

# Mechanical Pressure Switch

- User adjustable switch point
- Factory set on request
- Pressure from 1.45 to 2,900 PSI
- Rated for 1M mechanical cycles
- Temperature from -40°F to 2212°F (-40°C to 100°C)
- Brass, zinc plated and stainless steel
- SPST contacts
- Up to IP67



## About

The P415 Mechanical Pressure Switch is a robust and versatile solution for monitoring and controlling pressure across a wide range of industrial applications. Designed for durability and flexibility, it features an adjustable switch point, broad pressure range up to 2,900 PSI, and rugged construction options including brass, zinc-plated steel, and stainless steel. With reliable SPST switching and up to IP67 protection, the P415 delivers dependable performance in demanding environments such as HVAC, hydraulics, and automation systems.

## Applications

- ✓ HVAC & Refrigeration
- ✓ Automation Controls
- ✓ Water Management
- ✓ Hydraulics
- ✓ Pneumatics
- ✓ Equipment Builders
- ✓ Skid Packages
- ✓ More

# Build Your Part Number

**Series P415**
**Example: P4155SF6Y5G950R**
**Series**
**P415**
**Pressure Range & Switching Mechanism - select one**

	PSI	Bar	Switching Mechanism
1	1.45...21 psi ±2.9	0.1...1.5 bar ±0.2	Diaphragm
2	14.5...87 psi ± 7.5	1...6 bar ±0.5	Diaphragm
3	72...290 psi ± 14.5	5...20 bar ±1	Diaphragm
4	217...725 psi ± 29	15...50 bar ±2	Diaphragm
5	435...1,450 psi ± 72	30...100 bar ±5	Piston
6	725...2,175 psi ± 145	50...150 bar ±10	Piston
7	1,450...2,900 psi ± 217	100...200 bar ±15	Piston

**Body & Wetted Port - select one**

<b>B</b>	Brass	For ranges 1,2,3
<b>Z</b>	Zinc Plated Steel	For ranges 1,2,3,4
<b>S</b>	Stainless Steel	For ranges 1,2,3,4,5,6,7

**Wetted Sealing Material - select one**

	Material	Fahrenheit	Celsius	
<b>N</b>	NBR	-22...212°F	-30...+100°C	For pressure ranges, 1,2,3,4,5
<b>H</b>	HNBR	-22...248°F	-30...+120°C	For pressure ranges, 1,2,3,4,5
<b>F</b>	FKM	+14...+248 °F	+10...+120°C	For pressure ranges, 1,2,3,4,5
<b>E</b>	EPDM	-58...+266°F	-50...+130°C	For pressure ranges 6,7
<b>P</b>	PTFE	-22...+266°F	-30 ...+130°C	For pressure ranges 6,7

**Electrical Termination (SPDT) - select one (refer to page 4)**

<b>6B</b>	DIN 43650A (includes field wire able female mating connector)	(SPST normally open or normally closed; 2 pole)
<b>6D</b>	M12x1, 2-pole (1+3)	(SPST normally open or normally closed; 2 pole)
<b>6S</b>	Faston Male Spades 6.3 X 0.8	(SPST normally open or normally closed; 2 pole)
<b>6M</b>	M3 screws	(SPST normally open or normally closed; 2 pole)
<b>6Y</b>	Bayonet DIN72585A1-2.1	(SPST normally open or normally closed; 2 pole)
<b>6E</b>	Deutsch DT04-2p	(SPST normally open or normally closed; 2 pole)
<b>6F</b>	Deutsch DT04-3p (A+B)	(SPST normally open or normally closed; 2 pole)
<b>AS</b>	AMP Superseal 1.5 series	(SPST normally open or normally closed; 2 pole)
<b>PV</b>	20" inches PVC non shielded cable (non removable)	(SPST normally open or normally closed; 2 pole)
<b>XX</b>	Custom integrated cable length in inches (Ex: 50 inches = 50)	(SPST normally open or normally closed; 2 pole)

**Process Connection - select one**

<b>5A</b>	1/8" NPT male
<b>5C</b>	1/4" NPT male
<b>5G</b>	7/16"-20 UNF male (SAE 4)
<b>5L</b>	9/16"-18 UNF male (SAE6)
<b>5M</b>	G 1/8" Male
<b>5N</b>	G 1/4" Male
<b>5Q</b>	G 1/2" Male

**Factory Set Switch Point (optional) - if not desired please skip**
**XX** Please provide in psi (Ex: 600 = 600 psi)

# Build Your Part Number

**Series P415**
**Example: P4155SF6Y5G950R**
**Switch Point Direction - select only when factory set switch point is desired, otherwise please skip**

<b>R</b>	Increasing pressure
<b>D</b>	Decreasing pressure

**Mating Electrical Connection Assembly – optional; will be quoted as a separate line item**

Part#	
<b>PSE14</b>	DIN 43650-A female with cable gland, field wireable
<b>PSE19</b>	DIN 43650-A female 1/2" NPT threaded port, field wireable
<b>PSE73</b>	DIN 43650-A female with 1 meter PVC unshielded cable
<b>PSE74</b>	DIN 43650-A female with 3 meter PVC unshielded cable
<b>PSE75</b>	DIN 43650-A female with 5 meter PVC unshielded cable
<b>PSE76</b>	DIN 43650-A female with 7.5 meter PVC unshielded cable
<b>PSE77</b>	DIN 43650-A female with 10 meter PVC unshielded cable
<b>PSE78</b>	DIN 43650-A female with 20 meter PVC unshielded cable
<b>PSE1</b>	M12x1, 5-pole female straight with cable gland, field wireable
<b>PSE150</b>	M12x1, 5-pole female straight with 1 meter PVC shielded cable
<b>PSE151</b>	M12x1, 5-pole female straight with 3 meter PVC shielded cable
<b>PSE152</b>	M12x1, 5-pole female straight with 5 meter PVC shielded cable
<b>PSE153</b>	M12x1, 5-pole female straight with 7.5 meter PVC shielded cable
<b>PSE154</b>	M12x1, 5-pole female straight with 10 meter PVC shielded cable
<b>PSE155</b>	M12x1, 5-pole female straight with 20 meter PVC shielded cable
<b>PSE121</b>	Deutsch DT06-2P female with 1 meter PVC unshielded cable
<b>PSE122</b>	Deutsch DT06-2P female with 3 meter PVC unshielded cable
<b>PSE123</b>	Deutsch DT06-2P female with 5 meter PVC unshielded cable
<b>PSE124</b>	Deutsch DT06-2P female with 7.5 meter PVC unshielded cable
<b>PSE125</b>	Deutsch DT06-2P female with 10 meter PVC unshielded cable
<b>PSE126</b>	Deutsch DT06-2P female with 20 meter PVC unshielded cable
<b>PSE127</b>	Deutsch DT06-3P female with 1 meter PVC unshielded cable
<b>PSE128</b>	Deutsch DT06-3P female with 3 meter PVC unshielded cable
<b>PSE129</b>	Deutsch DT06-3P female with 5 meter PVC unshielded cable
<b>PSE130</b>	Deutsch DT06-3P female with 7.5 meter PVC unshielded cable
<b>PSE131</b>	Deutsch DT06-3P female with 10 meter PVC unshielded cable
<b>PSE132</b>	Deutsch DT06-3P female with 20 meter PVC unshielded cable

**Technical Parameters**

<b>Accuracy</b>	Switching Hysteresis	~20% of the switch point pressure
	Mechanic Life Endurance	1 million cycles
	Electric Life Endurance	100,000 cycles
<b>Electrical</b>	Max Voltage	36 VDC
	Max Current	4 A
	Contact Type	SPST
<b>Environmental &amp; other</b>	Over Pressure	Diaphragm Design: zinc plated and stainless steel 2,175 psi / brass 580 psi Piston Design: 6,525 psi
	Burst Pressure	Diaphragm Design: zinc plated and stainless steel 4,350 psi / brass 1,160 Piston Design: 8,700 psi
	Working Temperature Range	Depending on sealing material; please refer to page 2
<b>Material</b>	Housing	Brass / Zinc plated steel / Stainless steel
	Contacts	Silver cadmium alloy / Gold plated on request
	Wetted Parts	Pressure Port: Brass, Zinc plated steel, Stainless steel Diaphragm: NBR, HNBR, FKM, EPDM, PTFE Piston: Stainless steel 304
	Weight	~85g

# Electrical Terminations Dimensions

## Series P415

