80 A Contact Clamp for High Current

The 80 A Contact Clamp series for contacting of flat contacts has the following features:

Contacting manually or automatically

Contact surface protective

High current capacitance

Low transition resistance

Long service life

Modular and easy maintenance

Can be combined with alternative test contacts

Mountable irrespective of its position

Little required space

The 80 A Contacting Clamp made of tempered copper-beryllium alloy has been developed for the contacting of conducting flat contacts. Via large contact surfaces currents of up to 80 A can be transmitted safely and without damage to the contact surfaces, for example, on Faston flat contacts 6.3×0.8 mm. It also can be used for automatically contacting in automated test systems or rigs. For various applications the 80 A Contacting Clamp can be adapted. Custom made products and further information are available upon request.

Mechanical Specifications

Camber

 $F_0 = 6.5 \text{ N}$ (w/o plugged contact clamp)

Spring rate

D = 7500 N/m

Contact force

 $F_{\kappa} = F_0 + D \cdot d/2$

Maximum contact thickness

 $d_{max} = 1.5 \text{ mm}$

Insertion force

 $F_1 = 2 - 3.5 \text{ N (ref. contact d} = 0.8 \text{ mm)}$

Drawing force

 $F_A = 1.5 - 2.5 \text{ N (ref. contact d} = 0.8 \text{ mm)}$

Electrical Specifications (contact spring incl. soldered joint)

Maximum allowed continuous current

80 A (cross section gripper tot. 8.6 mm²)

Typical transfer resistance

1 m Ω (ref. 0.8 mm Faston tinned)

Contact cycles

Max. 500.000 (dependent upon the inserted contact)

Contacting mode

Manual or automatic

Caution

Do not plug or remove contacts under load.

Material and Surface

Contact clamp made of copper-beryllium alloy

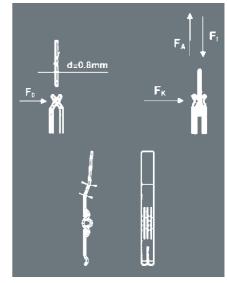
Bolt made of steel

Housing made of polymer plastic





80 A Contact Clamp in use Utility patent DE 20 2006 006 957 U1



80 A Contact Clamp force diagram above (not contacted and contacted state) and side and front view below