



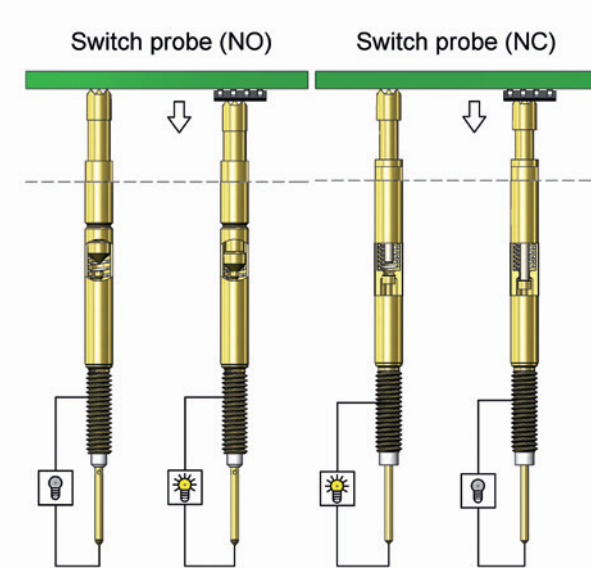
Leading Contact Solutions for Wire Harness Test

FEINMETALL
Contact Technologies



Presence Test with Switch Probes (Single Switch)

F375 (NO)
F385 (NO)
F863 (NO)
F873 (NC)
F875 (NO)
F879 (NO)
F880 (NO)
F881 (NO)
F883 (NC)
F885 (NO)
F887 (NO)
...



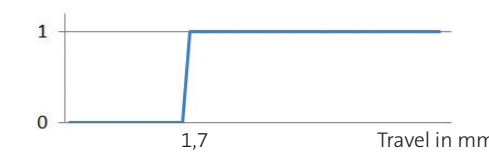
Switch probes open or close an electric circuit after a defined switch travel.
NO – normally open
NC – normally closed

Typical Applications and Features

- presence test of components or connectors
- voltage-free detection with insulated tips
- short-circuit-proof modules by electrically isolated switch elements
- special KB-receptacle allows solder free exchange of the probes

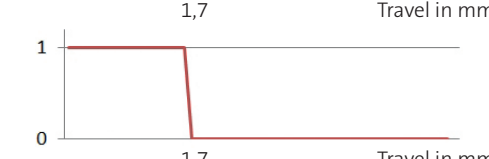
Switch Characteristic

F885 (NO - normally open)



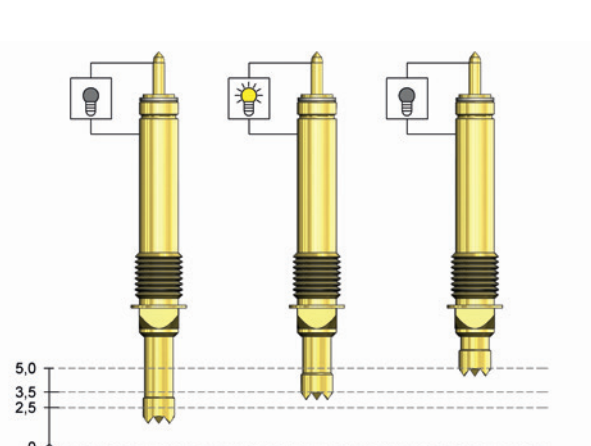
Switch Characteristic

F883 (NC - normally closed)



Presence Test with Switch Probes (Dual Switch)

F485
F486
F487
...



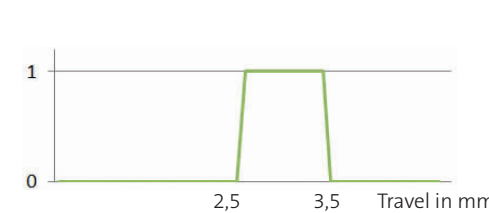
Switch probes with dual switch have two integrated switch points. After a certain travel the switch circuit is closed and opened again after a further travel of 1 mm.

Typical Applications and Features

- determine correct pin lengths or hole depths, clip test applications
- distance between switch points 1 mm
- special KB-receptacle allows solder free exchange of the probes

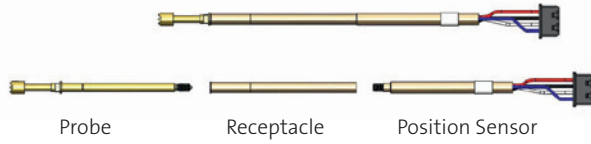
Switch Characteristic

F487 (off-on-off)



Presence Test with Position Sensor System (Potentiometer)

PS075
PS100
PS157
...



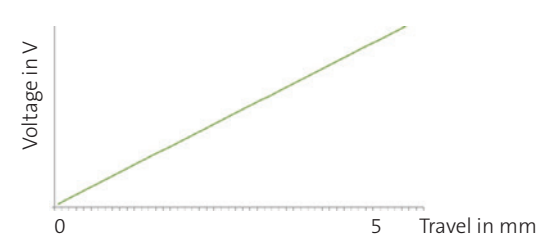
The Position Sensor System allows an exact travel measurement. This is realized by a micro potentiometer in the sensor-part.

Typical Applications and Features

- exact measurement of pin lengths or hole depths
- documentation of measurement results
- airtight version available (PS157)

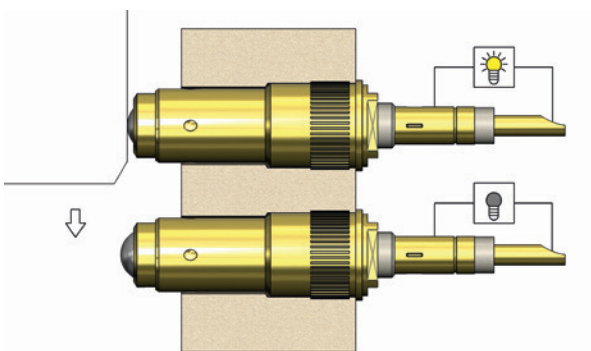
Voltage Travel Diagram

for all position sensor systems



Lateral Presence Test (Switch Probe with Ball Head)

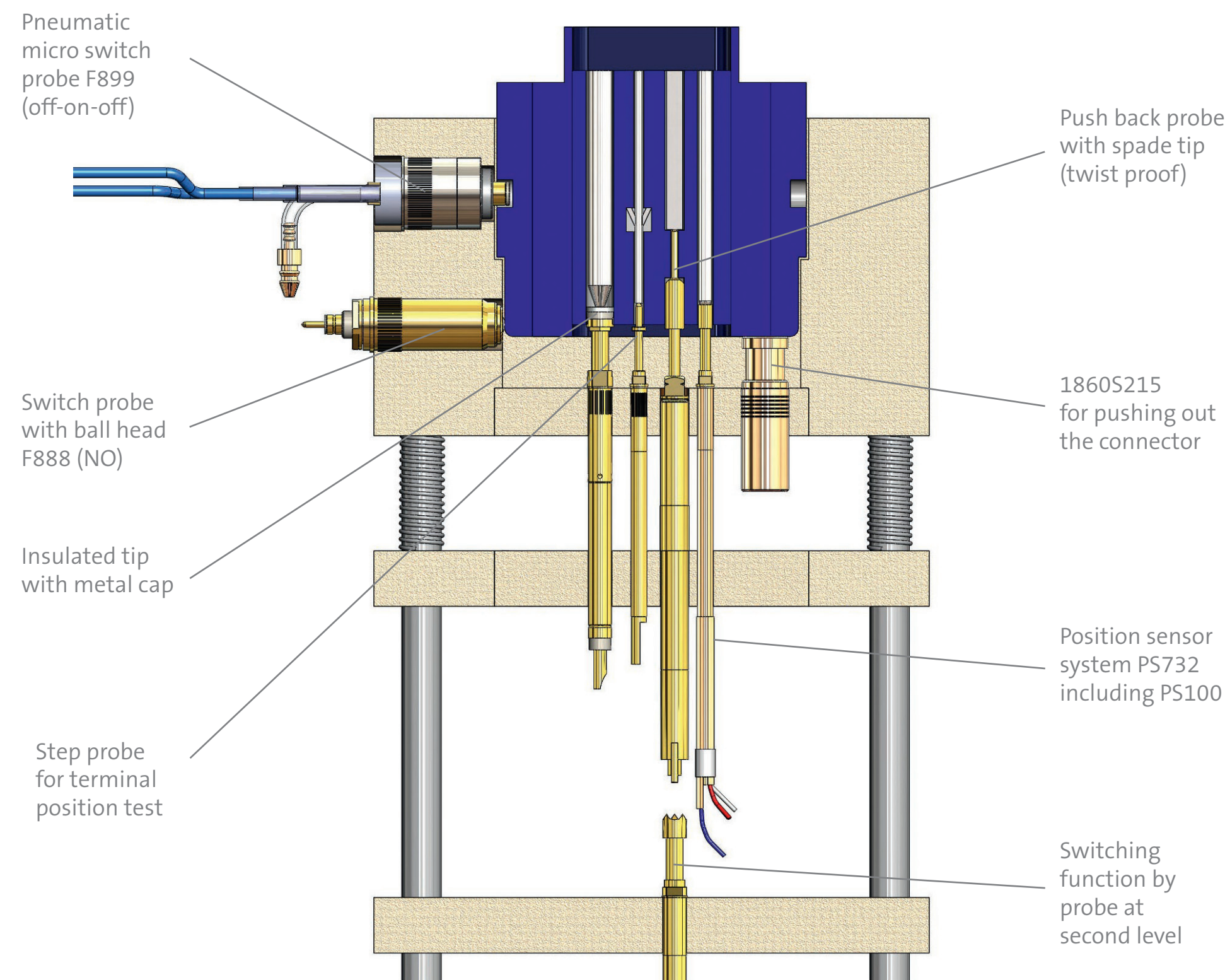
F888
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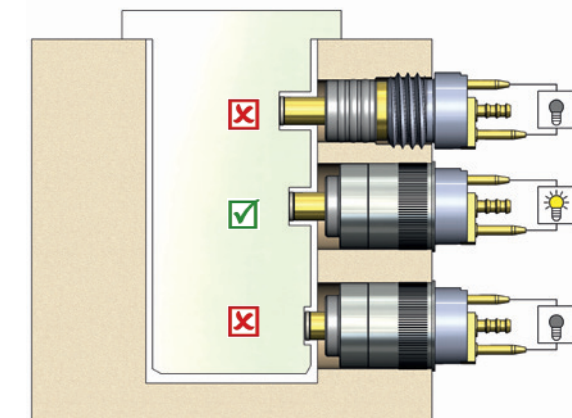
Switch probes with ball head allow lateral movements of the test item. The contact procedure is very smooth and does not leave marks at the contact surface.

Typical Applications and Features

- presence test of connector housings
- airtight version allows building vacuum-tight modules
- electrically isolated switch available
- special tool FWZ888SA for simple adjustment of switch point
- special connector element allows solder free exchange of the probes



NEW - Position Test with Pneumatic Micro Switch Probe F899P



The pneumatic switch probe F899P has two integrated switch points. After a certain travel the switch is closed and opened again after a further travel of 2 mm (F899P0001) or 1 mm (F899P0002). So, the probe is well suitable to determine the exact pin length or hole depth even in applications with very limited space.

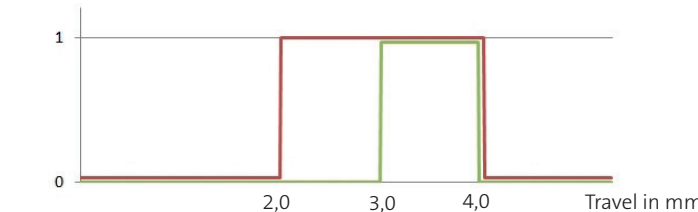
Typical Applications and Features

- determine correct pin lengths or hole depths, clip test applications
- distance between switch points (SP1 and SP2) 1 mm or 2 mm

Switch Characteristic

F899P (off-on-off)

- F899P0001
- F899P0002

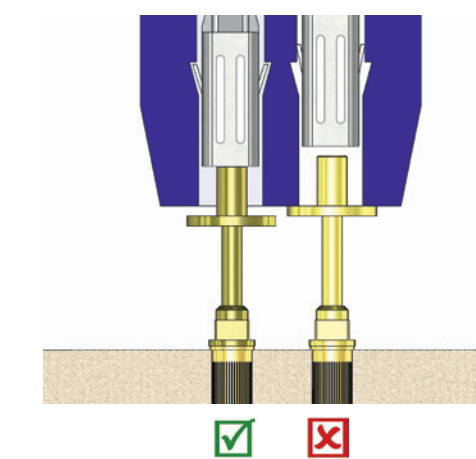


Typical Tip Styles



Presence Test with Step Probes

F175 SP
F730 SP
F731 SP
F732 SP
F733 SP
...



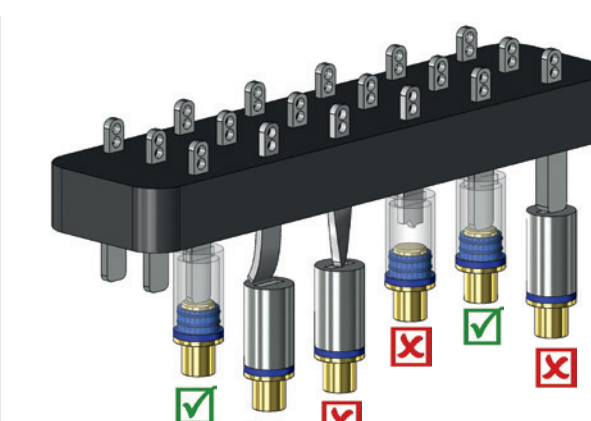
Step probes allow testing the terminal position. If a connector is not mounted correctly, the plate of the step probe stops at the housing. As a result the probe does not create an electrical contact to the connector.

Typical Applications and Features

- presence test of connectors when contact is in a housing
- many different dimensions available
- special plate design and tools allow mounting at limited space

Presence Test with Insulation Caps

F751 PT
F756 PT
F760 PT
...



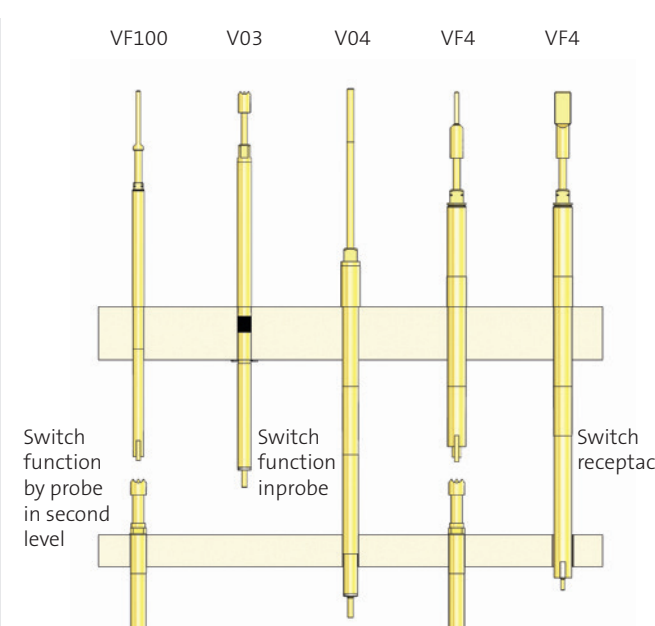
Slotted insulation caps in combination with twist proof probes allow testing the correct length as well as the correct alignment of connector elements. If flat connector elements are deformed, twisted or too thick, they come to rest on the insulation and do not create an electrical contact.

Typical Applications and Features

- presence test of connectors when test item is a pin or a blade
- cover different tasks within one test step
- many different dimensions available

Push Back Test

V03
V04
VF3
VF4
VF100
...



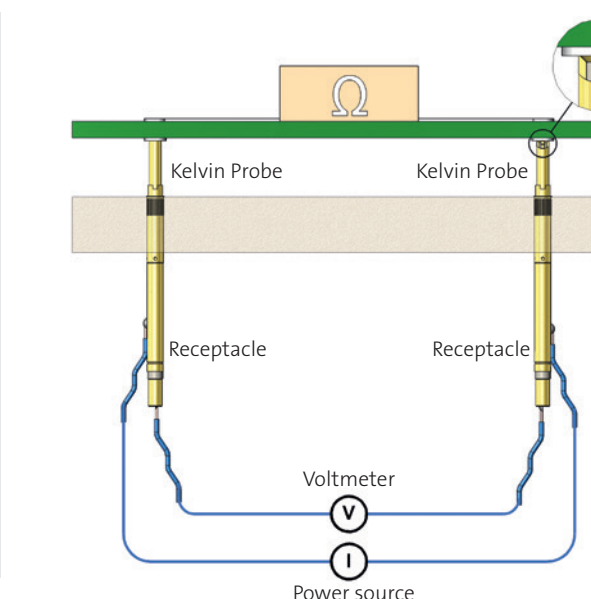
Push back probes have a very high spring force to test if the connector element is mounted correctly. If so, it can withstand the pressure and compress the probe. This compression activates a switch function, that can be realized either by a switch function in the probe or receptacle or alternatively by using another contact probe at a second level. Push back probes combine mechanical and electrical tests within one probe.

Typical Applications and Features

- push back test of connectors
- applications with the demand of high forces
- various spade tip styles available

4-Wire Measurement (Kelvin Method)

F349
F805
F810
F822
F832
F835
F840
1860C004
1860C007
1860C008
...



The 4-wire measurement (Kelvin Method) is used for the accurate measurement of low resistances. This principle is based on a constant electrical current through the test item leading to a resulting voltage. The contacting of the test item has to be located close to the resistance that needs to be determined. At limited space, it is ideal to use a pair of Kelvin probes for this purpose. Kelvin probes are coaxial contact probes with an inner and an outer conductor. For the Kelvin measuring method, the constant current (force signal) is carried by the outer conductors whereas the measurement of the voltage (sense signal) is made by the inner conductors of the probes.

Typical Applications and Features

- measurement of low impedances
- impedance measurement of special components like e.g. relays
- large variety of Kelvin probes available, also for very high currents
- inner and outer conductors independently spring-loaded

