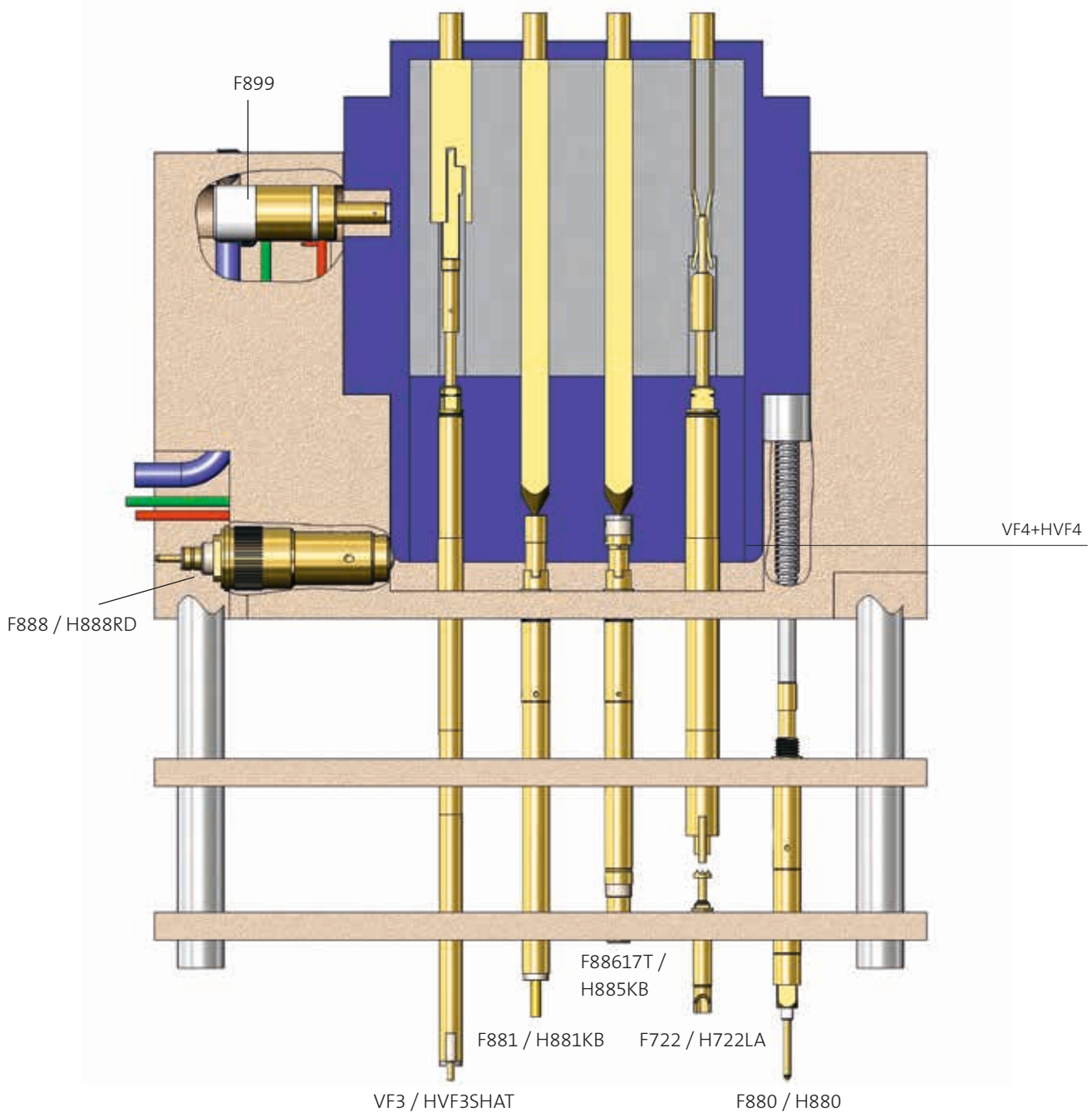


Design of test modules for wire harness connectors with FEINMETALL contact probes

As market leader FEINMETALL offers a broad range of special contact probes and accessories for the design of test modules. With innovative and cost-effective solutions FEINMETALL satisfies the demand in the field and is a real trend-setter in the wire harness testing technology. The picture shows the schematic design of a connector test module with FEINMETALL-products.





Smart solutions for test module functions by FEINMETALL products

Variable adjustment of the switch travel for push-back probes

The usage of push-back probes in combination with threaded probes on a second level allows a variable adjustment of the switch point (closing of the electric circuit) by height adjustability of the second level. To guarantee a reduced depth of the module we recommend the usage of the short-travel probe F722 together with the push-back probes VF4, VF3 or VF100.

Push-back probes with fix switch travel

When using push-back probes, a pre-defined switching point is achieved by assembling a push-back probe with a corresponding switch receptacle. The switch function is integrated in the receptacle. For FEINMETALL airtight switch receptacles, the part number ends with "SHAT" ("SH" = switch function, "AT" = airtight). We recommend for example the combination of the push-back probe VF3 with the switch receptacle HVF3SHAT. Alternatively the new cost-saving version V03 with integrated switch function can be used (this version is airtight but not twist-proof).

Push-back Probes with same projection height

The threaded push-back probes VF3, VF4 and VF100 have an identical projection height and thus can be combined without any additional procedures for height adjustment.

Design of vacuum-tight modules

FEINMETALL offers all necessary probes and receptacles for the design of vacuum-tight modules. The airtight version can be identified by the ending "AT" at the order code. No additional cost-intensive provisions for tightening are necessary at contact probes and receptacles.

Position Test of contact elements by insulated probe tips

For an insulated position test FEINMETALL offers a great selection of insulated tip styles for the switch probe series F886. Especially the version with tip style 17T (insulated metal cap) is extremely rugged and durable.

Its construction avoids any electrical connection to the barrel of the probe also at maximum travel. A silver plating helps to distinguish the insulated tip style 17T from the conducting gold plated BeCu heads.

Short-circuit-proof modules by voltage-free switch probes

Short-circuit-proof modules and fixtures can be designed with the switch probes F881 and F888 with electrically isolated switching circuit. This is an important matter given by the fact, that test tables in the market may be equipped with modules of different manufacturers. Due to different switching concepts and voltage levels at these different modules, the activation of the probe switch may lead to short-circuits with destructive consequences when using switch probes without electrical isolation.

Isolated switch probes can avoid this problem. As the series F881 has the same installation dimensions as the standard switch probes F885/F886 no change of the design in the module is necessary for replacement. For the series F881 a specific combi-receptacle (H881KB) for solder less replacement is available.

Note for the usage of voltage-free FEINMETALL switch probes:

According to DIN VDE 0100 (part 410) a maximum of 25V AC (rms) or 60V DC is permitted which includes any potential surge.

Switch probes for backward assembly

Switch probes usually are assembled and exchanged from the top. If this is not possible or favoured, the switch probe F880 can be applied. This probe is for mounting from the bottom, and its switch point can be adjusted by the special tool FWZ888SA before fixing the wiring.

Lateral presence test of connectors

The lateral presence test of connectors or housings generally is a problem for conventional contact probes due to the movement of the DUT. With Series F888 FEINMETALL offers an excellent and innovative solution for this application, providing lots of advantages.

- Rolling ball as contact element, which leads to a reduction of transverse forces and thus a remarkably higher durability compared to contact probes with fix plunger head of similar shape
- Airtight version for vacuum-tight modules
- electrically isolated switch available
- very short length for low installation depth
- variable height adjustment of the probe in combination with the corresponding receptacle
- Adjustment of switching point without wiring by special tool FWZ888SA

