

During DPA investigations on PHL50 relays at Tesat it was found that materials have been used which are not compliant to the requirements of the ESCC specifications.

ESCC3602/014, ESCC23500:

- The main terminals shall be made of silver (type 'O'), but they have a copper core with FeNi.
- The terminals of the auxiliary contacts shall be made of a copper core and FeNi alloy 52 plus a Tin-Lead finish (type 'H' with type '3' finish), but they are of FeNi without copper core.

It was found that the materials of the relays delivered to Tesat are correct but the definition of the materials in Para. 4.4.2 of the detail specification ESCC3602/014 can be misunderstood. In Para. 4.4.2 the materials of the contacts are defined, but they are called terminal material (... for main contacts the terminal material shall be Type "O" ...).

The main contacts are of type "O" (pure silver) but not the terminals. The word "terminal" has to be removed in Para. 4.4.2.

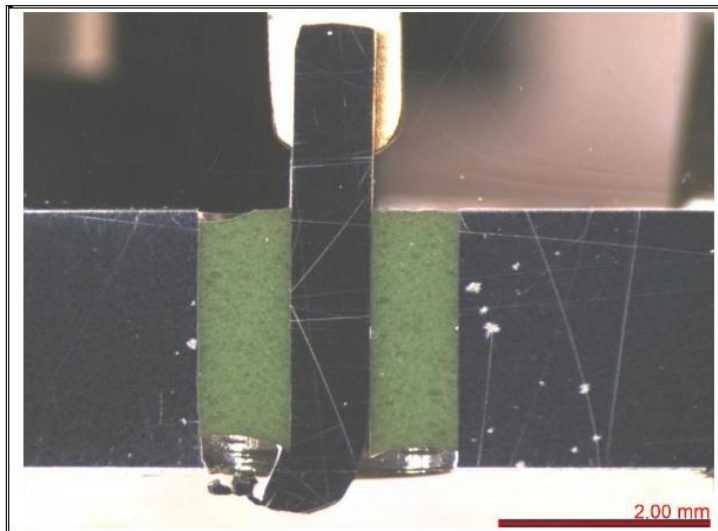


Figure:	23
S/N:	6
Magnification:	See scale bar

Comments:

View onto the cross sectioned FeNi hook terminal. According to specification ESCC3602/014 for the hook terminals a copper core under the FeNi finish was expected.

The materials were checked with EDX (Energy-dispersive X-ray spectroscopy).



Figure:	24
S/N:	6
Magnification:	See scale bar

Comments:

Cross section of the main contact terminal. A copper core and a FeNi finish are visible. According to specification ESCC3602/014 for main contacts the terminal material should be silver.

The materials were checked with EDX.