

SPECIFICATION

GENERAL

Furnish and install Tuttle & Bailey model SDR, single duct terminal units, to provide air at variable volume or constant volume for cooling of sizes and capacities scheduled or as shown on the plans. Single duct terminal units shall be factory assembled with a primary air damper assembly contained in a single unit housing.

CONSTRUCTION

Sensor

The unit shall be equipped with a sensor that samples duct differential pressure with no less than 24 points strategically located to represent equal duct areas. The sensor shall be the Tuttle & Bailey Flo-Cross® and will provide a differential pressure signal amplified to equal 3 times the duct velocity pressure that represents actual air flow with an accuracy of +/- 5% throughout the catalogued operating range of the unit. A length of one-half of one diameter of straight inlet duct is required before the Flo-Cross® sensor.

Damper Assembly

The damper assembly shall be constructed of two heavy-duty 22 gauge round galvanized steel plates, sandwiching an elastomeric gasket to provide minimum leakage. Damper blade will have a maximum angular travel of 90° to provide improve linearity and flow characteristics. Damper shaft shall be solid, two-piece, cast aluminum, with an indicator to show damper position, and shall be riveted to the damper blades. Damper bearing shall be Delrin construction, provide noise free operation and require no lubrication.

Connections

All electrical components shall be UL/ETL recognized and installed in accordance with the National Electric Code. All electrical components are to be mounted in a NEMA 1 control enclosure. Unit shall bear an ETL label.

Control Options

1. Pneumatic: The terminals shall be equipped with pressure independent pneumatic controls which can be reset to modulate airflow within the cataloged airflow range. Each controller shall be field convertible for direct or reverse acting without recalibration. Control devices (controller & actuator) shall be provided by the terminal manufacturer. Control devices shall be factory calibrated. Flow measuring taps and flow curves shall be supplied with each terminal for field balancing airflow. All pneumatic tubing shall be UL listed fire retardant (FR) type.
2. Analog Controls: The terminal manufacturer shall provide pressure independent electronic analog controls which can be reset to modulate airflow within the cataloged airflow range. Matching thermostat shall have concealed cover latches to prevent tampering and adjustable stops for locking or limiting temperature setpoint slider movement. Air volume controller/actuator and thermostat are by terminal manufacturer. Control devices shall be factory calibrated. All pneumatic tubing shall be UL listed fire retardant (FR) type.
3. DDC, Factory Mounting of FMA Controls Supplied By Others: The terminals shall be equipped with pressure independent direct digital controls supplied by the control contractor and mounted by the terminal unit manufacturer.
4. Analog or DDC Controls, Field Mounted: Controls for the unit are to be supplied by the controls contractor and are to be mounted, calibrated, and tested in the field.



OPTIONS

Unit Accessories

1. The unit shall be supplied with controls toggle disconnect switch. This switch will disconnect all power to the terminal unit.
2. All control enclosures shall be supplied with dust tight gasketing.
3. The unit shall be supplied with a transformer of voltage defined on schedule.