MX391, MX392, MX393 Boundary Microphones

With slim design and superior audio reproduction, Microflex Boundary Microphones are the ideal conference room solution. Equipped with features like programmable, silent membrane switches, interchangeable cartridges, logic inputs and outputs, and LED indicators, Microflex Boundary microphones provide high-quality sound for a wide range of applications.

Specifications

Туре	Condenser (electret bias)		
Frequency Response	50 Hz – 17 kHz		
Polar Pattern	MX391/C, MX392/C, MX393/C: Cardioid MX391/S, MX392/S, MX393/S: Supercardioid MX391/O, MX392/O, MX393/O: Omnidirectional		
Output Impedance	EIA rated at 150 Ω (180 Ω actual)		
Logic Connections (MX392 Only)	LED IN: Active low (\leq 1.0 V), TTL compatible. Absolute maximum voltage: -0.7 V to 50 V. SWITCH OUT: Active low (\leq 0.5 V), sinks up to 20 mA, TTL compatible. Absolute maximum voltage: -0.7 V to 50 V (up to 50 V through 3 k Ω).		
Environmental Conditions	Operating temperature range: –18° C – 57° C Relative Humidity: 0 – 95%		
Power Requirements	11 – 52 Vdc phantom, 2.0 mA		
	MX391	MX392/MX393	
Sensitivity (at 1 kHz, open circuit voltage; 1 Pascal = 94 dB SPL); All settings -12 dB at 0 gain (internal modification)	Cardioid -29.5 dB (33.5 mV) Supercardioid -28.3 dB (38.5 mV) Omnidirectional -21.8 dB (81.4 mV)	Cardioid: -27.5 dBV/Pa (42.2 mV) Supercardioid: -26.5 dBV/Pa (47.3 mV) Omnidirectional: -22.0 dBV/Pa (79.4 mV)	
Maximum SPL 1 kHz at 1% THD, 1 kΩ load; All settings +6 dB at 0 gain (internal modification)	Cardioid: 118.8 dB Supercardioid: 117.5 dB Omnidirectional: 110.7 dB	Cardioid: 117.0 dB Supercardioid: 116.0 dB Omnidirectional: 111.5 dB	
Equivalent Output Noise A-weighted	Cardioid: 22.6 dB SPL Supercardioid: 21.3 dB SPL Omnidirectional: 14.5 dB SPL	Cardioid: 23.0 dB Supercardioid: 22.0 dB Omnidirectional: 17.5 dB	
Signal-to-Noise Ratio referenced at 94 dB SPL at 1 kHz	Cardioid: 71.4 dB Supercardioid: 72.7 dB Omnidirectional: 79.5 dB	Cardioid: 71.0 dB Supercardioid: 72.0 dB Omnidirectional: 76.5 dB	
Dynamic Range $1 \text{ k}\Omega$ load at 1 kHz	96.2 dB	94.0 dB	
Common Mode Rejection 10 Hz to 100 kHz	45 dB minimum, 10 Hz to 100 kHz	45 dB minimum, 10 Hz to 100 kHz	
Preamplifier Output Clipping Level 1% THD	-6 dBV (0.5 V)	-6 dBV (0.5 V)	
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of the preamplifier XLR output	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of output connector (MX393) or red wire relative to black wire (MX392).	



MX391 Boundary microphone



MX392/ MX393 Boundary microphone

Available Models

The polar pattern of the cartridge is indicated by the model number suffix: C = Cardioid, O = Omnidirectional, S = Supercardioid

MX391/C, MX391/S, MX391/O	Black surface-mount microphone, attached 3.7 m cable terminated, 4-pin mini connector, separate preamplifier
MX391W/C, MX391W/S, MX391W/O	White surface-mount microphone, attached 3.7 m cable terminated, 4-pin mini connector, separate preamplifier
MX392/C, MX392/S, MX392/O	Surface-mount microphone, programmable membrane on/off switch, logic input/output terminals, on/off indicator LED, screw terminal connections, attached 3.7 m unterminated cable
MX393/C, MX393/S, MX393/O	Surface-mount microphone, programmable membrane on/off switch, on/off indicator LED, miniature three pin connector, and detachable 3.7 m cable.



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Furnished Accessories

95B2313	Zipper bag	80A541	Switch paint mask (MX392/MX393)
80C514	Paint mask (MX392/MX393)	36A664	Paint plug (MX392/MX393)
RK100PK	In-line preamp (MX391/MX391W)		

Optional Accessories and Replacement Parts

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R183B	Omnidirectional cartridge for all Microflex models	C129	3,7 m cable 3-pin miniature connector (TA3F) to male XLR (MX393)
R184B	Supercardioid cartridge for all Microflex models	C130	Custom-logic cable with threaded adapter
R185B	Cardioid cartridge for all Microflex models	15A525	Custom logic cable (specify length)



Hz

20 50 100













Hz

'89 10000 2000i

-20

20 50 100

MX392/S ----. . . . MX393/S **B** 0 500 1,000 2,000 5,000 Hz



Architectural Specifications

MX391/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 33.5 mV/Pa.

MX391/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 38.5 m//Pa.

MX391/O – The microphone shall be a surface mounted, black electret condenser microphone with an omnidirectional polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 81.4 mV/Pa.

MX391W/C – The microphone shall be a surface mounted, white electret condenser microphone with a cardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 33.5 m//Pa.

MX391W/S – The microphone shall be a surface mounted, white electret condenser microphone with a supercardioid polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 38.5 mV/Pa.

MX391W/O – The microphone shall be a surface mounted, white electret condenser microphone with an omnidirectional polar pattern, a 3.7 m cable terminated with a 4-pin mini connector, and in-line preamplifier. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 81.4 mV/Pa.

MX392/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 42.2 mV/Pa.

MX392/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 47.3 m//Pa.

MX392/0 – The microphone shall be a surface mounted, black electret condenser microphone with an omnidirectional polar pattern, programmable membrane on/off switch, and logic controlled LED indicator. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 79.4 mV/Pa.

MX393/C – The microphone shall be a surface mounted, black electret condenser microphone with a cardioid polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3.7 m cable, connected to the microphone through a TA3F connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 42.2 mV/Pa.

MX393/S – The microphone shall be a surface mounted, black electret condenser microphone with a supercardioid polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3.7 m cable, connected to the microphone through a TA3F connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 47.3 mV/Pa.

MX393/0 – The microphone shall be a surface mounted, black electret condenser microphone with a omnidirectional polar pattern, programmable membrane on/off switch with LED indicator. The microphone shall include a removable 3,7 cm (12") cable, connected to the microphone through a TA3 connector and which terminates to a XLR connector. The microphone shall be resistant to RF interference from portable mobile and handheld devices. The frequency response shall be 50 Hz to 17 kHz and the sensitivity shall be 79,4 mV/Pa

