

# MICROTECH GEFELL



microphones & acoustic systems - founded 1928 by Georg Neumann

## M 930



## M 940



## M 950



### STUDIO CONDENSER MICROPHONES

Polar pattern:  
Cardioid, super-cardioid,  
wide-cardioid

- Extreme dynamic range
- Noise floor 7 dB-A
- Universal applications
- New large diaphragm capsule
- Advanced circuit design
- Transformerless output
- Internal elastic suspension
- Compact design



## STUDIO CONDENSER MICROPHONES

**High output level and exceptionally low noise**

**M 930 with cardioid directional pattern**

**M 940 with super-cardioid directional pattern**

**M 950 with wide-cardioid directional pattern**

The M 930, M 940, M 950 studio condenser microphones combine modern large diaphragm capsule technology with the latest in semiconductor circuit topology. They are specifically designed to meet the needs of professional and semi-professional users who demand the highest performance.

The microphones are ideally suited for universal miking applications in broadcast and sound studios. Their very favorable pricing also makes them attractive for project studios. Applications include vocalists, announcers, dialog pickup and as spot microphones for recording guitars, keyboard, percussion, wind and string instruments.

**The pick-up pattern is perpendicular to the direction of the microphone axis (side addressed). The model number and pick-up pattern symbol mark the front of the microphone.**

The condenser capsules exhibits a smooth frequency response with a slight presence boost in the 7 to 11 kHz range. The polar response exhibits an exceptionally high degree of rejection for sounds impinging from the rear (cardioid) or sides (super-cardioid) of the microphone.

The electronic impedance converter uses a newly perfected circuit topology. This design reduces the noise floor to an extremely low level while also raising the maximum output capability. As a result, these microphones have a clean, distortion free sound over an extremely wide dynamic range. RFI susceptibility is very low.

The microphone capsule and electronics are elastically suspended inside the compact metal housing. This reduces the sensitivity to mechanical impact and structure born noise. The microphone stand holder MH 93.1 can be exchanged for an elastic suspension EH 93 to further attenuate noise in extreme situations.

The M 930, M 940, M 950 connect to the microphone cable with a standard 3-pin XLR plug. Powering must be provided by an external 48 V phantom supply according to DIN 45596 and IEC 268-15.

The microphones are finished in either a satin nickel or dark bronze color.



M 930  
with elastic  
suspension EH 93



## DELIVERY

Microphone **M 930** with the microphone holder MH 93.1 in a wooden case

l x d x h 180 x 106 x 78 mm

satin nickel

Order-No. 211150

dark bronze

Order-No. 211151

Microphone **M 940** with the microphone holder MH 93.1 in a wooden case

l x d x h 180 x 106 x 78 mm

satin nickel

Order-No. 211156

dark bronze

Order-No. 211157

Microphone **M 950** with the microphone holder MH 93.1 in a wooden case

l x d x h 180 x 106 x 78 mm

satin nickel

Order-No. 211191

dark bronze

Order-No. 211192

Ordering example: M 930, dark bronze



M 940, satin nickel



## ACCESSORIES optional

Windscreen, anthracite	W 76	Order-No. 202407
Popscreen, black	PO 70	Order-No. 600018
Elastic suspension, satin nickel	EH 93	Order-No. 202327
Elastic suspension, dark bronze	EH 93	Order-No. 202328
Microphone holder, turnable, satin nickel	MH 93	Order-No. 202325
Microphone holder, turnable, dark bronze	MH 93	Order-No. 202326
Power supply	N 200	Order-No. 202101
Connection cable	C 70	Order-No. 202212

# M 930 M 940 M 950

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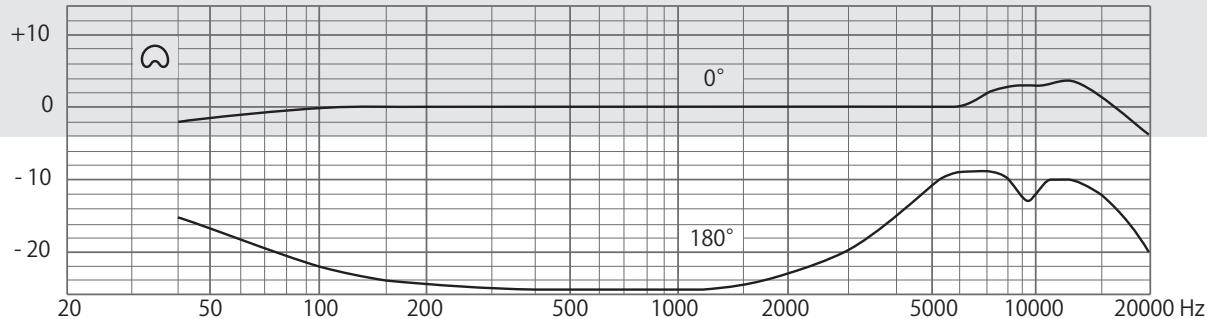
## TECHNICAL SPECIFICATIONS

CE Certificate

	M 930	M 940	M 950
Polar pattern	Cardioid	Super-cardioid	Wide-cardioid
Acoustic operating principle	Pressure gradient transducer		
Frequency range		40 ... 18000 Hz	
Sensitivity at 1 kHz	21 mV/Pa	23 mV/Pa	20 mV/Pa
Output impedance	100 $\Omega$	100 $\Omega$	100 $\Omega$
Noise level	CCIR 468-4 DIN EN 60 651	13 dB 7 dB-A	12 dB 6 dB-A
Signal-to-noise ratio (re 1 Pa at 1 kHz)	CCIR-weighted A-weighted	81 dB 87 dB	82 dB 88 dB
Max. SPL for K < 0,5 %		142 dB	141 dB
Max. output level	RL= 1 k $\Omega$ RL= 10 k $\Omega$	17 dBu 18 dBu	17 dBu 18 dBu
Dynamic range of electronics		135 dB	135 dB
Current consumption (P 48, DIN 45596, IEC 268-15)	3,6 mA	3,6 mA	3,6 mA
Output connector		3-pin XLR connector, goldplated contacts	
Weight without MH 93.1			210 g
Dimensions (L x Ø)			118 mm x 45 mm
Finish			satin nickel, dark bronze

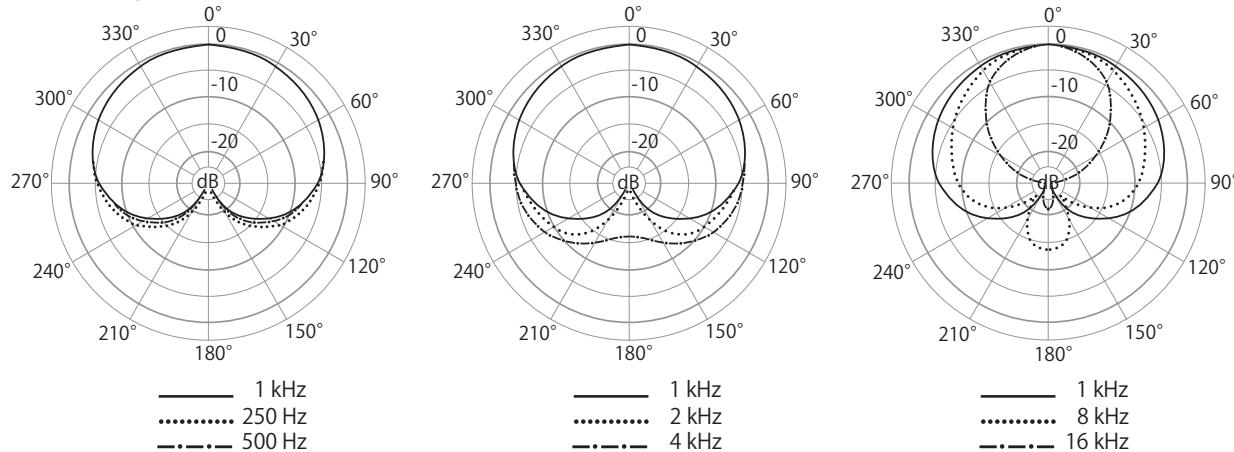
## FREQUENCY RESPONSES M 930

dB Frequency responses M 930



M 930

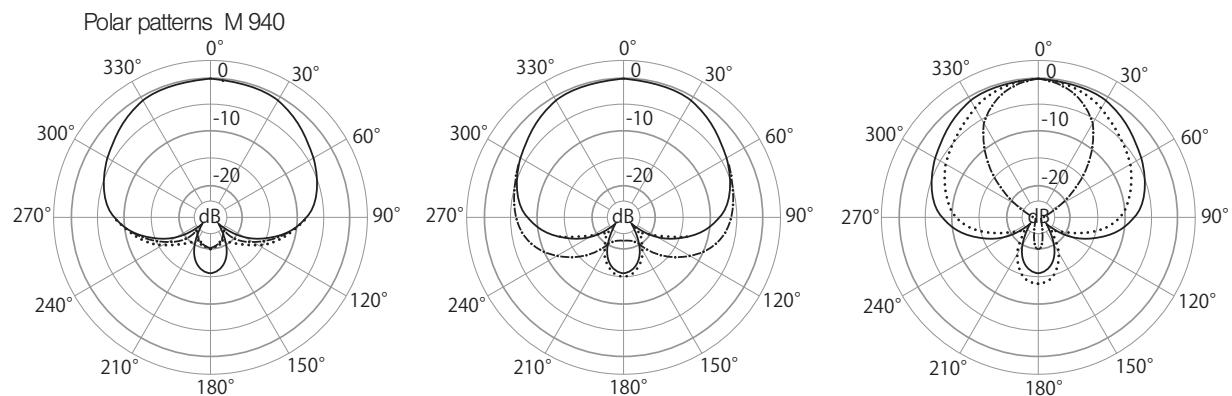
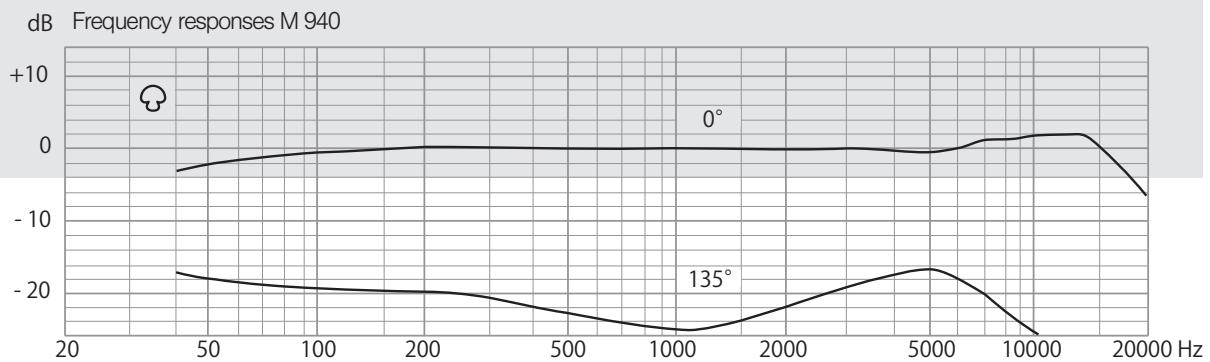
Polar patterns M 930



## FREQUENCY RESPONSES M 940



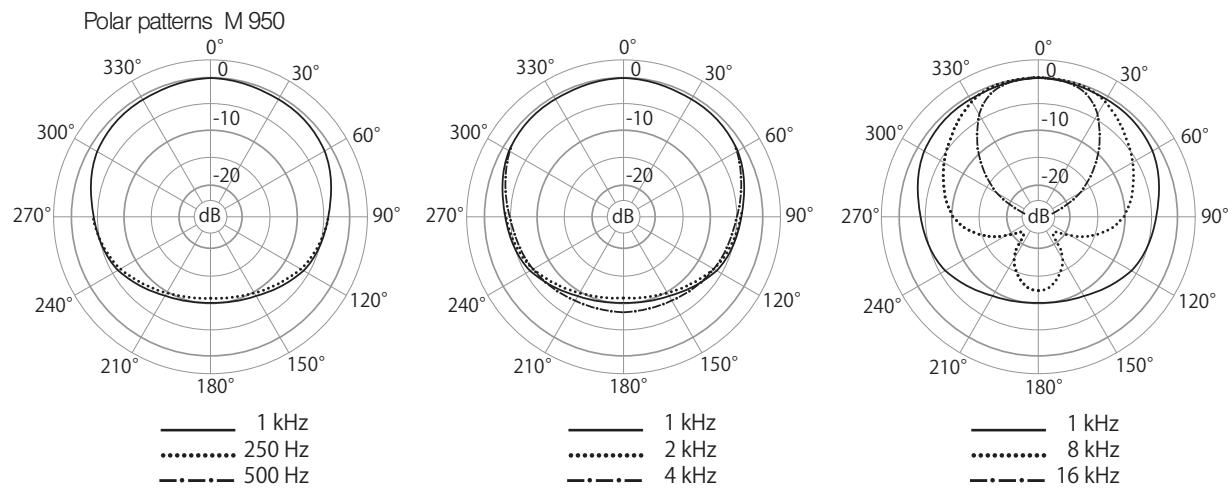
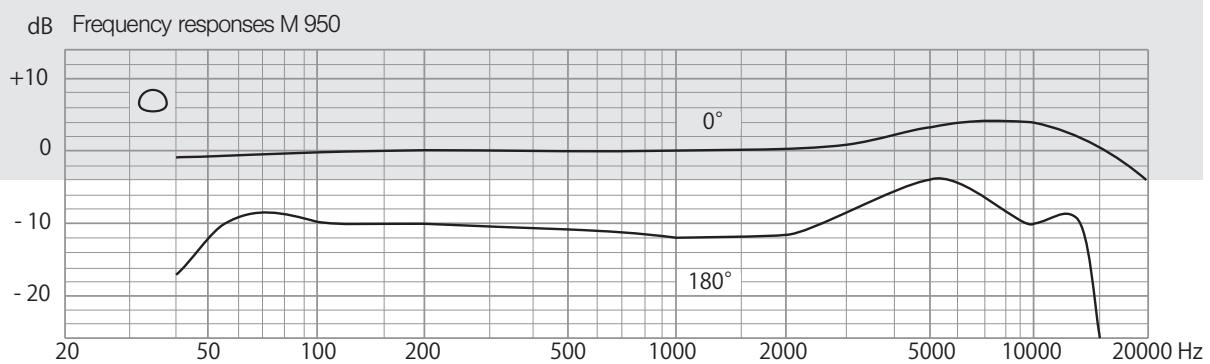
M 940



## FREQUENCY RESPONSES M 950



M 950



## XY-AND ORTF-STEREO RECORDINGS

**M 930 with cardioid directional pattern**

**M 940 with super-cardioid directional pattern**

**M 950 with wide-cardioid directional pattern**

The exceptionally low self noise floor of these microphones, 6 respectively 7 dbA, the extremely high output level and the very low RFI susceptibility emphasize their practical value for stereo recordings.

The attractive shape of the currently smallest, extremely compact large diaphragm microphones makes possible stereo recordings in XY-technology, picture 1 or ORTF-arrangement, picture 2.

The XY-technology is the most widely used intensity stereophony. That can be favourably realised by a coincident arrangement of two mono microphones with considerable directional pattern. Both microphones are adjusted against each other in an angle of 45°-180° according to the recording situation.

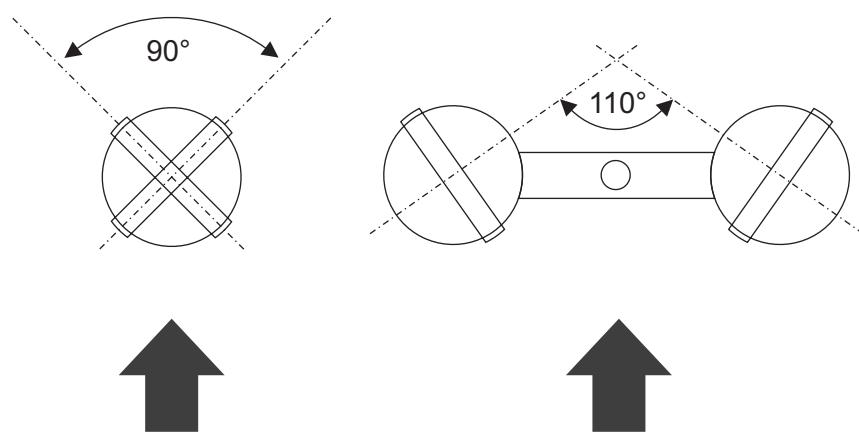
Also, the ORTF-arrangement of the microphones, developed by the French broadcasting, can be easily handled as a variable solution. The M 930, M 940 or M 950 are mounted on the TD 93 tandem in a distance of 170 mm and an angle of 110° - adjusted to ORTF -. Distance and angle can be adjusted according to the demand. Transmission time and intensity differences of the signals are used for ORTF-stereo recordings.

Optionally for ORTF-stereo recordings the EH 93 elastic suspension can be used instead of the MH 93.1 stand adapter.

Together with the specifically microphone holders, SH 93 stereo holder and TD 93 tandem, a cost effective equivalent to a stereo microphone can be offered.

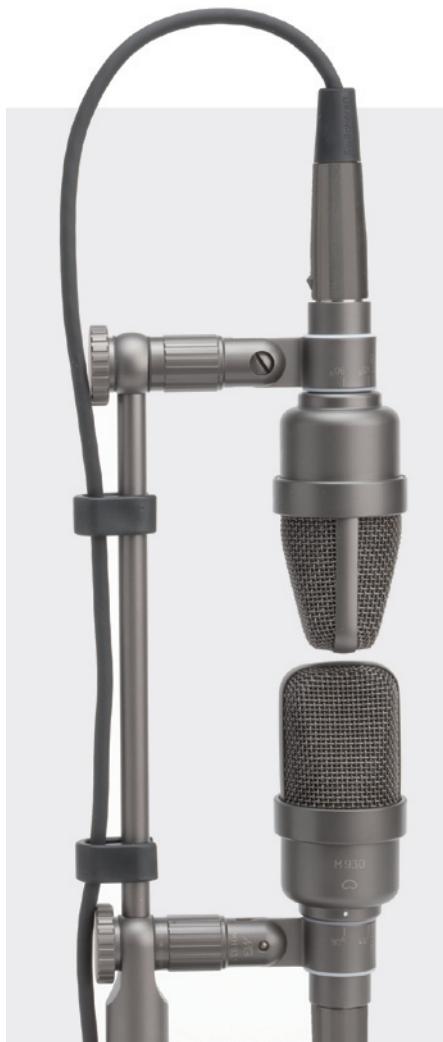
The M 930, M 940 or M 950 are delivered as matched pairs for that applications.

Finish: satin nickel, dark bronze.

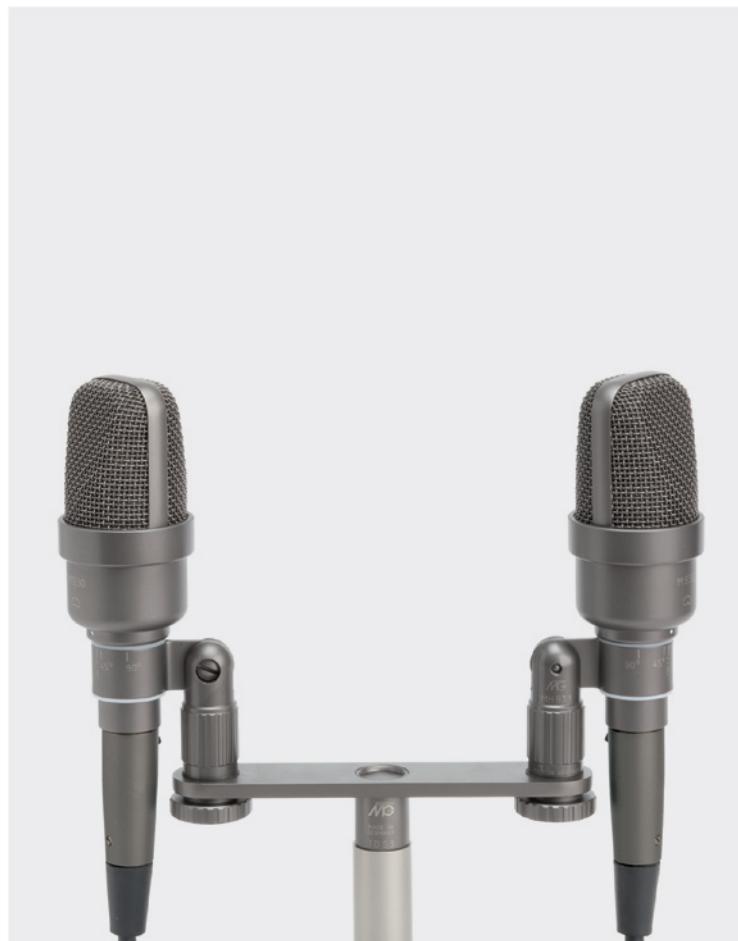


picture 1: XY-arrangement

picture 2: ORTF-arrangement



picture 1: XY-arrangement



picture 2: ORTF-arrangement

## DELIVERY

Matched pair of condenser mics for XY-stereo recording with microphone holder MH 93.1 and Stereo holder SH 93 in wooden case      l x d x h 334 x 148 x 76 mm

M 930-Stereo	satin nickel	Order-No. 211161
	dark bronze	Order-No. 211162
M 940-Stereo	satin nickel	Order-No. 211163
	dark bronze	Order-No. 211164
M 950-Stereo	satin nickel	Order-No. 211193
	dark bronze	Order-No. 211194

Matched pair of condenser mics for ORTF-stereo recording with microphone holder MH 93.1 and Double mount TD 93 in wooden case      l x d x h 334 x 148 x 76 mm

M 930-Stereo	satin nickel	Order-No. 211165
	dark bronze	Order-No. 211166
M 940-Stereo	satin nickel	Order-No. 211167
	dark bronze	Order-No. 211168
M 950-Stereo	satin nickel	Order-No. 211195
	dark bronze	Order-No. 211196

## MICROPHONE BRACKET FOR INA 5 ARRANGEMENT



### Arrangement example

M 930 studio condenser microphone with EH 93 elastic suspension

The INA 5 configuration - Ideale Nieren Anordnung/ideal cardioid arrangement - is an extension of the stereo INA 3 layout for surround recording. INA 3 and INA 5 are fully compatible with the 3/2 stereo format as specified in ITU 775.

This microphone bracket is especially well suited for use with our large diaphragm cardioid microphone M 930, M 940, M 950 with the matching MH 93 microphone holder, or EH 93 elastic suspension.

When the guard rings are unscrewed, the microphones can be moved along the spokes. Other microphone types can also be used, e.g. the M 960 diffuse field microphone. Thanks to the modular construction of the bracket, other recording configurations are also possible on request, e.g. OCT- System, IRT-Surround, Decca Tree.

The three front microphones can be placed up to 17,5 cm away from the centre at an angle of 90°. The right and left surround microphones can be placed up to 59,5 cm from the centre at an angle of 60°.

## DELIVERY

1 piece	Microphone bracket INA 5 black matt	Order-No. 202345
	Ball headed hex screwdriver 3 mm	
	Velcro-band, 3 pieces	
5 pieces Studio condenser microphones with elastic suspension EH 93 in case 3		
M 930	dark bronze	Order-No. 211188
M 940	dark bronze	Order-No. 211197
M 950	dark bronze	Order-No. 211198
Microphone bracket INA 5 dark bronze		
	Ball headed hex screwdriver 3 mm	
	Velcro-band, 3 pieces	