

Pressure

The Little General

MSPS, MSPH Series

Features

- ▶ Compact size
- ▶ Stripped and housed versions available
- ▶ Easy setpoint adjustment
- ▶ High reliability
- ▶ NEMA 1 & 4

Applications

- ▶ Pool & spa heaters
- ▶ Beverage dispensers
- ▶ Medical gas delivery systems
- ▶ General industrial applications



General Specifications*

Electrical Characteristics:	All models incorporate Underwriters' Laboratories, Inc. listed single pole double throw or single pole single throw snap-action switching elements.
Accuracy:	+/- 2.0% of the adjustable range
Switch:	See table below
Wetted Parts:	
Process Fitting:	304 stainless steel (standard)
Seals & Diaphragms:	Buna-N (standard)
Enclosure:	Anodized aluminum base plate; Polysulfone housing
Electrical Connection:	.250" wide x .032" thick quick connect terminals (via 1/2" NPT conduit connector on housed models)
Enclosure Ratings:	Housed models: NEMA 4 Stripped models: NEMA 1
Pressure Connection:	1/8" NPT male (standard)

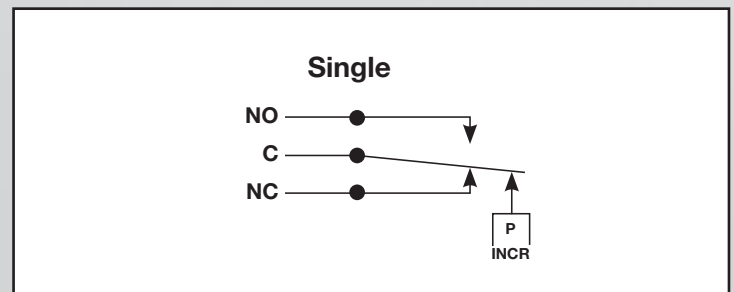
Approvals:	
UL:	MSPS models shown are UL recognized components under industrial control equipment, motor controllers, float and pressure operated (NKPZ2) files E42816.
CSA:	MSPS models are CSA certified under Class 3231 02, File LR22355.
PED (European):	Compliant to PED 97/23/EC
Temperature Range:	
Operating:	+20° to +165°F (-7° to +74°C)
Adjustment Instructions:	Turn adjustment nut clockwise to increase and counterclock wise to decrease the set point.
Options:	-FDA approved diaphragm -Oxygen cleaning -Factory preset -NSF approved switch
Shipping Weight:	
Housed Versions:	0.5 lb. approximate
Stripped Versions:	0.25 lb. approximate

* See product configurator for additional options.

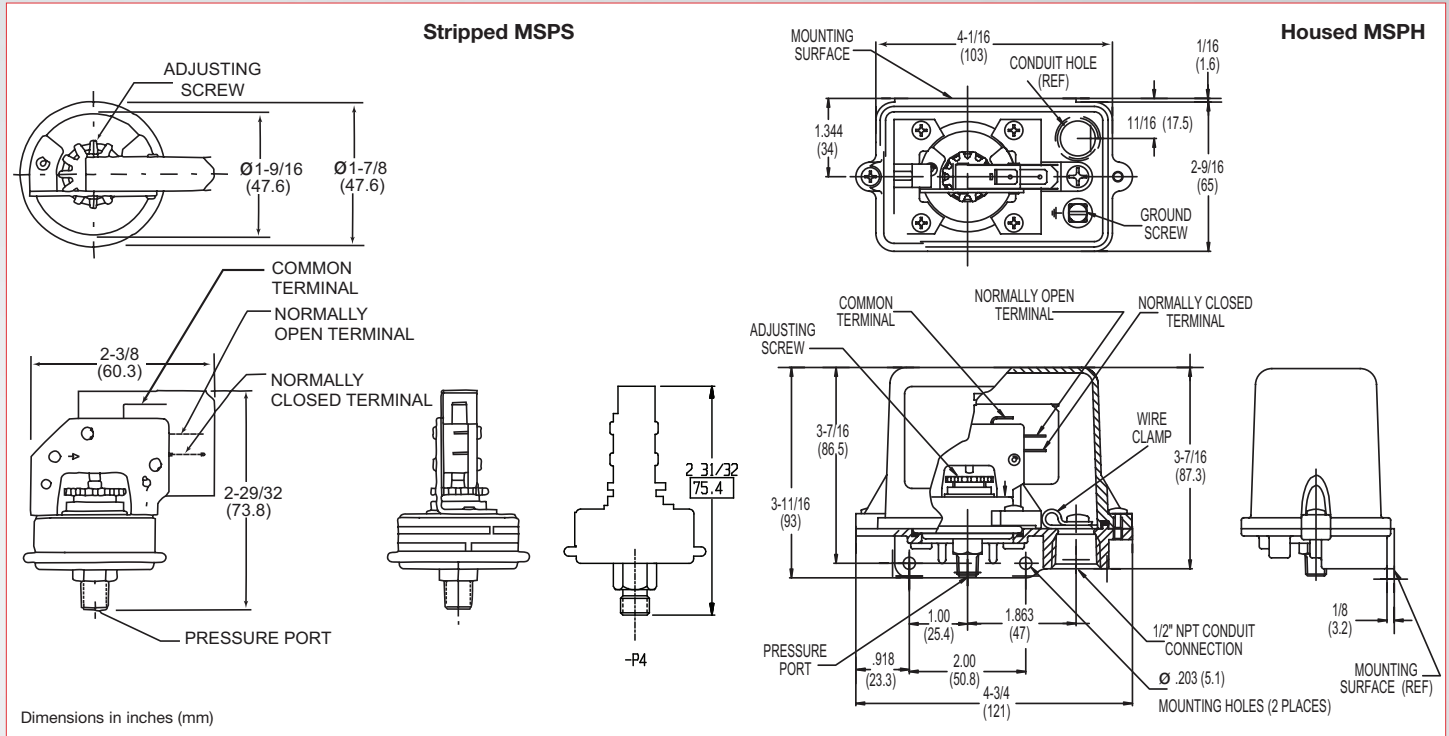
Electrical Rating

Limit Switch Class	Voltage (Volts)	Maximum Continuous Current (Amps)
		Inductive
EE, FF	125/250 VAC	3
MM	125/250 VAC	25
DD, JJ	125/250 VAC	15
DD, JJ	125 VDC	0.5
	250 VDC	0.25

Wiring Diagram



Technical Drawing



Product Configurator

Example	MSPS	-EE	15	SS		
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Enclosure

MSPS	Stripped version
MSPH	Housed version (not UL or CSA approved)

Options

-Z1	Oxygen cleaned
-Sxxx	Factory preset (consult factory)
SF ³	NSF 18 approved

Limit Switch

-DD	SPST normally open; 15 amps @ 125/250 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC
-EE	SPST normally open; 3 amps @ 125/250 VAC
-FF	SPDT; 3 amps @ 125/250 VAC
-JJ	SPDT; 15 amps @ 125/250 VAC; 0.5 amps @ 125 VDC; 0.25 amps @ 250 VDC
-MM	SPST normally open; 25 amps @ 125/250 VAC

Pressure Connection

SS	Stainless steel, 1/8" NPT male
PLS	Plastic, 1/8" NPT male ⁴
P4	Brass, 7/16-24UNS-2A for 1/4" tube connection

Diaphragm Material

Blank	Buna-N (standard)
-E	Ethylene propylene (EPR) ¹
-F	FDA approved Buna-N (No UL/CSA)
-V	Viton® diaphragm

Pressure Range

Limit Switch	Pressure Range	Adjustable Range				Approx. Deadband (Actuation Value) psi (bar)	Proof Pressure psi (bar)
		Decreasing - psi (bar)		Increasing - psi (bar)			
		Min.	Max.	Min.	Max.		
EE, FF	05	.5 (.03)	4.5 (.3)	1 (.07)	5 (.3)	.2-.5 (.01-.03)	100 (6.7)
	15	1.5 (.1)	14.2 (.9)	2.3 (.2)	15 (1)	.3-.8 (.02-.05)	100 (6.7)
	100	10 (.6)	92.1 (6.1)	17.9 (1.2)	100 (6.7)	2-7.9 (.1-.5)	150 ² (10)
DD or JJ	05	.5 (.03)	4.3 (.3)	1.2 (.08)	5 (.3)	.2-.7 (.01-.05)	100 (6.7)
	15	1.5 (.1)	14 (.9)	2.5 (.2)	15 (1)	.3-1 (.02-.07)	100 (6.7)
	100	10 (.6)	91 (6)	19 (1.3)	100 (6.7)	2.6-9 (.2-.6)	150 ² (10)
MM	05	.5 (.03)	4.2 (.3)	1.3 (.09)	5 (.3)	.2-.8 (.01-.06)	100 (6.7)
	15	1.5 (.1)	13.8 (1)	2.7 (.2)	15 (1)	.3-1.2 (.02-.08)	100 (6.7)
	100	10 (.6)	89.5 (6.2)	20.5 (1.4)	100 (6.7)	2.8-10.5 (.2-.7)	150 ² (10)

Consult Sales Drawing for alternative limit switches.

NOTES:

- Only available with 05 and 15 pressure ranges.
- MSPS - 100 range models are 100 psi proof.
- Not available with MSPH. SF option automatically selects FDA approved diaphragm, O-Ring, and 300 Series SS pressure port.
- Only available with 05 pressure range.