# <u>Lightweight & Reliable Pressure, Vacuum</u> <a href="#">& Differential Pressure Switches</a>



### 490 SERIES COMPACT LIGHTWEIGHT PRESSURE SWITCH

Field adjustable pressure ranges up to 3000 PSI
Dual spring design for accuracy and stability
Piston design to allow high proof pressures
Suitable for altitude ranges from -1000 to 50,000 ft



### 654 SERIES ULTRA LOW PRESSURE, VACUUM & DIFFERENTIAL PRESSURE SWITCH

Low ranges down to 0.03 PSI
Lightweight aluminum construction
Design suitable for both wet and dry media
Fully enclosed design for harsh environments
SPDT and DPDT electrical switch options available



## **658 SERIES DUAL DIFFERENTIAL PRESSURE SWITCH**

Factory set, tamper proof
Lightweight aluminum construction
Dual spring design for accuracy and stability
Fully enclosed design for harsh environments
One piece fully supported diaphragm to achieve both low setpoint and high proof pressure



### **670 SERIES PRESSURE & VACUUM SWITCH**

Factory set, tamper proof

Dual spring design for accuracy and stability

Lightweight aluminum or stainless steel construction

One piece fully supported diaphragm to achieve both low setpoint and high proof pressure

Model for FAA 15 minute flame testing available upon request



### 680 SERIES PRESSURE & VACUUM SWITCH WITH INTEGRATED ELECTRICAL CONNECTOR

Lightweight aluminum or stainless steel construction
Fully integrated electrical connector
Double pole, double throw switching option
Excellent operating temperature range from -65 to +400F
Wide selection of pressure ports and configurations for easy installation
Model for FAA 15 minute flame testing available upon request



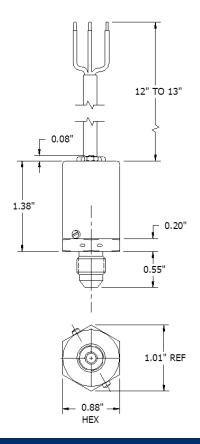




### Made in USA

# FEATURES / BENEFITS

- Lightweight, aluminum body, pressure switch
- Dual-spring design for accuracy and stability
- Field adjustable
- Suitable for altitude ranges from -1000 ft to 50'000 ft
- Piston design to allow high proof pressure



SPECIFICATIONS						
MECHANICAL		ELECTRICAL				
Standard Tolerance	+/- 10%	Current Rating				
Switch Type	SPDT (single pole / double throw)	Resistive 5 AMP				
Switching Medium	Air or compatible fluids	Operating Voltage				
Mechanical Life	100,000 cycles	30VDC				
Setpoint Ranges	400 to 3000 PSI (27.58–207 bar)					
Proof Pressure	4500 PSI (310 bar)					
Hysteresis	10% to 40% of set point					
Operating Temp.	-65 to 180 DEG F (-54-82°C)					
PHYSICAL						
Case Material	Aluminum, Gold Anodized					
Seal	Varies by option - See part number	system below				
Piston	Stainless Steel					
Pressure Port	Many standard ports - See part nu	mber system below				
Electrical Connections	Wire leads or Mate n lok 1-480701					
Weight	Less than 2 ounces					

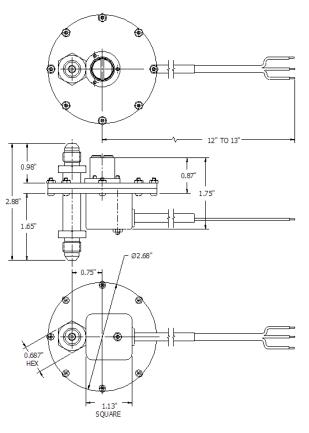
Series	Type	Housing	Seal	Electrical Output	<b>Electrical Connection</b>	Pressure Port	Set-Point (PSI)
490	P - Pressure	AL - Aluminum	1 - Buna n	SP - SPDT	2 - 12" leads	A - 1/8" MNPT	400 - 3000 PSI
		ST - Stainless Steel	2 - Ethylene Propylene		3 - Amp Mate-N-Lok 1-480700	B - 1/4" MNPT	(27.58–207 bar)
			4 - Neoprene		4 - Amp Mate-N-Lok 1-480701	C - An816-4d	
			5 - Silicone		5 - MS3102-10SI-3P	D - And10050-4	
Determ	ine Your Prod	duct Number:			7 - MS33678-10SI-3P	E - Imperial 1/4" plastic	
490 - P	- xx - x - SP -	x - x - xxxx				F - MS33656E-6	
Hial	nlighted Option	e Standard				G - MS33649-4	
iligi	ingilieu option	Salanuaru				H - MS33656E-2	
						I - MS33656E-4	
						J - MS33656E-5	
						K - MS33656E-3	





# FEATURES / BENEFITS

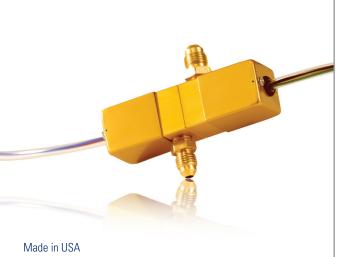
- Lightweight, aluminum construction
- Low pressure ranges
- Fully enclosed design for harsh environments
- Wet / Wet ability
- SPDT and DPDT electrical switch options available



SPECIFICATIONS					
MECHANICAL	MECHANICAL				
Standard Tolerance	+/- 10%	Current Rating			
Switch Type	SPDT (single pole / double throw) or DPDT (double pole / double throw)	Resistive 5 AMP			
Switching Medium	Air or compatible fluids	Operating Voltage			
Mechanical Life	100,000 cycles	30VDC			
Set-Point Ranges	0.03 to 6 PSI (2.07-414 mbar)				
Proof Pressure	75 PSI (5.2 bar)				
Hysteresis	10% to 50% of set point				
Operating Temp.	-65 TO 350 DEG F (-54–177°C)				
PHYSICAL					
Case Material	Aluminum, Gold anodized				
Seal	Varies by option - See part number	system below			
Diaphragm	Mylar				
Pressure Port	Varies by option - See part number	system below			
Electrical Connections	Wire leads or Mate n lok 1-480701				
Weight	Less than 6 ounces				

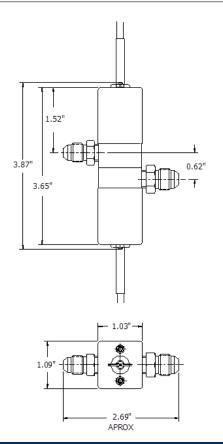
Series	Туре	Housing	Seal	Electrical Output	Electrical Connection	Pressure Port	Set-Point (PSI)
654	P - Pressure	AL - Aluminum	1 - Buna n	SP - SPDT	1 - Amp 6-p	A - 1/8" MNPT	0.03-6 PSI
	V - Vacuum		2 - Ethylene Propylene	DP - DPDT	2 - 12" leads	B - 1/4" MNPT	(2.07-414 mbar)
	D - Differential		3 - Mylar		3 - Amp Mate-N-Lok 1-480700	C - An816-4d	
			4 - Neoprene		4 - Amp Mate-N-Lok 1-480701	D - And10050-4	
Determ	ine Your Prod	duct Number:	5 - Silicone		5 - MS3102-10SI-3P	E - Imperial 1/4" plastic	
654 - x	- AL - x - xx - :	x - x - xxxx	6 - Stainless Steel		6 - MS3112E10-6P	F - MS33656E-6	
00 i x	712 71 701 7	77 70001			7 - MS33678-10SI-3P	G - MS33649-4	
піуі	nlighted Option	s Stanuaru				H - MS33656E-2	
						I - MS33656E-4	
						J - MS33656E-5	
						K - MS33656E-3	





# FEATURES / BENEFITS

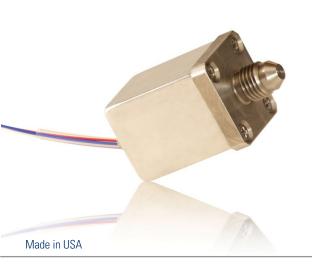
- Lightweight, aluminum construction
- Dual-spring design for accuracy and stability
- One piece fully supported diaphragm to achieve both low setpoints and high proof pressures
- Factory set, tamper proof
- Fully enclosed design for harsh environments



SPECIFICATIONS	S	
MECHANICAL		ELECTRICAL
Standard Tolerance	+/- 10%	Current Rating
Switch Type	SPDT (single pole / double throw)	Resistive 5 AMP
Switching Medium	Air or compatible fluids	Operating Voltage
Mechanical Life	100,000 cycles	30VDC
Set-Point Ranges	40 to 200 PSI (2.76–13.8 bar)	
Proof Pressure	1000 PSI (70 bar)	
Hysteresis	5% to 30% of set point	
Operating Temp.	-65 TO 300 DEG F (-54-149°C)	
PHYSICAL		
Case Material	Aluminum, Gold anodized	
Seal	Buna n	
Diaphragm	Silicone	
Pressure Port	Varies by option - See part number	system below
Electrical Connections	Varies by option - See part number	system below
Weight	Less than 6 ounces	

Series	Туре	Housing	Seal	Electrical Output	Electrical Connection	Pressure Port	Set-Point (PSI)
658	D - Differential	AL - Aluminum	1 - Buna n 2 - Ethylene Propylene	SP - SPDT	1 - Amp 6-p 2 - 12" leads	A - 1/8" MNPT B - 1/4" MNPT	40-200 PSI (2.76–13.8 bar)
658 - D -	ne Your Proc - AL - x - SP - lighted Options		4 - Neoprene 5 - Silicone		3 - Amp Mate-N-Lok 1-480700 4 - Amp Mate-N-Lok 1-480701 5 - MS3102-10SI-3P 6 - MS3112E10-6P 7 - MS33678-10SI-3P	C - An816-4d D - And10050-4 E - Imperial 1/4" plastic F - MS33656E-6 G - MS33649-4 H - MS33656E-2	
6	5	3 5	ER	IIES		I - MS33656E-4 J - MS33656E-5 K - MS33656E-3	



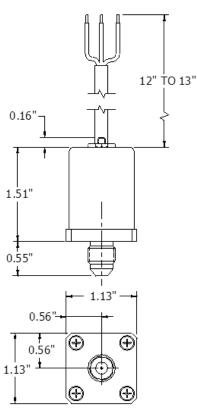


# FEATURES / BENEFITS

- Lightweight, aluminum body, pressure/vacuum switch
- Dual-spring design for accuracy and stability
- One piece fully supported diaphragm to achieve both low setpoints and high proof pressures
- Factory set, tamper proof

**SPECIFICATIONS** 

• Model for FAA 15 minute flame testing available upon request



MECHANICAL		ELECTRICAL
Standard Tolerance	+/- 10%	Current Rating
Switch Type	SPDT (single pole / double throw)	Resistive 5 AMP
Switching Medium	Air or compatible fluids	Operating Voltage
Mechanical Life	100,000 cycles	30VDC
Setpoint Ranges	1.5 to 400 PSI (0.1–27.6 bar)	
Proof Pressure	1000 PSI (69 bar)	
Hysteresis	10% to 40% of set point	
Operating Temp.	-65 to 400 DEG F (-54–204°C)	
PHYSICAL		
Case Material	Aluminum, Gold anodized	
Seal	Varies by option - See part number	system below
Diaphragm	Stainless Steel	
Pressure Port	Many standard ports - See part nur	mber system below

Less than 2.5 ounces

Many standard electrical connections - See part number system below

s Type	Housing	Seal	Electrical Output	<b>Electrical Connection</b>	Pressure Port	Setpoint (PSI)
P - Pressure	AL - Aluminum	1 - Buna n	SP - SPDT	2 - 12" leads	A - 1/8" MNPT	1.5-400 PSI
V - Vacuum	ST - Stainless Steel	2 - Ethylene Propylene		3 - Amp Mate-N-Lok 1-480700	B - 1/4" MNPT	(0.1-27.6 bar)
		3 - Mylar		4 - Amp Mate-N-Lok 1-480701	C - An816-4d	
		4 - Neoprene			D - And10050-4	
rmine Your Pro	duct Number:	5 - Silicone			E - Imperial 1/4" plastic	
x - xx - x - SP - 1	x - x - xxxx	6 - Stainless Steel			F - MS33656E-6	
					G - MS33649-4	
igniigntea Uption	is Standard				H - MS33656E-2	
					I - MS33656E-4	
					J - MS33656E-5	
					K - MS33656E-3	
	P - Pressure V - Vacuum  rmine Your Pro	P - Pressure AL - Aluminum	P - Pressure AL - Aluminum 1 - Buna n V - Vacuum ST - Stainless Steel 2 - Ethylene Propylene 3 - Mylar 4 - Neoprene 5 - Silicone 6 - Stainless Steel	P - Pressure AL - Aluminum 1 - Buna n SP - SPDT  V - Vacuum ST - Stainless Steel 2 - Ethylene Propylene 3 - Mylar  4 - Neoprene 5 - Silicone 6 - Stainless Steel	P - Pressure         AL - Aluminum         1 - Buna n         SP - SPDT         2 - 12" leads           V - Vacuum         ST - Stainless Steel         2 - Ethylene Propylene         3 - Amp Mate-N-Lok 1-480700           3 - Mylar         4 - Neoprene           5 - Silicone         5 - Stainless Steel	P - Pressure AL - Aluminum 1 - Buna n SP - SPDT 2 - 12" leads A - 1/8" MNPT V - Vacuum ST - Stainless Steel 2 - Ethylene Propylene 3 - Amp Mate-N-Lok 1-480700 B - 1/4" MNPT 4 - Neoprene 5 - Silicone 5 - Stainless Steel 5 - Stainless Steel 6 - Stainless Steel 6 - Stainless Steel 6 - Stainless Steel 7 - MS33656E-6 G - MS33656E-2 I - MS33656E-4 J - MS33656E-5

**Electrical Connections** 

Weight





# 1.09" CASE 0.67" 1.76" 0.56" 0.56" 0.56"

# FEATURES / BENEFITS

- Lightweight, aluminum body, pressure/vacuum switch
- Dual-spring design for accuracy and stability
- One piece fully supported diaphragm to achieve both low setpoints and high proof pressures
- Factory set, tamper proof
- Integrated connector
- Model for FAA 15 minute flame testing available upon request

# **SPECIFICATIONS**

MECHANICAL		ELECTRICAL
Standard Tolerance	+/- 10%	Current Rating
Switch Type	SPDT (single pole / double throw) or DPDT (double pole / double throw)	Resistive 5 AMP
Switching Medium	Air or compatible fluids	Operating Voltage
Mechanical Life	100,000 cycles	30VDC
Set-Point Ranges	1.5 to 400 PSI (0.1–27.6 bar)	
Proof Pressure	1000 PSI (69 bar)	The second secon
Hysteresis	10% to 40% of set point	
Operating Temp.	-65 to 400 DEG F (-54-204°C)	
PHYSICAL		
Case Material	Aluminum, Gold Anodized	

Stainless Steel

Varies by option - See part number system below

Many standard ports - See part number system below

Many standard electrical connections - See part number system below

K - MS33656E-3

	<u> </u>	<u>(⊕</u>		Weight		Less than 6 ounces		
Series	Туре	Housing	Seal	Electrical Output	Elect	rical Connection	Pressure Port	Setpoint (PSI)
680	P - Pressure	AL - Aluminum	1 - Buna n	SP - SPDT	5 - MS3	102-10SI-3P	A - 1/8" MNPT	1.5-400 PSI
	V - Vacuum	ST - Stainless Steel	2 - Ethylene Propylene	DP - DPDT	6 - MS3	112E10-6P	B - 1/4" MNPT	(0.1–27.6 bar)
			3 - Mylar		7 - MS33	8678-10SI-3P	C - An816-4d	
			4 - Neoprene				D - And10050-4	
Determ	ine Your Pro	duct Number:	5 - Silicone				E - Imperial 1/4" plastic	
680 - x -	- xx - x - xx -	x - x - xxxx	6 - Stainless Steel				F - MS33656E-6	
High	lighted Option	c Standard					G - MS33649-4	
підіі	ուցուշս օրոսո	S Stanuaru					H - MS33656E-2	
							I - MS33656E-4	
							J - MS33656E-5	

Seal

Diaphragm

Pressure Port

**Electrical Connections**