

**HF60-0004 SMB-M 5 P MCX**

HF86005B0004G530

HF86005B0004G530M

**Contacting  
SMB-Male**

|                           |               |
|---------------------------|---------------|
| <b>Centers (mm/mil)</b>   | 6,00 / 236    |
| <b>Current (Circular)</b> | 10,0 A        |
| <b>Current (Internal)</b> | 3,0 A         |
| <b>Impedance [Z]</b>      | 50 Ohm        |
| <b>Frequency</b>          | 5 GHz         |
| <b>Temperature</b>        | -20°C...+80°C |

**Spring Force (cN ±20%)**

|                | Preload | Nominal |
|----------------|---------|---------|
| Total          | -       | 530     |
| Internal Cont. | 75      | 130     |
| Circular Cont. | 90      | 400     |

**Travel (mm)**

|                | Nominal | Maximum         |
|----------------|---------|-----------------|
| Internal Cont. | 2,0     | 3,7             |
| Circular Cont. | 4,0     | 5,0             |
| Thread (M)     |         | M5x0,5          |
| Wrench Size    |         | 3,5 / 4,0 / 5,0 |

**Materials and Plating**

|                |                           |
|----------------|---------------------------|
| Internal Cont. | BeCu, gold plated         |
| Circular Cont. | BeCu, gold plated         |
| Barrel         | Brass, gold plated        |
| Spring         |                           |
| Internal Cont. | Music Wire, gold plated   |
| Spring         |                           |
| Circular Cont. | Stainless steel, unplated |
| Receptacle     | Brass, gold plated        |

**Drill Size (mm)**

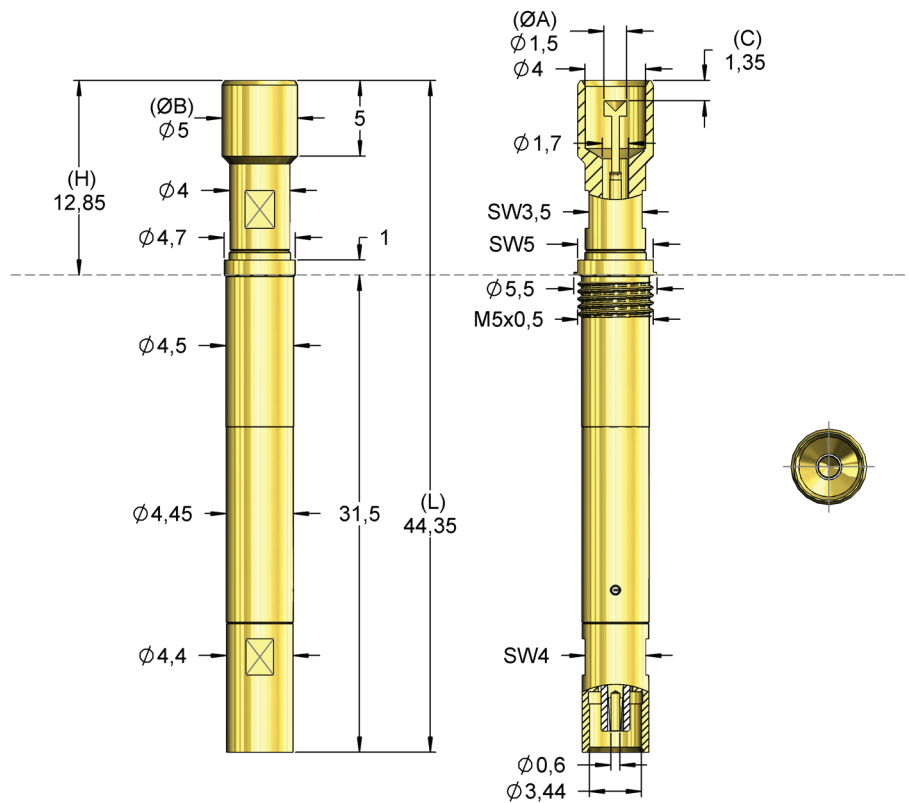
|        |             |
|--------|-------------|
| H860   | 4,99 - 5,00 |
| H860RD | 5,51 - 5,53 |
| H860FL | 7,99 - 8,01 |

**Projection Height (mm)**

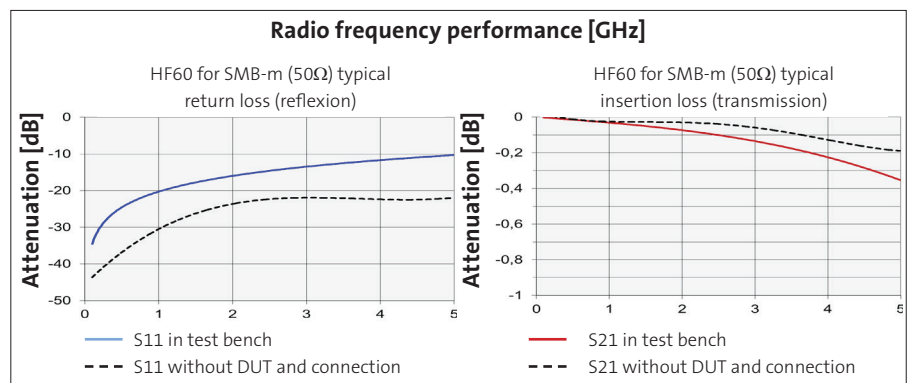
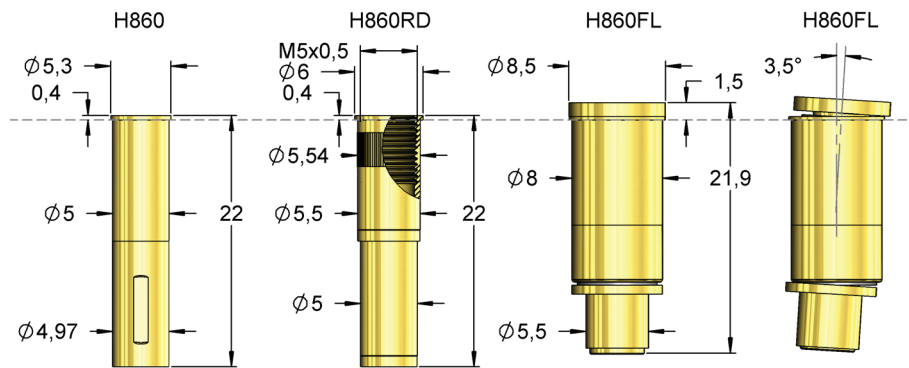
|                         |       |
|-------------------------|-------|
| H860(RD) with HF60-0004 | 13,25 |
| H860FL with HF60-0004   | 14,35 |

**Accessories**

|                                |                     |
|--------------------------------|---------------------|
| Internal pin                   | F08605B150G130      |
| Tool for changing internal pin | FZWZ-005 / FDWZ-050 |
| Insertion tool receptacle      | FEWZ-822E0          |
| Screw-in tool probe            | FWZ860HF50          |
| Cables see overview            | page 62             |



For contacting SMB-Male connectors.



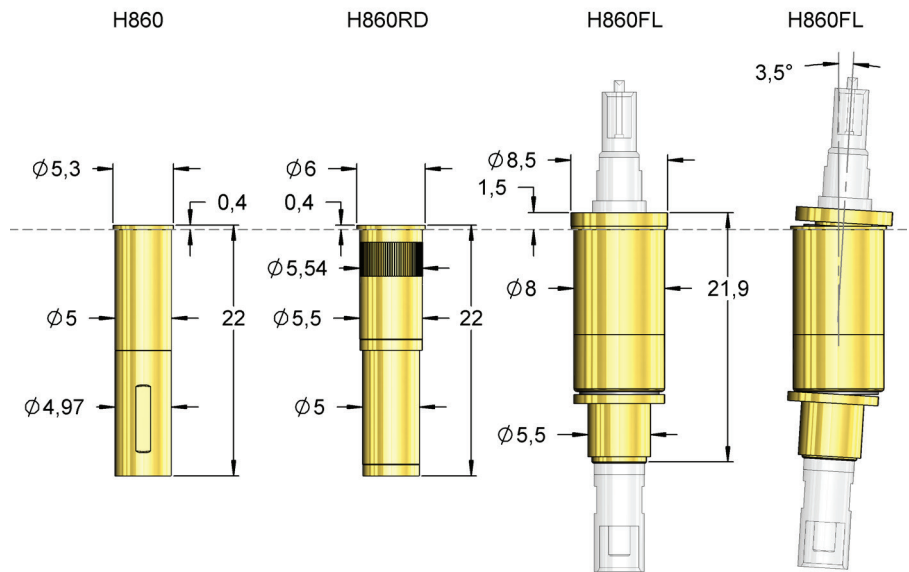
| Order Code        | Description             | Sensepin | Tip Style | Ø A  | Ø B  | C     | H     | L     | Version |
|-------------------|-------------------------|----------|-----------|------|------|-------|-------|-------|---------|
| HF86005B0004G530  | HF60-0004 SMB-M 5 P MCX |          | 05        | 1,50 | 5,00 | -1,35 | 12,85 | 44,35 | -       |
| HF86005B0004G530M | HF60-0004 SMB-M 5 S MCX |          | 05        | 1,50 | 5,00 | -1,35 | 12,85 | 44,35 | M       |



# Receptacles

## for HF860

The new receptacle H860FL allows a flexible (floating) mounting of the high frequency probe HF60. It permits a wobbling by 360 degrees in case of a small offset to the DUT. Such a possible offset is compensated without damaging the DUT. In released mode the HF probe is returned to its zero point position. The screwable receptacle with knurl (H860RD) is available for the screwable versions of the HF860.

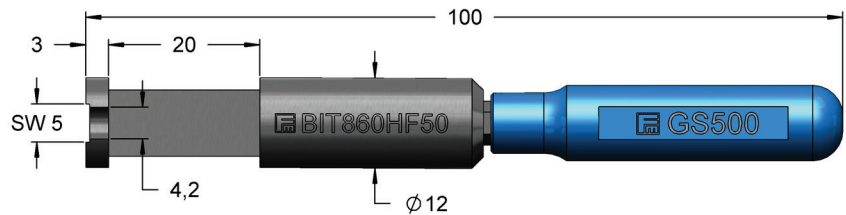


# Tools

## for HF860

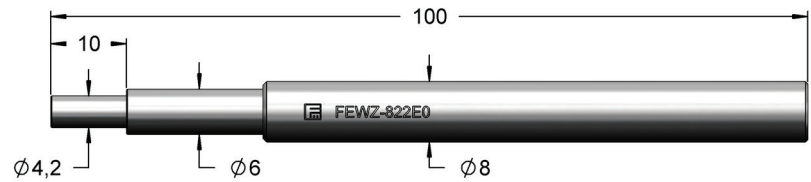
### FWZ860HF50

The FWZ860HF50 is used to screw the probes HF860...M into the screwable receptacle H860RD.



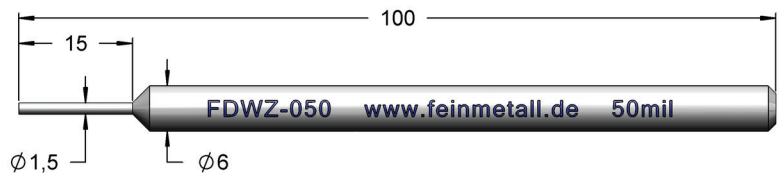
### FEWZ-822E0

The FEWZ-822E0 is used to insert the receptacles H860... into the mounting plate.



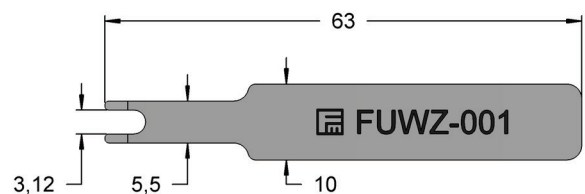
### FDWZ-050

The FDWZ-050 is used to insert the signal pin of the HF860 and HF819 if it is possible to replace the signal pin without damaging it.



### FUWZ-001

With the release tool FUWZ-001 the pin can be released from the flange. The Mini SMP cable connection can also be easily removed without pulling on the cable.



### FZWZ-004 / FZWZ-005 / FZWZ-006

With the removal tool, the signal pin of the HF860 or HF819 can be disconnected and replaced.

- FZWZ-004 - Ø0,50 - 0,95mm
- FZWZ-005 - Ø0,95 - 1,55mm
- FZWZ-006 - Ø1,55 - 1,85mm





# F086

## Internal Contact for RF Probes HF819 and HF860

|                         |               |
|-------------------------|---------------|
| <b>Centers (mm/mil)</b> | 1,27 / 50     |
| <b>Current</b>          | 3,0 A         |
| <b>R<sub>typ</sub></b>  | 10 mOhm       |
| <b>Temperature</b>      | -20°C...+80°C |

### Spring Force (cN ±20%)

| Version  | Preload | Nominal |
|----------|---------|---------|
| Standard | 75      | 130     |
| SP       | 75      | 130     |

### Travel (mm)

| Version           | Nominal | Maximum  |
|-------------------|---------|----------|
| Standard          | 2,0     | 3,7      |
| SP                | 2,0     | 3,7      |
| Pointing Accuracy |         | ±0,05 mm |

### Materials and Plating

|            |                            |
|------------|----------------------------|
| Plunger    | see Tip Style              |
| Barrel     | Bronze, gold plated        |
| Spring     | Music Wire, gold plated    |
| Receptacle | Nickel silver, gold plated |

### Accessories

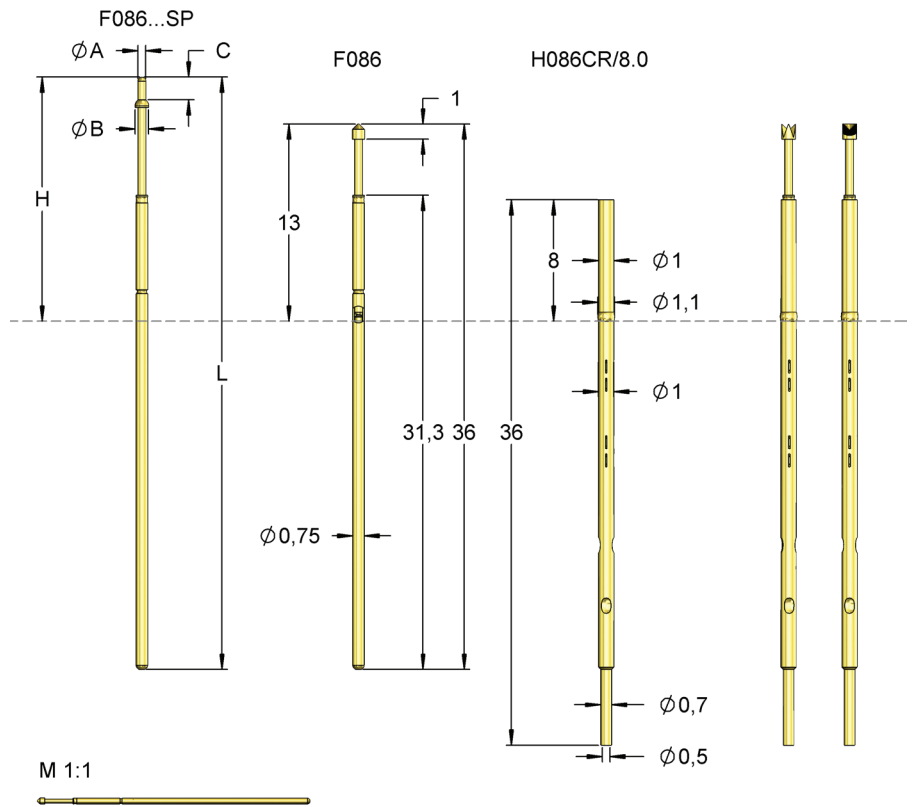
|                           |            |
|---------------------------|------------|
| Insertion tool receptacle | FEWZ-050EV |
| Insertion tool receptacle | FEWZ-050E0 |
| Insertion tool probe      | FDWZ-050   |

### Drill Size (mm)

|                                |             |
|--------------------------------|-------------|
| Receptacle press ring as stop  | 0,99 - 1,00 |
| Receptacle press ring inserted | 1,05 - 1,07 |

### Projection Height (mm)

|                           |            |
|---------------------------|------------|
| H086CR/8.0 with F086      | 5,0 - 13,0 |
| H086CR/8.0 with F086...SP | 8,1 - 16,1 |



The F086 is mounted in the RF probes HF860 and HF819 as internal contact for signal transmission.

\* deviating from standard, depending on diameter.

| Tip Style | Number | Material | Plating | Ø in mm | Version |
|-----------|--------|----------|---------|---------|---------|
|           | 02     | B        | G       | 0,80    | -       |
|           | 02     | B        | 3,00    | G       | S1      |
|           | 02     | B        | G       | 1,80    | -       |
|           | 05     | B        | G       | 0,90    | -       |
|           | 05     | B        | G       | 1,50    | -       |
|           | 11     | B        | G       | 0,51    | -       |
|           | 14     | B        | L       | 0,90    | -       |
|           | 18     | B        | G       | 0,51    | -       |
|           | 55     | B        | G       | 0,90    | -       |

| Series             | Tip-Ø                                     | Spring Force (cN)        |
|--------------------|---|--------------------------|
| <b>F086</b>        | <b>14</b>                                 | <b>S 090 L 130</b>       |
|                    | Tip Style                                 | Material Plating Version |
| <b>Material:</b>   | B = BeCu, S = Steel                       |                          |
| <b>Tip-Ø:</b>      | 090 = 0,90 mm (e.g.)                      |                          |
| <b>Plating:</b>    | G = Gold plated, L = Longtime gold plated |                          |
| <b>Version:</b>    | SP = Step Probe (see table)               |                          |
| <b>Receptacle:</b> | Order Code according drawing              |                          |

| Order Code          | Tip Style | Ø A       | Ø B  | C    | H    | L     | Version |
|---------------------|-----------|-----------|------|------|------|-------|---------|
| F08612B0002G130SP * | 12        | 0,51      | 0,90 | 1,50 | 8,10 | 39,10 | SP      |
| F08612B0004G130SP * | 12        | 0,60      | 0,90 | 1,50 | 8,10 | 39,10 | SP      |
| F08612B0003G130SP * | 12        | max. 0,60 | 0,90 | 1,50 | 8,10 | 39,10 | SP      |





# CONNECTION CABLES


## for Types HF860/HF66

### Connection Cables for HF860


**Connection element with pre-assembled coaxial cable RG 316.**  
Impedance: 50 Ohm  
Cutoff frequency: recommended up to **3 GHz**


**H86oAE1**  Coax cable 3GHz 700 mm  
MCX-M straight unassembled


**H86oAE3**  Coax cable 3GHz 700 mm  
MCX-M straight SMA-M straight

**H86oAE4**  Coax cable 3GHz 700 mm  
MCX-M straight BNC--M straight

**Connector with pre-assembled coaxial cable Multiflex 86.**  
Impedance: 50 Ohm  
Cutoff frequency: recommended up to **10 GHz**

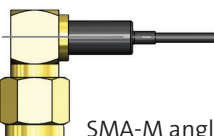
**H86oAE2**  Coax cable 10GHz 700 mm  
MCX-M straight SMA-M straight


**H86oAE5**  Coax cable 10GHz 1500 mm  
MCX-M straight SMA-M straight


**H86oAE6**  Coax cable 10GHz 800 mm  
MCX-M angled SMA-M grade

### Connection Cables for HF66

**Connector with pre-assembled highly flexible coaxial cable.**  
Impedance: 50 Ohm  
Cutoff frequency: recommended up to **6 GHz**

**H66AE1**  Coax cable 6GHz 700 mm  
SMA-M angled mSMP-F straight

**H66AE2**  Coax cable 6GHz 700 mm  
SMA-M straight mSMP-F straight

**H66AE3**  Coax cable 6GHz 300 mm  
SMA-M angled SMA-M straight