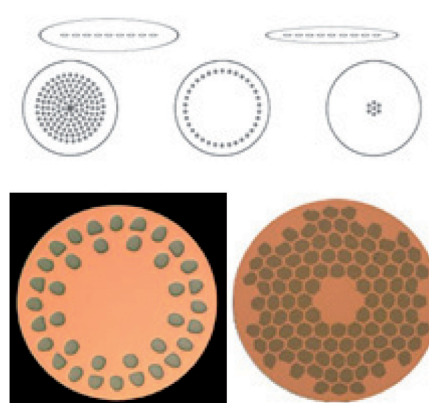
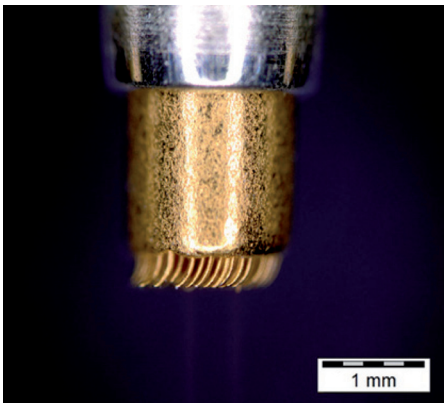


SELF CLEANING CONTACT SYSTEM MULTI CONTACTING THROUGH SUPERELASTIC NITINOL-FILAMENT



Save transfer of electrical signals in dry circuit load range

Contact systems are very susceptible to contamination by the transmitting of low voltages / currents.

Already several dust particles are able to increase the contact resistance or maintain to a complete interruption / isolation.

The contact reliability will be significantly improved by the use of a multiple contacting. The novel contact material exhibits a brush like contact surface whereby a save multi contacting is achieved at lowest contact forces independent of the crush strains and vibration strains.

In addition the fibers of Nitinol induce a cleaning brush motion effect at lowest contact forces due to the extraordinary stress-strain behaviour of the material Nitinol. According to

the super elasticity, the fibers will be raised as well after a strong mechanical strain.

The arrangements of the fibers and the dimensions (diameter, length) of the fibers allows a optimized adjustment of the contact material to the connective task.

In many cases a adequate save contact is given without the use of precious metals.

In dependence of the requirements of the contacts can be the reliability of the contact increased by a precious metal coating of the fibers.

Examples of applications:

air-open switch, micro relay, micro-probe tips, micro grinder