

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



M 930 M 940 M 950

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M 930 M 940 M 950

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. They are also 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 EA 93 or EH 93 P 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 IEC 61938.

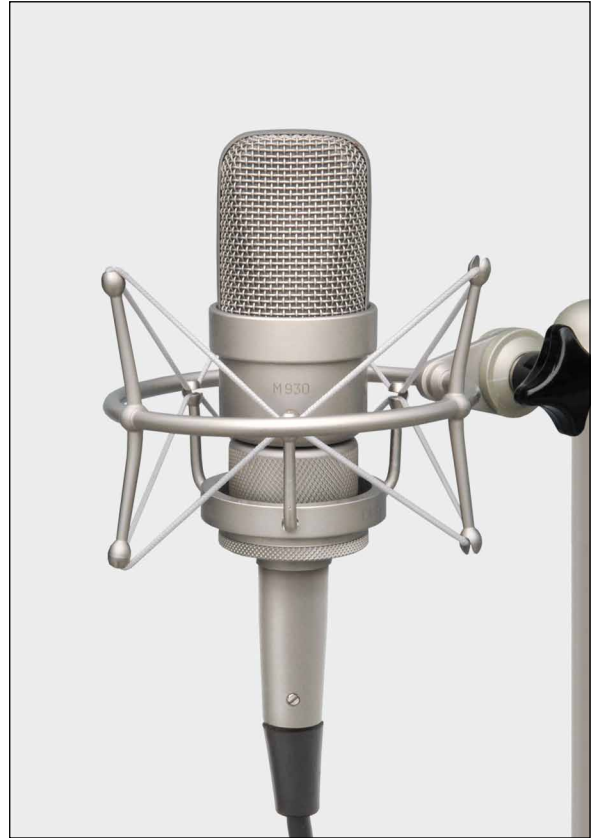
The microphones are finished in either a satin nickel or dark bronze color.



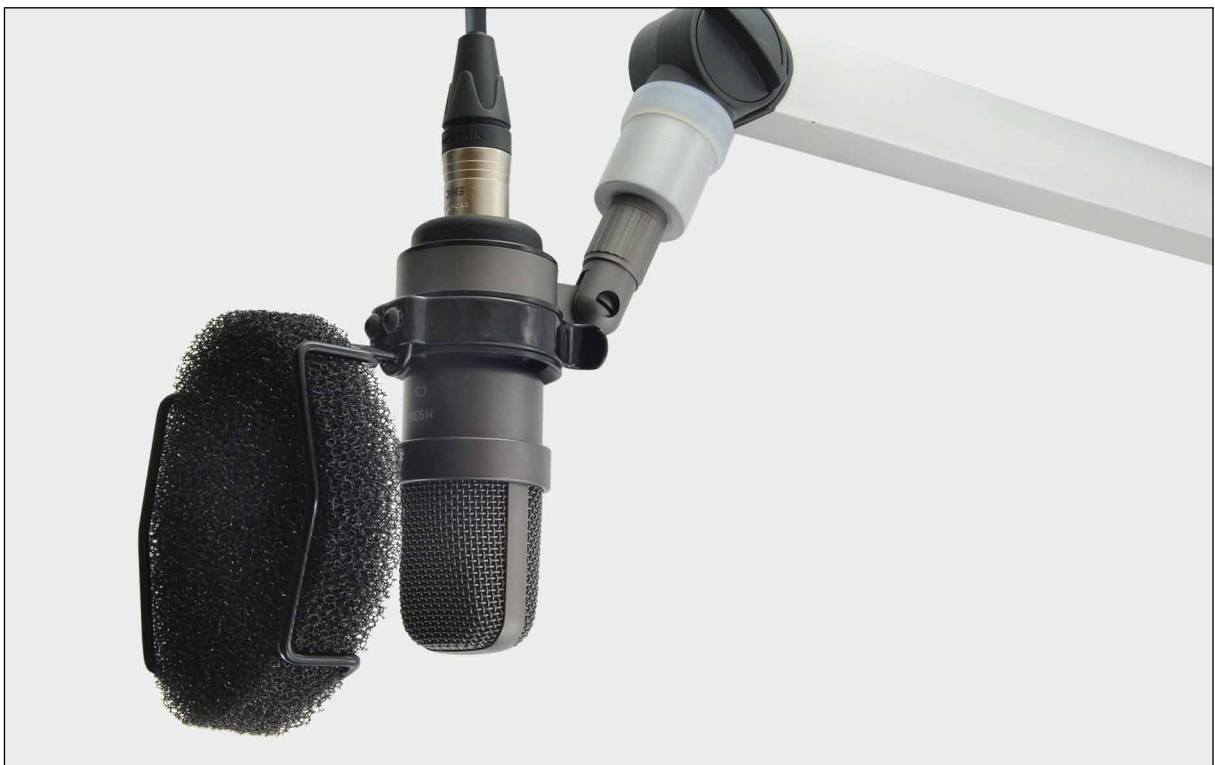
M 930 with EH 93 P and P 110.20 satin nickel



M 930 with EA 93 and A 93 satin nickel



M 930 with EH 93 P and P 110.20 dark bronze



M 930 M 940 M 950

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

Microphone M 930 with elastic suspension EA 93

satin nickel

Order-No. 211129

dark bronze

Order-No. 211130

Microphone M 930 with elastic suspension EH 93 P and Popscreen P 110.20

satin nickel

Order-No. 211159

dark bronze

Order-No. 211160

Ordering example:

M 930 with MH 93.1, satin nickel



M 930 with MH 93.1, dark bronze



ACCESSORIES optional

Windscreen, anthracite	W 76	Order-No. 202407
Popscreen, black	P 110.20	Order-No. 600085
Microphone holder, satin nickel	MH 93.1	Order-No. 202304
Microphone holder, dark bronze	MH 93.1	Order-No. 202303
Elastic suspension, satin nickel	EH 93 P	Order-No. 202357
Elastic suspension, dark bronze	EH 93 P	Order-No. 202358
Elastic suspension incl. A93, satin nickel	EA 93	Order-No. 212311
Elastic suspension incl. A93, dark bronze	EA 93	Order-No. 212312
Adaptor, satin nickel	A 93	Order-No. 202354
Adaptor, dark bronze	A 93	Order-No. 202355
Connection cable	C 70	Order-No. 202212

W 76



P 110.20



EH 93 P satin nickel



EH 93 P dark bronze



MH 93.1 satin nickel



MH 93.1 dark bronze



EA 93 satin nickel



EA 93 dark bronze



A 93 satin nickel



A 93 dark bronze



M 930 M 940 M 950

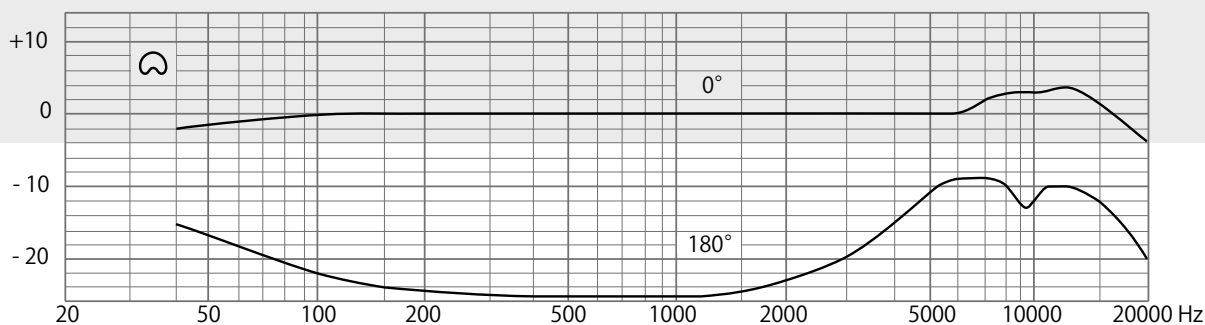
CE Certificate

TECHNICAL SPECIFICATIONS

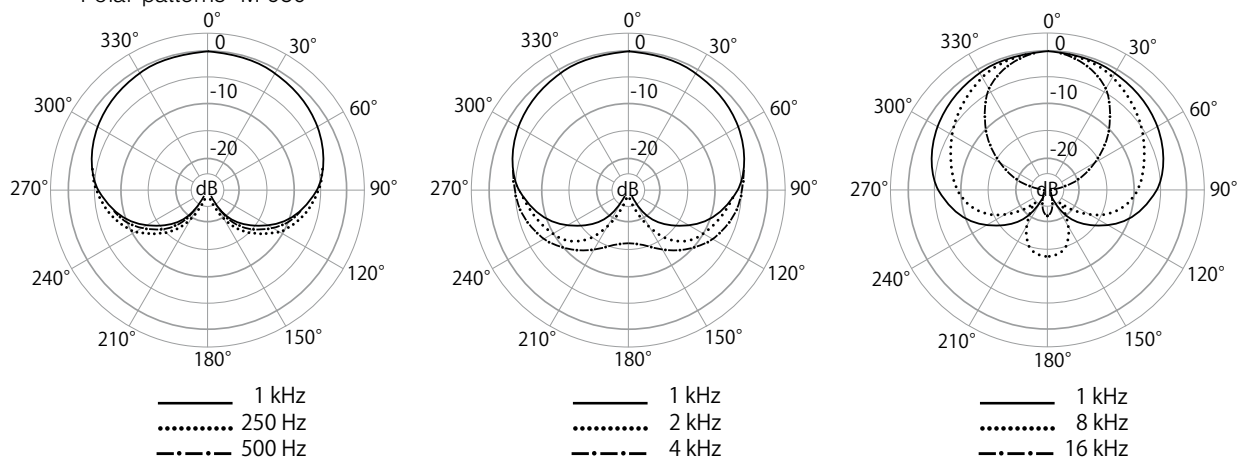
		M 930	M 940	M 950
Polar pattern		Cardioid	Super-cardioid	Wide-cardioid
Acoustic operating principle		Pressure gradient transducer		
Frequency range		40 ... 20.000 Hz		
Sensitivity at 1 kHz		21 mV/Pa	23 mV/Pa	20 mV/Pa
Output impedance		100 Ω	100 Ω	100 Ω
Noise level	CCIR 468-4	13 dB	12 dB	13 dB
	DIN EN 60268-4	7 dB-A	6 dB-A	7 dB-A
Signal-to-noise ratio (re 1 Pa at 1 kHz)	CCIR-weighted	81 dB	82 dB	81 dB
	A-weighted	87 dB	88 dB	87 dB
Max. SPL for K < 0,5 %		142 dB	141 dB	142 dB
Max. output level	RL= 1 kΩ	17 dBu	17 dBu	17 dBu
	RL= 10 kΩ	18 dBu	18 dBu	18 dBu
Dynamic range of electronics		135 dB	135 dB	135 dB
Current consumption (P 48, IEC 61938)		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

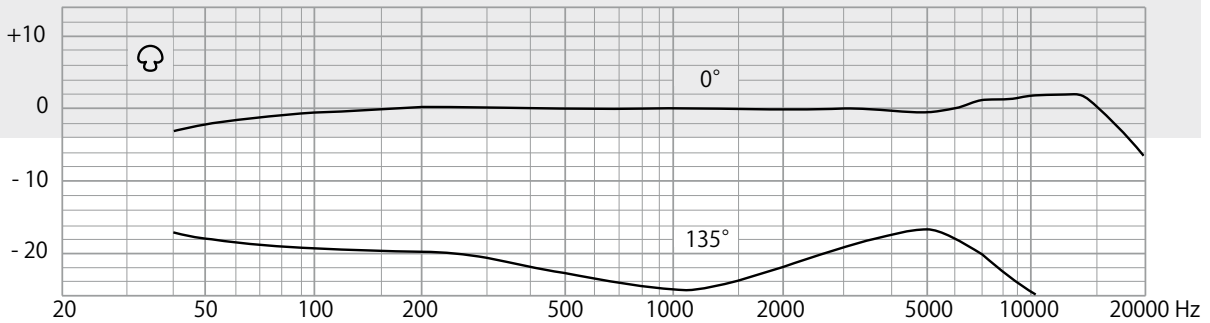


Polar patterns M 930

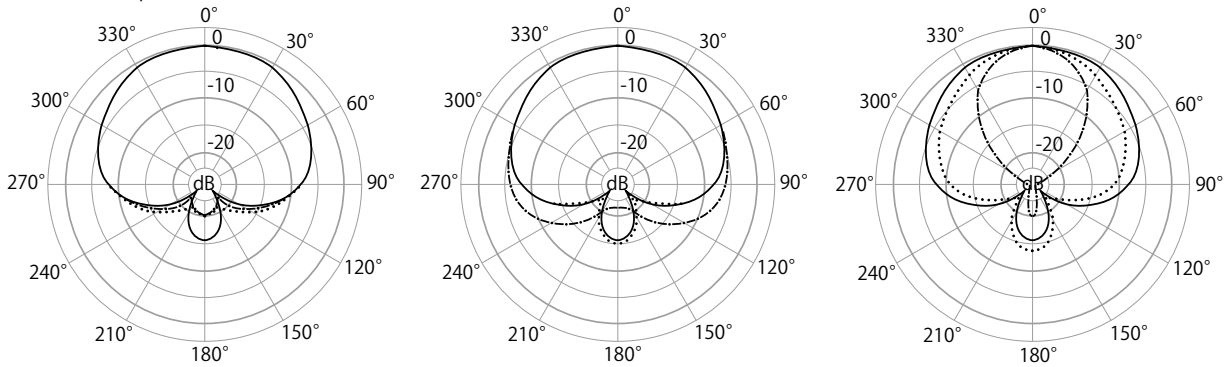


FREQUENCY RESPONSES M 940

dB Frequency responses M 940

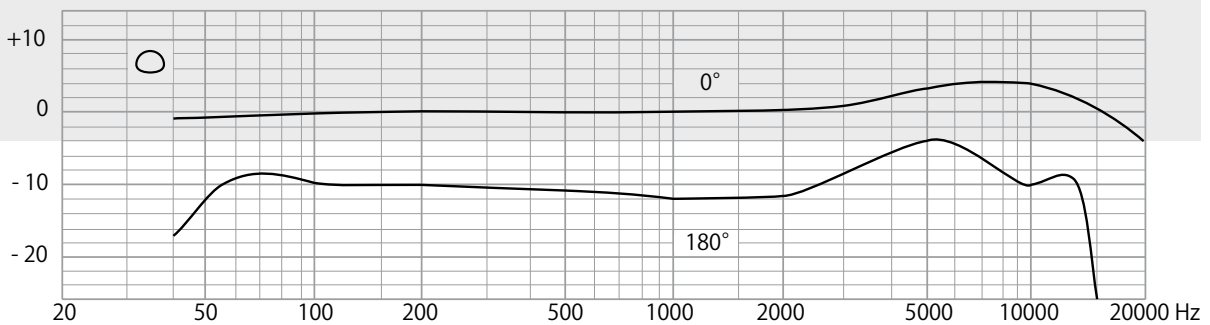


Polar patterns M 940

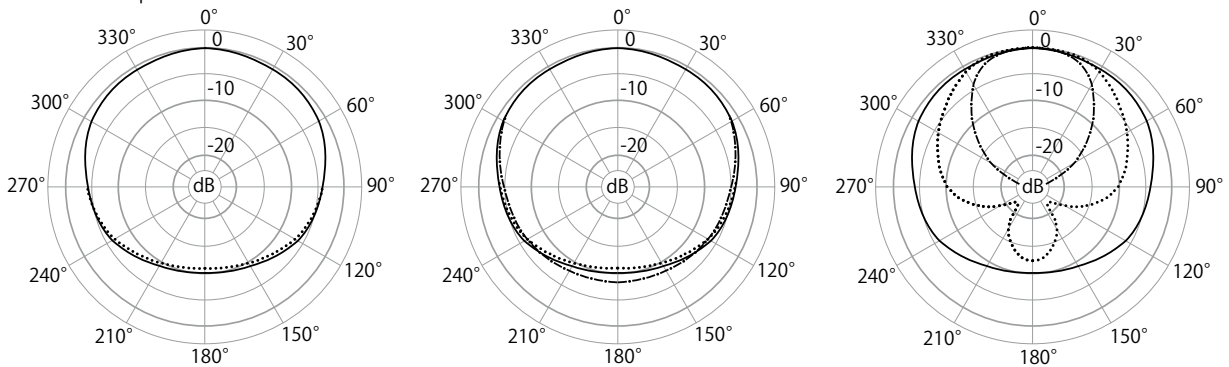


FREQUENCY RESPONSES M 950

dB Frequency responses M 950



Polar patterns M 950



— 1 kHz
 250 Hz
 -.-.- 500 Hz

— 1 kHz
 2 kHz
 -.-.- 4 kHz

— 1 kHz
 8 kHz
 -.-.- 16 kHz

Stereo Recording

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 db-A, 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 micro-

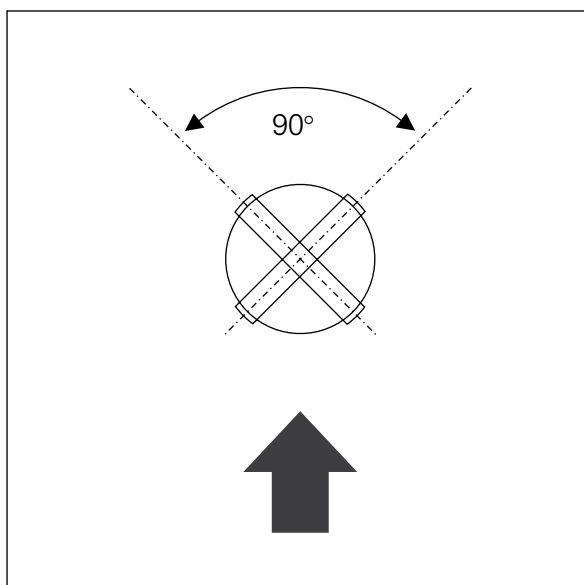
phones, developed by the French broadcasting, can be easily handled as a variable solution. The M 930, M 940 or M 950 are mounted on the TD 93 tandem in a distance of 170 mm and an angle of 110° - adjusted to ORTF -. Distance and angle can be adjusted according to the demand. Transmission time and intensity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

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

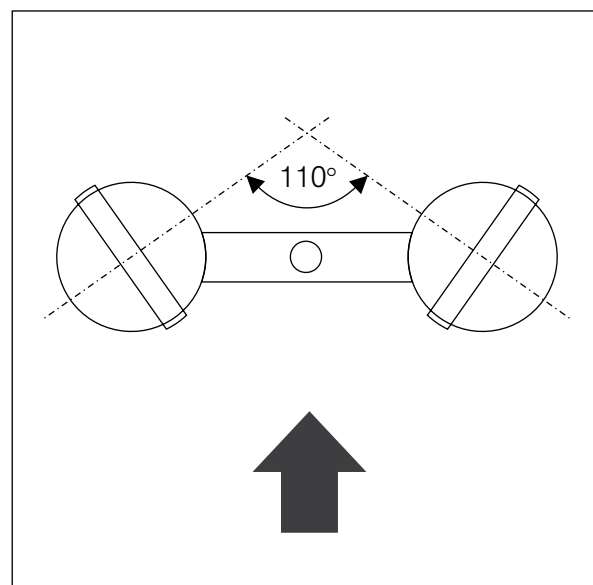
The M 930, M 940 or M 950 are delivered as matched pairs for that applications.

Finish: satin nickel, dark bronze.

picture 1: XY-arrangement



picture 2: ORTF-arrangement



XY-arrangement with SH 93

ORTF-arrangement with TD 93



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

Surround Arrangement - indoor

SURROUND-ARRANGEMENT INA 5

with elastic suspension



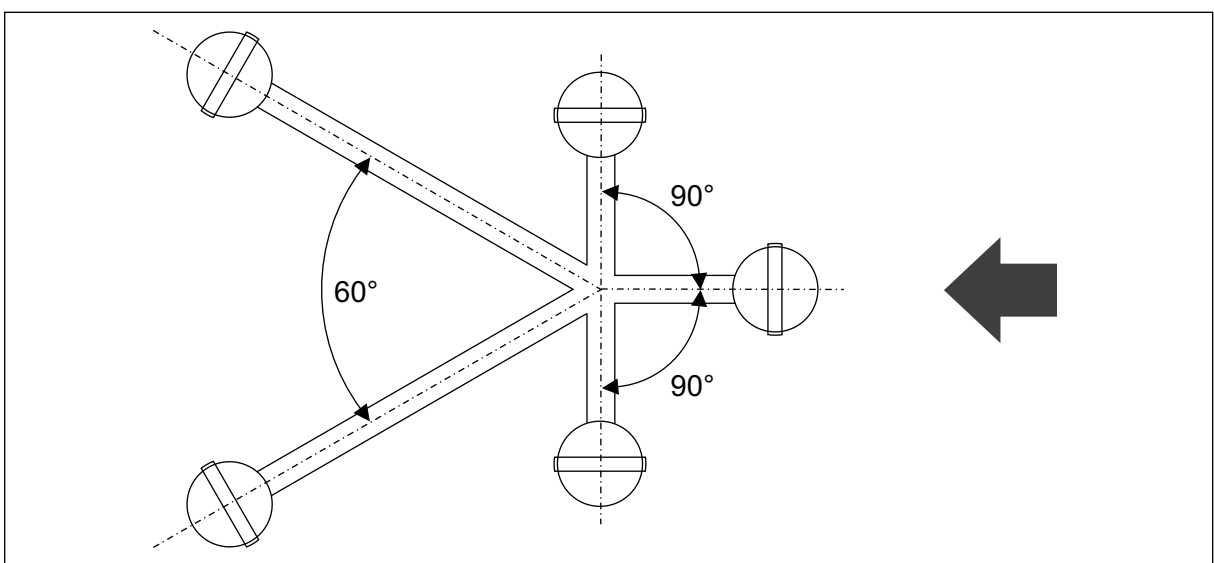
The INA 5 configuration - Ideale Nieren Anordnung / ideal cardioid arrangement - is an extension of the stereo INA 3 layout for surround recording. INA 3 and INA 5 are fully compatible with the 3/2 stereo format as specified in ITU 775.

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.

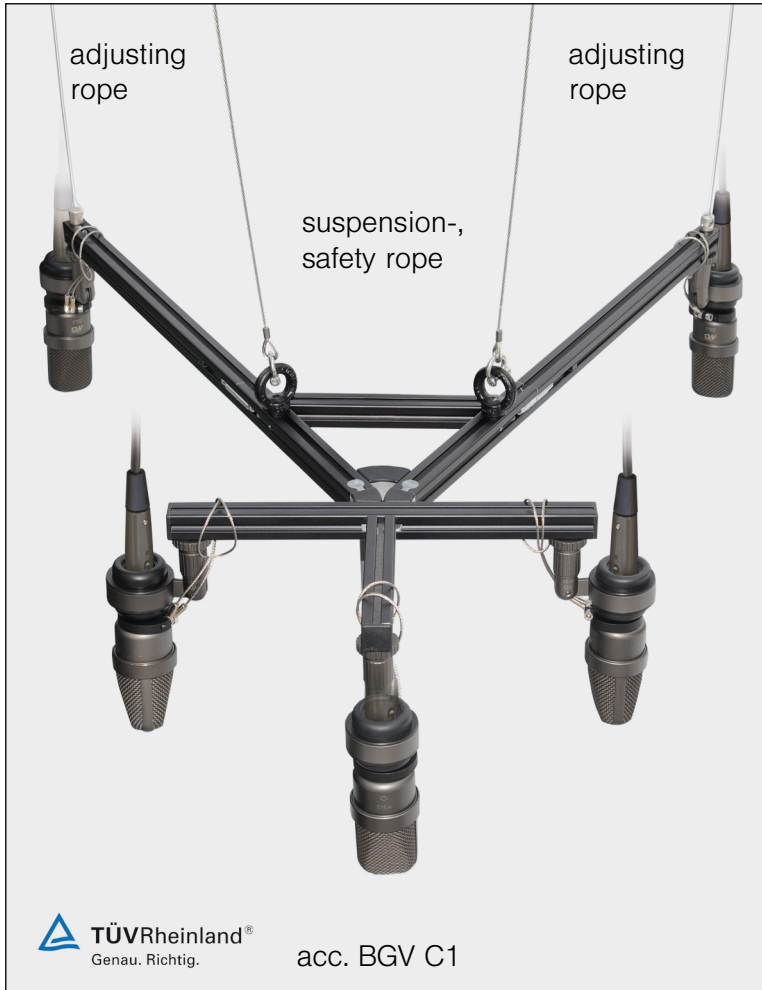
When the guard rings are unscrewed, the

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°.



Surround arrangement INA 5, suspended, TÜV-certificated



DELIVERY

Surround arrangement INA 5

black matt

with Elastic suspension for Ø 21 mm, Velcro-band, 3 pcs,
Ball headed hex screwdriver 3 mm, in suitcase

optionally equipped with

5 pcs	M 930	dark bronze	Order-No. 211188
5 pcs	M 940	dark bronze	Order-No. 211197
5 pcs	M 950	dark bronze	Order-No. 211198

for suspended version:

Microphone suspension MA 5

TÜV-certificated, acc. BGV C1

Order-No. 212318

5 pcs Circlip

SR INA 5

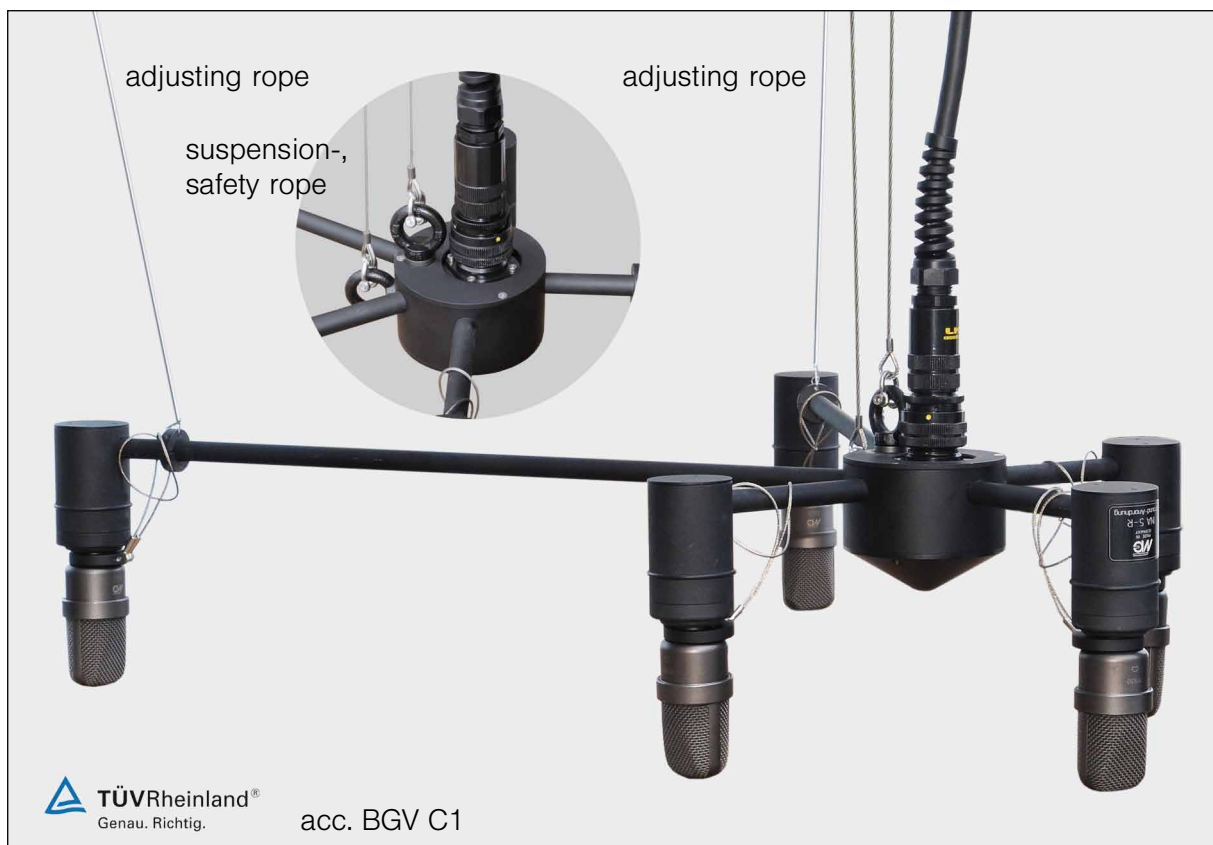
suspension-, safety- and adjusting rope, project specific on request

Surround Arrangement - outdoor

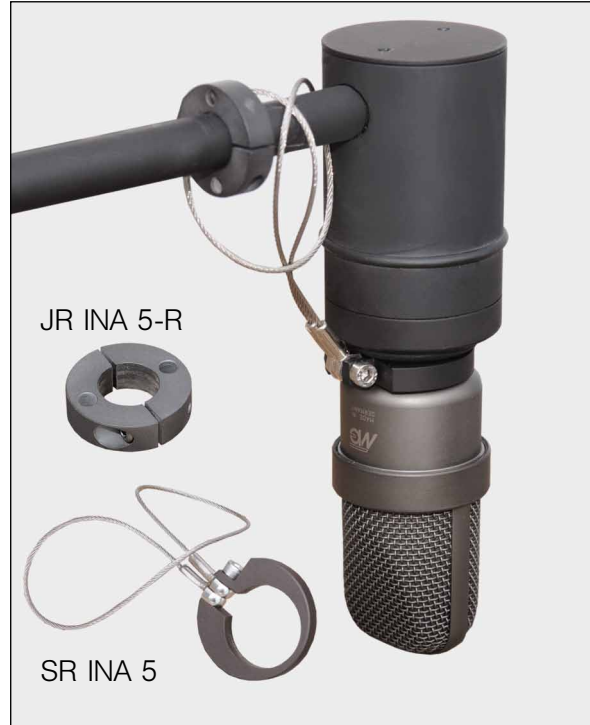
SURROUND-ARRANGEMENT INA 5-R with elastic suspension



Surround arrangement INA 5-R, suspended, TÜV-certificated



Surround arrangement INA 5-R, suspended, TÜV-certificated



DELIVERY

Surround arrangement INA 5-R

black matt

with Elastic suspension for Ø 21 mm,
 Connection cable CS.1 INA 5-R (10 m, ELKA 17 RFVD to 5 x XLR 3-pin, Au),
 5 pcs Windscreen W INA 5-R, anthracite
 5 pcs Rain shield RS INA 5-R,
 3 pcs Velcro-band
 in suitcase

optionally equipped with

5 pcs	M 930	dark bronze	Order-No. 2111101
5 pcs	M 940	dark bronze	Order-No. 2111102
5 pcs	M 950	dark bronze	Order-No. 2111103

for suspended version:

Microphone suspension MA 5-R	TÜV-certificated, acc. BGV C1	Order-No. 212319
5 pcs	Circlip	SR INA 5
2 pcs	Adjusting ring	JR INA 5-R
suspension-, safety- and adjusting rope, project specific on request		

