

# High-Voltage Cables for Electric Vehicles

## HV measuring cable (DC)

High-voltage multi-conductor shielded cable for DC Voltage Measurement, scoop-proof



Marking for HV measuring cable 38339800:

SAB BRÖCKSKES · D-VIERSEN · HV-Messleitung (2x0.25mm²) CE

**Application:** This high voltage measuring cable is used in the development of electric vehicles where scoop-proof testing & measuring of up to 1000 V DC operating voltage and application in the high voltage environment of electromobility takes place. Examples of applications are HV power electronics, HV batteries, electric motors, inverters, etc. High voltage measuring cables are used on the test benches and in test vehicles.

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### Construction:

<b>Conductor:</b>	tinned copper strands, extra fine wire
<b>Insulation:</b>	FEP
<b>Color code:</b>	black and red
<b>Stranding:</b>	in layers with tinned copper drain wire, AWG 24
<b>Shielding:</b>	alu foil and tinned copper braiding
<b>Inner jacket:</b>	FEP - blue acc. to RAL 5024
<b>Jacket material:</b>	PUR
<b>Jacket color:</b>	orange with black vertical stripes

### Outstanding features:

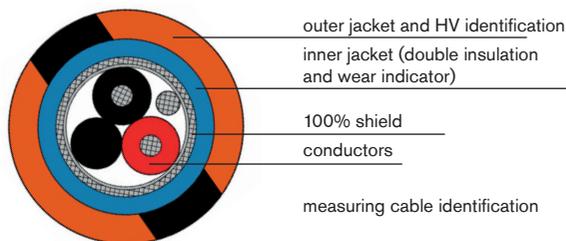
- temperature resistance up to +150°C (up to 3000 hours)
- high flexibility
- high abrasion resistance
- easy harnessing

### Technical data:

<b>Scoop-proof Testing voltage:</b>	1000 V DC over the blue inner jacket 5000 V AC over the blue inner jacket
<b>Operating voltage:</b>	1000 V DC
<b>Testing voltage:</b>	conductor/conductor: 5000 V AC conductor/shielding: 5000 V AC
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	2 x O.D.
<i>flexible application:</i>	10 x O.D.
<b>Temperature range:</b>	
<i>static</i>	-50/+125°C
<i>flexible:</i>	-40/+125°C
<i>limited use time:</i>	+150°C (up to 3.000 hours)
<b>Low temperature resistance:</b>	-50°C acc. to DIN EN 60811-506
<b>Temperature range of conductors:</b>	up to +180°C (short time use up to 205°C)
<b>Oil resistance:</b>	very good - TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Approvals:</b>	RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	AWG/c	nominal outer-ø inch	mm	cable weight ≈lbs/mft	ohmic resistance at 20°C max. Ω/km
38339800	24 AWG/2c	0.256	6.5	41	80.0
38339819	22 AWG/2c	0.264	6.7	40	58.8
38339801	20 AWG/2c	0.280	7.1	50	40.1
38339802	18 AWG/2c	0.307	7.8	63	20.0
38339803	16 AWG/2c	0.331	8.4	76	13.7

Other dimensions and colors are available on request



**Possible on request:**  
also possible as harnessed measuring cable with connected lab plugs to collect the tension at HV components.