

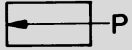
Non-Contact Pneumatic Sensors

Air Barrier Sensors

Air Barrier Units

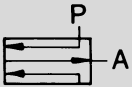
Sender

Type SFL-100-S



Receiver

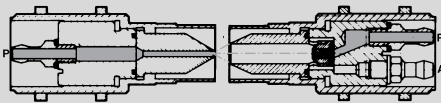
Type SFL-100-F



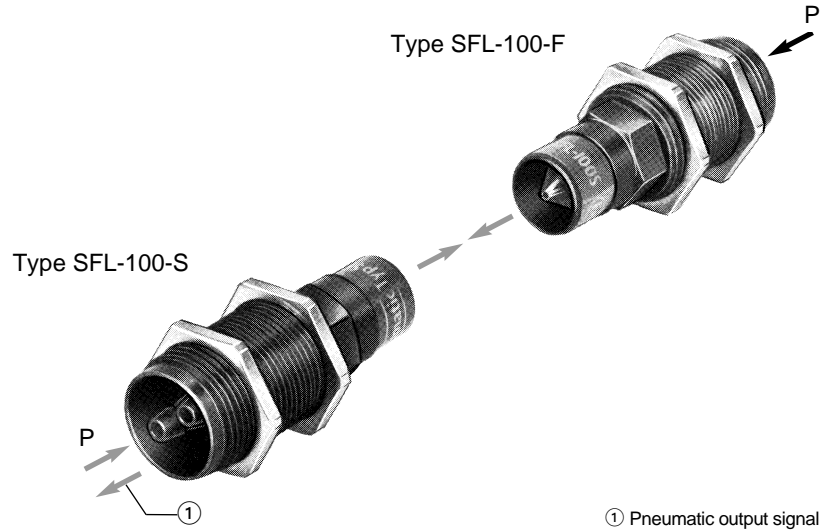
The air barrier is used as a non-contact sensing device for distances up to 4.0 in / 100 mm; for example, in detecting objects in an indefinite position or laying at varying distances from the nozzle (molded parts).

SFL-100-S

SFL-100-F



P = Supply
A = Outlet



Both sender and receiver nozzles are connected to the compressed air supply at connection P. The air has a pressure of 1.5 to 3 psi / 0.1 to 0.2 bar and should be dry and oil free. Air is continuously emitted from the receiver nozzle to prevent contamination and to assist in signal generation.

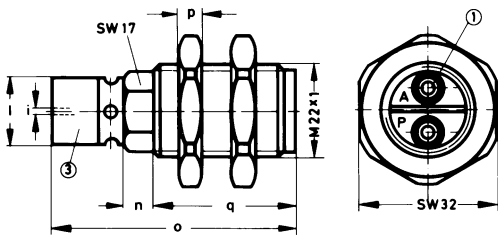
Air ejected through the nozzle disrupts the free flow of air at the receiver. A back pressure is generated, producing a signal pressure ≥ 0.007 psi / 0.5 m bar at outlet A of the receiver. This signal pressure is then raised to the desired working pressure by an amplifier. If any object disrupts the flow of air between the sender and receiver, the output signal at receiver port A drops to zero.

Order Number	Part No./Type	100430 SFL-100-S	100431 SFL-100-F
Medium		Compressed air (filtered, unlubricated)	
Mounting		M22 x 1 with mounting nuts	
Mounting Hole Diameter		0.89 in / 22.5 mm	
Connection		Barbed fitting for 1/4 in / 4 mm tubing	
Supply Pressure Range at P*		1 to 3 psi / 0.1 to 0.2 bar	
Supply Pressure, Max.		6.0 psi / 4 bar	7.5 psi / 0.5 bar
Supply Pressure Range at A		-0.07 in Hg / -0.002 bar to supply pressure	
Air Consumption at 1.5 psi / 0.1 bar		0.3 SCFM / 8.5 l/min	
Max. Nozzle Range		4.0 in / 100 mm	
Ambient Temperature		-40 to +212°F / -40 to +100°C†	
Design		Nozzle, no moving parts	
Material		Housing: Al, brass	
Weight		0.110 lb / 0.050 kg	

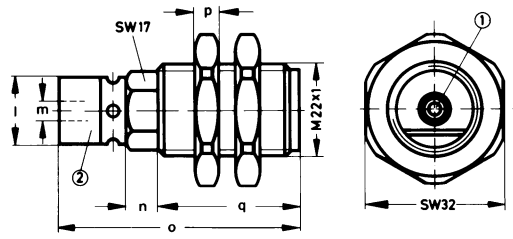
* 14 to 140°F / -10 to +60°C temperature range of medium

† Depending on tubing used

Type SFL-100-S



Type SFL-100-F



Dimensions

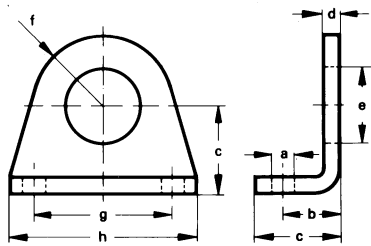
a 0.26 in / 6.6 mm	j 0.26 in / 66 mm
b 0.67 in / 17 mm	k 1.97 in / 50 mm
c 0.99 in / 25 mm	l 0.63 in / 16 mm
d 0.20 in / 5 mm	m 0.22 in / 5.5 mm
e 0.87 in / 22.1 mm	n 0.30 in / 7.5 mm
f 0.79 in / 20 mm	o 2.29 in / 58 mm
g 1.58 in / 40 mm	p 0.24 in / 6 mm
h 2.13 in / 54 mm	q 1.32 in / 33.5 mm
i 0.06 in / 1.5 mm	

- ① Barbed fitting for 1/4 in / 4 mm tubing
- ② Brown Band
- ③ Green Band

SW = wrench size, mm

Foot Mount

Order Number 5127 HBN-20/25-1



Flange Mount

Order Number 5131 FBN-20/25

