



LFEs of the type LDS have no need of an additional inlet or outlet section and can be operated with different cleaned gases without an individual calibration.

By using a PDP sensor very compact measuring section setups can be realized.

- Slot type-LFE for flows from 10ml/min to 150l/min
- Accuracy better than  $\pm 1\%$  of flow
- No additional inlet and outlet section needed
- 10mbar differential pressure at nominal flow
- Operation with different cleaned gases

## Technical Description

This series of LFE is built-up with slots in the measuring section. This construction has the advantage to measure the flow generated differential pressure inside the slot. This way the acceleration of the flow is already stabilized at the positive measuring point and the characteristic curve is more linear compared with other constructions. So LFE-LDS don't need an inlet/outlet section and can be operated with different cleaned gases without individual calibration.

## Specifications

### Measuring Range and Differential Pressure

Measuring range from 0 up to nominal flow. The resolution is determined by the used pressure transmitter.

#### Stainless Steel Version

Model	Measuring Range	$\Delta p$
LFE-LDS-ES-	[L/min]	[mbar]
0.010-10	0-0.01	0-10
0.025-10	0-0.025	0-10
0.050-10	0-0.05	0-10
0.100-10	0-0.1	0-10
0.250-10	0-0.25	0-10
0.500-10	0-0.5	0-10
1.000-10	0-1	0-10
2.500-10	0-2.5	0-10
5.000-10	0-5	0-10

#### Aluminium Version

Model	Measuring Range	$\Delta p$
LFE-LDS-AL-	[L/min]	[mbar]
0010-10	0-10 l/min	0-10
0025-10	0-25 l/min	0-10
0050-10	0-50 l/min	0-10
0075-10	0-75 l/min	0-10
0125-10	0-125 l/min	0-10
0150-10	0-150 l/min	0-10

### Total Pressure Drop

app. 1.5 to 2 times of measured differential pressure value

### Accuracy

Calibration Accuracy:  $\pm 0,65\%$  to  $\pm 0,85\%$

### Fields of Application

Gas types: Basic calibration with air  
Easy conversion for the clean gases with known dynamic viscosity  $\eta$

Press. Range: 0,1-1 bar abs. (calibrated at 1 bar)  
Higher pressures up to 7 bar absolute on demand

### Material

LDS-ES: CrNi-stainless steel, Viton

LDS-AL: Aluminium (3.1645), anodised

### Connections and Total Length LDS-ES

Model	Total Length	Connections
LFE-LDS-ES-	[mm]	[inch]
0.010-10	100	
0.025-10	100	
0.050-10	100	
0.100-10	100	G1/8" female
0.250-10	100	
0.500-10	100	
1.000-10	100	
2.500-10	120	
5.000-10	130	G1/4" female

### Connections and Total Length LDS-AL

Model	Total Length	Connections
LFE-LDS-AL-	[mm]	[inch]
0010-10	170	
0025-10	170	
0050-10	230	G1/2" female
0075-10	230	
0125-10	230	
0150-10	230	

### Differential Pressure Connection

Metric thread 5 mm or with adapter BSP 1/8" female

### Mounting Options

Mounting position: arbitrary

## Ordering Information

Part-No.	Measuring Range	$\Delta p$
LFE-LDS-ES-0.010-10	0-0.01	0-10
LFE-LDS-ES-0.025-10	0-0.025	0-10
LFE-LDS-ES-0.050-10	0-0.05	0-10
LFE-LDS-ES-0.100-10	0-0.1	0-10
LFE-LDS-ES-0.250-10	0-0.25	0-10
LFE-LDS-ES-0.500-10	0-0.5	0-10
LFE-LDS-ES-1.000-10	0-1	0-10
LFE-LDS-ES-2.500-10	0-2.5	0-10
LFE-LDS-ES-5.000-10	0-5	0-10
LFE-LDS-AL-0010-10	0-10	0-10
LFE-LDS-AL-0025-10	0-25	0-10
LFE-LDS-AL-0050-10	0-50	0-10
LFE-LDS-AL-0075-10	0-75	0-10
LFE-LDS-AL-0125-10	0-125	0-10
LFE-LDS-AL-0150-10	0-150	0-10