# **Threshold Sensor Fittings**

Parker Legris' threshold sensor fitting detects the pressure drop when a cylinder reaches the end of its stroke. They produce a pneumatic or electrical output signal when the pressure drop in the exhaust chamber of the cylinder goes below their back pressure threshold.

# **Product Features:**

- Glass-reinforced nylon 6.6 body
- Brass screw
- NBR seal
- Silicone-Free

#### Markets:

- Factory/Process Automation
- Packaging
- Pneumatics
- Semi-Conductor

# **Applications:** Robotics

- Packaging
- Textile
- Machine Tools
- Pneumatic Systems

# Specifications:

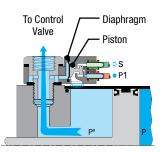
Pressure Range	43.5 to 116 psi (3 to 8 bar)
Temperature Range	5° to 140° F (-15° to 60° C)
Breaking Pressure	8.5 psi
Response Time	3 ms

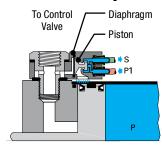
# Compatible Tubing:

- Semi-Rigid Nylon
- Polyurethane 95 Durometer Shore A
- Fluoropolymer

# Brass Screw Glass-reinforced Nitrile Seal Nylon 6.6 Body

#### Operation

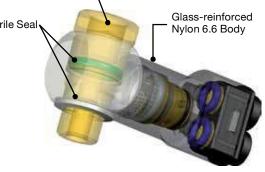




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P' - Exhaust Back Pressure P - Dynamic Pressure

P1 - Sensor Supply Pressure S - Output Signal





# **7808** | pneumatic threshold sensor 5/32 tube pilot/signal ports to NPT or UNF

C NPT/UNF	Part Number	orifice	F in	H in	J in	L in	
10-32	7818 04 20*	.08	5/16	.62	.43	1.70	.88
1/8	7808 04 11	.20	9/16	.90	.62	1.74	1.55
1/4	7808 04 14	.27	5/8	1.09	.76	1.81	2.51
3/8	7808 04 18	.39	7/8	1.13	.92	1.91	3.25
1/2	7808 04 22	.55	1	1.17	1.23	2.05	5.47

bolt: brass with sealing washer

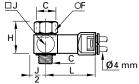
5/32" 0.D.

\*10-32: bolt zinc passivated steel

# **7818** | pneumatic threshold sensor 4mm tube pilot/signal ports

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body: nylon bolt: brass with sealing washer

10-32 UNF

\*M5: bolt zinc passivated steel

7818 04 21

to BSPP or M5 С Part (DN) F н J L ∆kg∆ BSPP/M5 Number min mm mm mm mm M5x0.8 7818 04 19\* 11 2 8 16 43.5 .025 G1/8 7818 04 10 5 14 23 16 44.5 .082 G1/4 7818 04 13 7 17 28 19.5 46.5 .113 22 27 23.5 .128 G3/8 7818 04 17 10 29 49

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31.5

52.5

.159

# 7808 | pneumatic threshold sensor 10-32 UNF pilot/signal



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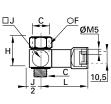
ports to NPT

G1/2

C NPT	Part Number	orifice	F in	H in	J in	L in	∆oz∆
1/8	7808 20 11	.20	9/16	.90	.62	1.58	1.66
1/4	7808 20 14	.27	5/8	1.09	.76	1.66	2.61
3/8	7808 20 18	.39	7/8	1.13	.92	1.76	3.46

body: nylon bolt: brass with sealing washer

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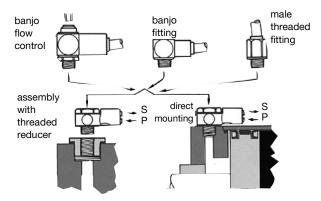


body: nylon bolt: brass with sealing washer

# 7818 | pneumatic threshold sensor M5 pilot/signal ports to BSPP

C BSPP	Part Number	<u>DN</u> min	F mm	H mm	J mm	L mm	∆kg∆
G1/8	7818 19 10	5	14	23	16	40.5	.087
G1/4	7818 19 13	7	17	28	19.5	42.5	.117

# Assembly on Cylinder



# **Pneumatic/Electric Sensors**

Exhaust pressure is sensed by a N/O, N/C contract relay switch.

Pneumatic/Electric Threshold valves are ideally suited to turn on or off a light, or to send an electric signal to another function in the system. They are supplied with a 6 ft., three core cable and can be used with AC or DC voltages.

## Advantages for the user:

- small size
- replaces traditional sequence valves and/or limit switches
- eliminates on going normal adjustment associated with limit valves

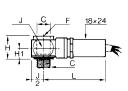
# Installation

The threshold sensor can be mounted on the cylinder, on the control valve or on a terminal block provided it is between the cylinder and the flow control. For accuracy, the flow control is mounted as close as possible to the cylinder. It can be fitted to a sensor fitting mounted on the cylinder.

## Technical Specifications for Pneumatic/ Electric Threshold Sensor Valves

Threshold Signal Pressure	7 psi
Current Rating	5A/250VAC - 5W/48VDC
UL Listed Component Reset Pressure	10 psi
Electrical Connection	cable: three core, 2 meters (6.5 ft) long BLACK (NC) BLUE (COMM) BROWN (NO)



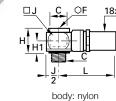


body: nylon bolt: brass with sealing washer

# 7828/7829 | pneumatic/electric threshold sensor NPT or UNF

24	C NPT/UNF	Part Number	F mm	H in	H1 in	J in	L in	
7	10-32	7828 00 20	8	.79	.39	.43	1.93	5.30
	1/8	7829 00 11	6	.79	.39	.63	2.05	6.10
	1/4	7829 00 14	8	.79	.39	.83	2.13	6.35
•	3/8	7829 00 18	10	.87	.47	1.10	2.24	7.50
	1/2	7829 00 22	12	1.02	.55	1.30	2.28	9.35





bolt: brass with sealing washer

# **7828** | pneumatic/electric threshold sensor BSPP or M5

18x24	C BSPP/M5	Part Number	F mm	H mm	H1 mm	J mm	L mm	∆kg∆
7	M5x0.8	7828 00 19	8	20	10	11	49	.115
`	G1/8	7828 00 10	6	20	10	16	52	.120
	G1/4	7828 00 13	8	20	10	21	54	.125
	G3/8	7828 00 17	10	22	12	28	57	.150
	G1/2	7828 00 21	12	26	14	33	58	.185

