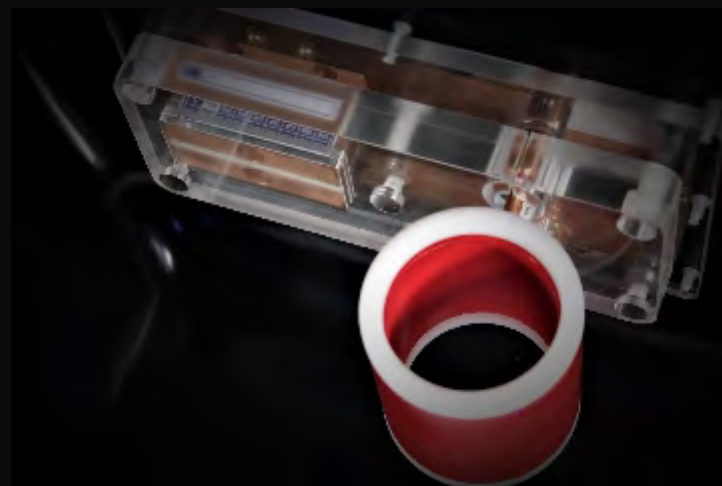


CoilSet	Type	Geometry	Main diameter [mm]	Max. Recommended Work Frequency	Related accessories
S18	Small solenoid for high-amplitude experiments	Protected single tube solenoid	20 (coil) 18 (usable)	900KHz	IR1, DRM, Vial column with foam insulation
S32	General purpose solenoid	Protected single tube solenoid	34 (coil) 32 (usable)	900KHz	IR1, DRM, Versatile sample holder
S56	General purpose solenoid	Protected single tube solenoid	59 (coil) 56 (usable)	900KHz	IR1, DRM, Versatile sample holder
S76	Large diameter solenoid	Protected single tube solenoid	79 (coil) 76 (usable)	900KHz	IR1, DRM, Versatile sample holder
CAL 1	Calorimetry setup	Protected single tube solenoid with sealed dewar flask calorimeter and fiber optic temperature sensor	34 (coil) 30 (dewar) 12 (vial)	900KHz	
CAL 2	Calorimetry setup	Protected single tube solenoid with open dewar flask calorimeter and fiber optic temperature sensor	34 (coil) 30 (dewar) 12 (vial)	900KHz	Vacuum pump
PC70	Flat coil for Petri dishes and planar samples	Pancake multilayer litz wire coilset	70 (coil) 120 (CAT) 155 (plate)	450KHz	IR1, CAT, DRM, Warmer
PC90	Flat coil for Petri dishes and planar samples	Pancake multilayer litz wire coilset	90 (coil) 120 (CAT) 155 (plate)	450KHz	IR1, CAT, DRM, Warmer
H45	Semi-open coil array for in-vivo (mice)	Coaxial multi-solenoid litz wire coilset	53 (coils) 45 (animal bed)	450KHz	IR1, Thermalized animal bed, Warmer
H56	Semi-open coil array for in-vivo (rats)	Coaxial multi-solenoid litz wire coilset	62 (coils) 56 (animal bed)	450KHz	IR1, Thermalized animal bed, Warmer
Double H	Open dual position coil array for in vivo (mice and rats)	Coaxial multi-solenoid litz wire coilset	55 (coils) 40 (perpend.) 48 (axial)	450KHz	IR1, Thermalized animal bed, Warmer

CoilSets Guide



D5 series Instruments for Magnetic nanoHeating CoilSets

All CoilSets in the D5 Series can be installed in all drivers. All CoilSets can be tuned in a wide range of frequencies, covering all the magnetic heating range. The maximum amplitude of each CoilSet depends on the Driver's power and the working frequency. All coil sets are calibrated and field distribution map certificate is provided.

IMPORTANT NOTICE:

- I - All Drivers can deliver any amplitude below the reported maximum (see tables)
- II - Regardless of the available preset frequency modes in G Drivers for each CoilSet, all CoilSets can be tuned into virtually any required frequency (within the working range) when combined with a custom plugin capacitor, in all Driver models.
- III - All frequencies and intensities can develop a typical 5% tolerance of their nominal catalog values (reported on the calibration certificate).

CAL 1 and CAL 2

Designed for calorimetry experiments in colloids (SAR/ILP/SPA measurement) in 2ml vials. Provide 5% field homogeneity across the sample and thermal insulation. Feature a sample holder column with fiber optic probe for high-precision temperature measurement.

CAL 1 features a sealed glass dewar flask that provides good thermal insulation without vacuum pump.

CAL 2 features an open glass dewar flask that provides excellent thermal insulation with a turbomolecular or rotary vacuum pump.

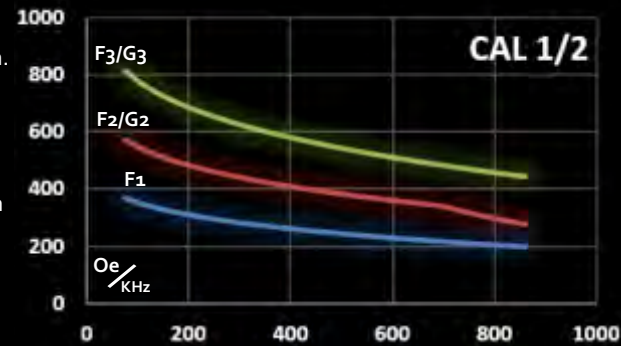
Max recommended Frequency: 900KHz

Geometry: Single solenoid tube CoilSet.

Homogeneity: 5% across the sample (typ1.5ml)

Main preset Frequency modes on G models [KHz]:

141,153,161,292,317,333,372,471,608,744



PC 70 and PC 90

Flat CoilSets designed for experiments on petri dishes and other planar samples. Huge 70mm/90mm diameter. Designed to work with CAT accessory.

Provide high intensity over a wide area close to the upper surface and rapidly fades off on the vertical axis

Max recommended Frequency: 450 KHz

Geometry: Pancake multilayer litz wire CoilSets

Homogeneity (for petri dishes):

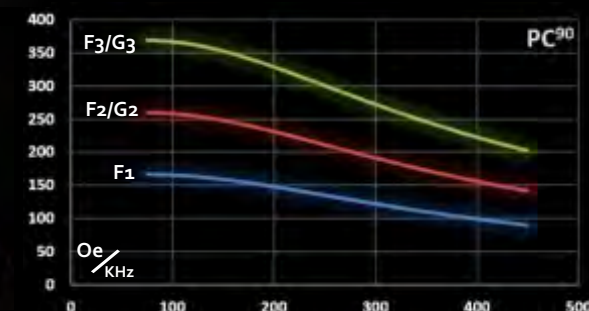
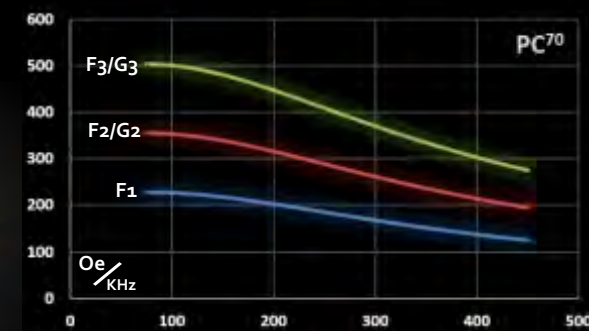
PC⁷⁰: 11% in 35mmØ, 27% in 50mmØ;

PC⁹⁰: 7% in 35mmØ, 11% in 50mmØ, 32% in 90mmØ

Main preset Frequency modes on G models [KHz]:

PC⁷⁰: 140,157,283,308,323,361,457

PC⁹⁰: 147,159,168,304,331,347,338



H45 and H56

Semi open coil array with integrated thermalized animal bed for in vivo experiments with mice and rats. Cylindrical sample volume, 45mm and 56mm diameter. Enable partial observation window (20mm) for video and thermal imaging.

Max recommended Frequency: 450KHz

Geometry: Coaxial multi-solenoid litz wire CoilSets.

Homogeneity: 10% in the central 30mm x 58mm cylinder (H⁴⁵) and 44mm x 56mm cylinder (H⁵⁶)

Main preset Frequency modes on G models [KHz]:

H⁴⁵: 120, 130, 138, 249, 270, 284, 317, 401

H⁵⁶: 105, 120, 217, 236, 247, 276, 249, 451



Double H

Open coil array with integrated thermalized animal bed for in vivo experiments with mice and rats on axial and perpendicular placement. Enables full body observation window for mice (40mm) and partial body observation for rats (48mm).

Max recommended Frequency: 450KHz

Geometry: Coaxial multi-solenoid litz wire CoilSet.

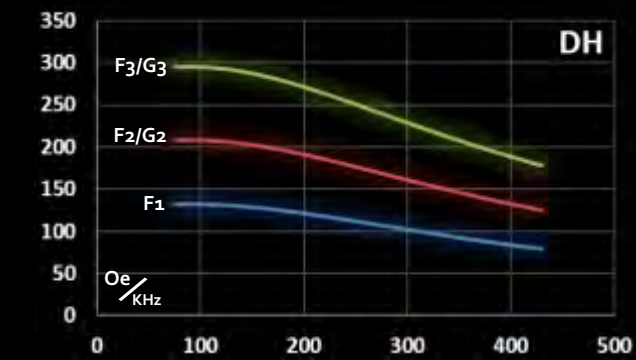
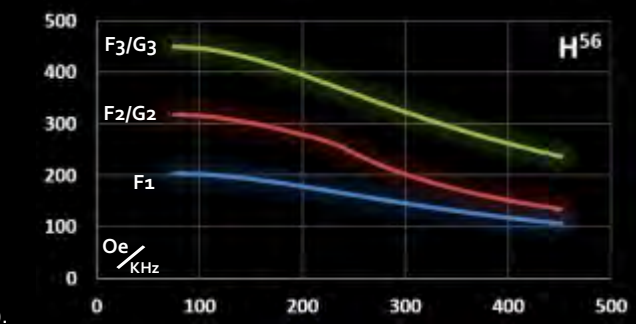
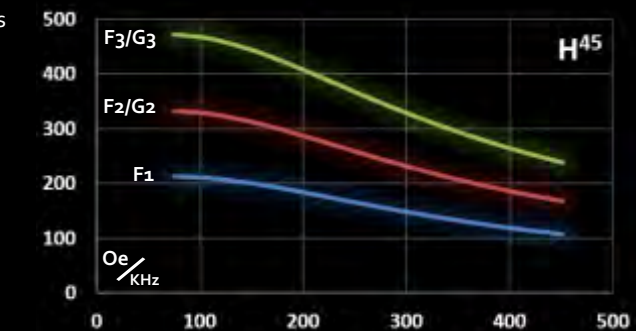
Homogeneity: 10% in the central 40mm a spherical volume.

Main preset Frequency modes on G models [KHz]:

129,139,147,266,289,303,339,429.



Maximum field amplitude [Oersted] vs Frequency [KHz] for F1 Driver (blue), F2/G2 Drivers (red) and F3/G3 Drivers (green)



S18, S32, S56, S76, and S(n)

Classic solenoidal coils with safety covers, with different diameters and heights. Provide an inexpensive solution to unusual setups.

Custom large diameter enables experiments with rabbits Small diameter CoilSet (S¹⁸mm) enables up to 1.2 KGauss/0.12T/100KAm AMF.

Max recommended Frequency: 900KHz

Geometry: Single solenoid tube CoilSet.

Homogeneity: 10% in the central cylinder (S¹⁸:16Ø20H; S³²:32Ø24H; S⁵⁶:48Ø40H; S⁷⁶:46Ø34H)

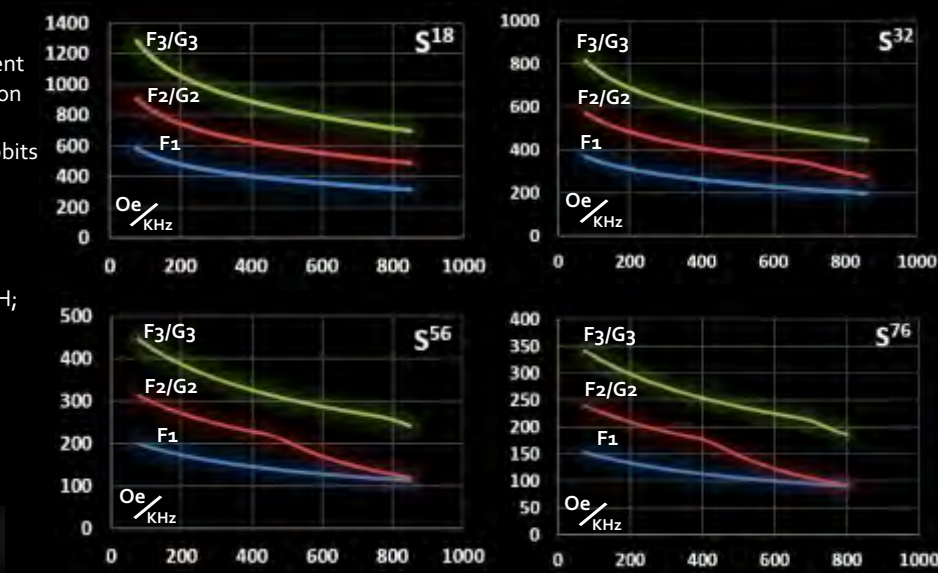
Main preset Frequency modes on G models [KHz]:

S¹⁸: 152,159,168,174,314,341,358,400,506,654,800

S³²: 141,153,161,292,317,333,372,471,608,744

S⁵⁶: 117,127,134,242,263,276,308,390,504,617

S⁷⁶: 118, 127,135,243,265,277,310,392,506,620



**All the applications. All the frequencies
All in one instrument**