

# DATA SHEET

## Accessories: Ground bond test probes



Ground bond test probe PE 81-i with start button

<b>Description</b>	<p>If a device of protection class I is tested at least one ground bond test is necessary. For many products several points have to be tested individually and one after the other. This makes the ground bond test the most complex type of test in safety testing. Most of the manually performed tests require much time in practice and therefore a large number of personnel. And it was at this point that SPS electronic started its development. All of the ground bond test probes in the market were real „pins“ which had to be held horizontally. An unnatural, tiring positioning for the hand of the test personnel was the result. Only with the ground bond test probe PE 81 a test probe is available in the market meeting the ergonomic requirements in a test bay. This is mainly achieved by the fact that the test probe PE 81 is actually a test pistol. Now the test personnel can carry out the often to be performed ground bond tests with a natural and therefore ergonomic positioning of the hand. In test series with customers the concept has been optimised with integrated start switches. It goes without saying that the test probe is built in 4-wire technique (Kelvin technique) which means that the measuring line and the test line are run separately. By that all supply lines are compensated. This is made possible with a highly flexible special cable which was developed especially for this application. Both the test line for currents up to 30 A AC and also the measuring and control line are integrated in one cable. Together with the test devices of SPS electronic it is possible to start the ground bond test automatically. For this purpose a small voltage is fed across the ground bond test probe PE 81 to the DUT. Once the DUT is contacted the ground bond test starts automatically - a considerable relief to many ground bond test points. Due to the high operating voltage of 1,500 V DC with the ground bond test probe also safety current limited insulation measurements and high voltage tests can be performed. At devices of protection class II insulation measurements / high voltage tests have to be performed at several points. The electrical connection for all test voltages and all control lines to the test device is made via a high-quality, multi-pole high current plug connector. The tungsten test probe is replaceable without tools and available as a spare part.</p>	
<b>Max. operating voltage</b>	DC voltage	1,500 V DC
<b>Test voltage</b>	Contour / connection	2,500 V DC
	Connection / start switch	1,500 V DC
<b>Safety</b>	Safety extra-low voltage (SELV)	
<b>Setup</b>	<ul style="list-style-type: none"> <li>• Ergonomic lightweight test pistol made of impact resistant plastic</li> <li>• Exchangeable tungsten test probe for a long service life, spring bushing for easy replacement</li> <li>• Integrated, high-quality start switch</li> <li>• Multi-pole, highly flexible special cable for test voltage and control signals</li> <li>• Electrical connection via multi-pole high current connector</li> </ul>	
<b>Cable lengths</b>	2 m (standard), 5 m (KL 05), 10 m (KL 10) and 15 m (KL 15) 6.6 ft (standard), 16.4 ft (KL 05), 32.8 ft (KL 10) and 49.2 ft (KL 15)	

### Versions

	Type
Ground bond test probe with 2 m (6.6 ft) connection cable and free cable ends	PE 81
Ground bond test probe with 2 m (6.6 ft) connection cable and high current plug ST 04-i	PE 81-i