SPAL / SPFL / SPFLH

DESCRIPTION

A simple and common pressure switch utilizing a polyimide diaphragm for extended duty applications. It is used in many automotive applications for monitoring of engine functions and auxiliary devices.

FEATURES

- Gold plated silver alloy contacts
- High current ratings
- Works well in extreme temperatures
- Very economical

APPLICATIONS

- Oil pressure switch
- Fuel pressure switch
- Exhaust pressure switch
- Air brake switch

Specifications

Electrical	Resistive	Inductive
	15 AMP - 6 VDC	1 AMP - 120 VAC
	8 AMP - 12 VDC	0.5 AMP - 240 VAC
	4 AMP - 24 VDC	
Switch Type	Blade Contact	
Protection	Terminals - IP00	
Temperature Range	-40°F to 248°F (-40°C to 120°C) Polyimide Film	
Mechanical Range	1,000,000 Cycles @ 75 PSI (5.2 BAR)	
Diaphragm Material	Standard: Polyimide Film Optional: EPDM (must be selected when in contact with water)	
Housing Material	Brass, Glass Reinforced Polyester (Optional Stainless Steel)	
Maximum Overpressure	Model 1A to 5A - 150 PSI (3.5 BAR) Model 6A to 8A - 250 PSI (17 BAR) Model 1H to 5H - 500 PSI (34 BAR)	
Weight	0.14 lbs (0.06 kg)	

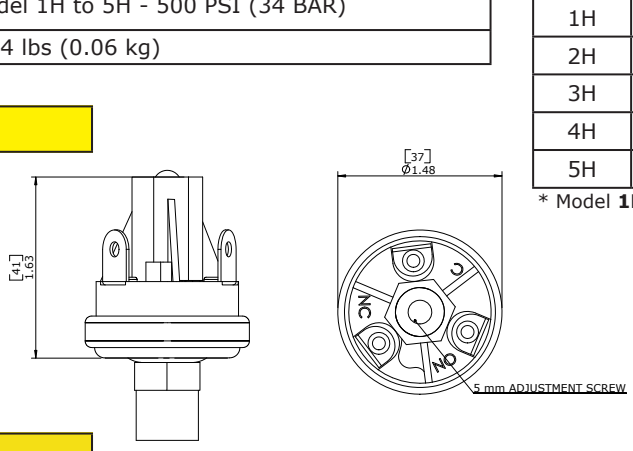
Pressure Range

Model	Adjustment Range	
	PSI	BAR
1A	0.5 - 1.0	0.03 - 0.07
2A	1.1 - 3.0	0.08 - 0.21
3A	3.1 - 7.0	0.21 - 0.49
4A	8.0 - 13	0.55 - 0.90
5A	14 - 24	0.97 - 1.65
6A	25 - 50	1.72 - 3.45
7A	51 - 90	3.52 - 6.20
8A	91 - 150	6.27 - 10.34

Model	Adjustment Range	
	PSI	BAR
1H	10 - 35	0.69 - 2.41
2H	35 - 75	2.41 - 5.17
3H	75 - 150	5.17 - 10.34
4H	150 - 250	10.34 - 17.24
5H	250 - 400	17.24 - 27.58

* Model **1H** to **5H** has an overpressure of 500 PSI

Dimensions



Wiring Code

CONTACT	FLYING LEADS	DIN 43650 TYPE	FLWF / FLWM FLCM / FLCF / FLPM / FLPF		FLDR / FLDP	
			SPDT MODEL	SPST MODEL	SPDT MODEL	SPST MODEL
COMMON	BLACK	PIN 1	PIN A	PIN A	PIN A	PIN 1
NORMALLY CLOSED	BLUE	PIN 2	PIN C	PIN B	PIN C	PIN 2
NORMALLY OPEN	RED	PIN 3	PIN B	PIN B	PIN B	PIN 2

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ANFIELD SENSORS INC.

Ordering Information

		1	2	3	4	5 (Optional)
Field Adjustable	SPAL -	2A -	2M -	B -	FL -	3
Factory Preset	SPFL -	30F -	2M -	B -	FL -	3
Factory Preset	SPFLH -	30F -	2M -	B -	FL -	3

1	2	3	4	5
30F	2M	B	FL	3

(Select this ordering code if you require a factory set switch with the high overpressure option.)

1 - Pressure Selection:

Field Adjustable - Select Model Code

Model	Adjustment Range	
	PSI	BAR
1A	0.5 - 1.0	0.03 - 0.07
2A	1.1 - 3.0	0.08 - 0.21
3A	3.1 - 7.0	0.21 - 0.49
4A	8.0 - 13	0.55 - 0.90
5A	14 - 24	0.97 - 1.65
6A	25 - 50	1.72 - 3.45
7A	51 - 90	3.52 - 6.20
8A	91 - 150	6.27 - 10.34
1H	10 - 35	0.69 - 2.41
2H	35 - 75	2.41 - 5.17
3H	75 - 150	5.17 - 10.34
4H	150 - 250	10.34 - 17.24
5H	250 - 400	17.24 - 27.58

OR

Insert set point value XXX followed by: R, F, BR, or BF

Set Point	Direction	Description
XXXX	**R**	PSI Rising Pressure
	F	PSI Falling Pressure
	BR	BAR Rising Pressure
	BF	BAR Falling Pressure

*If you require a factory preset switch with an overpressure higher than 250 PSI, please select the model code SPFLH.

2 - Thread Options:

2M - 1/8 NPT male
4M - 1/4 NPT male
2G - 1/8 BSPP male, G1/8
4G - 1/4 BSPP male, G1/4

3 - Circuit:

A - SPST (Normally Open)
B - SPST (Normally Closed)
D - SPDT (Single Pole Double Throw : Normally Open and Normally Closed)
E - SPDT (Single Pole Double Throw, Adjustable Differential)

4 - Electrical Termination:

FL - Flying Lead 18" long, 18 AWG
FLWF - Flying Lead Weatherpack connector, female, Tower, 10" long leads
FLWM - Flying Lead Weatherpack connector, male, Shroud, 10" long leads
FLDP - Flying Lead Deutsch connector, plug, 10" long leads
FLDR - Flying Lead Deutsch connector, receptacle, 10" long leads
FLCM - Flying Lead Metripack, male, 150 series, 10" long leads
FLCF - Flying Lead Metripack, female, 150 series, 10" long leads
FLPM - Flying Lead Metripack, male, 280 series, 10" long leads
FLPF - Flying Lead Metripack, female, 280 series, 10" long leads
SP - 1/4" Spade
TS - Terminal Screws, #8-32

5 - Options (Omit if not required):

2 - EPDM Diaphragm
3 - Stainless Steel Housing
20 - Seal Adjustment Screw
30 - Rubber Boot - Removable

Note: Please see page 52 for other available options