RX6

6.5 inch Coaxial Loudspeaker



Overview

The RX6 is a high-efficiency, high-fidelity coaxial loudspeaker that provides output capability typical of a much larger loudspeaker. The transducer's high efficiency and horn-loaded HF compression driver give the RX6 a surprisingly high output-to-size ratio, and its broad 90° x 75° coverage is particularly effective in close quarters. The RX6's compact, horizontal enclosure may be mounted close to walls or ceilings, under balconies, or along a stage front with minimal effect on sight lines. Its small size also allows it to be readily concealed within a venue's architecture when the loudspeaker must be hidden from view. An assortment of M6 and VESA points facilitate installation with an optional Fulcrum UB-RX6 yoke bracket or third-party mounting solutions.

Fulcrum Acoustic's **TQ**™ processing is an integral part of the RX6 design. Sound, innovative acoustical design combined with state of the art digital processing leads to exceptional clarity and precise transient response, even at very high sound pressure levels. The required digital signal processing can be provided by one of many supported platforms.

The RX6 is an excellent option any time moderately high SPLs are required but limited space is available. Spoken word sounds very natural, and the coaxial design assures that this remains so even off-axis. Low frequency extension to 90 Hz enables it to integrate well with subwoofers for full range music reproduction. The RX6 is a perfect choice for delay fill, background music, and speech reproduction systems, which makes it ideal for houses of worship, theaters, restaurants, nightclubs, museum kiosks, theme parks, and more.

Performance Specifications[1]

Operating Mode
Single-amplified w/ DSP

Operating Range [2]
90 Hz to 20 kHz

Nominal Beamwidth
90° x 75°

Transducers
HF/LF: Coaxial 1.0" diaphragm compression driver, neodymium magnet; 6.5" woofer, 2.0" voice coil, ceramic magnet

Power Handling @ Nominal Impedance [3]
53 V / 175 W @ 16 Ω

Nominal Sensitivity @ Input Voltage [4] (whole space)
95 dB @ 4.00 V

Nominal Maximum SPL (peak / continuous)
123 dB / 117 dB

Equalized Sensitivity @ Input Voltage [5]
90 dB @ 4.00 V

Equalized Maximum SPL [6] (peak / continuous)
118 dB / 112 dB

AES75 Maximum Linear Sound Levels [7]
103.9 dBZ / 121.1 dBZpk / 100.6 dBA
at an RMS input level of 26.1 dBV (20.3 V)

Recommended Power Amplifier
175 W to 350 W @ 16 Ω

Physical Specifications

Connections
(2) Neutrik NL4 Speakon
Pin 1+/-: Full Range Pin 2+/-: No Connection

Mounting / Suspension Points
(2) M6 x 1.0 yoke points, (2) M6 x 1.0 rear points,
(4) M4 x 0.7 VESA 75 x 75 mm points

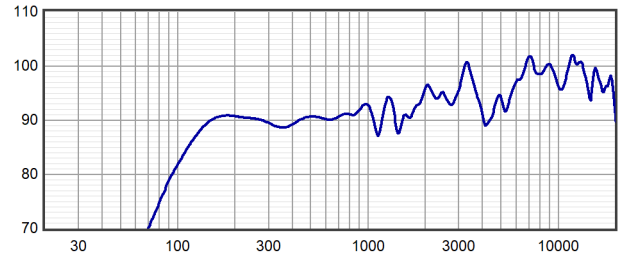
Dimensions / Weight
See pages 5 & 6

Finish
Black painted enclosure w/ matte black grille, or
White painted enclosure w/ matte white grille

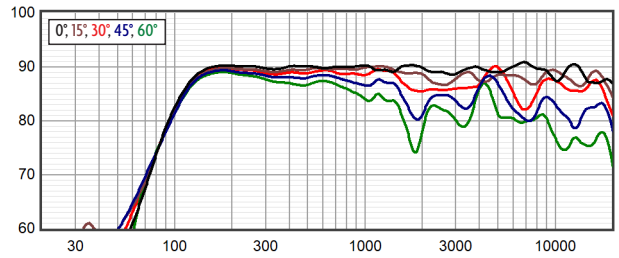
Options

UB-RX6 yoke bracket, Phoenix block input, Custom color finish, IP55 Weather-resistant (WR) enclosure & hardware, 70 V multi-tap transformer (RX6-MT60)

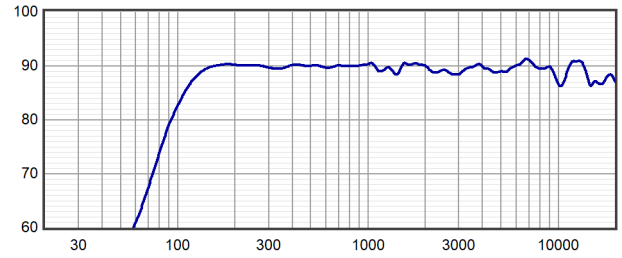
Axial Sensitivity (dB SPL, 4.00 V @ 1 m)[8, 9]



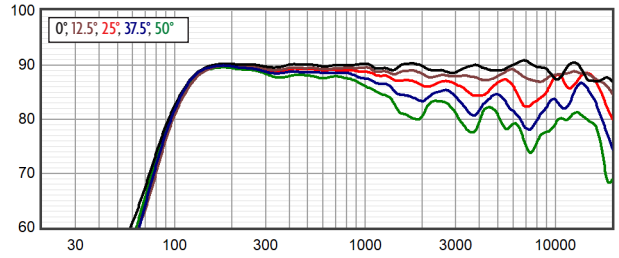
Horizontal Off Axis Response[8, 12]



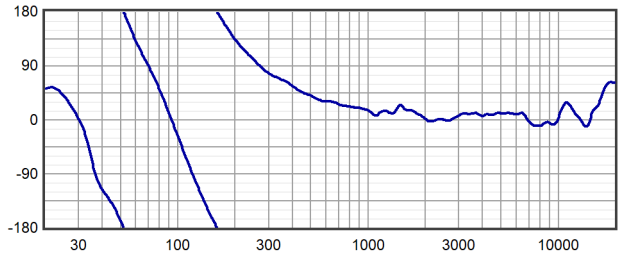
Axial Processed Response (dB)[8, 10]



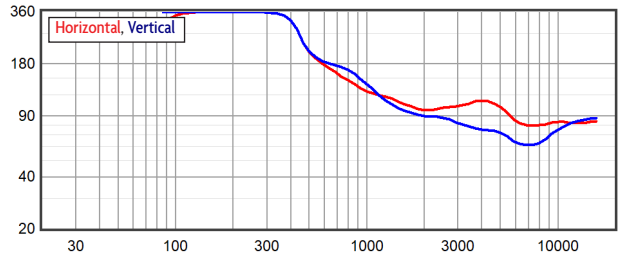
Vertical Off Axis Response[8, 12]



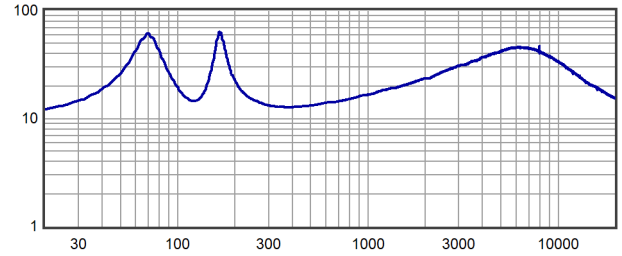
Axial Processed Phase Response (degrees)[8, 11]



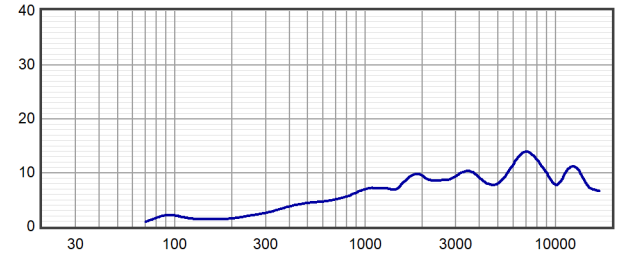
Beamwidth[8, 13]



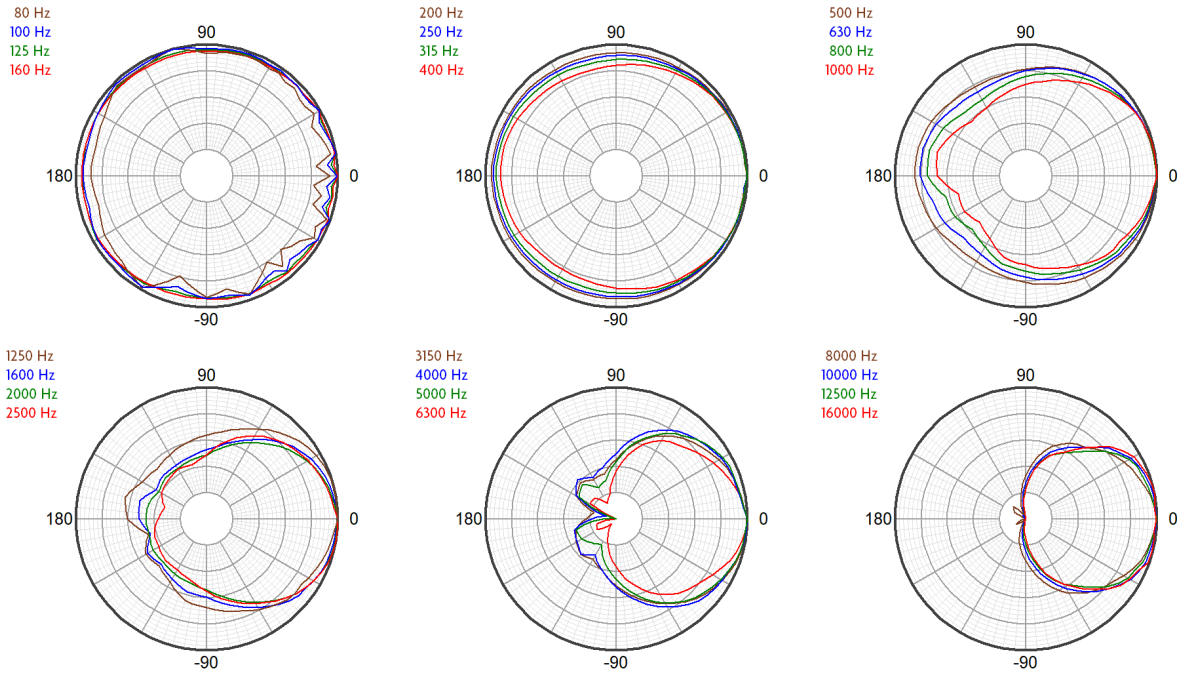
Impedance (ohms)



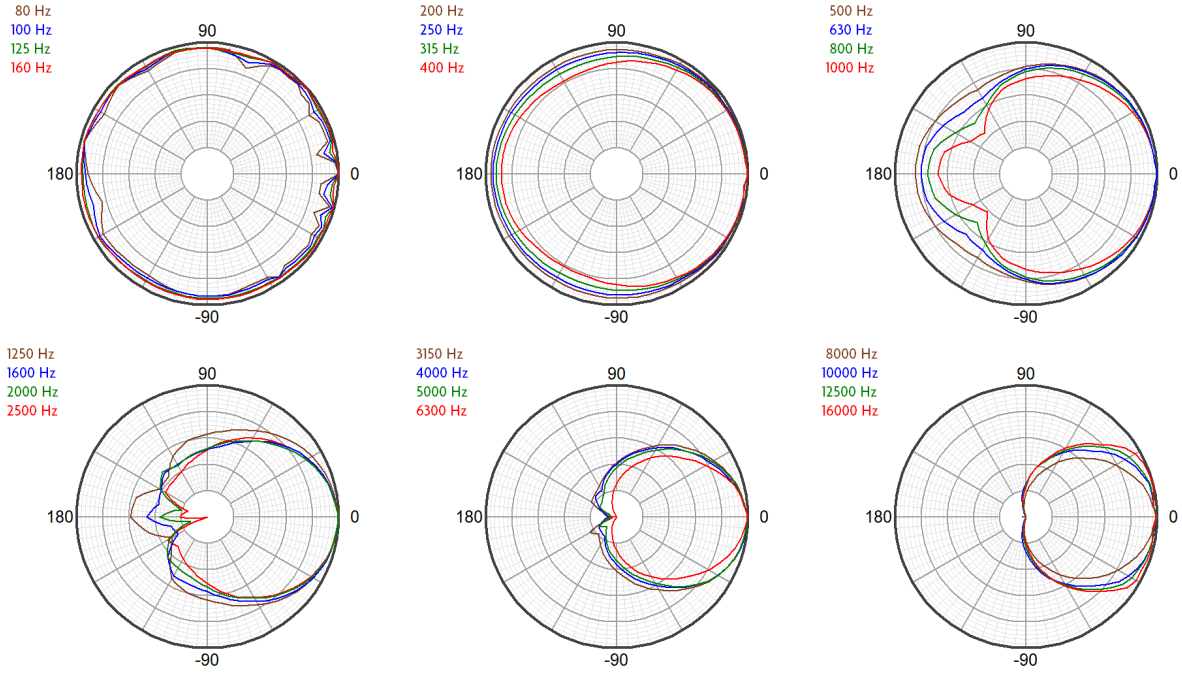
Directivity Index (dB)[14]



Horizontal Polar Response (30 dB Scale, 6 dB per Major Division)

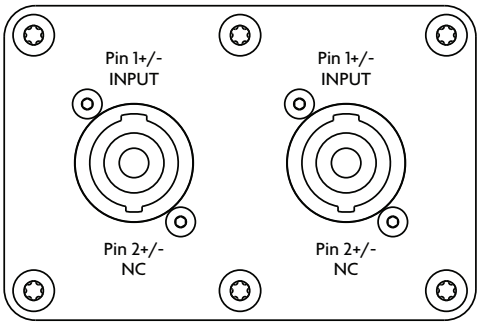


Vertical Polar Response (30 dB Scale, 6 dB per Major Division)

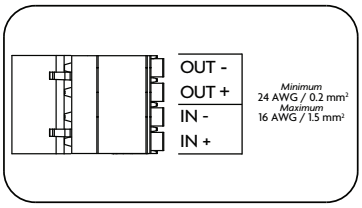


Connections

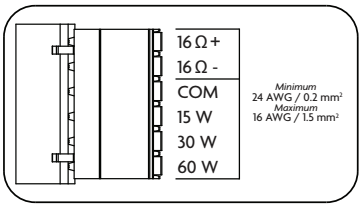
Neutrik NL4 Speakon Input



Optional Phoenix Input



Optional -MT60 70 V Input



Note: Phoenix blocks accept minimum 24 AWG / 0.2 mm², maximum 16 AWG / 1.5 mm² cable

Mechanical Specification Drawings

2D and 3D DWG dimensional drawings are available for download at www.fulcrum-acoustic.com/resources

Notes

[1] **Performance Specifications** *All acoustic specifications rounded to nearest whole number. External DSP with Fulcrum Acoustic-provided settings is required to achieve the specified performance.*

[2] **Operating Range** *The frequency range within which the processed response is within 10 dB of the average.*

[3] **Power Handling** *Based on the AES power handling of the transducers.*

[4] **Nominal Sensitivity** *The 1-meter-referenced SPL produced by a 1 watt band limited pink noise signal, with no processing applied.*

[5] **Equalized Sensitivity** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which produces a total power of 1 watt, in sum, to the loudspeaker subsections.*

[6] **Equalized Maximum SPL** *The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which drives at least one subsection to its rated power.*

[7] **AES75 Maximum Linear Sound Levels** *Per AES75-2023: "AES standard for acoustics – Measuring loudspeaker maximum linear sound levels using noise".*

[8] **Resolution** *All response graphs are subjected to 1/6 octave cepstral smoothing with a gaussian weighting function.*

[9] **Axial Sensitivity** *The SPL plotted against frequency for a 1 watt swept sine wave, referenced to 1 m with no signal processing.*

[10] **Axial Processed Response** *The axial magnitude response with recommended signal processing applied.*

[11] **Axial Processed Phase Response** *The axial phase response with recommended signal processing applied, and latency removed.*

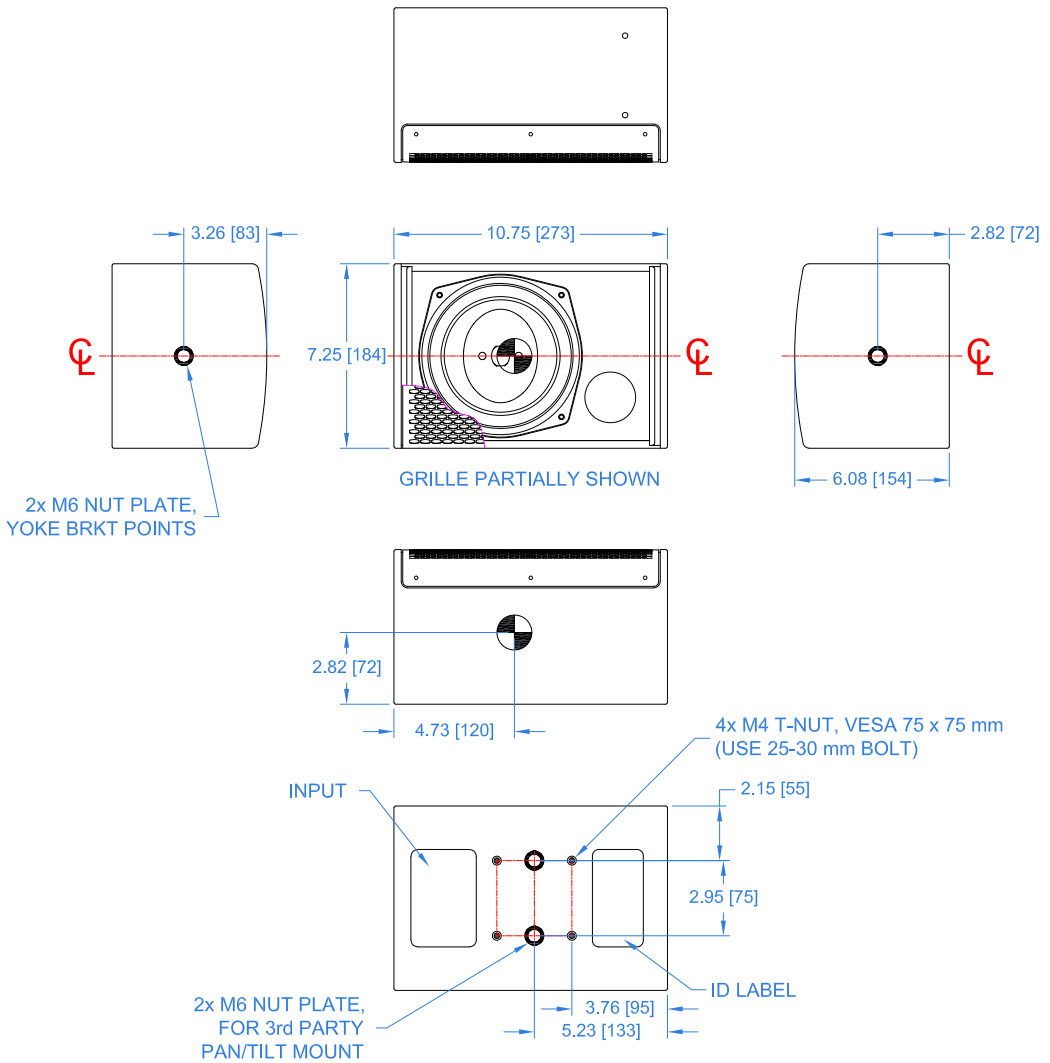
[12] **Horizontal / Vertical Off Axis Responses** *The magnitude response at various angles off axis, with recommended signal proceessing applied.*

[13] **Beamwidth** *The angle between the -6 dB points in a loudspeaker's polar response.*

[14] **Directivity Index (Di)** *The ratio of the on-axis sound pressure squared to the spherical average of the sound pressure squared at a particular frequency expressed in dB. To convert the directivity index to directivity factor (Q) use the formula* $10^{Di/10}$.

Notes:
1. Net Weight = Approx. 11.0 lb / 4.9 kg
2. Symbol = M6 x 1.0 nut plate
3. Symbol = M4 x 0.7 T-nut
4. Symbol = CoG
5. Enclosure construction: PVC

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 04/29/24
2	UPDATE NOTES, GRILLE	RAF 02/26/26

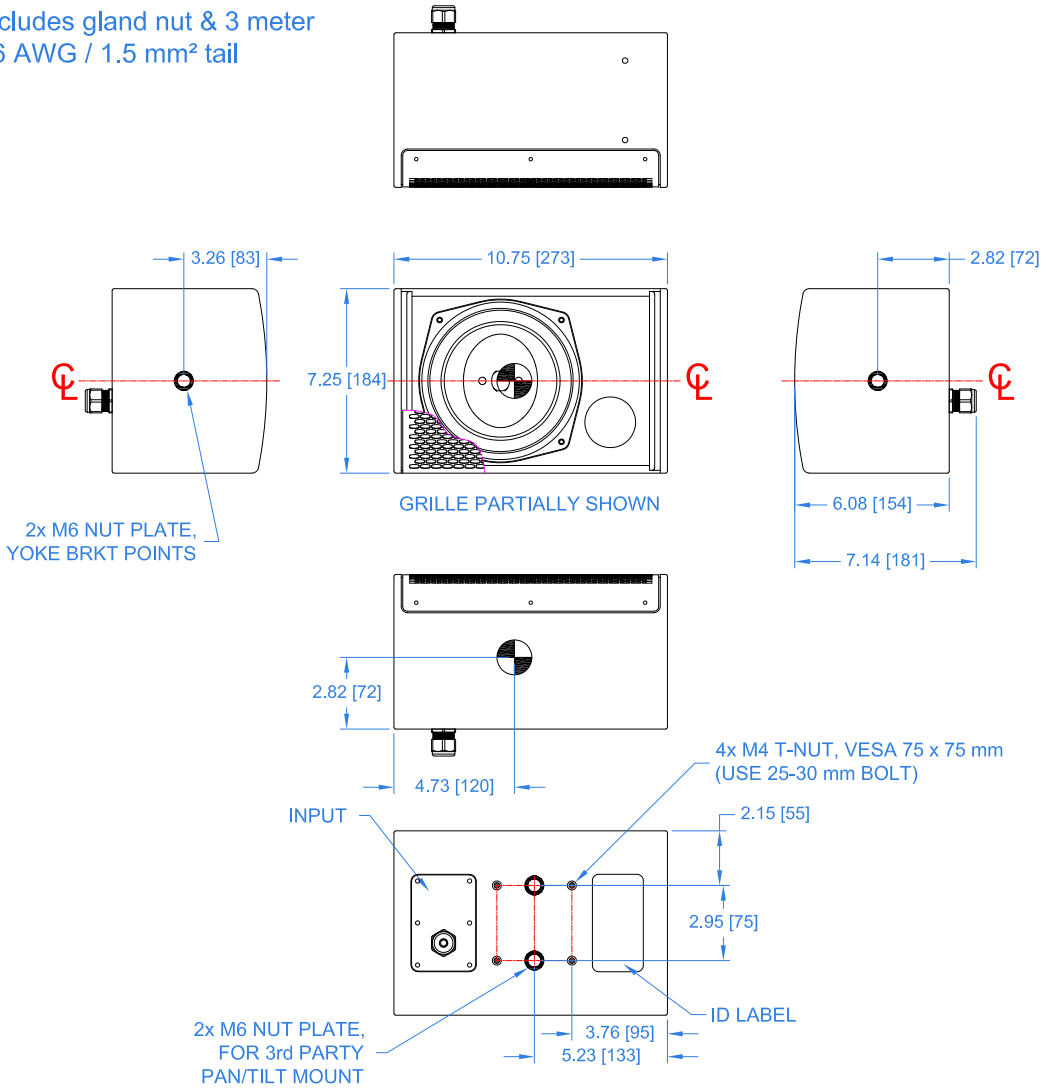


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Notes:
1. Net Weight = Approx. 12.0 lb / 5.4 kg
2. Symbol ○ = M6 x 1.0 nut plate
3. Symbol ◉ = M4 x 0.7 T-nut
4. Symbol ◔ = CoG
5. Enclosure construction: PVC
6. Includes gland nut & 3 meter 16 AWG / 1.5 mm² tail

REVISIONS		
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1	NEW ISSUE	RAF 04/29/24
2	UPDATE NOTES, GRILLE	RAF 02/26/26

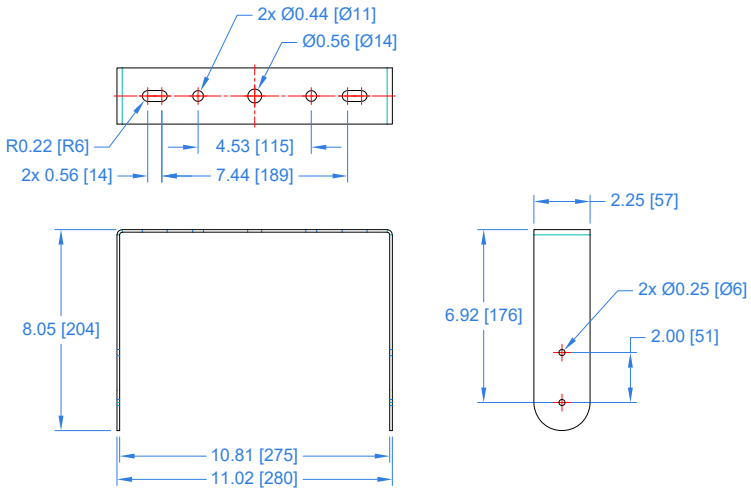


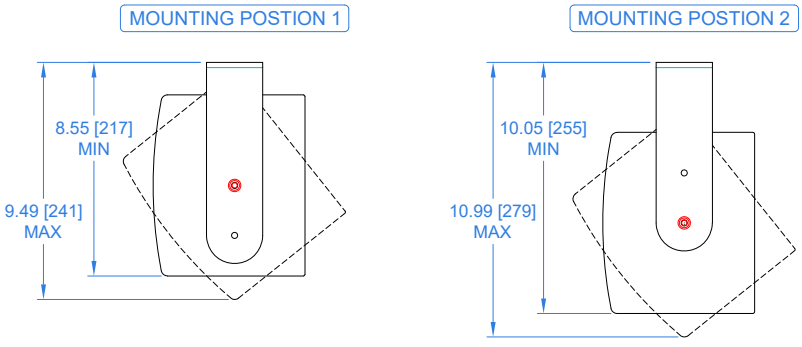
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Notes:
1. Net Weight = Approx. 1.0 lb / 0.5 kg
2. Material: 12 GA (0.104") CRS, weather-resistant coating
3. Includes 2x each M6 socket head cap screws, split washers, flat washers

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 04/29/24
2	CORRECT BRKT LENGTH	RAF 11/6/26





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