

Model LS Series Terminal Boxes Guide Specification

Furnish and install LCS Inc. model LS series supply terminal boxes. Refer to the following chart for standard box configurations.

Model #	Air flow Sensor	Control Damper	Radiated Noise Shroud	Hot Water Coil	Attenuator Section	Electric Reheat Coil
LS	X	X	X			
LSA	X	X	X		X	
LSW	X	X	X	X		
LSWA	X	X	X	X	X	
LSEA	X	X	X		X	X

Construction:

The unit casing shall be constructed of not less than 20 gauge zinc coated steel and use mechanical locking seams to form a leak resistant casing. Sealant conforming to NFPA 90A shall be used on any seams and mating sheet metal parts. The discharge connection shall be Slip & Drive as standard.

Insulation Options:

(Option 1) Closed-Cell fiber-free insulation, 3/8" 3lb/ft.³ density.

(Option 2) the LCS "Fibre-Lok" system, consisting of thermal/acoustical glass fiber with an aluminum laminate facing, minimum 1" thick, with a density not less than 4-1/4 pounds per cubic foot. The aluminum facing shall be exposed to the air stream to prevent airborne fibers. The edges of the insulation shall be sealed by zinc coated steel channels that interlock the adjacent edges of the insulation. The insulation shall conform to NFPA 90A, UL 181, and ASTM C665.

(Option 3) The LCS "Meta-Liner" consisting of thermal glass fiber not less than 1" thick, with a density not less than 1-1/2 pounds per cubic foot, with a sheet metal liner covering the fiber insulation.

Supply terminal units with Hot Water coils shall be furnished with a 2 cam, insulated access door. Plate type or hinged access doors are not acceptable.

Air Valve:

The damper assembly shall consist of a round blade that requires nominal 90° rotation from the fully open to fully closed positions on sizes 05 thru 16" round. The damper blade shall be welded to the one piece, solid steel damper shaft. The low leakage damper shall be constructed of a gasket securely fastened between two damper plates using machine installed rivets. The damper shall rotate freely in self-lubricating bearings. Damper position shall be indicated on the end of the shaft, outside of the casing. The damper on the 24x16 size shall be opposed blade type, minimum 16ga. galvanized steel construction with Oilite bronze bushings, 12ga. plated steel damper blade bracket and polyurethane seals.

Airflow Sensor:

A multi-point averaging air flow sensor shall be provided with each box. The sensor shall be designed to provide an amplified velocity pressure signal in a low pressure loss design. The sensor shall have 20 measuring points across the cross section of the airstream at points determined by the log-linear rule as adopted by ASHRAE 111 and AMCA 201.

Actuators:

As required, furnish factory mounted pneumatic or electronic actuators.

Pneumatic actuators shall be minimum 55 in. lbs. torque in the retracted or extended state, have a minimum effective diaphragm area of 7" and be suitable for operation in a control air system of 0-20 psig.

Electronic actuators shall be either fail-safe type or fail-in-place, as required by the application. Fail-safe actuators shall incorporate super capacitor technology and be field selectable for fail-safe position, i.e. open or closed on loss of power. Spring return electric actuators are not acceptable. The actuators shall be rated for a minimum of 50 in.lbs. of torque and have a rotation time of 3 seconds or less for 90° travel.