

Technical documentation
Last changed on: 2022-12-08

Cables and Connectors



Document history

Version	Date	Major changes
1.0	2022-12-08	Initial version

Disclaimer / Copyright

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The information in this manual is subject to change without notice. We take no responsibility for any mistake in the document. We reserve the right to make changes in the product design without reservation and without notification to the users. We decline all responsibility for damages and injuries caused by an improper use of the device.

Safety

This section contains important security information for the installation and operation of the device. Failure to follow safety instructions and warnings can result in serious injury or death and property damage.

Safety and operating instructions must be read carefully before starting any operation.

We decline all responsibility for damages and injuries caused which may arise from improper use of our equipment.

Depiction of the safety instructions

DANGER!



"Danger!" indicates a severe injury hazard. The non-observance of safety instructions marked as "Danger!" will lead to possible injury or death.

WARNING!



"Warning!" indicates an injury hazard. The non-observance of safety instructions marked as "Warning!" could lead to possible injury or death.

CAUTION!



Advices marked as "Caution!" describe actions to avoid possible damages to property.

INFORMATION



Advices marked as "Information" give important information.



Read the manual.



Attention high voltage!



Important information.

Intended Use

The device may only be operated within the limits specified in the data sheet. The permissible ambient conditions (temperature, humidity) must be observed. The device is designed exclusively for the generation of high voltage as specified in the data sheet. Any other use not specified by the manufacturer is not intended. The manufacturer is not liable for any damage resulting from improper use.

Qualification of personnel

A qualified person is someone who is able to assess the work assigned to him, recognize possible dangers and take suitable safety measures on the basis of his technical training, his knowledge and experience as well as his knowledge of the relevant regulations.

General safety instructions

- Observe the valid regulations for accident prevention and environmental protection.
- Observe the safety regulations of the country in which the product is used.
- Observe the technical data and environmental conditions specified in the product documentation.
- You may only put the product into operation after it has been established that the high-voltage device complies with the country-specific regulations, safety regulations and standards of the application.
- The high-voltage power supply unit may only be installed by qualified personnel.

Important safety instructions

CAUTION!



CAUTION!

For devices equipped with a LEMO high voltage connector (L16, L30), the high voltage must not be switched on until the corresponding counterpart has been contacted.

INFORMATION



INFORMATION

It is strongly recommended to read the manual before operation!

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Cables

C01

SPECIFICATIONS	
Operating voltage	9000 V
Manufacturer	LEMO, see chapter 5 Appendix
Item Number	106330
Order Number	Z599005



Figure 1: Lemo 106 330

C02

SPECIFICATIONS	
Operating voltage	30.000 V
Manufacturer	LEMO, see chapter 5 Appendix
Item Number	130660
Order Number	Z130660



Figure 2: Lemo 130 660

C03

SPECIFICATIONS	
Operating voltage	50.000 V
Manufacturer	LEMO, see chapter 5 Appendix
Item Number	201340
Order Number	Z595063



Figure 3: Lemo 201 340

C04

SPECIFICATIONS	
Operating voltage	30.000 V
Manufacturer	Hivolt, see chapter 5 Appendix
Item Number	HTV-30S-22-2
Order Number	Z595077



Figure 4: HTV-30S-22-2

C05

SPECIFICATIONS	
Operating voltage	10.000 V
Manufacturer	Hivolt, see chapter 5 Appendix
Item Number	HSUS-1022-19-2
Order Number	Z595085
	UL Style 3239



Figure 5: HSUS-1022-19-2

C06

SPECIFICATIONS	
Operating voltage	100.000 V
Manufacturer	Hivolt, see chapter 5 Appendix
Item Number	2124
Order Number	Z595048



Figure 6: C2124

C07

SPECIFICATIONS	
Operating voltage	6.000 V
Manufacturer	KERPEN GmbH, see chapter 5 Appendix
Item Number	76130005
Order Number	Z595070



Figure 7: 37x AWG26/7

C08

SPECIFICATIONS	
Operating voltage	6.000 V
Manufacturer	KERPEN GmbH, see chapter 5 Appendix
Item Number	76130001
Order Number	Z595082



Figure 8: 56xAWG26/7

C09

SPECIFICATIONS	
Operating voltage	600 V
Manufacturer	LEMO, see chapter 5 Appendix
Item Number	040281
Order Number	Z595093



Figure 9: Lemo cable 4x AWG 28/19

C10

SPECIFICATIONS	
Operating voltage	8.000 V
Manufacturer	Hivolt, see chapter 5 Appendix
Item Number	HSL-8S-1.5-A-2
Order Number	Z595107

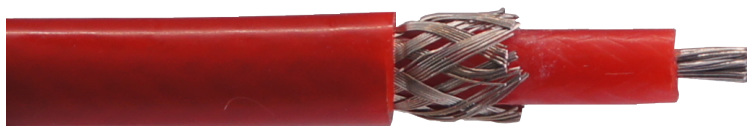


Figure 10: HSL-8S-1.5-A-2

C12

SPECIFICATIONS	
Operating voltage	15.000 V
Manufacturer	CPE ITALIA S.p.A., see chapter 5 Appendix
Item Number	04FC00000156
Order Number	Z201290



Figure 11: PREV 3864L

C13

SPECIFICATIONS	
Operating voltage	8.000 V
Manufacturer	Hivolt, see chapter 5 Appendix
Item Number	HSL-8S-0.75-B-2
Order Number	Z595097



Figure 12: HSL-8S-0.75-B-2

2 High voltage Connector

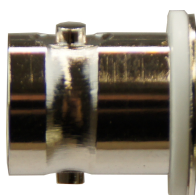
BNC

Description	POWER SUPPLY SIDE		CABLE SIDE	
Operating voltage	500 V			
Manufacturer	Bürklin, see chapter 5 Appendix	Telegärtner, see chapter 5 Appendix		
Item Number	78F241	78F2589		
Order Number	Z200301 (solder)	Z592649 (crimp)	Z200969 (solder)	Z200303 (crimp)

Front



Side



C11

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	70.000 V	
Manufacturer	Claymount, see chapter 5 Appendix	
Item Number	CA11	
Order Number	Z592639	

Front

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Side

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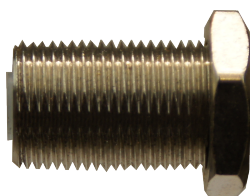
C15

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	15.000 V	15.000 V
Manufacturer	CPE ITALIA S.p.A., see chapter 5 Appendix	CPE ITALIA S.p.A., see chapter 5 Appendix
Item Number	23.100.151-046	23.100.052-045
Order Number	Z592716	Z592717

Front



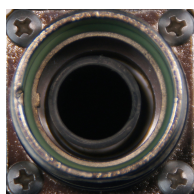
Side



E70

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	70.000 V	70.000 V
Manufacturer	Iseg, see chapter 7 Manufacturer contact	Iseg, see chapter 7 Manufacturer contact
Item Number	E70	E70
Order Number		

Front



Side



E80

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	80.000 V	80.000 V
Manufacturer	Iseg, see chapter 7 Manufacturer contact	Iseg, see chapter 7 Manufacturer contact
Item Number	E80	E80
Order Number		

Front

Coming soon

Coming soon

Side

Coming soon

Coming soon

F15

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	7.000 V	7.000 V
Manufacturer	Fischer Connectors GmbH, see chapter 5 Appendix	Fischer Connectors GmbH, see chapter 5 Appendix
Item Number	D105 A036-60 PTFE	S 105 A036-60
Order Number	Z592566	Z592567

Front



Side

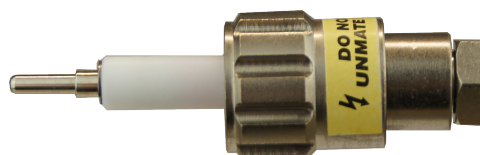
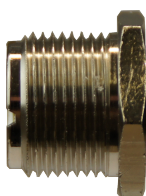
G11

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	10.000 V	10.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7311020	7310020
Order Number	Z592517	Z592516

Front



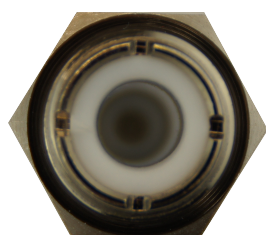
Side



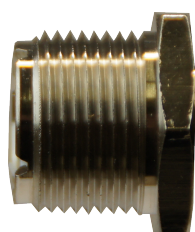
G21

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	20.000 V	20.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7321020	7320020
Order Number	Z592392	Z592391

Front



Side



G31

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	30.000 V	30.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7331053	7331052
Order Number	Z592502	Z592501

Front



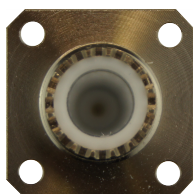
Side



G40

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	40.000 V	40.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7332030	7332020
Order Number	Z592608	Z592607

Front



Side



G60¹

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	60.000 V	60.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7200607	7200604
Order Number	Z592646	Z592848

¹ discontinued

GA0

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	100.000 V	100.000 V
Manufacturer	GES Electronic & Service GmbH, see chapter 5 Appendix	GES Electronic & Service GmbH, see chapter 5 Appendix
Item Number	7201007	7201002
Order Number	Z592692	Z592693

Front

Coming soon

Coming soon

Side

Coming soon

Coming soon

L00

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	700 V	700 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	ERA.00.250.CTL	FFA.00.250.CTAC31
Order Number	Z592051	Z200793

Front



Coming soon

Side

L01

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	1.500 V	1.500 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	ERA.0S.250.CLL	FFA.0S.250.CTAK47
Order Number	Z592634	Z592635

Front



Coming soon

Side

L04

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	500 V	500 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	EGG.0B.304.CLL	FGG.0B.304.CLAD52
Order Number	Z592704	Z592705

Front	Coming soon	Coming soon
Side	Coming soon	Coming soon

L10 ²

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage		
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number		
Order Number		

Front	Coming soon	Coming soon
Side	Coming soon	Coming soon

2 discontinued

L11

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	10.000 V	10.000 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	PSA.3S.410.CTLC57	FFB.3S.410.CTAC57
Order Number	Z514618	Z514620

Front



Side



L16

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	16.000 V	16.000 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	ERA.1Y.416.CLL	FFR1Y.416.CFAE55R
Order Number	Z592412	Z592437

Front

Coming soon



Side



L30

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	30.000 V	30.000 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	ERA.3Y.425.CLL	FFR.3Y.425.CFAE55
Order Number	Z592675	Z592495

Front



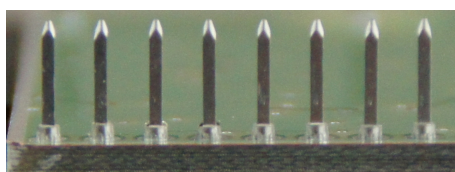
Side



PBP

Description	POWER SUPPLY SIDE	
Operating voltage	6000 Volt	
Manufacturer	Ekontor, see chapter 5 Appendix	
Item Number	PN1124-80	
Order Number	Z592514	

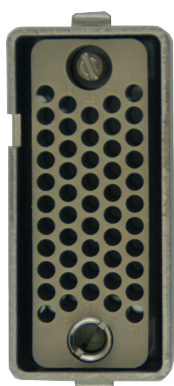
Side



R51

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	4.000 V	4.000 V
Manufacturer	LEMO, see chapter 5 Appendix	LEMO, see chapter 5 Appendix
Item Number	SLG.H51.LLZG	SAG.H51.LLZBG
Order Number	Z592188	Z200325

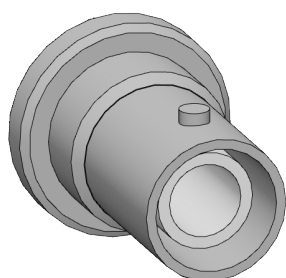
Front



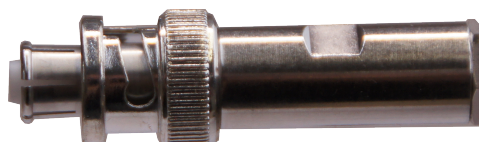
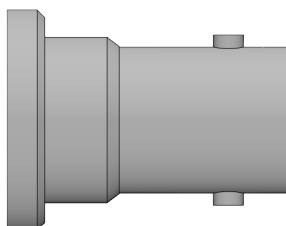
SHV

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	5.000 V	5.000 V
Manufacturer	Rosenberger, see chapter 5 Appendix	Rosenberger, see chapter 5 Appendix
Item Number	57S507-106N4	57K101-006N3
Order Number	Z592070	Z590162

Front



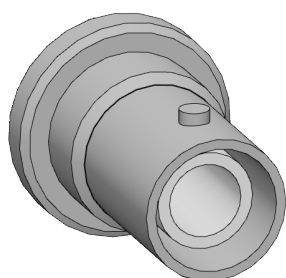
Side



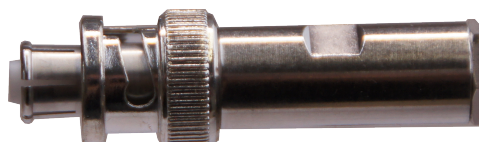
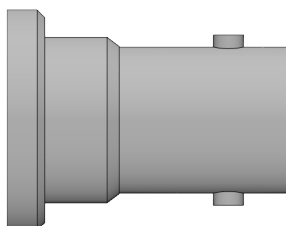
S08

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	8.000 V	8.000 V
Manufacturer	Radiall, see chapter 5 Appendix	Radiall, see chapter 5 Appendix
Item Number	R317580000	R317005000
Order Number	Z592340	Z592474

Front



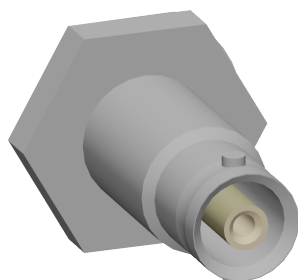
Side



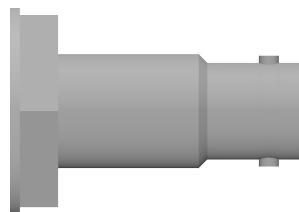
S10

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	10.000 V	10.000 V
Manufacturer	Kings, see chapter 5 Appendix	Kings, see chapter 5 Appendix
Item Number	1064-1 QD	1065-1
Order Number	Z592511	Z592512

Front



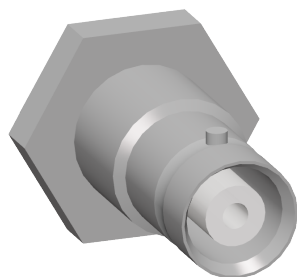
Side



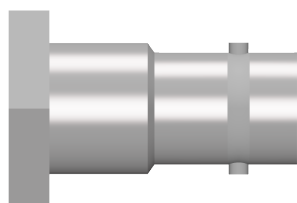
S20

Description	POWER SUPPLY SIDE	CABLE SIDE
Operating voltage	20.000 V	20.000 V
Manufacturer	Kings, see chapter 5 Appendix	Kings, see chapter 5 Appendix
Item Number	1764-1	1765-1
Order Number	Z592667	Z592668

Front



Side



3 Cable – connector compatibility

DANGER!



DANGER!

The combination of different connector systems limits the maximum voltage load to the maximum rated voltage of the lower connection.

INFORMATION



INFORMATION

All cables are also available assembled on one side only.

	Other cable side											
	open	BNC	SHV	S08	S10	S20	G11	G21	G31	L11	L16	L30
Cable assembly												
SHV_	C01	C01										
SHV_	C04		C04									
S08_	C04			C04	C04						C04	
S10_	C04				C04							
S20_	C02					C02		C02	C02			C02
G11_	C02						C02	C02		C02		
G21_	C02							C02				
G31_	C02								C02			C02
L11_	C02									C02	C02	
L16_	C02										C02	
L16_	C04											
L30_	C02											C02
G40_	C03											
G60_	C06											
GA0_	C06											
E70_	C06											

Table 1

Example

The cable is named according to the above Table 1. The first digit is the connector plug (**Cable assembly**). Followed by the cable type and length. The other side can be made without connection (**open**). Or with a connector plug (**Other cable side**) according to the Table 1.

first position – left side	Second position – cable	Third position – length ⁽¹⁾	Fourth position – right side
S08	C04	010 [010 = 10m]	S10
Item code:	S08_C04-010_S10		
L30	C02	5.0 [5.0 = 5m]	open
Item code:	L30_C02-5.0		
Note:			
¹⁾ Length building examples: 10cm → 0.1, 2.5m → 2.5, 12m → 012, 999m → 999			

Table 2

INFORMATION	
 INFORMATION	A cable from port G21 to port S20 would not be available in the Table 1. In this case check if the selection from S20 to G21 is available!

4 Modules with cable assembly

Some of our device (CPS, DPS, EPS) are supplied with a high voltage cable at output.

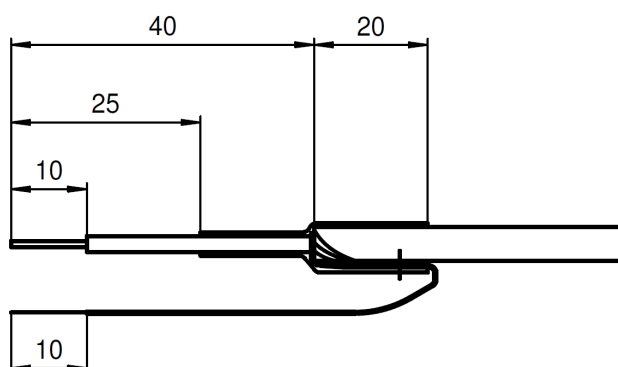


Figure 13: modules up to 9kV

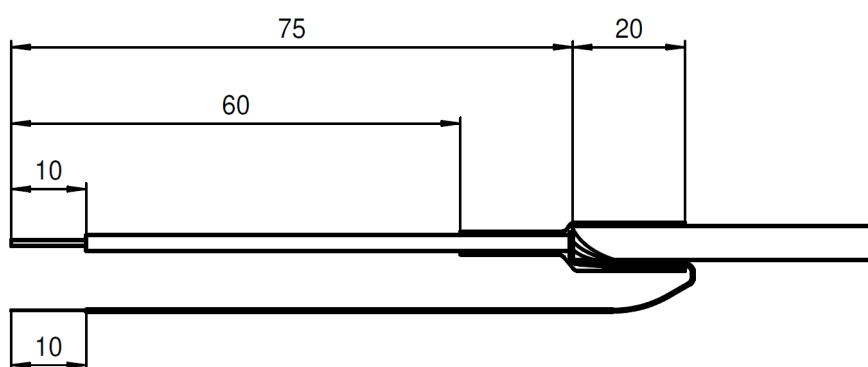


Figure 14: modules from 10kV to 30kV

5 Appendix

For more information please use the following download links:

This document	
iseg_Cables_and_Connectors_en.pdf	
Company contact	
LEMO	https://www.lemo.com
LEONI Kerpen GmbH	https://www.leoni.com/
High Volt	https://www.hivolt.de
HVP GmbH	https://www.hvproducts.de/
GES Electronic & Service GmbH	https://www.ges-highvoltage.com
Kings	https://www.winconn.com
CPE ITALIA S.p.A.	https://www.cpeitalia.it
ekontor GmbH	https://www.ekontor.de/
Fischer CONNECTORS	http://www.fischerconnectors.com
Bürklin	https://www.buerklin.com
Telegärtner	https://www.telegaertner.com
Radiall	https://www.radiall.com
Claymount	https://www.vareximaging.com

6 Disposal

INFORMATION



INFORMATION

All high-voltage equipment and integrated components are largely made of recyclable materials. Do not dispose the device with regular residual waste. Please use the recycling and disposal facilities for electrical and electronic equipment available in your country.

7 Manufacturer contact

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