adaptronic
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# HV Measuring Adapter for E-Vehicles

Work on e-vehicles with high-voltage components requires special protective measures for personnel.
In order to be able to carry out maintenance work and safety-relevant tests on high-voltage systems, various HV measuring adapters have been developed.
Every HV measuring adapter consists of a HV measuring box and a connector specific HV adapter cable set.

**Available measuring box types:**

- Universal HV measuring box with personal protection resistors — article no. 100000733634
- Universal HV measuring box without personal protection resistors — article no. 100000733636
- Universal HV measuring box with simulation ISO fault — article no. 100000733642

# HV Measuring Adapters for E-Vehicles


**Article no. 100000733634**

**Universal HV measuring box with personal protection resistors**

- Applications:
  - Determining / measuring the voltage-free condition in a HV system
  - Measuring the voltage in an activated HV system
  - Checking / measuring the insulation resistance in a HV system
  - Checking / measuring HV interlock or pilot line in a HV system
  - Continuity test, e. g. shield via HV components on body ground
  - Resistance measurement in HV system / on HV components
  - Simulation of insulation faults in a HV system
  - Opening / bridging HV interlock or pilot line, also partially possible on the individual adapters

- Measurement sockets:
  - HV+ und HV- with personal protection resistors
  - Shield
  - Pilot In (HV interlock)
  - Pilot Out (HV interlock male)
  - Pilot Out (HV interlock female)
  - Quick change interface X1 and X2 ODU Medi Snap for adapter cable set

- Personal protection resistors
- Measuring voltage max. 1000 V
- Measuring current max. 16 A
- Switch for simulation of insulation faults

# HV Measuring Adapters for E-Vehicles


**Article no. 100000733636**

**Universal HV measuring box <u>without</u> personal protection resistors**

- Applications:
  - Determining / measuring the voltage-free condition in a HV system
  - Measuring the voltage in an activated HV system
  - Checking / measuring the insulation resistance in a HV system
  - Checking / measuring HV interlock or pilot line in a HV system
  - Continuity test, e. g. shield via HV components on body ground
  - Resistance measurement in HV system / on HV components
  - Opening / bridging HV interlock or pilot line, also partially possible on the individual adapters

- Measurement sockets:
  - HV+ und HV- without personal protection resistors, the measuring sockets are protected by overcurrent protection device 1 A
  - Shield
  - Pilot In (HV interlock)
  - Pilot Out (HV interlock male)
  - Pilot Out (HV interlock female)
  - Quick change interface X1 and X2 ODU Medi Snap for adapter cable set

- Measuring voltage max. 1000 V
- Measuring current max. 16 A

# HV Measuring Adapters for E-Vehicles


**Article no. 100000733642**

**Universal HV measuring box with simulation ISO fault**

- Applications:
  - Determining / measuring the voltage-free condition in a HV system
  - Measuring the voltage in an activated HV system
  - Checking / measuring the insulation resistance in a HV system
  - Checking / measuring HV interlock or pilot line in a HV system
  - Continuity test, e. g. shield via HV components on body ground
  - Resistance measurement in HV system / on HV components
  - Simulation of insulation faults
  - Opening / bridging HV interlock or pilot line

- Measurement sockets:
  - HV+ und HV- with personal protection resistors 100 kOhm
  - HV+ und HV- without personal protection resistors, the measuring sockets are protected by overcurrent protection device 1 A
  - Two measuring sockets for insulation fault simulation HV ± 240 kOhm
  - Two measuring sockets for insulation fault simulation HV ± 60 kOhm
  - Shield
  - Pilot Out (HV interlock male)
  - Pilot Out (HV interlock female)
  - Quick change interface X1 and X2 ODU Medi Snap for adapter cable set

- Park position jumper plug (Storage)
- Measuring voltage max. 1000 V
- Measuring current max. 16 A

Application-specific interconnections of the HV measuring boxes with a detailed specification are possible on request.

# HV Measuring Adapters for E-Vehicles

Connectors X1 and X2

**HV adapter cable sets for the different HV connector types**

**Design:**

- Contacting by spring-loaded contact pins
- Contour designed for 0-coding, protected against rotation (reverse polarity protection)
- Locking by means of locking lever
- Connection cables in 3 different lengths incl. connector X1 or X2 ODU Medi Snap
- Measuring voltage max. 1000 V
- Measuring current max. 16 A


HVA280


HPS40-2 without interlock


HVU280 / MEB


HVA630

HVR51

# HV Measuring Adapters for E-Vehicles

**Available HV adapter cable in three different lengths (article no.):**

| Type | 0.6 m | 1.3 m | 3.0 m |
|---|---|---|---|
| HVA280 for header | 100000733540 | 100000733541 | 100000733542 |
| HVA280 for plug | 100000733546 | 100000733547 | 100000733548 |
| HVR50 for header | 100000733552 | 100000733553 | 100000733554 |
| HVR50 for plug | 100000733559 | 100000733560 | 100000733561 |
| HVA630 for header | 100000733543 | 100000733544 | 100000733545 |
| HVA630 for plug | 100000733549 | 100000733550 | 100000733551 |
| HVR51 for header | 100000733555 | 100000733556 | 100000733557 |
| HVR51 for plug | 100000733562 | 100000733563 | 100000733564 |
| HVU280 / MEB* for header | 100000733567 | 100000733568 | 100000733569 |
| HVU280 / MEB* for plug | 100000733649 | 100000733650 | 100000733651 |
| HPS40-1 for header | 100000733517 | 100000733518 | 100000733519 |
| HPS40-1 for plug | 100000733530 | 100000733531 | 100000733532 |
| HPS40-2 for header | 100000733520 | 100000733521 | 100000733522 |
| HPS40-2 for plug | 100000733533 | 100000733534 | 100000733535 |
| HPS40-2 without IL for header | 100000733523 | 100000733524 | 100000733525 |
| HPS40-2 without IL for plug | 100000733536 | 100000733537 | 100000733538 |
| HVA1200 for header | 100000733539 | | |
| HVA1200 for plug | 100000733526 | | |
| HD400 for header | 100000721639 | | |
| HD400 for plug | 100000721638 | | |
| 3WA.973.271 for header | 100000724835 | | |
| 3WA.973.271 for plug | 100000723448 | | |
| HVSL362 for header | | | 100000733566 |
| HVSL362 for plug | | | 100000733570 |

The variety of HV adapter cables is constantly extended by new developments.

* The adapter for the HVU280 / MEB female connector has been revised and can now adapt the connectors from the two manufacturers TE and Aptiv, previously only TE.

**Safety check**

For all the listed articles we can offer you a safety check service.

We recommend carrying out safety checks once a year.