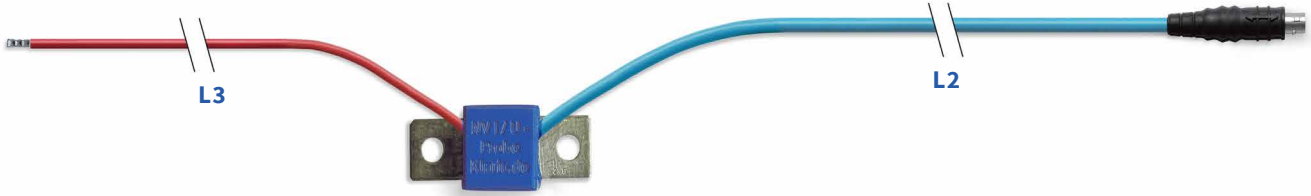


LOW VOLTAGE SENSORS

HP-PROBE



For shunt-based measurement of quiescent, operating, and peak currents from μA to kA as well as voltages in low-voltage electrical systems in vehicles or test benches. Automatic probe identification.

Features

- For applications up to 2.200 A continuous current (depending on dimension)
- High-precision shunt-based current measurement for quiescent and operating currents
- Voltage measurement (up to 80 V)
- Automatic Probe identification (similar to TEDS)

Scope of delivery

- HP-PROBE
- Factory calibration certificate (DAkkS optional)

Version

- Type: BF1 (MIDI Fuse), BF1+, BF2 (Mega Fuse), BF2+, BF3
- Dimensions BF1: 41.6/17.5/15 mm (L/W/H) - M5 holes
- Dimensions BF1+: 53.6/17.5/15 mm (L/W/H) - M5 holes
- Dimensions BF2: 68/27.5/14.5 mm (L/W/H) - M8 holes
- Dimensions BF2+: 84/27.5/14.5 mm (L/W/H) - M8 holes
- Dimensions BF3: 84/57/20.5 mm (L/W/H) - M8 holes
- Temperature range -40°C to $+130^{\circ}\text{C}$ (-40°F to 266°F)

Accessories

- Battery connection cable set with pole clamps
- NV-Probe extension cable

U-Probe Measurement Ranges

Gain	Measurement range [V]	Resolution [mV/Bit]
100	± 6	0.2
40	± 18	0.6
25	± 28	0.9
5	± 140	5
1	$-160/+700$	24

BF1 & BF1+ Shunt values and measurement ranges

Resistance [$\text{m}\Omega$]	Measurement range [A]	Resolution/Bit [mA/Bit]	Continuous current [A]
2	$-120 / +525$	0.15	60
1	$-240 / +1,050$	0.3	80
0.5	$-480 / +2,100$	0.6	120
0.2	$-1,200 / +5,250$	1.5	150

Specification in each case in the smallest measuring range at room temperature (23°C)

LOW VOLTAGE SENSORS

HP-PROBE



BF2 Shunt values and measurement ranges

Resistance [mΩ]	Measurement range [A]	Resolution/Bit [mA/Bit]	Continuous current [A]
2	-120 / +525	0.15	80
1	-240 / +1,050	0.3	120
0.5	-480 / +2,100	0.6	130
0.2	-1,200 / +5,250	1.5	180
0.1	-2,400 / +10,500	3	310

Specification in each case in the smallest measuring range at room temperature (23°C)

BF2+ Shunt values and measurement ranges

Resistance [mΩ]	Measurement range [A]	Resolution/Bit [mA]	Continuous current [A]
2	-120 / +525	0.15	80
1	-240 / +1,050	0.3	120
0.5	-480 / +2,100	0.6	130
0.2	-1,200 / +5,250	1.5	180
0.1	-2,400 / +10,500	3	310
0.05	-4,800 / +21,000	6	500
0.035	-6,850 / +30,000	9	650

Specification in each case in the smallest measuring range at room temperature (23°C)

BF3 Shunt values and measurement ranges

Resistance [mΩ]	Measurement range [A]	Resolution/Bit [mA]	Continuous current [A]
0.020	-12,000 / +52,500	15	1,000
0.005	-48,000 / 210,000	60	2,200

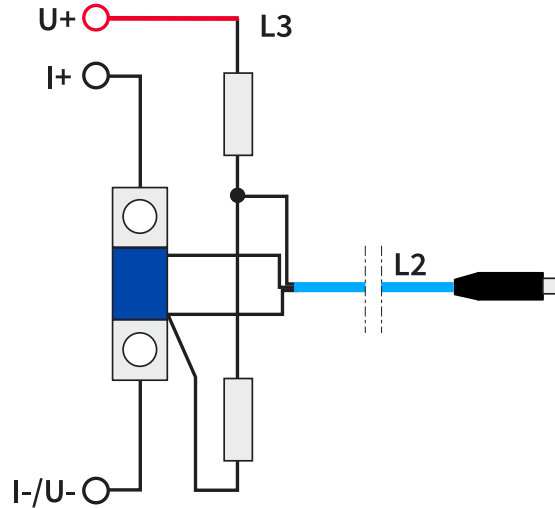
Specification in each case in the smallest measuring range at room temperature (23°C)

HP-PROBE



Construction

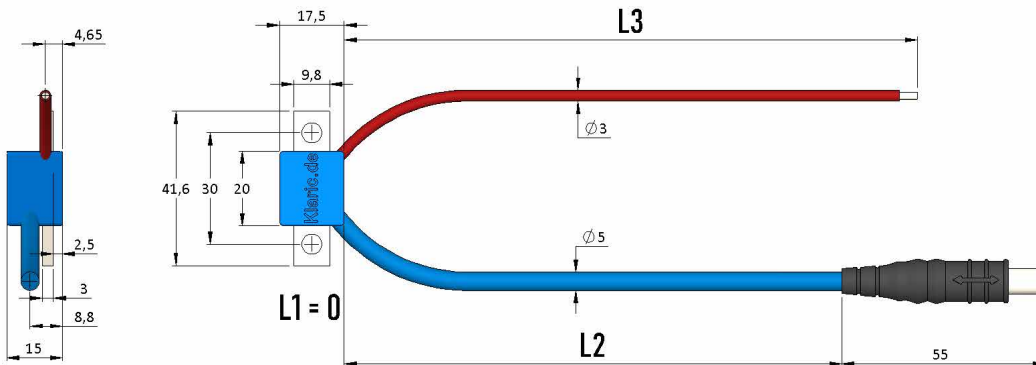
- Measuring resistor in BF1 or BF2 version with mounting straps (temperature range -40...+130°C) and voltage divider
- Memory chip for Probe identification and calibration data
- U-Probe, measuring cable voltage = L3 (0.5m), heat resistant and highly flexible with free cable end
- Data cable = L2 (1 / 3 / 5m) with 7-pin push-pull connector



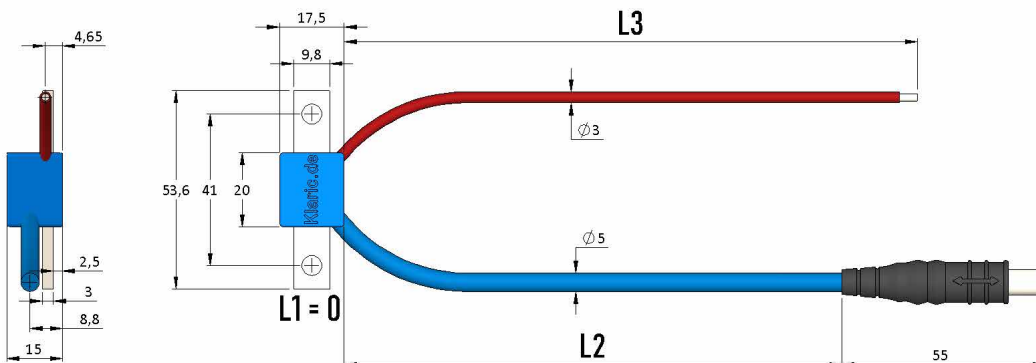
Code for Order:

Name - Resistance - L1 - L2 - L3
 HV-HP-BFX - 0.005/.../2 - 0 - 1...5 - 0.5

HP-PROBE BF1 Technical illustration



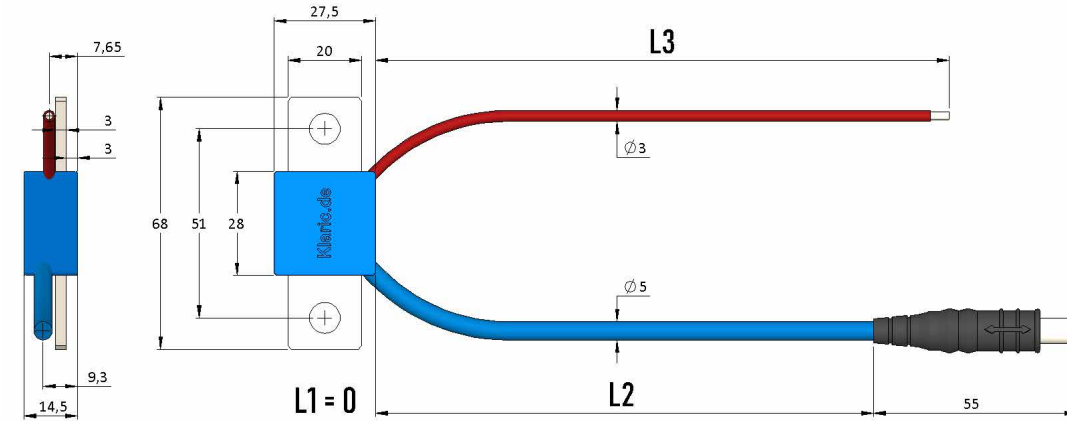
HP-PROBE BF1+ Technical illustration



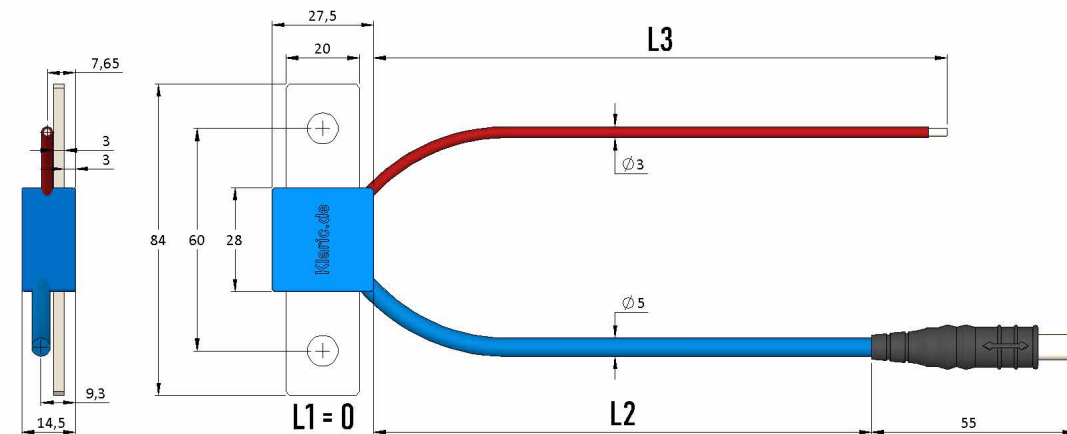
HP-PROBE



HP-PROBE BF2 Technical illustration



HP-PROBE BF2+ Technical illustration



HP-PROBE BF3 Technical illustration

