Probe holder eoPod™ 2nd generation

Make easy measurement of the three components of the E field in any environment & for any location

Withstand of 25 kV_{RMS} voltage, 4.7 T magnetic field & 0.1 W/cm^2 power density

Set of two detachable parts: base plate with suction effect & articulated probe holder

Intended for use with 4th generation Kapteos EM-field probes

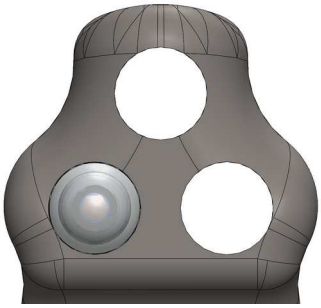
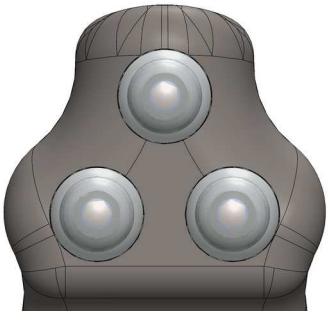
Articulated, immersible & metal-free probe holder for straightforward positioning of EM-field probes in gases, plasma and liquids, MRI & harsh environment (vacuum, high pressure) compliant

KEY PARTNER FOR ELECTROMAGNETISM

kapteos

Implementation

Depending on the application, 1 to 3 probes can be mounted together on the same holder without any tool. This holder allows simultaneous measurement of different EM-field components in a very limited space either in air, in liquids, in low or high pressure medium. The voxel of measurement is lower than 1 cm^3. The holder design ensures both auto-centring of the probes and absence of probe coupling effect.

Number of probes	Configuration	Use & features
1		**Measurement of 1 EM-field component** Straightforward assessment of the longitudinal E-field component in the reactive near field region or for EMI diagnostics
2		**Measurement of 2 EM-field components** Straightforward assessment of co- & cross-polarization of the EM wave radiated by an antenna or an array of antennas
3		**Measurement of 3 EM-field components** Straightforward assessment of the three components of the E field vector

PERFORMANCE SPECIFICATIONS

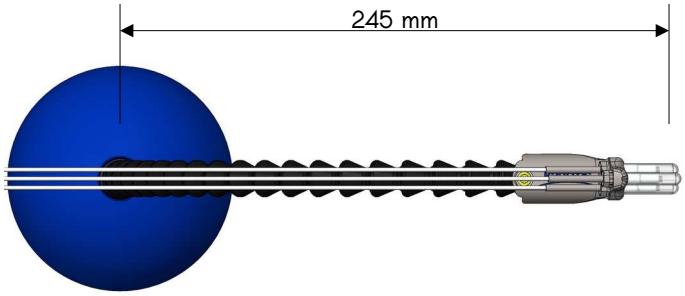
		Min	Typical	Max	Unit
Density	For immersion purpose	1.08	1.11	1.14	
Hemispherical silicone base	Hardness		28		Shore A
Withstand	Voltage	25			kV_{RMS}
	Magnetic field	4.7			T
	Permanent Power Density (f < 10 GHz)	0.1			W/cm^2
3 E-field component meas. voxel	Diameter		11	11.5	mm
	Length for EX1 probes		1.5	2	
	Length for EX5 probes		5.5	6	
Holder tip dielectric constant	ε_r (f < 300 GHz)	2.75	2.8	2.95	
	tan δ @ 1 GHz		$2\ 10^{-3}$		
	@ 3 GHz		$3\ 10^{-3}$		
	@ 10 GHz		$6\ 10^{-3}$		
	@ 30 GHz		$11\ 10^{-3}$		
	@ 100 GHz		$21\ 10^{-3}$		

MECHANICAL SPECIFICATIONS

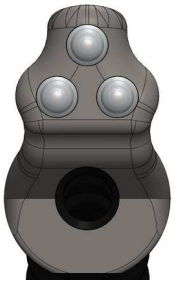
		Min	Typical	Max	Unit
Dimensions	Inter-probe distance (equilateral triangular grid)		8.0		mm
	Articulated arm length (20 elements arm)		280		
	Silicone base diameter		100		
Weight		310	330	350	g
Ingress Protection rating			IP68		

Front view

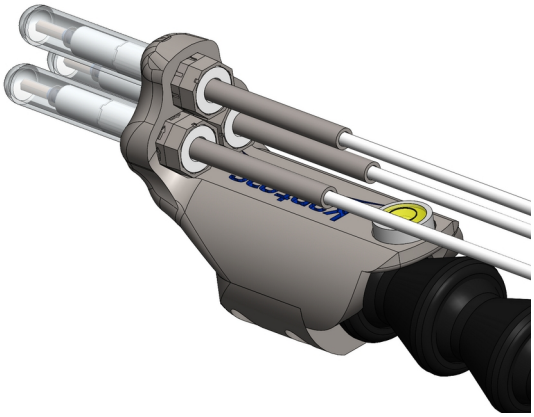
Top view



Probe holder tip front view at scale 1:1



Isometric view



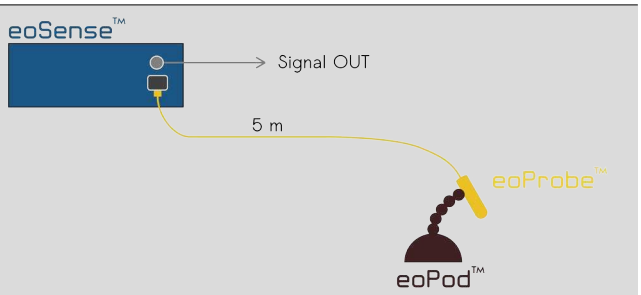
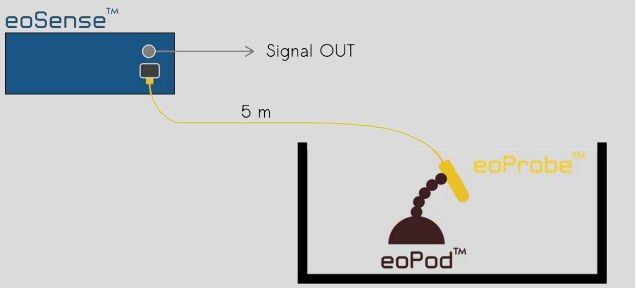
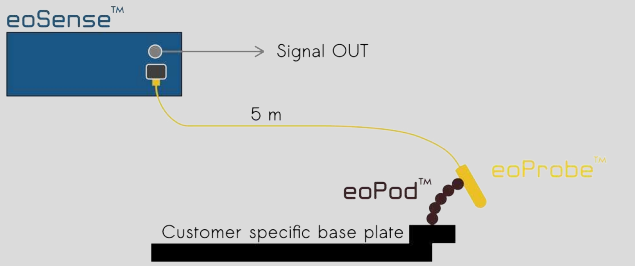
Environmental specifications

		Min	Typical	Max	Unit
Temperature	Operating	10		50	°C
	Storage	10		40	
Pressure	Operating	1		2000	hPa
	Storage	690		1075	
Storage	Only in its original case in a clean, dry environment				
Cleaning	Wash with dishwashing product and rinsed with clean water				

Packaging information

	Contents
eoPod™ holder	Delivered with an embedded bubble level & a 3-probe holder
Transport case	Cardboard with protective foam (W x D x H = 185 x 165 x 105 mm - Weight: 170 g)
User guide	See website https://en.kapteos.com/

Compatible devices and accessories

Device	Associated data sheet	Use	Outline schematic
EM-field probe	eoProbe-FT-23.10.pdf	Recommended setup in most cases	
		Immersed setup for measurements in phantoms	
		Customer-defined setup	

Hardware options, customization and accessories

Field of activity	Issue	Options and/or accessories
EMP generated by laser-plasma interaction using PW lasers	Intense UV, X and γ rays	-ELI → Specific holder for probe embedding an additional protective sheath against extreme light intensity

Ordering information

Model	Type	(Option)
eoPod	LW	-ELI

Examples: Probe holder for transverse or longitudinal probes in low κ or high κ liquids → **eoPod LW**
Probe holder for probes having additional protective sheath against extreme light intensity → **eoPod LW-ELI**

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