

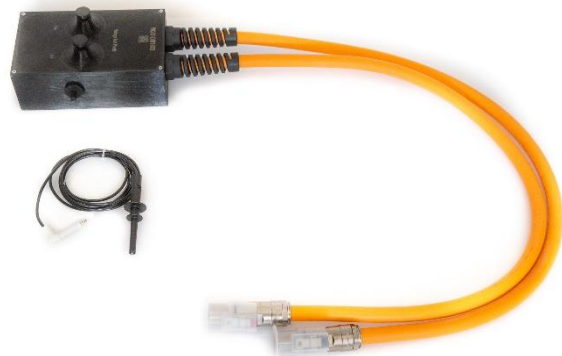
DATASHEET

W-CAT-EVBT-002 70mm² BATTERY TEST BOX

A specially designed test box to enable remote electrical safety testing of a 300 VDC electric vehicle DC battery pack.

Special Features

- Specific Test Points for:
 - Voltage test
 - Insulation Test
 - HiPot Test
- Custom HiPot test lead to interface with Seaward HAL103



Functions and benefits

The W-CAT-EVBT-002 is specifically designed to be connected to the mating connectors installed on a 300 VDC battery pack:



- +Ve PL18W-301-70
- -Ve PL18Y-301-70

The cable length of 1m from the connectors to the test box allow the tests to be carried out by the user in a safe and comfortable location away from the battery pack.

The test box has the following test points incorporated:

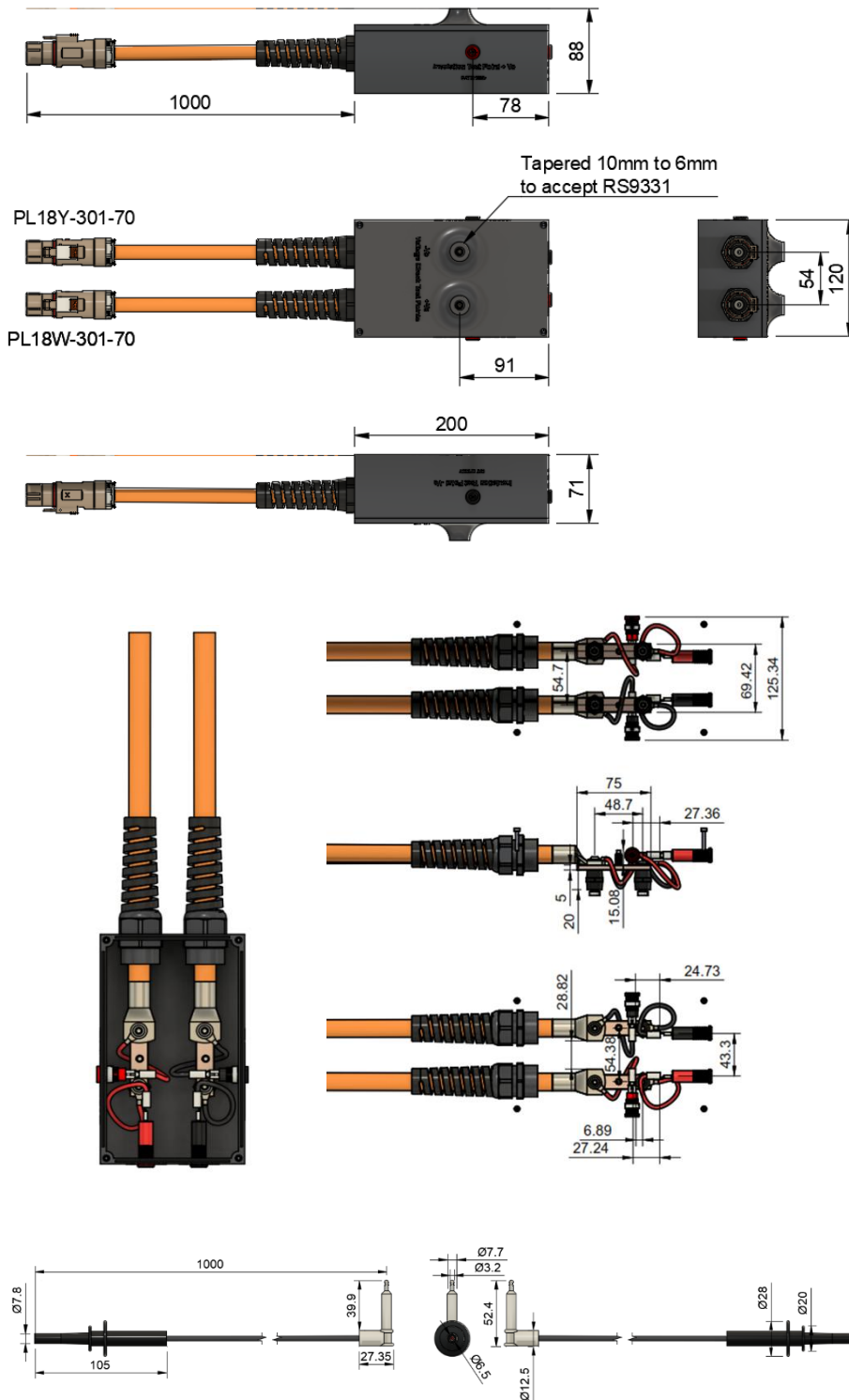
- 1000V CAT III test points for a Voltage check using RS PRO RS-9331 1000V Voltage Tester
- 1000V CAT III 4mm banana socket test points for an Insulation Test using a Fluke 1587 Insulation Multimeter.
- 5000V CAT 0 4mm banana sockets and W-5600H05-100-0 test lead for an HiPot test using a Seaward HAL103 HiPot tester.

Specifications

W-CAT-EVBT-001 95mm ² Battery Test Box	
 	
Cables	
70mm ² Cable	
Type	COROFLEX 180HV SSC - FHLR2GCB2G
Dimensions	Stranded bare copper 2175 (±5%) x max. 0.21 mm Conductor core 12.5mm, Outer sheath 14.4mm Length 1m

Insulation/ cable jacket	Silicone rubber (RAL 2003) min 0.8mm
Shielding	Tinned copper max. 0.21 mm Optical covering min. 85 %
Max wire resistance	0.259 mΩ/m
Voltage	Max 1000 VDC. Test voltage 5.0kV @ 5 mins
Temperature	-40 °C to +180 °C
Internal Connections	
Type	Electro-PJP 9050
Dimensions	Stranded bare copper 644 x Ø0,07 mm Outer diameter 3.7mm
Insulation/ cable jacket	Two silicone jackets. Wire wear indicator
Shielding	None
Max wire resistance	0.798 mΩ/m
Voltage	Insulation resistance greater than 2.2 GΩ @ 1000 VDC CAT IV
Temperature	-60 °C to +180 °C
Test Sockets	
Voltage Test Sockets	
Type	In-built to enclosure lid
Socket dimensions	Socket designed to accept the angles and length of the RS Pro RS-3991 tester probes
Electrical protection	1000V CAT III
Current	36A
Temperature	-20 °C to +80 °C, Pollution degree 2
Materials	Conductors – Stainless steel and copper bar Insulator – Acrylonitrile Butadiene Styrene (ABS)
Insulation Test Sockets	
Type	Electro-PJP 3274-I
Socket dimensions	Socket accepts shrouded (safety) 4mm banana plugs in accordance with IEC 61010-031
Electrical protection	1000V CAT III
Current	36A
Temperature	-20 °C to +80 °C, Pollution degree 2
Materials	Conductors – Nickel coated brass Insulator – Polypropylene
HiPot Test Sockets	
Type	Electro-PJP 5274-HT
Socket dimensions	Socket accepts Electro-PJP 4mm Banana Plug 5600-HT
Electrical protection	5000V CAT0 (transient overvoltage of 2Kv), 1000V CAT IV
Current	10A
Temperature	-20 °C to +80 °C, Pollution degree 2
Materials	Conductors – Nickel coated brass Insulator – Polypropylene
HiPot Test Lead	
Type	Warwick Test Supplies W-5600H05-100-0
Dimensions	5600-HT Plug 110mm long, 28mm dia finger guard Cable length 1m
Electrical protection	5000V CAT 0 (transient overvoltage of 2Kv), 1000V CAT IV
Current	10A
Temperature	-20 °C to +80 °C, Pollution degree 2
Materials	Conductors – Nickel coated brass Insulator – Polypropylene
Enclosure	
Materials	3d Printed Acrylonitrile Butadiene Styrene (ABS)
Impact strength	Charpy Notch, ISO 179 39.3 ± 3.6 kJ/m ²
Dimensions	L200xW97xD71mm

Dimensions



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