



Long Travel Probe 100 mil Robust Version

F786

Centers (mm/mil)	2,54 / 100
Current	5,0 A
Temperature	-20°C...+80°C
R typically	25 mOhm

Spring Force (cN ±20%)

Preload	Nominal Force
60	150
60	300
180	300 HP
180	500 HP

Travel (mm)

Nominal	Maximum
6,4	8,0
Pointing Accuracy	±0,1 mm

Materials and Plating

Plunger	see Tip Style
Barrel	Nickel silver, gold plated
Spring	Music wire, silver plated
Receptacle	Nickel silver, Gold plated

Accessories

Insertion tool receptacle	FEWZ-772EV
Insertion tool receptacle	FEWZ-772E0
Insertion tool probe	FDWZ-100
Plug lock	H772VS
Spacers	see page 10

Drill Size [mm]

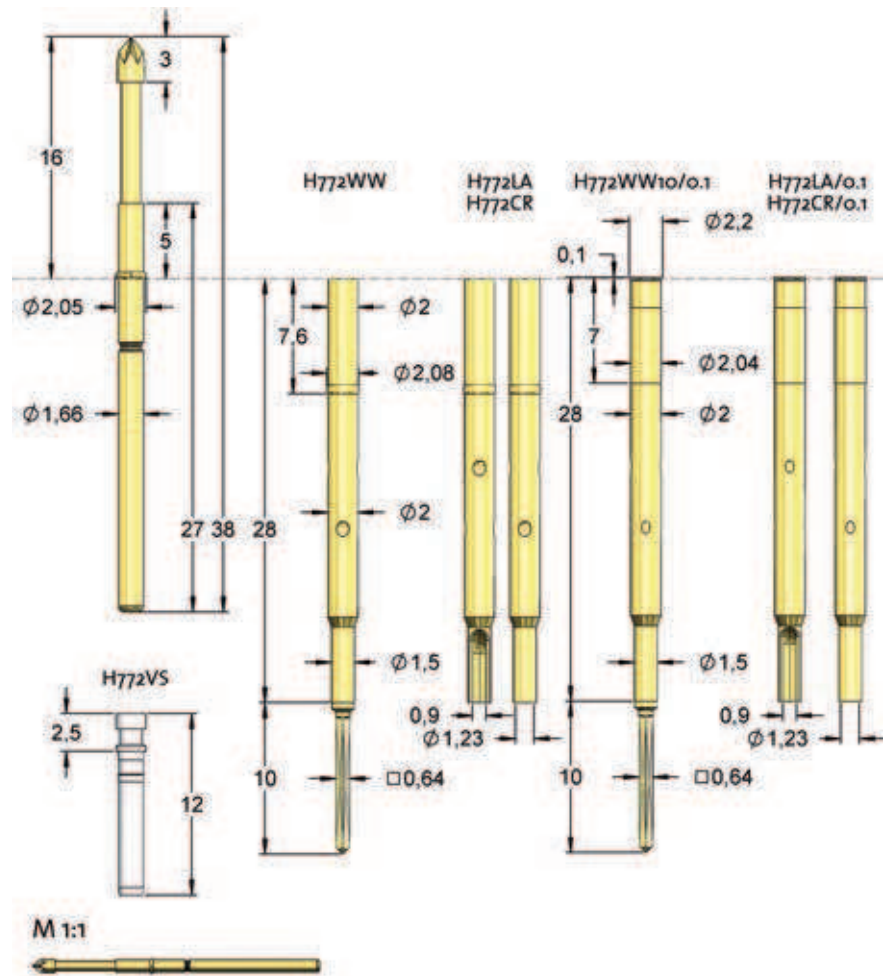
H772 Press ring as stop	1,99 - 2,00
H772 Press ring inserted	2,03 - 2,05
H772 with collar	2,02 - 2,03

Projection Height

H772...	16,0 - 23,6
H772.../0.1	16,1

Type	Tip-Ø	Spring Force
F 786 33 S 130 P 300 HP		
Tip Style	Material	Finish Special Version
Material:	B = BeCu, S = Steel, K = Synthetic	
Tip-Ø:	130 = 1,3 mm (e.g.)	
Finish:	G = Gold, L = Longtime Gold plated, P = Functional coating, N = Nickel, U = Unplated	
Special Version:	B = „Banana Shaped“, IK = Insulating cap, HP = Progressive Series	
Receptacle:	Order Code according drawing	

ORDER EXAMPLE



The F786 is the long travel version of the F772. These probes can be combined well in dual stage fixtures.

Tip Style	Number	Material	Plating	Ø in mm	Version
	04	B	G	2,0	-
	05	B	G	1,3	-
	06	B	G	2,0	-
	06	B	G	4,5	-
	07	S	L	1,8	-
	07	S	L	2,0	-
	11	B	G	1,3	-
	14	S	L	2,0	-
	15	B	G	2,0	-
	18	B	G	1,3	-
	21	S	L	1,3	-
	32	S	L	0,8	-
	32	S	N	0,8	-
	33	S	P	1,3	HP
	33	S	L	1,3	-
	38	S	L	1,3	-
	63	S	L	2,0	-

Receptacles and Assembly

Receptacles for Spring Contact Probes

For simple replacement spring contact probes are typically mounted into receptacles. The probes are either plugged-in or screwed into the receptacle, depending on the type of contact probe. Receptacles are available with different types of electrical connection.

Mounting

Receptacles with collar on top have a fixed projection height and guarantee the tightest seat with very low tolerances. Receptacles with press ring can be used in two ways. Either the press ring is used as dead stop or it is inserted into the mounting plate, which results in a variable projection height. For receptacle insertion into the mounting plate, a special insertion tool is necessary.

Connection of Receptacles

Almost all receptacles are available with solder or crimp connection. Wire wrap connections are frequently used for test fixture manufacturing, because they can be wired automatically. Some receptacles (especially those with very small diameters) are available with preassembled cables. Additionally, for example to connect coaxial probes, special connecting elements can be used.

Types of Receptacles

At ICT/FCT test fixtures mainly plug-in probes are used. However, in some applications, particularly at modules for wire harness and connector tests, threaded probes are used, which are screwed into the receptacles. Threaded probes guarantee a secure seat because they do not move out of the receptacle even under difficult conditions. Knurled receptacles ensure a firm seat of the receptacle in the drill hole. For switch probes and coaxial probes, FEINMETALL has developed special receptacles called „combi-receptacles“, which enable a solder free exchange of these probes. Further receptacles with integrated switch function are available, that are frequently used in combination with twist proof probes.

Drilling Recommendations

Mounting the receptacle into the mounting plate demands special precision. Various parameters like rotating speed, feed, helical groove length, material and plate thickness are influencing the drilling results. Therefore it is very important to make drilling tests in order to ensure that the receptacles have a proper seat in the mounting plate. The drilling recommendations in the technical specifications of the probes are guideline values only as a basis for your own drilling trials.

Spacers

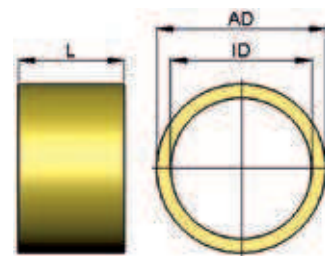
For height adjustment and balancing of tolerances.

Spacers H773 for 138 mil Probes

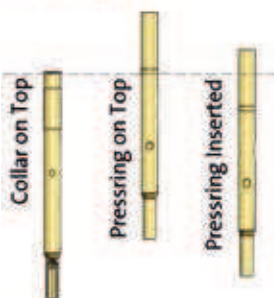
Order Code	OuterØ	InnerØ	Length
H773DS/01	3,2	2,7	0,1
H773DS/05	3,2	2,7	0,5
H773DS/10	3,2	2,7	1,0
H773DS/20	3,2	2,7	2,0
H773DS/30	3,2	2,7	3,0
H773DS/50	3,2	2,7	5,0

Spacers H772 for 100 mil Probes

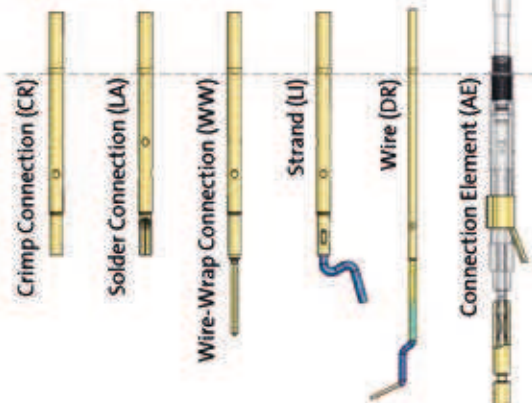
Order Code	OuterØ	InnerØ	Length
H772DS/10	2,2	1,7	1,0
H772DS/20	2,2	1,7	2,0
H772DS/30	2,2	1,7	3,0
H772DS/50	2,2	1,7	5,0



Mounting



Types of Connections



Types of Receptacles

