

PS11 – Ultra-Long Life OEM Pressure Switches

- 0.75 to 15 psi (52 to 1034 mbar)
- Factory Set or Adjustable Set Points

For low pressure applications, the longevity of our PS11 Series is hard to beat. Their snap-action microswitch resets automatically and meets or exceeds industry standards. The brass housing offers chemical resistance at an affordable price.

Specifications

Switch*	5 Amp @ 24 VDC and 250 VAC	
OW11011	1.0 Amp resistive	
	0.5 Amp inductive @ 24 VDC (-G option)	
Repeatability	See Table 1	
Wetted Parts		
Diaphragm	Nitrile (optional Viton®, EPDM or Kapton®)	
Fitting	Brass	
Housing	Brass	
0-Ring	Nitrile (optional Viton® or EPDM)	
Ingress Protection**	DIN 43650A IP00; Terminals IP00; Flying Leads IP00	
Proof Pressure	0 psia to 150 psi (-1 bar to 10.3 bar)	
Burst Pressure	300 psi (20.7 bar)	
Approvals	CE, UL Approved units available	
Weight, Approximate	0.31 lbs. (0.14 kg)	

- * Gold contacts (option G) may be required for less than 12 VDC and 20 mA.

 ** Plastic housing is vented to atmosphere. Consult factory for non-vented version, IP-rated version.

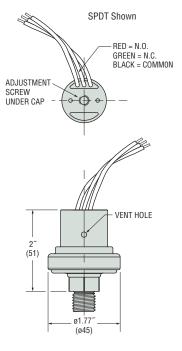
Recommended Operating Temperature Limits

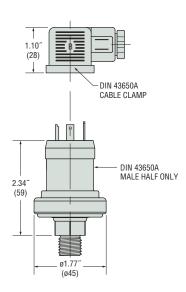
Diaphragm Material	Range
Nitrile	15°F to 250°F (-9°C to +121°C)
Viton®	0°F to 250°F (-18°C to +121°C)
EPDM	-20°F to +250°F (-29°C to +121°C)
Kapton [®]	-40°F to +250°F (-40°C to +121°C)

Note: Switches may function below the cold temperature limit but the set point and deadband will increase. Consult factory for details.

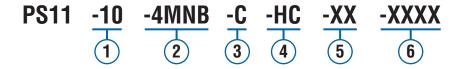


Dimensions





Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.



1 Pressure Range Code

Insert Pressure Range Code from Table 1, below.

2 Pressure Fitting¹

-2MNB=1/8" NPTM Brass

-4MNB=1/4" NPTM Brass

-4MGB=1/4" BSPM Brass (G type)

-4MSB=7/16"-20 SAE Male, Brass

(3) Circuit

-A=SPST/N.O.

-B=SPST/N.C.

-C=SPDT

4 Electrical Termination²

-FLXX = Flying Leads³

-ELXX = 1/2" Male NPT Conduit w/Flying Leads3

-H = DIN 43650A Male Half Only

-HC = DIN 43650A 9mm Cable Clamp

-HN = DIN 43650A 1/2" NPT Female Conduit

(5)Options

-V = Viton® Diaphragm

-E=EPDM Diaphragm

-K = Kapton® Diaphragm

-G = Gold Contacts

(for loads less than 12 mA @ 12 VDC)

-OF=Oil Free Cleaned

-WF=Weather Pack Connector, Female

-WM = Weather Pack Connector, Male

-DE=Deutsch Connector, Male, DT04 Series

(6) Fixed Set Point (optional)

A. Specify set point -FS (in PSI or mBAR, see example)4

B. Set Point Actuation

R on Rising Pressure

F on Falling Pressure

Example: **-FS200MBARF** for 200 mBAR Falling

or -FS3PSIR for 3 PSI Rising

Notes:

- Other fittings available. Consult factory.
- 2. DIN units are available with **-C** SPDT circuit only.
- 3. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -EL30.
- 4. Set Point must be within Pressure Range selected in Step 1.

Table 1 — Pressure Range Codes

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
10	0.75-4 psig (51-276 mbar)	±0.15 psi (10 mbar) +4% of setting	0.2 psi (14 mbar) +9% of setting
20	3.5-15 psig (241-1034 mbar)	±0.25 psi (17 mbar) +5% of setting	0.4 psig (26 mbar) +11% of setting

^{*} Accuracy and set point of units may change due to the effects of temperature.

^{**} In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.



PS31/PS51 – Kapton® Diaphragm OEM Subminiature Pressure Switch

- 5 to 300 psi (0.345 to 20 bar)
- Ideal for Low Temperature Pneumatic Applications
- Adjustable or Factory Set

These compact pressure switches are designed for OEM applications. Made economical with metal blade contacts in lieu of microswitches, these switches feature Kapton® diaphragms. Kapton® polyimide maintains excellent physical properties over a wide temperature range. It also offers superb chemical resistance and has no known organic solvents.

The PS31 and PS51 share identical construction and envelope dimensions, with the PS51 Series providing higher pressure ranges.

Specifications

Operating Temperature	-40°F to +230°F (-40°C to +110°C)	
Switch*	100 VA Max.	
Repeatability	See Table 1	
Wetted Parts		
Diaphragm	Teflon® Coated Kapton® (Solid Teflon® Available)	
0-Ring	Nitrile (Std.) Consult factory for other materials	
Fitting	Brass (optional 316 Stainless Steel)	
Electrical Termination	Exposed Terminals IP00; IP option IP66	
Deadband	See Table 1	
Proof Pressure	500 psi (35 bar)	
Burst Pressure	1000 psi (69 bar)	
Approvals	CE (limits switch voltage to 42 VDC)	
Weight, Approximate	Brass: 0.14 lbs. (0.06 kg)	

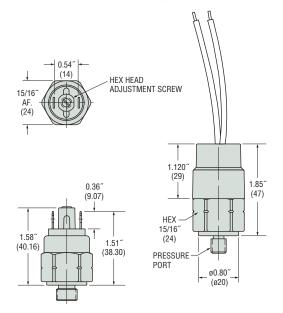
^{*} Gold contacts (option G) may be required for less than 12 VDC and 20 mA.



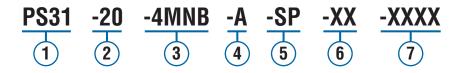
Dimensions

1/4" Spades

Flying Leads with IP Option



Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.



(1) Series

PS31 or **PS51**

(2) Pressure Range Code

Insert Pressure Range Code from Table 1, below.

(3) Pressure Fitting¹

Brass

-2MNB = 1/8" NPTM

-4MNB = 1/4" NPTM

-2MGB = 1/8" BSPM (G type)

-4MGB = 1/4" BSPM (G type)

-8MGB = 1/2" BSPM (G type)

-M10B = M10 x 1.0, Straight

-M12B = M12 x 1.5, Straight

-4MSB=7/16"-20 SAE Male

-6MSB=9/16"-18 SAE Male

316 Stainless Steel

-2MNS = 1/8" NPTM

-4MNS = 1/4" NPTM

-2MGS = 1/8" BSPM (G type)

-4MGS = 1/4" BSPM (G type)

-4MSS=7/16"-20 SAE Male

-6MSS = 9/16"-18 SAE Male

(4)Circuit

-A=SPST/N.O.

-B=SPST/N.C.

(5) Electrical Termination

-SP = Spade Terminals (standard)

-TS = Terminal Screws

-FLXX = Flying Leads2

-FLSXX = Flying Leads w/PVC Shrink Tubing²

-CABXX=18 AWG PVC Cable³

(6)Options

-G = Gold Contacts

(for loads less than 12 mA @ 12 VDC)

-IP = Ingress Protection4

-IPA = Removable Silicone Seal for Set Point Adjustment⁵

-OF = Oil Free Cleaned

-RB = Rubber Boot (shipped loose)

-WF=Weather Pack Connector, Female

-WM = Weather Pack Connector, Male

-DE=Deutsch Connector, Male, DT04 Series

(7) Fixed Set Point (optional)

A. Specify set point -FS (in PSI or BAR, see example)6

B. Set Point Actuation

R on Rising Pressure

F on Falling Pressure

Example: -FS0.6BARF for 0.6 BAR Falling

or -F\$10PSIR for 10 PSI Rising

Notes:

- Other fittings available.
- Consult factory.
 2. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -FLS30.
- 3. 36" is minimum. Specify cable length in inches. e.g. -CAB36 or -CAB120.
- 4. Ingress Protection is available only with -FL, -FLS or -CAB Electrical Termination choices.
- 5. IPA protection is available only with -FL or -FLS.
- Set Point must be within Pressure Range selected in Step 2.

Table 1 — Pressure Range Codes

PS31

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
20	5-25 psi (0.3-1.7 bar)	±1 psi (0.07 bar) +3% of setting	2 psi (0.14 bar) +4% of setting
30	20-60 psi (1.4-4.1 bar)	±1.5 psi (0.10 bar) +3% of setting	3 psi (0.21 bar) +4% of setting
40	50-150 psi (3.4-10.3 bar)	±2.5 psi (0.17 bar) +3% of setting	4 psi (0.28 bar) +4% of setting

PS51

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
15	50-150 psi (3.4-10.3 bar)	±3.0 psi (0.21 bar) +4% of setting	5 psi (0.14 bar) +5% of setting
20	150-300 psi (10.3-20.7 bar)	±4 psi (0.28 bar) +4% of setting	8 psi (0.21 bar) +5% of setting

^{*} Accuracy and set point of units may change due to the effects of temperature.

^{**} In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.



PS32/PS52 – Elastomer Diaphragm OEM Subminiature Pressure Switch

- ▶ 10 to 300 psi (0.69 to 20 bar)
- Ideal for Pneumatic and Low Pressure Hydraulic Applications
- Adjustable or Factory Set

These compact pressure switches are designed for OEM applications. Made economical by using metal blade contacts in lieu of microswitches, the series features long-lasting Elastomer diaphragms in three materials. Elastomer diaphragms offer increased sensitivity and life for applications without temperature extremes.

The PS32 and PS52 share identical construction and envelope dimensions, with the PS52 Series providing higher pressure ranges.

Specifications

Switch*	100 VA Max.	
Repeatability	See Table 1	
Wetted Parts		
Diaphragm	Elastomer (Nitrile standard) (Viton®, EPDM optional)	
Fitting	Brass standard (optional 316 SS)	
Electrical Termination	Exposed Terminals IP00; IP option IP66	
Deadband	See Table 1	
Proof Pressure	500 psi (35 bar)	
Burst Pressure	1000 psi (69 bar)	
Approvals	CE (limits switch voltage to 42 VDC)	
Weight, Approximate	Brass: 0.14 lbs. (0.06 kg)	

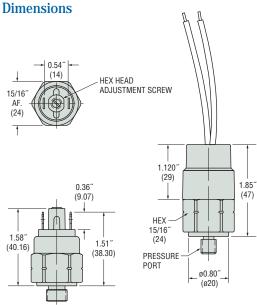
^{*} Gold contacts (option G) may be required for less than 12 VDC and 20 mA.

Recommended Operating Temperature Limits

Diaphragm Material	Range
Nitrile	15°F to 230°F (-9°C to 110°C)
Viton®	0°F to 230°F (-18°C to 110°C)
EPDM	-10°F to 230°F (-23°C to 110°C)

Note: Switches may function below the cold temperature limit but the set points and deadband will increase. Consult factory for details.





Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.

(1) Series

PS32 or **PS52**

2) Pressure Range Code

Insert Pressure Range Code from Tables 1, below.

(3) Pressure Fitting¹

Brass

-2MNB = 1/8" NPTM

-4MNB = 1/4" NPTM

-2MGB = 1/8" BSPM (G type)

-4MGB = 1/4" BSPM (G type)

-4MSB=7/16"-20 SAE Male

316 Stainless Steel

-2MNS = 1/8" NPTM

-4MNS = 1/4" NPTM -2MGS = 1/8" BSPM (G type) -4MGS = 1/4" BSPM (G type)

-4MSS=7/16"-20 SAE Male

(4) Circuit

-A=SPST/N.O.

-B=SPST/N.C.

(5) Electrical Termination

-SP = Spade Terminals (standard)

-TS = Terminal Screws

-FLXX = Flying Leads2

-FLSXX = Flying Leads w/PVC Shrink Tubing2

-CABXX=18 AWG PVC Cable³

(6)Options

-V = Viton® Diaphragm

-E=EPDM Diaphragm

-H=ECOH Diaphragm

-G = Gold Contacts

(for loads less than 12 mA @ 12 VDC)

-IP = Ingress Protection4

-IPA = Removable Silicone Seal for Set Point Adjustment⁵

-OF=Oil Free Cleaned

-RB = Rubber Boot (shipped loose)

-WF=Weather Pack Connector, Female

-WM = Weather Pack Connector, Male

-DE=Deutsch Connector, Male, DT04 Series

(7) Fixed Set Point (optional)

A. Specify set point -FS

(in PSI or BAR, see example)6

B. Set Point Actuation

R on Rising Pressure

F on Falling Pressure

Example: -FS0.6BARF for 0.6 BAR Falling

or -F\$10P\$IR for 10 PSI Rising

Notes:

- Other fittings available.
- Consult factory.
 2. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -FLS30.
- 3. 36" is minimum. Specify cable length in inches. e.g. -CAB36 or -CAB120.
- 4. Ingress Protection is available only with -FL, -FLS or -CAB Electrical Termination choices.
- 5. IPA protection is available only with -FL or -FLS.
- Set Point must be within Pressure Range selected in Step 2.

Table 1 — Pressure Range Codes

PS32

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
20	10-25 psi (0.69-1.7 bar)	±1 psi (0.07 bar) +3% of setting	2 psi (0.14 bar) +4% of setting
30	20-60 psi (1.4-4.1 bar)	±1.5 psi (0.10 bar) +3% of setting	3 psi (0.21 bar) +4% of setting
40	50-150 psi (3.4-10.3 bar)	±2.5 psi (0.17 bar) +3% of setting	4 psig (0.28 bar) +4% of setting

PS52

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
15	50-150 psi (3.4-10.3 bar)	±3.0 psi (0.21 bar) +4% of setting	5 psi (0.14 bar) +5% of setting
20	150-300 psi (10.3-20.7 bar)	±4 psi (0.28 bar) +4% of setting	8 psi (0.21 bar) +5% of setting

^{*} Accuracy and set point of units may change due to the effects of temperature.

^{**} In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.



PS61 - OEM Subminiature Pressure Switch

- ▶ 15 to 3000 psi (1 to 207 bar)
- Exceptional Size-to-Pressure-Range Ratio
- Adjustable or Factory Set
- Perfect for Demanding OHV Applications

These compact pressure switches are designed for OEM applications. They are equipped with high proof pressure capabilities for demanding hydraulic applications such as forklifts, scissor lifts, and off road equipment.

Specifications

Switch*	100 VA Max.
Repeatability	See Table 1
Wetted Parts	
Diaphragm	Nitrile, (optional Low Temperature Nitrile (LTN), EPDM or Viton®)
Fitting	Zinc-Plated Steel (optional 316 Stainless Steel)
Electrical Termination	Exposed Terminals IP00; IP option IP66
Deadband	See Table 1
Proof Pressure	6000 psi (414 bar)
Burst Pressure	9000 psi (621 bar)
Approvals	CE (limits switch voltage to 42 VDC)
Weight, Approximate	Steel: 0.14 lbs. (0.06 kg)

^{*} Gold contacts (option G) may be required for less than 12 VDC and 20 mA.

Recommended Operating Temperature Limits

Diaphragm Material	Range
Nitrile	15°F to 230°F (-9°C to +110°C)
Viton®	0°F to 230°F (-18°C to +110°C)
EPDM	-10°F to +230°F (-23°C to +110°C)
LTN	-40°F to +230°F (-40°C to +110°C)

- 1. Switches may function below the cold temperature limit but the set points and deadband will increase. Consult factory for details.

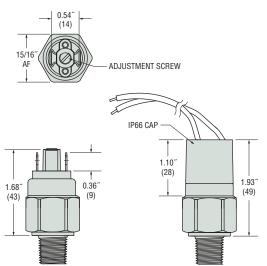
 2. Performance dependant on set point and media viscosity.



Dimensions

1/4" Spades

Flying Leads with IP Option



Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.

PS61

1 Pressure Range Code

Insert Pressure Range Code from Table 1, below.

2 Pressure Fitting¹

12L14 Zinc-Plated Steel

-2MNZ=1/8" NPTM 12L14

-4MNZ=1/4" NPTM 12L14

-2MGZ=1/8" BSPM 12L14 (G type) -4MGZ=1/4" BSPM 12L14 (G type)

-4MSZ=7/16"-20 SAE Male

-6MSZ=9/16~-18 SAE Male

-8MSZ=3/4"-16 SAE Male

-M10Z=M10 x 1.0, Straight

-M10TZ=M10 x 1.0, Tapered -M12Z=M12 x 1.5, Straight

316 Stainless Steel

-2MNS = 1/8" NPTM

-4MNS = 1/4" NPTM

-2MGS=1/8" BSPM (G type)

-4MGS = 1/4" BSPM (G type)

-4MSS=7/16"-20 SAE Male

-6MSS = 9/16"-18 SAE Male

(3) Circuit

-A=SPST/N.O.

-B=SPST/N.C.

(4) Electrical Termination

-SP = Spade Terminals (standard)

-TS = Terminal Screws

-FLXX=Flying Leads2

-FLSXX = Flying Leads w/PVC Shrink Tubing2

-CABXX=18 AWG PVC Cable3

(5)Options

-V = Viton® Diaphragm

-E=EPDM Diaphragm

-LTN = LTN Diaphragm

-H=ECOH Diaphragm

-G = Gold Contacts

(for loads less than 12 mA @ 12 VDC)

-IP=Ingress Protection4

-IPA = Removable Silicone Seal for Set Point Adjustment⁵

-R=Restrictor (low damping coefficient) Brass

-SR = Spiral Restrictor (high damping coefficient) 12L14 Steel w/Black Oxide Finish⁶

-OF=Oil Free Cleaned (requires SS housing)

-RB = Rubber Boot (shipped loose)

-WF=Weather Pack Connector, Female

-WM = Weather Pack Connector, Male

-DE=Deutsch Connector, Male, DT04 Series

(6) Fixed Set Point (optional)

A. Specify set point -FS

(in PSI or BAR, see example)7

B. Set Point Actuation

R on Rising Pressure

F on Falling Pressure

Example: -FS3BARF for 3 BAR Falling

or -FS60PSIR for 60 PSI Rising

Notes:

- Other fittings available.
- Consult factory.
 2. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -FLS30.
- 36" is minimum. Specify cable length in inches. e.g. -CAB36 or -CAB120.
- 4. Ingress Protection is available only with -FL, -FLS or -CAB Electrical Termination choices.
- 5. IPA protection is available only with -FL or -FLS.
- -SR will result in wider deadbands and slower response times.
- Set Point must be within Pressure Range selected in Step 1.

Table 1 — Pressure Range Codes

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
11	15-60 psi (1-4 bar)	±1.5 psi (0.10 bar) +3% of setting	3 psi (0.21 bar) +5% of setting
15	40-150 psi (3-10 bar)	±2.5 psi (0.17 bar) +3% of setting	5 psig (0.34 bar) +6% of setting
19	75-275 psi (5.2-18.9 bar)	±3.75 psi (0.26 bar) +3% of setting	7 psig (0.48 bar) +8% of setting
25	150-500 psi (10.3-34.5 bar)	±5 psi (0.34 bar) +3% of setting	10 psi (0.69 bar) +10% of setting
29	275-800 psi (19.0-55.2 bar)	±8 psi (0.55 bar) +3% of setting	15 psi (1.03 bar) +11% of setting
35	400-1100 psi (27.6-76 bar)	±13 psi (0.90 bar) +3% of setting	30 psi (2.07 bar) +12% of setting
50	1000-3000 psi (69-207 bar)	±35 psi (2.41 bar) +3% of setting	70 psi (4.83 bar) +14% of setting

Accuracy and set point of units may change due to the effects of temperature.

^{**} In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.



PS62 – OEM Subminiature Pressure Switch

- ▶ 15 to 600 psi (1 to 41 bar)
- ▶ Exceptional Size-to-Pressure-Range Ratio
- Adjustable or Factory Set
- Minimal Set Point Change at Low Temperature Extremes

These compact pressure switches are designed for medium pressure OEM applications. They offer all the performance of our proven PS61 model with the low temperature capability of Kapton®.

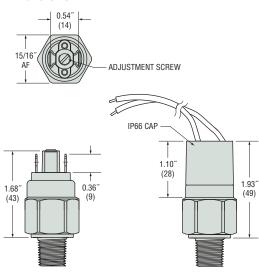
Specifications

Operating Temperature	-40°F to +230°F (-40°C to +110°C)	
Switch*	100 VA Max.	
Repeatability	See Table 1	
Wetted Parts		
Housing	Zinc-Plated Steel (optional 316L Stainless Steel)	
Diaphragm	Kapton® (polyimide)	
0-Ring	Nitrile (other materials available)	
Electrical Termination	Exposed Terminals IP00; IP option IP66	
Deadband	See Table 1	
Proof Pressure	3000 psi (207 bar)	
Burst Pressure	6000 psi (414 bar)	
Approvals	CE (limits switch voltage to 42 VDC)	
Weight, Approximate	Steel: 0.14 lbs. (0.06 kg)	

^{*} Gold contacts (option G) may be required for less than 12 VDC and 20 mA.



Dimensions



Use the **Bold** characters from the chart below to construct a product code. Please reference Notes.

PS62

1 Pressure Range Code

Insert Pressure Range Code from Table 1, below.

2 Pressure Fitting¹

12L14 Zinc-Plated Steel

-2MNZ=1/8" NPTM 12L14

-4MNZ=1/4" NPTM 12L14

-2MGZ=1/8" BSPM 12L14 (G type) -4MGZ=1/4" BSPM 12L14 (G type)

-4MSZ=7/16"-20 SAE Male

-6MSZ=9/16~-18 SAE Male

-M10Z=M10 x 1.0, Straight

-M14Z=M14 x 1.5, Straight

316L Stainless Steel

-2MNS = 1/8" NPTM

-4MNS = 1/4" NPTM **-2MGS** = 1/8" BSPM (G type)

-4MGS = 1/4" BSPM (G type)

-4MSS=7/16"-20 SAE Male

-6MSS = 9/16"-18 SAE Male

(3) Circuit

-A=SPST/N.O.

-B = SPST/N.C.

(4) Electrical Termination

-SP = Spade Terminals (standard)

-TS = Terminal Screws

-FLXX = Flying Leads2

-FLSXX = Flying Leads w/PVC Shrink Tubing2

-CABXX=18 AWG PVC Cable³

(5)Options

-G = Gold Contacts

(for loads less than 12 mA @ 12 VDC)

-IP = Ingress Protection4

-IPA = Removable Silicone Seal for Set Point Adjustment⁵

-R = Restrictor (low damping coefficient) Brass

-SR = Spiral Restrictor (high damping coefficient) 12L14 Steel w/Black Oxide Finish⁶

-OF=Oil Free Cleaned (requires SS housing)

-RB = Rubber Boot (shipped loose)

-WF=Weather Pack Connector, Female

-WM = Weather Pack Connector, Male

-DE=Deutsch Connector, Male, DT04 Series

(6) Fixed Set Point (optional)

A. Specify set point -FS

(in PSI or BAR, see example)7

B. Set Point Actuation

R on Rising Pressure

F on Falling Pressure

Example: -FS3BARF for 3 BAR Falling

or -FS60PSIR for 60 PSI Rising

Notes:

- Other fittings available. Consult factory.
- 2. 18" is standard. Specify lead length in inches (max. 48"). e.g. -FL18 or -FLS30.
- 3. 36" is minimum. Specify cable length in inches. e.g. -CAB36 or -CAB120.
- 4. Ingress Protection is available only with -FL, -FLS or -CAB Electrical Termination choices.
- 5. IPA protection is available only with -FL or -FLS.
- -SR will result in wider deadbands and lower response time.
- Set Point must be within Pressure Range selected in

Table 1 — Pressure Range Codes

Pressure Range Code	Pressure Range	Accuracy*	Average Deadband**
10	15-60 psi (1-4 bar)	±1.5 psi (0.10 bar) +4% of setting	3 psi (0.21 bar) +6% of setting
20	40-150 psi (3-10 bar)	±2.5 psi (0.17 bar) +4% of setting	5 psig (0.34 bar) +7% of setting
30	75-275 psi (5.2-18.9 bar)	±3.75 psi (0.26 bar) +4% of setting	7 psig (0.48 bar) +9% of setting
40	150-600 psi (10.3-41.4 bar)	±5 psi (0.34 bar) +4% of setting	10 psi (0.69 bar) +11% of setting

^{*} Accuracy and set point of units may change due to the effects of temperature.

^{**} In certain applications deadband can be tailored and controlled to customer specifications. Consult factory for details.