

The automated insertion of components into pcb's is increasing.

To meet this market demand, HARTING has developed connectors which can be assembled and fixed to the pcb in one process.

To fix the connectors HARTING offers snap-in clips as well as kinked pins.

Snap-in clips

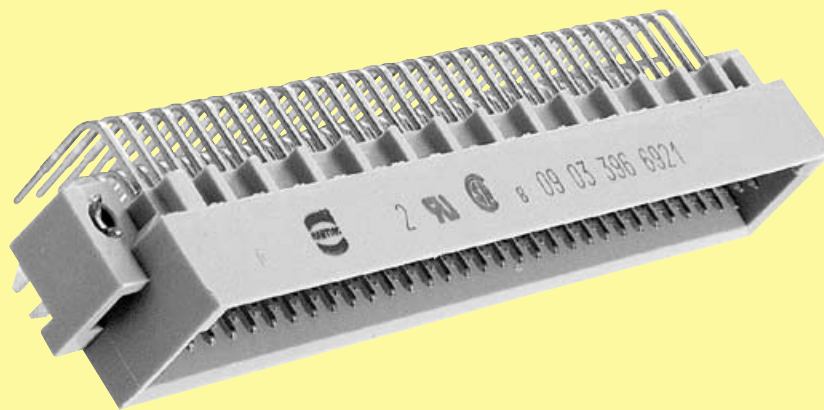
In the soldering process, all component terminations including the snap-in clips are soldered and therefore mechanically secured. This provides mechanical protection for the soldered contacts during mating and unmating of the connector.

Mouldings with snap-in clips offer the following advantages:

- Cost reduction when compared with the screw or rivet assembly methods due to the soldering of the clip along with other components in one process.
- The orientation of the clip after soldering in the plated through hole provides mechanical protection against the tensile forces arising from the mating and unmating of the connector.

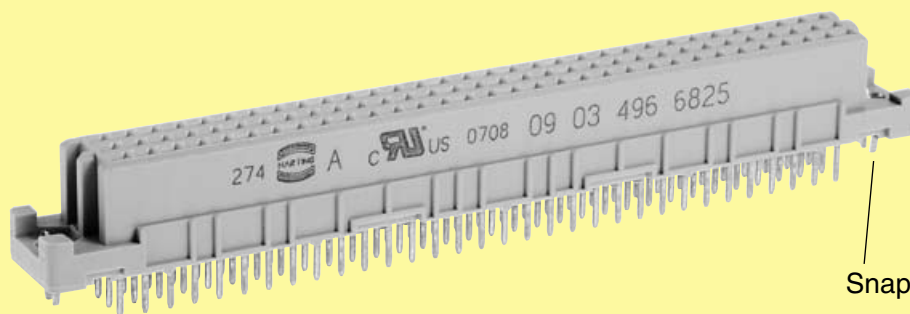
It is possible to supply the majority of male and female connectors with solder termination with snap-in clips (existing articles see product pages).

For pcb thickness
 $1.6 \pm 0.2 \text{ mm}$
 $\text{Ø} = 2.8^{+0.1} \text{ mm}$



Mounting force
40 - 60 N

For pcb thickness
1.6 - 4.0 mm
 $\text{Ø} = 2.8^{+0.1} \text{ mm}$



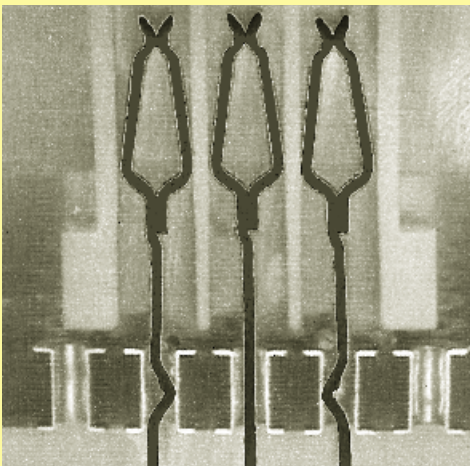
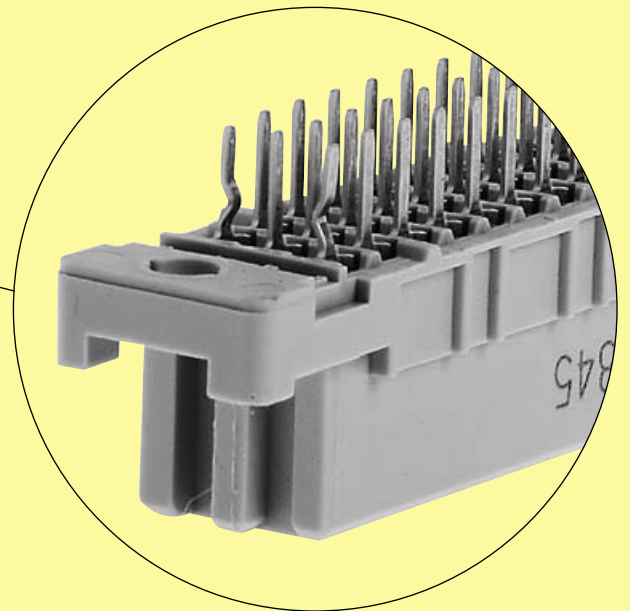
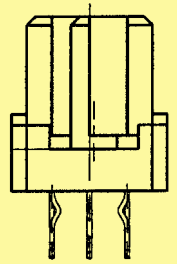
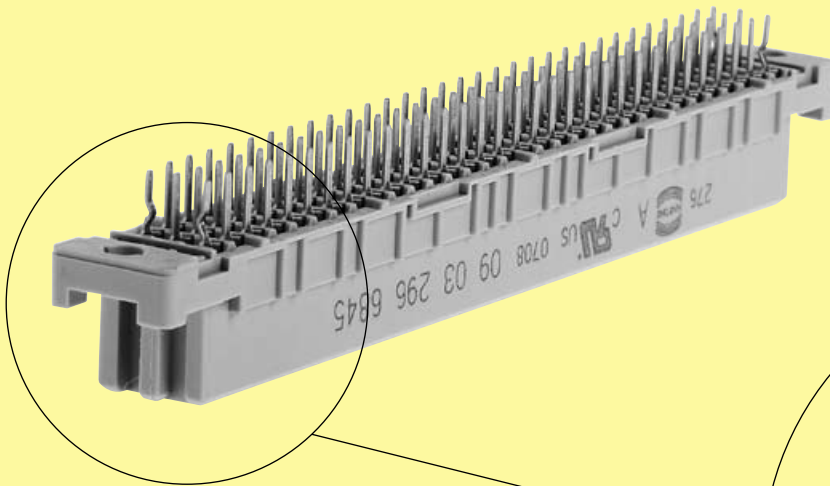
Snap-in clip

Kinked pins

Before and during soldering, the connectors are fixed onto the pcb with four kinked contacts located in the rows a and c, e.g. the positions a1, c1, a32 and c32 for a fully loaded connector.

Connectors with kinked pins are a reliable alternative for female connectors with straight terminations because no additional elements like screws, rivets or clips are necessary.

Explanations see chapter 01.



Cross section of a connector with kinked contacts assembled to a pcb

Dimension of the plated through hole [mm]	Mounting force [N]	Retention force [N]
0.94	55	35
1.09	11	7

Typical measurements for a pcb of 2.4 mm thickness.