

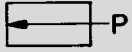
# Non-Contact Pneumatic Sensors

## Air Barrier Sensors

### Air Barrier Units

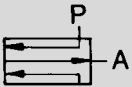
#### Sender

Type SFL-100-S



#### Receiver

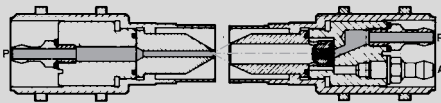
Type SFL-100-F



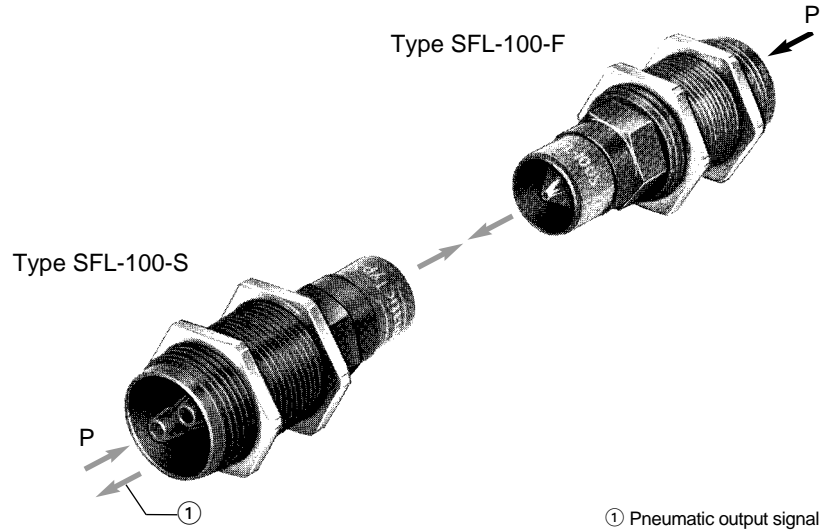
The air barrier is used as a non-contact sensing device for distances up to 4.0 in / 100 mm; for example, in detecting objects in an indefinite position or laying at varying distances from the nozzle (molded parts).

SFL-100-S

SFL-100-F



P = Supply  
A = Outlet



① Pneumatic output signal

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.

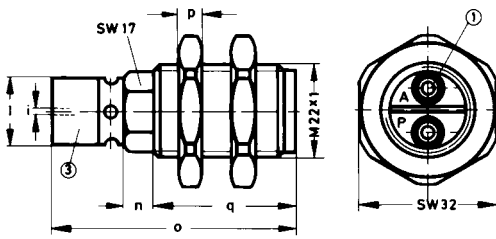
Air ejected through the nozzle disrupts the free flow of air at the receiver. A back pressure is generated, producing a signal pressure  $\geq 0.007$  psi / 0.5 m bar at outlet A of the receiver. This signal pressure is then raised to the desired working pressure by an amplifier. If any object disrupts 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	

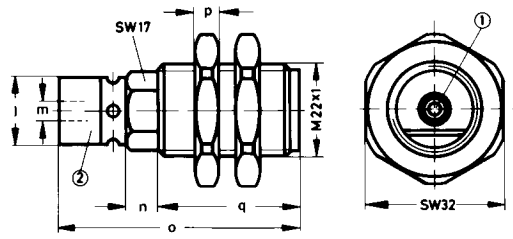
\* 14 to 140°F / -10 to +60°C temperature range of medium

† Depending on tubing used

Type SFL-100-S



Type SFL-100-F



### Dimensions

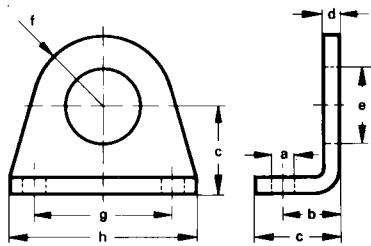
a 0.26 in / 6.6 mm	j 0.26 in / 66 mm
b 0.67 in / 17 mm	k 1.97 in / 50 mm
c 0.99 in / 25 mm	l 0.63 in / 16 mm
d 0.20 in / 5 mm	m 0.22 in / 5.5 mm
e 0.87 in / 22.1 mm	n 0.30 in / 7.5 mm
f 0.79 in / 20 mm	o 2.29 in / 58 mm
g 1.58 in / 40 mm	p 0.24 in / 6 mm
h 2.13 in / 54 mm	q 1.32 in / 33.5 mm
i 0.06 in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

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

SW = wrench size, mm

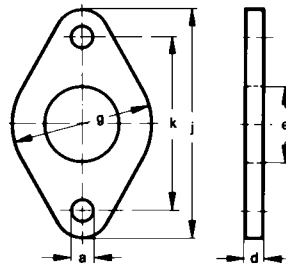
### Foot Mount

Order Number 5127 HBN-20/25-1



### Flange Mount

Order Number 5131 FBN-20/25



# Festo - Your Partner in Automation



**1 Festo Inc.**  
5300 Explorer Drive  
Mississauga, ON L4W 5G4  
Canada

**Festo Customer Interaction Center**  
Tel: 1 877 463 3786  
Fax: 1 877 393 3786  
Email: [customer.service.ca@festo.com](mailto:customer.service.ca@festo.com)



**2 Festo Pneumatic**  
Av. Ceylán 3,  
Col. Tequesquináhuac  
54020 Tlalneantla,  
Estado de México

**Multinational Contact Center**  
01 800 337 8669  
[ventas.mexico@festo.com](mailto:ventas.mexico@festo.com)



**3 Festo Corporation**  
1377 Motor Parkway  
Suite 310  
Islandia, NY 11749

**Festo Customer Interaction Center**  
1 800 993 3786  
1 800 963 3786  
[customer.service.us@festo.com](mailto:customer.service.us@festo.com)



**4 Regional Service Center**  
7777 Columbia Road  
Mason, OH 45040

Connect with us



[www.festo.com/socialmedia](http://www.festo.com/socialmedia)



[www.festo.com](http://www.festo.com)

Subject to change