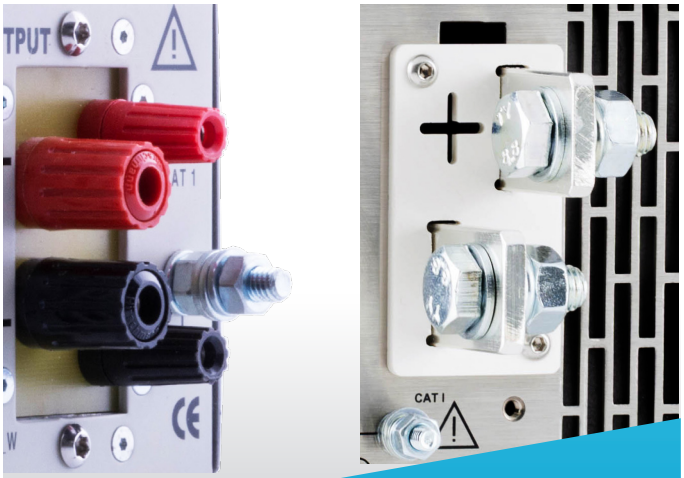
Binding Posts, Bolts, Copper Bars

TERMINALS



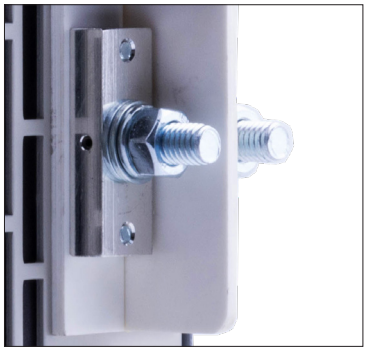
- Binding posts
- Touch-protected binding posts
- Terminal strips
- Bolts
- Flat copper bars

Terminals

On the following pages you will find the various load and sense terminals for H&H electronic loads and 4-quadrant power supplies.

Terminal Overview

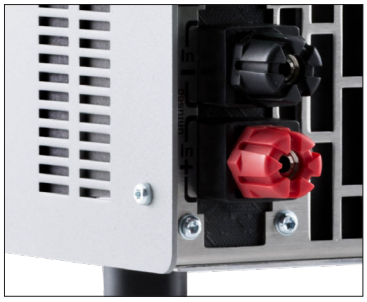
BO-M8x20



Bolts with continuous thread M8 with 20 mm length (including nuts and washers)

Installed e.g.:
NL series load terminals

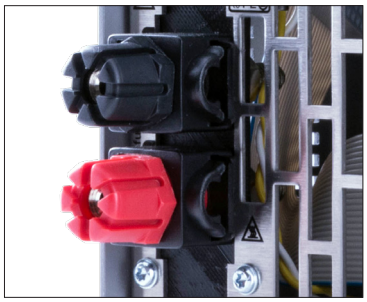
BPK4-30L



Touch-protected binding posts for 4 mm plug
max. 30 A
Connection of stripped wires up to 4 mm diameter

Installed e.g.:
PLI series load terminals

BPK4-60L



Touch-protected binding posts for 4 mm plug
max. 60 A
Connection of stripped wires up to 6 mm diameter

Installed e.g.:
PLI series load terminals
QL series load terminals

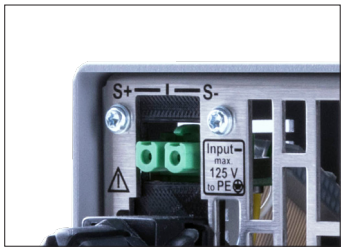
FKL15/4-SM6
FKS20/4-SM8
FKS20/5-SM8
FKS25/8-SM10
FKS25/10-SM10
FKS30/10-SM12
FKS40/12-SM12



Installed e.g.:
PLA load terminals
PLI load terminals

Horizontal (FKL) or vertical (FKS) flat copper bars with hole for screw (inclusive screws, nuts and washers).
FKL150/4-SM6:
flat copper bars 15 x 4 mm with screw M6
FKS20/4-SM8:
flat copper bars 20 x 4 mm with screw M8
FKS20/5-SM8:
flat copper bars 20 x 5 mm with screw M8
FKS25/8-SM10:
flat copper bars 25 x 8 mm with screw M10
FKS25/10-SM10:
flat copper bars 25 x 10 mm with screw M10
FKS30/10-SM12:
flat copper bars 30 x 10 mm with screw M12
FKS40/12-SM12:
flat copper bars 40 x 12 mm with screw M12

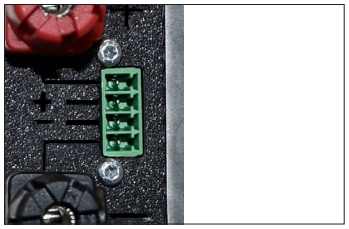
PH2/7.62-BU16



Phoenix socket strip bipolar
Grid dimension 7.62 mm
max. 16 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1745629)

Installed e.g.: PLI series sense terminals,
adapter for 4 mm plugs see page 130

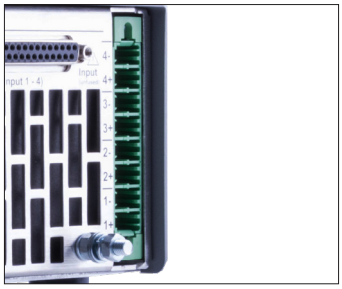
PH4/3.5-ST8



Phoenix plug strip bipolar
Grid dimension 3.5 mm
max. 8 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1840382)

Installed e.g.: QL series sense terminals

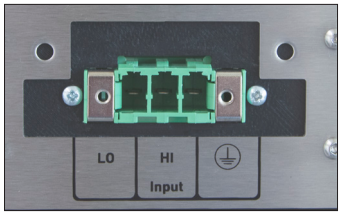
PH8/7.62-ST43



Phoenix plug strip 8-pole
Grid dimension 7.62 mm
max. 43 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1777891)

Installed e.g.: PMLA series load terminals

PH3/7.62-ST41



Phoenix plug strip 3-pole
Grid dimension 7.62 mm
max. 41 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1777846)

Installed e.g.: ACLS series load terminals

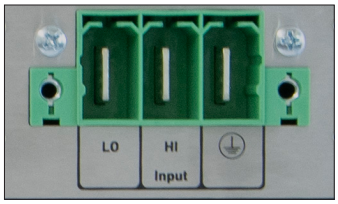
PH3/10.16-ST76



Phoenix plug strip 3-pole
Grid dimension 10.16 mm
max. 76 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1967469)

Installed e.g.: ACLS series load terminals

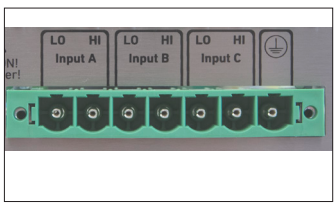
PH3/15-ST125



Phoenix plug strip 3-pole
Grid dimension 15 mm
max. 125 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1762602)

Installed e.g.: ACLS series load terminals

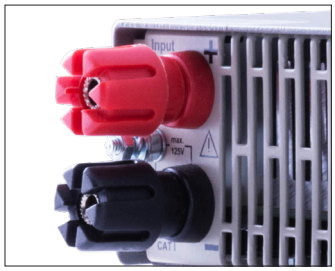
PH7/10.16-ST76



Phoenix plug strip 7-pole
Grid dimension 10.16 mm
max. 76 A
incl. mating connector from PHOENIX CONTACT
(Phoenix order no.: 1967508)

Installed e.g.: ACLT series load terminals

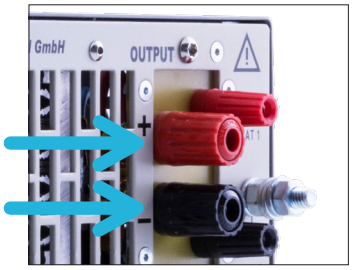
PK4-30L



Binding posts for 4 mm plugs
max. 30 A
Connection of stripped wires up to 4 mm diameter

Installed e.g.:
PLA load terminals

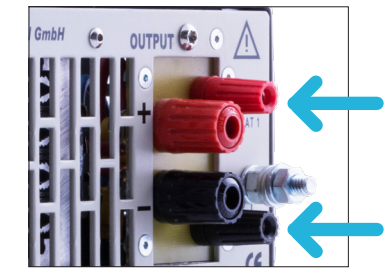
PK4-35L-1



Binding posts for 4 mm plugs
max. 35 A
Connection of stripped wires up to 2 mm diameter

Installed e.g.:
QL series load terminals

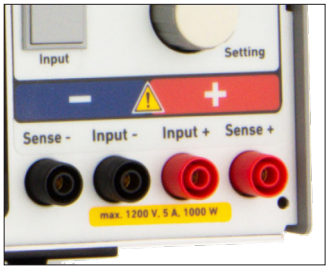
PK4-35L-2



Binding posts for 4 mm plugs
max. 35 A
Connection of stripped wires up to 2 mm diameter

Installed e.g.:
QL series sense terminals

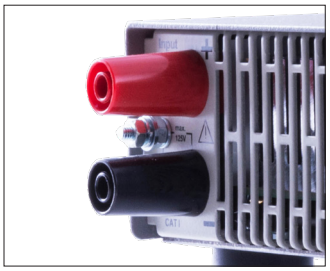
SBU4-24



Touch-protected binding post for 4 mm plugs
max. 24 A

Installed e.g.:
TRL series load terminals

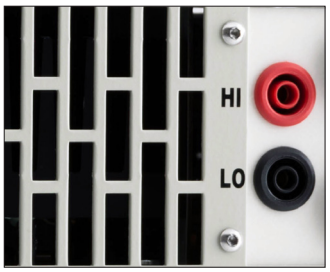
SBU4-32



Touch-protected binding post for 4 mm plugs
max. 32 A

Installed e.g.:
PLA series load terminals

SBUS4-32



Touch-protected sunk binding post for 4 mm plug
max. 32 A

Installed e.g.:
ACLS series load terminals

Cables and Racks

ACCESSORIES



- High current cables
- Super flexible cables
- Low-inductance cables
- Rack systems

Accessories

If required, we supply individually assembled load cables for electronic loads.
We offer 19" racks up to 42 U so that your equipment is properly stored and well protected.

Load Cables

High Current Cables HKS and HKV-F Standard

Flexible and super flexible cables in different lengths, cross sections and dielectric strengths with matching ring cable lugs, wire end ferrules or plugs. Color coding on the cable lug.
Two cables are always required for load connection. For higher currents, several cables are connected in parallel.

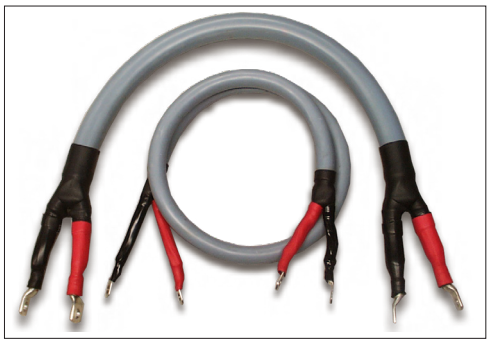


Standard cable HKS in different cross sections with cable lugs



Super flexible cables HKV-F10A/O with wire end ferrules

Low-Inductance High Current Cables HKL-I

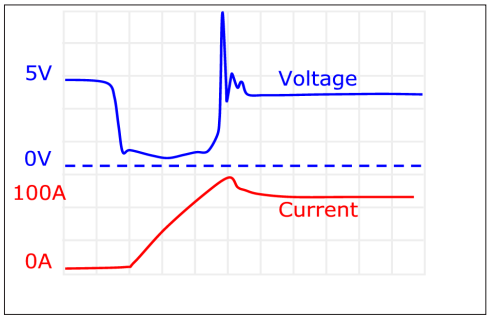


Low-inductance high current cable HKL-I

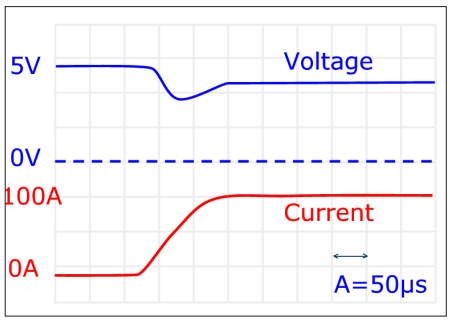
For dynamic loads with high slew rates and for long power leads.
These double cables enable the voltage of the DUT to be applied to the load input with very low inductive losses. This is the only way to achieve fast current rise times.
The maximum voltage is 300 V.

Comparison: standard cable - low inductance cable

Voltage source 5 V, load step 0 to 100 A



Voltage and current diagram with 2 m standard cable HKS-035, slack. Voltage drops as current on cable increases.
The cable determines the maximum rise speed of the current.



Voltage and current diagram with 2 m low-inductance cable HKL-I30. The voltage remains stable while the current increases at the load input.
The actual control behavior of the test unit can be analyzed.

Composition of cable name [1)]

Cable	Maximum voltage	Separation	Specialty	Cross section /mm²	Assembly 1. end	Separation	Assembly 2. end	Separation	Length /m	Separation	Color
HK	**L** max. 300 V **R** max. 600 V **T** max. 1,000 V **V** max. 1,500 V	-	**O** no **I** low-inductance **F** super flexible	**4** **6** **10** **16** **25** **etc.**	**O** no **K6** cable lug for screw M6 **K8** cable lug for screw M8 **K10** cable lug for screw M10 **K12** cable lug for screw M12 **K16** cable lug for screw M16 **A** wire end ferrule **B4** plug 4 mm **Con*x*** connector x	/	**O** no **K6** cable lug for screw M6 **K8** cable lug for screw M8 **K10** cable lug for screw M10 **K12** cable lug for screw M12 **K16** cable lug for screw M16 **A** wire end ferrule **B4** plug 4 mm **Con*x*** connector x	-	**l**	-	**rd** (red) **bk** (black)

Table 1

If you need a cable not listed in table 2, you can use table 1 to request a special cable. We'll help you - just ask us!

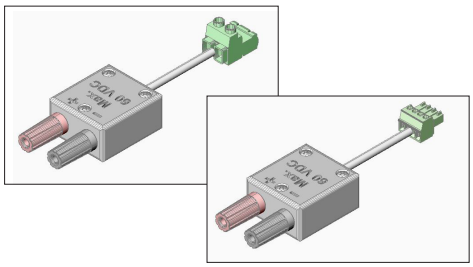
Data of some high current cables (examples) [2)]

Cable (Order number)	Cross-section	Current	Voltage	L [3)]	R [3)]	Assembled for
HKL-I12K10/K10-1	2 x 12 mm²	80 A	300 V	0.065 µH	3.79 mΩ	Ø 10
HKL-I30K12/K12-1	2 x 30 mm²	130 A	300 V	0.065 µH	1.82 mΩ	Ø 12
HKR-O70K12/K12-1-rd	70 mm²	340 A	600 V	0,56 µH	0,68 mΩ	Ø 12
HKV-O16K10/O-1-rd	16 mm²	100 A	1,500 V	0.64 µH	3.02 mΩ	Ø 10
HKV-O70K12/O-1-rd	70 mm²	250 A	1,500 V	0.52 µH	0.68 mΩ	Ø 12
HKV-F16Con/O-1-rd	16 mm²	100 A	1,500 V	0.64 µH	3.02 mΩ	SBUS6-125

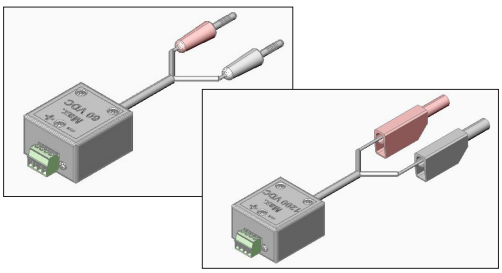
Table 2

Adapter for Sense Terminals

see also series-related accessories

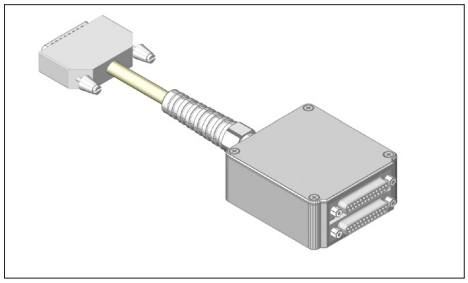


Sense adapter from 2 or 4pole Phoenix (sense) to 4 mm binding posts or safety sockets
SENSADAPT/PH2/POK/60V for 2pole sense, max. 60 V
SENSADAPT/PH2/POK/1200V for max. 1200 V
SENSADAPT/PH4/POK/60V for 4pole sense, max. 60 V
SENSADAPT/PH4/POK/1200V for max. 1200 V



Sense adapter from 4 mm laboratory or safety plugs to 2 or 4pole Phoenix (sense)
SENSADAPT/4BAN/PH2/60V for 2pole sense, max. 60 V
SENSADAPT/4BAN/PH2/1200V for max. 1200 V
SENSADAPT/4BAN/PH4/60V for 2pole sense, max. 60 V
SENSADAPT/4BAN/PH4/1200V for max. 1200 V

I/O Port Doubler



In order to be able to access measuring or status lines when using H&H master-slave cables, the I/O port doubler is plugged onto the I/O port. This provides a second parallel-connected female connector.

1. Not all possible combinations of cable names are actually available.
2. Other cable combinations not listed in this table can be supplied.
3. The specified values for L and R relate to two parallel cables per meter.

You will find further series-related accessories in this catalog with the corresponding series.

19" Racks

The installation of the electronic loads requires special racks, designed for a sufficient air outlet of the heated exhaust air. The H&H racks are equipped with large air vents on the rear so that the exhaust air can pass almost unhindered.

The rear door is shortened to feed the connection cables. The connecting cables of the mains supply are led through flexible foam lips.
Each cabinet contains a socket strip for the mains connection of the devices.

Model (Order number)	Installation height front	Air outlet rear	Dimensions H x W x D (H incl. crane lugs and castors)	Installation depth
Rack 33	33 U	26 U	ca. 1750 x 600 x 800 mm	675 mm
Rack 37	37 U	30 U	ca. 1950 x 600 x 800 mm	675 mm
Rack 42	42 U	35 U	ca. 2150 x 600 x 800 mm	675 mm



Front/side view 19" rack with 42 U



Side/rear view 19" rack with 42 U