

Presence Test with Switch Probes

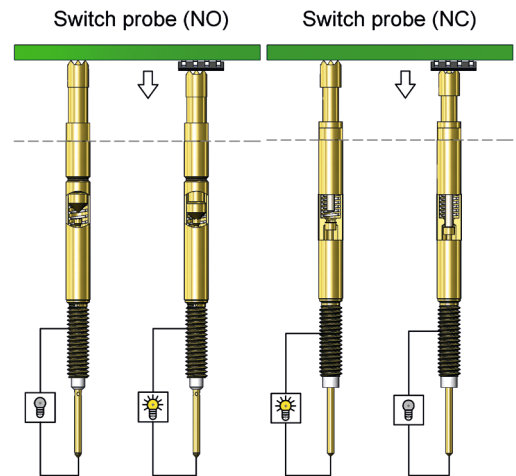
Switch Probes are contact elements, which close an electric circuit after a defined switch travel (NO - normally open) or open it (NC - normally closed). This condition persists beyond the switching point. FEINMETALL offers special combi-receptacles for the solderless exchange of switch probes (see below).

Typical Applications:

- presence test of components or connectors
- voltage-free detection with synthetic heads
- short-circuit-proof modules by electrically isolated switch elements (voltage-free system)
- installation of intrinsically safe circuits (only with NC-versions, e.g. F873, F883)

Versions of Switch Probes:

- openers (NC) and closers (NO)
- different switch travels
- short version for a gentle lateral contacting by ball element (F888)
- short and long versions of a series for different projection heights
- long travel versions for depth determination (F375 and F385)

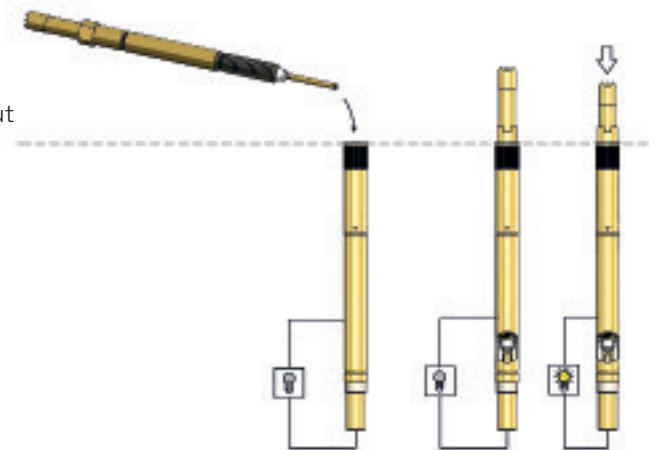


Solder less replacement of Switch Probes / Kelvin Probes

Combi receptacles allow a quick and solder less replacement of switch probes or kelvin probes (plug-in and threaded versions) without disassembly of the module or fixture. Secure connections of both signal circuits (inner and outer conductor) are realised by contact elements within the receptacle.

Advantages of the combi receptacle

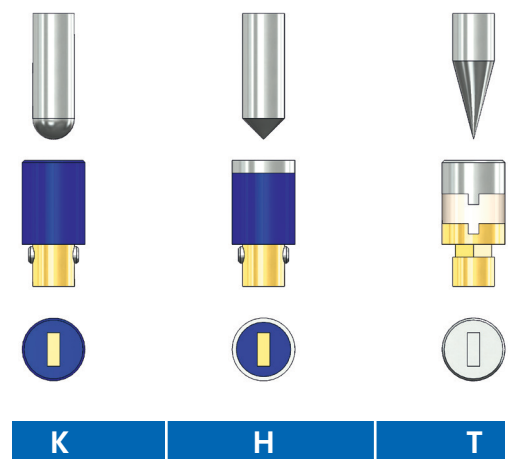
- solder less replacement of switch probes and kelvin probes
- prevention of incorrect wirings in case of maintenance
- Saving of time and assembly expenses in case of maintenance
- Height adjustability of switch probes by the probe thread and pressure marks at the receptacle
- High frequency capabilities in combination with coaxial kelvin probes



Insulated tips for Switch Probes

There are three different versions of insulated test heads available (e.g. for Switch Probe Series F886).

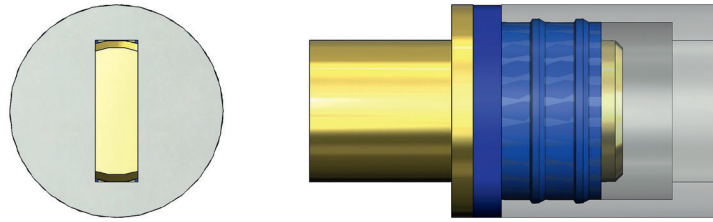
- Version K made of synthetic material is the standard tip style for insulated contacting
- Version H is reinforced additionally by a brass ring, which allows higher stress on the synthetic head.
- Version T has a metall head, which is insulated versus the plunger and therefore is suitable for applications with higher mechanical exposure. The special design avoids any electrical contact between tip and barrel, even at maximum travel. The tip of this version is silver-coloured for better identification of the assembled probe.



Twist proof insulating caps

For testing the correct position and alignment of flat contact elements FEINMETALL has developed a simple and effective solution. With a slotted tip style in combination with a twist proof probe flat contact elements can be tested regarding the correct length. Additionally deformed, twisted or due too false components too thick contacts can be detected.

Slotted insulating caps are available for the twist proof probes F751, F756 and F760. They can be identified by the ending PT (Position Test) in the order code.



Functional principle and application

With the new slotted insulating cap in combination with a twist proof probe the correct length as well as the correct alignment of a contact element can be tested. If flat contact elements are deformed, twisted or too thick, the insulating cap goes solid and does not establish an electrical connection. Only if length, alignment and shape of the contact is ok, the insulating cap can be moved over the contact element and an electrical contact to the test item is established.

This method allows to detect a great variety of failures reliably and in a very simple way.

