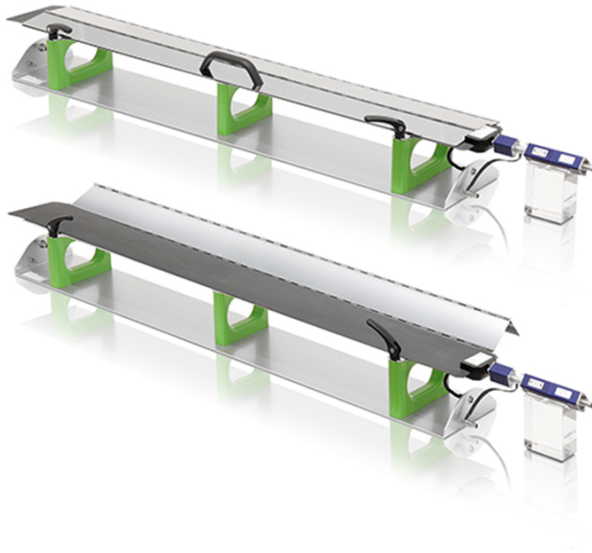


# CA HFK

## CALIBRATION KIT FOR CAPACITIVE COUPLING CLAMP VERIFICATION



### FOR TESTS ACCORDING TO ...

- > EN 61000-4-4
- > IEC 61000-4-4

### CALIBRATION SET FOR CAPACITIVE COUPLING CLAMP VERIFICATION






The IEC 61000-4-4 Ed 3.0 published 2012 recommends the calibration of the capacitive coupling clamp into a 50ohm coaxial load.

The capacitive coupling clamp (HFK) is connected to the 50 ohm output of the EFT generator. A flexible insulated plate inside the HFK is connected to a coaxial 50 ohm load resistor for verificate the EFT / Burst wave of the capacitive coupling clamp.

### HIGHLIGHTS

- > Calibration kit for capacitive coupling clamp as per IEC 61000-4-4 Ed.3
- > Extension for the CA EFT Kit for capacitive coupling clamp calibration with EFT/burst
- > Flexible transducer plate 1050 x 120mm included
- > Support provided to adapt the load resistors on 100mm height level

### APPLICATION AREAS

-  INDUSTRY
-  MEDICAL
-  BROADCAST
-  TELECOM
-  RESIDENTIAL

**TECHNICAL DETAILS**

**CA HFK CALIBRATION SE-TUP**

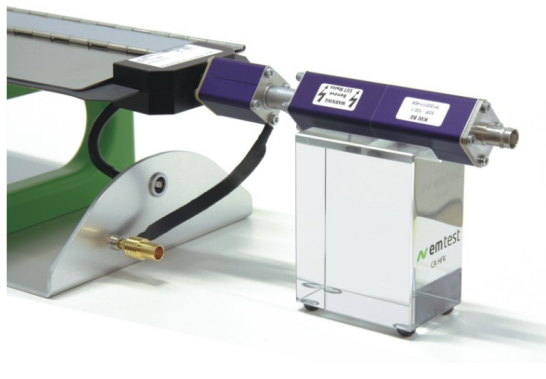
**CALIBRATION OF THE CAPACITIVE COUPLING CLAMP**

The standard IEC 61000-4-4 Ed 3.0 recommends a new calibration of the capacitive coupling clamp. EM test developed for the calibration, the CA HFK set.

- Components required for carry out the calibration:
- CA HFK: Consisting of transducer-plate and support
- KW 50: Load resistor 50ohm
- AD-CA EFT: Adapter 4mm/6mm for connect the transducer-plate to the coaxial F103 connector of KW 50

**Calibration set-up**

The transducer plate shall be placed into the capacitive coupling clamp such that the end with the connection is aligned with the end of the coupling plate. The connecting adapter AD-CA EFT is bond with a low impedance connection band to ground reference plane for grounding of the 50ohm coaxial measurement terminator/attenuator. The load resistor KW 50 is connected to the AD-CA EFT adapter. An acrylic support places the KW 50 to the same 100mm height as the coupling clamp is distant from the reference ground. The distance between the transducer plate and the KW 50 measurement terminator/attenuator shall not exceed 0,1m. A setup example is given in figures on this datasheet.



**COUPLING CLAMP CALIBRATION**

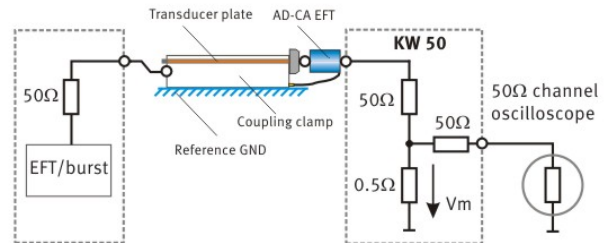
The calibration of the capacitive coupling plane is performed with the open circuit voltage setting at the EFT/burst generator (50ohm output): 2,000V

Resulting output voltage across the KW 50 (50ohm matching resistor): 1,000V.

Measuring voltage  $V_m$ : 10V

Measured voltage considering the 50ohm input impedance of the oscilloscope: 5V

Resulting attenuation (theoretical): 400:1



**TECHNICAL DETAILS**

**TRANSDUCER PLATE**

TECHNICAL DATA FOR TRANSDUCER PLATE	
Description	Transducer plate with 4mm connection plug
Input Voltage	Max. 5,000V
Dimension	
Insulation	1,100 +/-5mm x 130 +/-1mm
Copper foil	1,050 +/-5mm x 120 +/-1mm thickness foil <0.5mm
Weight	300g

**OPTIONS**

OPTIONAL ACCESSORIES	
CA EFT Kit	Calibration Kit for EFT Burst calibration includes: - KW 50, 50ohm load resistor - KW 1000, 1,000ohm load resistor - AD-CA EFT, Adapter 4mm/6mm to coaxial F103 connector, (connection Load resistor to transducer plate)
AD-CA EFT	Adapter to match the transducer plate to the KW 50 load resistor, (connection Load resistor to transducer plate)
KW 50	Coaxial 50ohm load resistor for EFT/Burst transient calibration

**SUPPORT**

TECHNICAL DATA FOR INSULATED SUPPORT	
Description	Support for measuring adapter KW 50 on 100mm level for capacitive coupling clamp verification
Hight KW 50	100mm +/- 1mm
Material	Acrylic
Dimension	70mm x 49mm x 95mm
Weight	400g

# COMPETENCE WHEREVER YOU ARE



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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.