

**DBSL**

## DESCRIPTION

Duct air flow switches.

## APPLICATION

Control and monitor air and non aggressive gases flow in ducts, chambers, etc., of heating, cooling, and air conditioning equipment.

## FEATURES

- NEMA 1 & 4 housing
- Cut-in and cut-out
- Stainless steel paddle
- Brass level

## SPECIFICATIONS

Type of operation	On/Off, single-stage, micro switch
Output	1 SPDT, or 2 SPDT, 24/250 VAC, 15 (8) A
Flow rate switching	
- Cut-out	Min. 197 ft/min (1.0 m/sec)* Max. 1,575 ft/min (8.0 m/sec)
- Cut-in	Min. 492 ft/min (2.5 m/sec) Max. 1,811 ft/min (9.2 m/sec)
Flow rate setting adjustment	Internal screw
Sensing element	Paddle
Paddle size	3.2 x 6.9 in. (80 x 175 mm)
Paddle w/level - Length	7.9 in. (200 mm)
Flow applications	Air and non aggressive gases
Paddle material	Stainless steel
Paddle level material	Brass
Permissible ambient temperature	
- Housing	-40°F to 185°F (-40°C to 85°C)
- Paddle	14°F to 185°F (-10°C to 85°C)
Permissible ambient humidity	10...90% RH, non-condensing
Wire	
- Connection	Terminal with wire retaining screws
- Size	Maximum 14 AWG (2.5 mm²)
Cable entry	M20 fitting, replaceable by 1/2" conduit connector
Housing	
- Material	Base: Steel, galvanized Cover: ABS, fire retardant
- Color	Dark gray/blue
- Protection	NEMA 1 (IP 40), or NEMA 4 (IP 65)
- Dimensions	4.3 x 2.8 x 2.8 in. (108 x 70 x 72 mm)
Installation	Duct mounted
Ship weight	1.6 lb (0.7 kg)

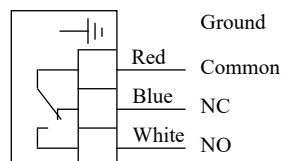
## Part Numbers

1 SPDT, NEMA 1	DBSL-1EPL-1US
1 SPDT, NEMA 4	DBSL-1EPL-4US

## WIRING DIAGRAM

Increased flow and attained cut-in setting:  
Red & White connected  
Decreased flow and attained cut-out setting:  
Red & Blue connected

### DBSL-1EPL



\* Factory calibrated to minimum cut-out switching / high sensitivity  
To adjust for less sensitivity / higher flow rate, turn adjustment screw located below switch clockwise.



Certified  
ISO 9001



## INSTALLATION

The flow switch should be mounted into a duct or chamber where the air paddle can freely point horizontally downwards. To avoid air swirl and paddle instability, straight zones should be provided for a length of 5 times the diameter of duct upstream and downstream from the installation location.

## NOTE

The units are factory calibrated to the minimum switch-off value. To increase the set value, adjust the range screw clockwise. Due to the risk of fracture at air speeds of higher than 984 ft/min (5.0 m/sec), the paddle must be cut off on the marked side. When the paddle is cut off, the minimum cut-out value increases from 197 ft/min (1.0 m/sec) to 492 ft/min (2.5 m/sec).

## DBSL DIMENSIONS (mm)

