LIS8T LIS8+T

Lay-in Speaker Packages with 8" Cone Speaker

PENTON

■ FEATURES

- One-piece Assembly Saves Installation Cost
- Choose Between 5, 10-ounce Twin Cone or Coaxial Model
- Grille Matches Ceilings and Fixtures
- Dual 70.7/25-volt Xfrmr for Use in Most Applications

■ DESCRIPTION

The Penton Audio LIS Series full-range, lay-in speaker packages are economical one-piece assemblies designed to speed installation in traditional 2' x 4' and 2' x 2' suspended tile ceilings. Conservatively rated each unit combines a speaker, 70.7/25-volt transformer and enclosure, all attached to grid assembly that also serves as a tile bridge.

The LIS Series exclusive swedged support lines up the grille with the tile. It is not just pleasing to the eye, but is convenient for the installer. Enclosure has 6" five-conductor wire exiting the housings through through the top.

Models use different assemblies; LIS8T and LIS8+T employing twin-cones and a 5-watt transformer. (The LIS8+T has a 15-watt speaker with a 10-ounce magnet.) An 8-watt transfomer is stock on the coaxial LIS8XT which has a treated cone with rubber surround and a post-mounted, 3" paper-cone tweeter having a 1/2" moving coil.

■ APPLICATION

This family of products is for lightningfast installation. When mounting in a traditional 2' x 2' or 2' x 4' dropped ceiling, only one perpendicular cut to the acoustical tile is needed.

The LIS Series is ideal for voice transmission, music and signal reproduction. Use these in commercial locations including offices, banks, educational institutions, restaurants, hotel/motels and other industrial/instutional/governmental applications where precise transmission of audio is required.



■ SPECIFICATIONS

- CONE SPEAKER SIZE:
 - 8" (203 mm)
- FREQUENCY RESPONSE (SEE FIG 1)

LIS8T: $60-20,000 \text{ Hz} \pm 6 \text{ dB}$ LIS8+T: $60-20,000 \text{ Hz} \pm 6 \text{ dB}$ LIS8XT: $50-16,000 \text{ Hz} \pm 6 \text{ dB}$

• POWER HANDLING (RAW DRIVER):

LIS8T: 10 watts LIS8+T: 15 watts LIS8XT: 20 watts

• SPL @ 1w 1m:

LIS8T: 95 dB LIS8+T: 96 dB LIS8XT: 94 dB

• DISPERSION @ 2 kHz (6 dB Down):

LIS8T: 100° LIS8+T: 100° LIS8XT: 96°

• DIRECTIVITY Q FACTOR @ 2 kHz LIS8T/LIS8+T: 6.90

LIS8XT: 6.80

- CONE MATERIAL AND SURROUND: LIS8T/LIS8+T: Self-edged Paper LIS8XT: Treated Paper
- TRANSFORMER MAX INSERTION LOSS: LIS8T/LIS8+T: 1.5 dB

LIS8XT: 0.8 dB

• CONE DESIGN: LIS8T/LIS8+T:

LIS8T/LIS8+T: Twin Cone LIS8XT: Coaxial

• LIS8XT TWEETER TYPE:

3" Paper Cone with 1/2" Moving Coil

 CONNECTION: Via Wire Nuts

- 70.7-VOLT TRANSFORMER TAPS LIS8T/LIS8+T: 5, 2, 1, 0.5, 0.25 LIS8XT: 8, 4, 2, 1, 0.5
- 70.7-VOLT TRANSFORMER IMPEDANCE: LIS8T: 1K, 2.5K, 5K, 10K, 20K LIS8+T: 1K, 2.5K, 5K, 10K, 20K LIS8XT: 625, 1.25K, 2.5K, 5K, 10K
- 25-VOLT TRANSFORMER TAPS: LIS8T/LIS8+T: 5, 2, 1, 0.625, 0.25 LIS8XT: 8, 4, 2, 1, 0.5
- 25-VOLT TRANSFORMER IMPEDANCE: LIS8T: 125,312, 625, 1K, 2.5K LIS8+T: 125, 312, 625, 1K, 2.5K LIS8XT: 78, 156, 312, 625, 1.25K
- TRANSFORMER TAP CHANGE: Five-conductor Plenum-rated Wire
- BAFFLE MATERIAL:
 ABS with Molded-in UV Inhibitor
- MAGNET WEIGHT: LIS8T: 5.34 oz LIS8+T/ LIS8XT: 10 oz
- FINISH

Non-reflective White Powder-coated Epoxy Paint

- APPROVALS:
- DIMENSIONS L-W-D; INCH (MM): 23.74" x 12.84 x 4.53 (603 x 326 x 115)
- NET WEIGHT LBS (KGS): LIS8T: 9.07 (4.12)

LIS8+T: 9.62 (4.37) LIS8XT: 10.26 (4.66)

LIS8T

LIS8+T

LIS8XT

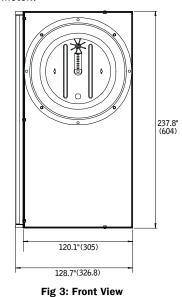
■ ARCHITECTS' AND ENGINEERS' **SPECIFICATIONS:**

Unit shall be Penton Audio USA Model (LIS8T/LIS8+T/LIS8XT) or approved equal. Unit shall be a 1-piece assembly comprised of a damped high-compliance 8" loudspeaker, factory-mounted, 70.7/ 25-volt transformer, tile bridge, enclosure and 1' x 2' grille.

(LIS8T speaker shall include a 10watt, twin-cone speaker and transformer having power taps of 5, 2, 1, 0.5 and 0.25 watts. Output shall be 95 dB @ 1 watt, 1 meter. Frequency response shall be 60-20 kHz.)

(LIS8+T speaker shall include a 15watt, twin cone speaker with 10ounce magnet and 5-watt transformer. Transformer shall have power taps of 5, 2, 1, 0.5 and 0.25 watts. Output shall be 96 dB @ 1 watt, 1 meter. Frequency response shall be 60-20 kHz.)

(LIS8XT speaker shall include a coaxial speaker with 10-ounce magnet, treated paper cone and 3" paper cone tweeter with 1/2" moving coil. Transformer shall have power taps of 8, 4, 2, 1 and 0.5 watts. Frequency response shall be 50-16 kHz. Output shall be 94 dB @ 1 watt, 1 meter.)



Frequency Response , MAGN dB $\,$ Re $\,$ 20.00 μ Pa 110 100 90 80 70 FREQUENCY (HZ) LIS8T LIS8+T Fig 1: Frequency Responses LIS8XT 1000 Hz 2000 Hz

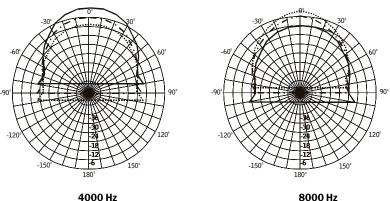


Fig 2: Polar Patterns

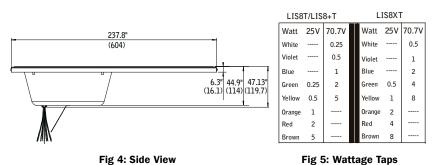


Fig 5: Wattage Taps

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