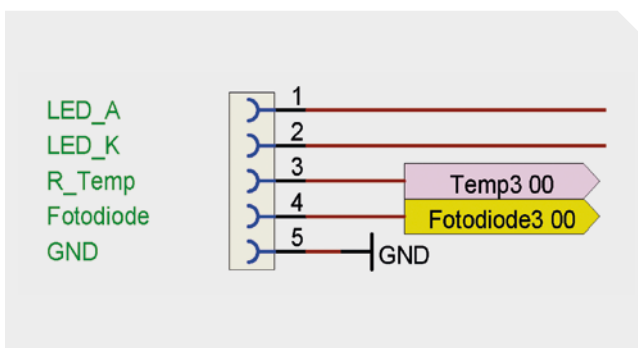


Connections LINOP Splitter (Front view)

- 1 **Input** zum Anschluss an einen der 4 I/O-Ports des LINOP U 400
- 2 **Output 1 ... 3** zum Anschluss von jeweils 1 UV-Beleuchtungseinheit
- 3 **LEDs (red) 1 ... 3** these lights will come on during UV light emission and go off automatically once UV light emission time has completed
If the LED are still flashing after the end of the UV Light emission time the required intensity has not been reached ("Error").
- 4 **LEDs (red) 1 ... 3** are on when the preset temperature of 60 °C has been exceeded

6 Pin assignment

6.1 Pin assignment for input / output



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7 Maintenance

The device is maintenance free.

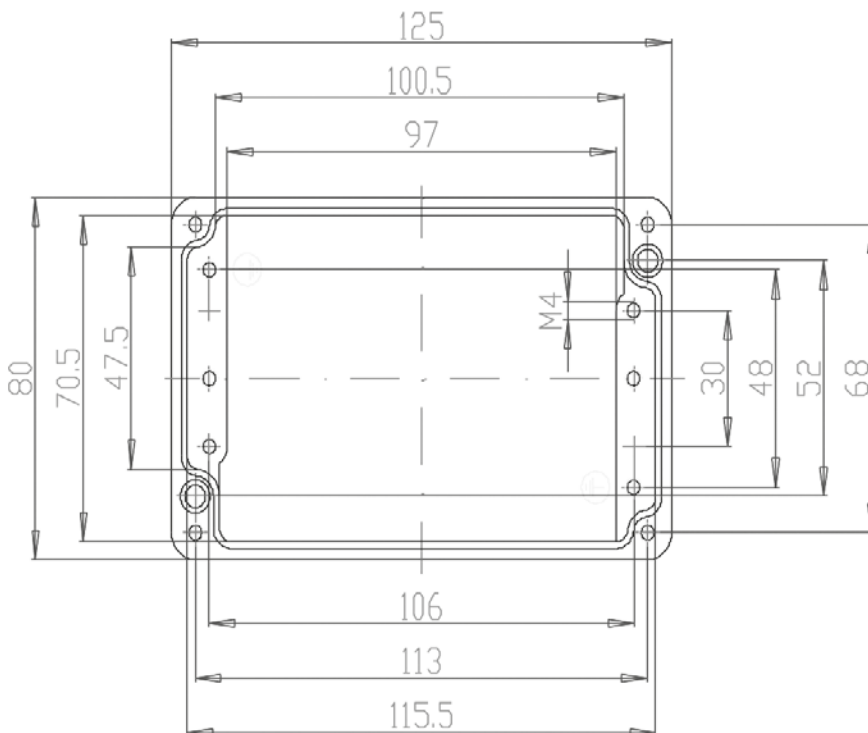
8 Appendix

8.1 Technical data

Technical data LINOP Splitter		
Dimensions (WxHxD)	125 x 80 x 57 mm (without connectors)	
Material of cabinet	Alluminium alloy	
Colour	Grey RAL 7032 (powder coating)	
Type of protection	IP40	
Working temperature	+10 °C to +50 °C	
Storage temperature	-20 °C to +60 °C	
Relative humidity	10 % to 90 %, not condensed	
Interfaces	Input	Binder Series 712 plug
	Output 1 ... 3	Binder Series 712 socket

8.2 Measurements

[All dimensions in mm]



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9 LINOP Item Numbers

LINOP Dosing and Curing Equipment		
Dosing & Curing Units	LINOP M 600	10100
	LINOP M 1500	10200
	LINOP M 2000	10300
	LINOP U 400	10400
	power supply unit	10190
	cord for power supply unit (EU standard)	10191
	flexible arm	10192
	valve plate (to hold valve M 1500 / M 2000 & Cyberlite)	10193
	syringe plate (to hold 30 ml syringe / M 600)	10194
VCA and VAN Valves	LINOP VCA Valve for CA	20100
	LINOP VAN Valve for AN	20200
	adapters product flow into the valve	
	product adapter (rectangular) AA 4/6	20194
	product adapter (rectangular) AA 4/6 (for UV)	20195
	product adapter (rectangular) AA 6/8	20196
	product adapter (rectangular) AA 6/8 (for UV)	20197
	adapters product flow out of the valve	
	dosing tip adapter (Fine Thread (in) / Luer Lock (out)) 1/8	20150
	UV dosing tip adapter (Fine Thread (in) / Luer Lock (out)) 1/8	20151
	adapter as tube connector (Fine Thread (in)) 1/8-2,5 (for 2,5 mm tube)	20152
	adapter as tube connector (Fine Thread (in)) 1/8-4,0 (for 4 mm tube)	20154
	UV adapter as tube connector (Fine Thread (in)) 1/8-4,0 (for 4 mm tube)	20155
	adapter as tube connector (Fine Thread (in)) 1/8-6,0 (for 6 mm tube)	20156
	UV adapter as tube connector (Fine Thread (in)) 1/8-6,0 (for 6 mm tube)	20157
	EM 24 Valves	EM 24 Valve with plug
EM 24 Valve without plug		30150
EM 24 R Valve with plug		30200
EM 24 R Valve without plug		30250
adapters product flow into and out of the the valve		
adapter Fine Thread (in) / Luer Lock male (out) (former A1)		30190
UV adapter Fine Thread (in) / Luer Lock male (out) (former A4)		30191
Impuls Devices	electrical footswitch with plug (FOT)	40100
	Hand Pen	40200
	Hand Pen electric	40300
	adapter tube fixing hand pen for 2,5 mm tube	40392
	adapter tube fixing hand pen for 4,0 mm tube	40394
Druckbehälter	PP 505 Pressure Pot with air pressure nipple	50100
	empty alarm with plug	50150
	adapter for pressure pot lid / 1/4" for 2,5 product tube	50192
	adapter for pressure pot lid / 1/4" for 4 product tube	50194
	adapter for pressure pot lid / 1/4" for 6 product tube	50196
	adapter for pressure pot lid / 1/4" for 8 product tube	50198

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Tubes and Tube Connectors	product tube PTFE, 2,5 mm outside (per meter)	60200
	adapter as tube connection / Luer Lock for 2,5 mm tube	60250
	product tube PTFE, 4 mm outside (per meter)	60400
	adapter as tube connection / Luer Lock for 4 mm tube	60450
	UV product tube PTFE, 4 mm outside (per meter)	60401
	UV adapter as tube connection / Luer Lock 4 mm tube	60451
	product tube PTFE, 6 mm outside (per meter)	60600
	adapter tube connection / Luer Lock (former A2) for 6 mm tube	60650
	UV product tube PTFE, 6 mm outside (per meter)	60601
	UV adapter tube connection / Luer Lock for 6 mm tube	60651
	product tube PTFE, 8 mm outside (per meter)	60700
	UV product tube PTFE, 8 mm outside (per meter)	60701
	blue air supplying tube (per meter)	60800
Syringes for M 600	10 ml syringe black	70110
	30 ml syringe black	70130
	piston 10 ml syringe UV	70111
	piston 30 ml syringe UV	70131
	closure cap for 10 and 30 ml syringes)	70141
	Adapter for air supply to syringe 10 ml	70115
Adapter for air supply to syringe 30 ml	70135	
Reducer from 30 to 10 ml syringe	70200	
Cyberlites	electrical cord 0,46 m (with rectangular connector)	80190
	electrical cord 2,00 m (with straight connectors)	80192
	Cyberlite4 S	80200
	lens Block Cyberlite4 S	80250
	Splitter	80300
	liquide fibre light guide	80400
	block keeping light guide	80450
Cyberflood 400 S	80600	
Dosing Tips	Dosing Tips plastic (only DT 1 with Luer Lock)	
	10 pieces	DT „0“
	10 pieces	DT „0,5“
	10 pieces	DT „1“
	10 pieces	DT „0“ UV
	Dosing Tips metal, LL	
	10 pieces DS 1,0" - 1,37 brown	DS 1,0" - 1,37
	10 pieces DS 0,5" - 0,33 orange	DS 0,5" - 0,33
	10 pieces DS 0,5" - 0,61 rose	DS 0,5" - 0,61

LINOP Splitter

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Imprint

Operating Instructions
LINOP Splitter

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Instruction date: May 2013

Exclusion of Liability

Cyberbond guarantees that LINOP Dispensing and Curing Equipment is fully operational when handled in an appropriate way and Cyberbond products are used. Nevertheless we refer to the Operation Instructions of each item, which can be downloaded from our Website (www.cyberbond.de).

In case of using other than Cyberbond goods for dispensing, cleaning or curing Cyberbond should be contacted beforehand, if this is suitable.

In case of installing LINOP equipment in a bigger production unit, Cyberbond can neither take any reliability for the functionality of the whole construction nor for the suitability of the LINOP equipment within this unit.

We recommend discussing all matters concerning LINOP equipment intensively with Cyberbond beforehand, in order to prove the suitability in each single case. Such a counselling interview should also be recorded in writing. If all this does not take place Cyberbond cannot take over any guaranty for functionality at all.

Cyberbond is working with price lists. These prices refer to the equipment alone. In case you wish support for the initial start-up or more advice after delivery, prices for this additional work have to be negotiated.

All given information, the data mentioned in this reference book, as well as particularly the recommendations for using LINOP equipment are based on our recent knowledge and experience. Due to the fact that the application possibilities are manifold and that the general working conditions are out of our influence, we strongly recommend doing sufficient tests in order to guarantee that LINOP equipment is suitable for the intended process. Except for wilful acts any liability based on such recommendations or any verbal advice is hereby expressly excluded.

Wunstorf, 30.05.2013

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