



120 Series

Explosion-proof pressure, vacuum,
differential pressure and temperature switches

METRIC UNITS



United Electric Controls is
ISO 9001:2015 certified



Table of Content Glossary of Terms

Types page 2
Specifications page 3
Models page 5
Options page 13
Sensors page 18
Dimensional drawings page 21
Certifications page 23

Adjustable Set Point	The upper and lower limits between which the set point can be adjusted. Low end of range on fall: set points on decreasing pressure or temperature at the lower end of range may be achieved; deadband will effect maximum set point (upper range) on fall. High end of range on rise: set points on increasing pressure or temperature at the upper end of range may be achieved; deadband will effect minimum set point (lower range) on rise.
Over Range Pressure	The maximum pressure that may be applied continuously without causing damage and maintaining set point repeatability
Proof Pressure	The maximum pressure to which a pressure sensor may be occasionally subjected which causes no permanent damage. The unit may require calibration (i.e., start-up, testing).

Use the follow pages to determine the best switch for your applications then build your part number.

Building a Part Number

EXAMPLE: **J120-551-M201**

Type: Switch type from table below: _____

Type	
Pressure	
J120	One SPDT; epoxy coated enclosure; internal adjustment, dual conduits
H121	One SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
H122	Two SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
Differential Pressure	
J120K	One SPDT; epoxy coated enclosure; internal adjustment, dual conduits
H121K	One SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
H122K	Two SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
Temperature	
B121	Immersion stem; one SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
B122	Immersion stem; two SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
C120	Immersion stem; one SPDT; epoxy coated enclosure; internal adjustment, dual conduits
E121	Bulb and capillary; one SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
E122	Bulb and capillary; two SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit
F120	Bulb and capillary; one SPDT; epoxy coated enclosure; internal adjustment, dual conduits

Model: Select the range and materials best for your application _____

J120	page 5-7
H121 / H122	page 8-9
J120K	page 10
H121K / H122K	page 11
Temperature models	page 12

Options: Select any of available options for your switch _____

J120 and J120K	page 13-14
H121/H122 and H121K / H122K	page 15
Temperature models	page 16-17

Specifications

Electrical Ratings *

	Pressure & temperature	Specials (pressure)	Specials (temperature)
Model	Standard models	15622, 15834 - 15839, 15875	B121-13272, B122-13322, E121-13273 & E122-13321
125/250/480 VAC	15A Resistive	20A Resistive	22A Resistive
24-30 VDC	2A Resistive - 1A Inductive	6A Resistive	2A
48 VDC	2A Resistive - 1A Inductive		1A
125 VDC	0,5A Resistive - 0,03A Inductive	0,5A	0,5A Resistive - 0,04A Inductive
250 VDC		0,25A	

* DC ratings based on experience - Consult UE for further information. VDC ratings are not listed on nameplates.

Set point repeatability (% of full scale)

Temperature	Type B, C & F	± 1%
	Type E	± 2%
Pressure & Differential	450 - 457, 550 - 559	± 0,5%
	36 - 39, 183 - 194, 483 - 494, 544 - 548, 565 - 567, 612 - 680, 15875	± 1,5%
	All Others	± 1%

Temperature Limits

		Ambient	Storage
Model	36 - 39, 520 - 525, 540 - 548, 701 - 705, 15834 - 15839	-17 to 71 °C	-54 to 71 °C
	All others	-50 to 71 °C	-54 to 71 °C

Set point typically shifts less than 1% of range for a 28 °C ambient temperature change; less than 2% for Types E121 & E122.

Shock	Set point repeats after 15 G, 10 msec duration				
Vibration	Set point repeats after 2.5 G, 5-500 Hz				
Enclosure	Die cast aluminum, epoxy powder coated; gasketed; cover lock Internal set point lock standard on types J, C, F; gasketed stainless steel tamper-resistant dial cover on types B, H, E; Aluminum nameplate.				
Enclosure classification	Certified to enclosure type 4X. Class I, Division 1 product meets enclosure type 7; Class II, Division 1 product meets enclosure type 9. Certified to IP66 requirements. See Certifications (page 23) for hazardous location information.				
Switch Output	One or two SPDT; Dual switch may be separated up to 100% of range. Switch may be wired normally open or closed.				
Reference Scales	Types B, E, & H external dial. Scale divisions vary with range (see model charts).				
Electrical connection	Type H, B, E: one 3/4" NPT (19,1 mm) connection with terminal block. Type J, C, F: two 3/4" NPT (19,1 mm) connections with terminal block.				
Pressure connection	Refer to model charts for details. 1/2", 1/4", and 1/8" NPT female available. 1 1/2" flushmount sanitary fitting also available.				
Deadband	Refer to model charts for details.				
Differential pressure indicator	Option M210: Available for H121K and H122K. Accuracy approximately 1% at 50% range, 3% at ends; window is plexiglass and gasketed; indicator may be field adjusted approximately ±1% accuracy at any set point within range.				
Alternate materials for wetted parts	The materials listed below are available on some switch models as an alternate material for wetted parts. This change may affect the temperature limits of the 120 series switches. Please consult with United Electric when selecting these materials.				
	Aflas®	Buna-N	Kalrez®	Phosphor Bronze	Teflon®
	Aluminum	EPDM/EPR	Kapton®	Polyether / Polyurethane	Viton®
	Brass	Hastelloy®	Monel®	Stainless Steel	

Specifications

Approx. Weight (lbs.)

Pressure models		
Type	Model	Weight
J120	126-164, 171-174, 188-194, 270-274, 356-376, 488-489, 490-494, 565-567, 612-616, 680, 701-705, 15622, 15834-15839, 15884-15623	2,0 kg
	183-186, 483-486, S126B-S164B	2,3 kg
	450-454, 550-555	2,7 kg
	520-523, 530-535	3,8 kg
H121	126-164, 270-274, 358-376, 612-614, 15875	2,3 kg
	S126B-S164B, 701-705	2,5 kg
	450-454, 550-555	3,2 kg
H122	126-164, 270-274, 358-376, 612-614, 15875	2,5 kg
	S126B-S164B, 701-705	2,7 kg
	450-454, 550-555	3,4 kg
Differential pressure models		
Type	Model	Weight
J120K	455-457, 559	2,7 kg
	367	2,9 kg
	36-39, 147-157	3,2 kg
	S147B-S157B	3,4 kg
	540-548	4,5 kg
H121K	456-457, 559	3,2 kg
	147-157	3,6 kg
	S147B-S157B	3,8 kg
H122K	456-457, 559	3,4 kg
	147-157	3,8 kg
	S147B-S157B	4,1 kg
Temperature models		
Type	Model	Weight
C120	120, 121	1,8 kg
B121	120, 121, 13272	2,3 kg
B122	120, 121, 13322	2,7 kg
F120	2BS-8BS	1,8 kg
E121	2BSA-8BS, 13273	2,7 kg
E122	2BSA-8BS, 13321	2,9 kg

J120 Series

Vacuum and Ultra Low Pressure Models (Vacuum to 622,3 mbar)

Adjustable Set Point (mbar)	PRESSURE			PROCESS CONNECTION				Model
	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice ^[1] (mm)	Sensor Style	
-1 to -0,1	3,4 to 13,5	199,2 mbar	15,5	Teflon; Viton; 316L SS	1/4"	5,6	G	550
-1 to -0,1	6,8 to 20,3	199,1 mbar	0,3	Brass; nickel plated brass; zinc plated steel	1/4"	1,5	A	126
-1 to -0,1	3,4 to 10,2	199,1 mbar	15,5	316L SS; Buna-N	1/4"	5,6	G	450
-1 to -0,1	6,8 to 20,6	199,1 mbar	0,3	Welded 316L SS	1/2"	3	B	S126B
-746,7 to 0	0,5 to 19,9	6,9	6,9	Buna-N; Epoxy coated Al	1/2"	18,3	H	520
-746,7 to 0	0,5 to 37,3	3,4	6,9	Welded 316L SS	1/2"	18,3	I	530
-24,9 to 24,9	0,2 to 1,5	6,9	6,9	Buna-N; Epoxy coated Al ^[2]	1/2"	18,3	H	521
-24,9 to 24,9	0,2 to 1,5	3,4	6,9	Welded 316L SS	1/2"	18,3	I	531
1,2 to 12,4	0,2 to 0,7	6,9	6,9	Buna-N; Epoxy coated Al ^[2]	1/2"	18,3	H	523
1,2 to 12,4	0,2 to 0,7	3,4	6,9	Welded 316L SS	1/2"	18,3	I	533
-124,4 to 124,5	0,2 to 7,5	6,9	6,9	Buna-N; Epoxy Coated Al ^[2]	1/2"	18,3	H	522
-124,5 to 124,5	0,2 to 7,5	3,4	6,9	Welded 316L SS	1/2"	18,3	I	532
6,2 to 124,5	0,2 to 2,0	6,9	6,9	Buna-N; Epoxy coated Al ^[2]	1/2"	18,3	H	524
6,2 to 124,5	0,2 to 2,0	3,4	6,9	Welded 316L SS	1/2"	18,3	I	534
5 to 199,1	2,5 to 10	199,1 mbar	15,5	Teflon; Viton; 316SS	1/4"	5,6	G	551
5 to 199,1	2 to 5	199,1 mbar	15,5	Buna-N; Aluminum	1/4"	5,6	G	451
37,3 to 199,1	2 to 6	199,1 mbar	0,3	Brass; Ni pl. Brass	1/4"	1,5	A	137
37,3 to 199,1	5 to 14,9	199,1 mbar	0,3	Welded 316L SS	1/2"	3	B	S137B
24,9 to 622,3	0,2 to 14,9	6,9	6,9	Buna-N; Epoxy coated Al ^[2]	1/2"	18,3	H	525
24,9 to 622,3	0,2 to 24,9	3,4	6,9	Welded 316L SS	1/2"	18,3	I	535

[1] Large 0.72" (18,3 mm) orifice can be used to provide clean-out purposes. Small 0.06" (1,5 mm) orifice is used to dampen pulsations from the process.

[2] Alternate wetted materials available.

J120 Series

Pressure Models (up to 6,9 bar)

PRESSURE				PROCESS CONNECTION				Model
Adjustable Set Point (bar)	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice ^[1] (mm)	Sensor Style	
-1,0 to 1,4	6,8 to 16,9	1,4	15,5	Teflon; Viton; 316L SS	1/4"	5,6	G	552
-1,0 to 1,4	6,8 to 20,3	1,4	1,7	Brass; nickel plated brass; zinc plated steel	1/4"	1,5	A	134
-1,0 to 1,4	3,4 to 13,5	1,4	15,5	316L SS; Buna-N	1/4"	5,6	G	452
-1,0 to 1,4	6,8 to 20,3	1,4	1,7	316L SS	1/2"	3,0	B	S134B
34,5 mbar to 1,4	6,9 to 13,8	1,4	15,5	Teflon; Viton; 316L SS	1/4"	5,6	G	553
34,5 mbar to 1,4	3,4 to 6,9	1,4	15,5	Buna-N; Aluminum	1/4"	5,6	G	453
34,5 mbar to 1,4	6,9 to 20,7	1,4	1,7	Brass; Ni pl. Brass	1/4"	1,5	A	144
34,5 mbar to 1,4	6,9 to 20,7	1,4	1,7	316L SS	1/2"	3,0	B	S144B
68,9 mbar to 1,4	6,9 to 68,9	34,5	68,9	316L SS	1/2"	18,3	C	171 ^[2]
0,1 to 1,4	20,7 to 172,4	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	18,3	D	183
0,1 to 1,4	20,7 to 172,4	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	1,5	D	483
55,2 mbar to 2,1	6,9 to 20,7	2,1	15,5	Teflon; Viton; 316L SS	1/4"	5,6	G	554
55,2 mbar to 2,1	3,4 to 13,8	2,1	15,5	Buna-N; Aluminum	1/4"	5,6	G	454
103,4 mbar to 2,1	68,9 to 0,1 bar	34,5	41,4	Buna-N; Ni pl. Brass ^[4]	1/4"	1,5	J	701
0,2 to 2,1	0,1 to 0,3 bar	34,5	68,9	Buna-N; Ni pl. Brass	1/4"	1,5	F	15834 ^[3]
0,3 to 2,1	68,9 to 0,3 bar	68,9	103,4	Welded 316L SS	1.5" sanitary fitting		K	565
0,3 to 2,1	0,1 to 0,4 bar	103,4	172,4	316 SS	1/2"	18,3	E	190
0,3 to 2,1	0,1 to 0,4 bar	103,4	172,4	316 SS	1/2"	1,5	E	490
0,1 to 3,4	6,9 to 34,5	3,4	5,2	Brass; Ni pl. Brass	1/4"	1,5	A	152
0,1 to 3,4	6,9 to 34,5	3,4	5,2	316L SS	1/2"	3,0	B	S152B
0,1 to 3,4	6,9 to 103,4	34,5	68,9	316L SS	1/2"	18,3	C	172 ^[2]
0,1 to 3,4	20,7 to 206,8	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	18,3	D	184
0,1 to 3,4	20,7 to 206,8	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	1,5	D	484
0,1 to 6,9	13,8 to 27,6	6,9	15,5	Teflon; Viton; 316L SS	1/4"	5,6	G	555
0,1 to 6,9	13,8 to 41,4	6,9	8,6	Brass; Ni pl. Brass	1/4"	1,5	A	156
0,1 to 6,9	13,8 to 41,4	6,9	8,6	316L SS	1/2"	3,0	B	S156B
0,2 to 6,9	68,9 to 0,3 bar	34,5	41,4	Buna-N; Ni pl. Brass ^[4]	1/4"	1,5	J	702
0,3 to 6,9	6,9 to 172,4	34,5	68,9	316L SS	1/2"	18,3	C	173 ^[2]
0,3 to 6,9	34,5 to 413,7	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	18,3	D	185
0,3 to 6,9	34,5 to 413,7	34,5	68,9	316 SS; 316L SS Viton ^[4]	1/2"	1,5	D	485
0,3 to 6,9	0,2 to 0,6 bar	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	1,5	F	15835 ^[3]
0,7 to 6,9	68,9 to 0,8 bar	68,9	103,4	Welded 316L SS	1.5" sanitary fitting		K	566
0,7 to 6,9	0,1 to 1,0 bar	103,4	172,4	316 SS	1/2"	18,3	E	191
0,7 to 6,9	0,1 to 1,0 abr	103,4	172,4	316 SS	1/2"	1,5	E	491
1,0 to 6,9	48,3 to 124,1	6,9	55,2	316L SS	1/4"	1,5	F	356

[1] Large 0.72" (18,3 mm) orifice can be used to provide clean-out purposes. Small 0.06" (1.5 mm) orifice is used to dampen pulsations from the process.

[2] The use of metallic diaphragms where higher pressure shock or heavy cycling is expected should be avoided. Models 171-174 should not be used where system or start-up vacuum might exceed 26 " Hg Vac (-900 mbar).

[3] Model includes adjustable deadband switch.

[4] Alternate wetted materials available.

J120 Series

Pressure Models (up to 344,7 bar)

Adjustable Set Point (bar)	PRESSURE			PROCESS CONNECTION				Model
	DEADBAND (bar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice ^[1] (mm)	Sensor Style	
0,3 to 13,8	0,1 to 0,3	13,8	17,2	Ph. Bronze; Ni pl. Brass	1/4"	1,5	F	270
0,3 to 13,8	13,8 to 68,9 mbar	13,8	13,8	Brass; Ni pl. Brass	1/4"	1,5	A	164
0,3 to 13,8	13,8 to 68,9 mbar	13,8	13,8	316L SS	1/2"	3,0	B	S164B
0,6 to 13,8	6,9 to 241,3 mbar	34,5	68,9	316L SS	1/2"	18,3	C	174 ^[2]
0,6 to 13,8	0,1 to 0,8	34,5	68,9	316 SS; 316L SS; Viton ^[5]	1/2"	18,3	D	186
0,6 to 13,8	0,1 to 0,8	34,5	68,9	316 SS; 316L SS; Viton ^[5]	1/2"	1,5	D	486
1,0 to 13,8	0,1 to 0,4	13,8	55,2	316L SS	1/4"	1,5	F	358
1,4 to 13,8	0,8 to 1,8	34,5	68,9	316 SS; Viton	1/4"	1,5	J	15622 ^[3]
0,4 to 20,7	0,1 to 0,3	20,7	24,1	Ph. Bronze; Ni pl. Brass	1/4"	1,5	F	274
0,6 to 20,7	68,9 mbar to 0,5	34,5	41,4	Buna-N; Ni pl. Brass ^[5]	1/4"	1,5	J	703
0,6 to 20,7	0,3 to 1,1	34,5	68,9	Buna-N; Ni pl. Brass	1/4"	1,5	F	15836 ^[3]
1,0 to 20,7	0,2 to 1,5	68,9	103,4	Welded 316L SS	1.5" sanitary fitting		K	567
1,0 to 20,7	0,2 to 1,7	103,4	172,4	316 SS	1/2"	18,3	E	192
1,0 to 20,7	0,2 to 1,7	103,4	172,4	316 SS	1/2"	1,5	E	492
1,4 to 20,7	0,1 to 0,5	20,7	55,2	316L SS	1/4"	1,5	F	361
1,0 to 34,5	0,1 to 0,8	103,4	172,4	Buna-N; Ni pl. Brass ^[5]	1/4"	1,5	J	704
1,0 to 34,5	0,6 to 2,1	103,4	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	F	15837 ^[3]
1,4 to 34,5	0,3 to 3,1	103,4	172,4	316 SS	1/2"	18,3	E	193
1,4 to 34,5	0,3 to 3,1	103,4	172,4	316 SS	1/2"	1,5	E	493
1,7 to 34,5	0,1 to 0,6	34,5	55,2	316L SS	1/4"	1,5	F	376
2,1 to 68,9	0,2 to 1,5	103,4	172,4	Buna-N; Ni pl. Brass ^[5]	1/4"	1,5	J	705
2,1 to 68,9	0,6 to 6,2	103,4	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	F	15838 ^[3]
3,4 to 68,9	1,7 to 8,6	137,9	482,6	316 SS; 316L SS; Viton ^[5]	1/2"	18,3	E	188
3,4 to 68,9	1,7 to 8,6	137,9	482,6	316 SS; 316L SS; Viton ^[5]	1/2"	1,5	E	488
5,5 to 117,2	0,3 to 10,3	137,9	172,4	316 SS	1/2"	18,3	E	194
5,5 to 117,2	0,3 to 10,3	137,9	172,4	316 SS	1/2"	1,5	E	494
6,9 to 117,2	1,7 to 6,9	137,9	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	F	15839 ^[3]
6,9 to 117,2	0,6 to 2,8	117,2	172,4	316 SS	1/4"	1,5	F	680 ^[6]
8,6 to 206,8	2,8 to 17,2	413,7	689,5	316 SS, Buna-N	1/4"	1,5	J	612 ^[4]
17,2 to 241,3	3,4 to 20,7	275,8	482,6	316 SS; 316L SS; Viton ^[5]	1/2"	18,3	E	189
17,2 to 241,3	3,4 to 20,7	275,8	482,6	316 SS; 316L SS; Viton ^[5]	1/2"	1,5	E	489
48,3 to 344,7	2,8 to 25,9	413,7	689,5	316 SS, Buna-N	1/4"	1,5	J	616 ^[4]

[1] Large 0.72" (18,3 mm) orifice can be used to provide clean-out purposes. Small 0.06" (1.5 mm) orifice is used to dampen pulsations from the process.

[2] The use of metallic diaphragms where higher pressure shock or heavy cycling is expected should be avoided. Models 171-174 should not be used where system or start-up vacuum might exceed 26 " Hg Vac (-900 mbar).

[3] Model includes adjustable deadband switch.

[4] Not recommended for gas service due to potential drying of O-ring.

[5] Alternate wetted materials available.

[6] Not recommended for rapid, high cycle applications.

H121/H122 Series

Vacuum and Ultra Low Pressure Models (Adjustable range Vacuum to 199,1 mbar)

PRESSURE					PROCESS CONNECTION				Model
Adjustable Set Point (bar)	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Dial Division ()	Wetted Material	Thread NPT (F)	Orifice ^[1] (mm)	Sensor Style	
-1,0 to 0,0	3,4 to 20,3	0,2	15,5		Teflon; Viton; 316L SS	1/4"	5,6	G	550
-1,0 to 0,0	6,8 to 30,5	0,2	0,3		Brass; nickel plated brass; zinc plated steel	1/4"	1,5	A	126
-1,0 to 0,0	3,4 to 13,5	0,2	15,5		316L SS; Buna-N	1/4"	5,6	G	450
-1,0 to 0,0	6,8 to 30,5	0,2	0,3		Welded 316L SS	1/2"	3,0	B	S126B
	(mbar)	(mbar)	(bar)	()		NPT (F)	(mm)		
5 to 199,1	5 to 24,9	0,2	0,3		Brass; Ni pl. Brass	1/4"	1,5	A	137 ^[2]
6 to 199,1	6 to 24,10	0,2	0,3		Welded 316L SS	1/2"	3,0	B	S137B ^[2]

[1] Large 0.72" (18,3 mm) orifice can be used to provide clean-out purposes. Small 0.06" (1.5 mm) orifice is used to dampen pulsations from the process.

[2] Only available as H121.

H121/H122 Series

Pressure Models (up to 413,7 bar)

Adjustable Set Point (bar)	PRESSURE				PROCESS CONNECTION				Model
	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Dial Division (kPa)	Wetted Material	Thread NPT (F)	Orifice ^[1] (mm)	Sensor Style	
-1,0 to 1,4	6,8 to 33,9	1,4	15,5	5	Teflon; Viton; 316L SS	1/4"	5,6	G	552
-1,0 to 1,4	6,8 to 40,6	1,4	1,7	5	Brass; nickel plated brass; zinc plated steel	1/4"	1,5	A	134
-1,0 to 1,4	6,8 to 33,9	1,4	15,5	5	316L SS; Buna-N	1/4"	5,6	G	452
-1,0 to 1,4	6,8 to 40,6	1,4	1,7	5	Welded 316L SS	1/2"	3,0	B	S134B
0,0 to 1,4	3,4 to 20,7	1,4	15,5	5	Teflon; Viton; 316L SS	1/4"	5,6	G	553
0,0 to 1,4	3,4 to 13,8	1,4	15,5	5	Buna-N; Aluminum	1/4"	5,6	G	453
0,0 to 1,4	6,9 to 34,5	1,4	1,7	5	Brass; Ni pl. Brass	1/4"	1,5	A	144
0,0 to 1,4	6,9 to 34,5	1,4	1,7	5	Welded 316L SS	1/2"	3,0	B	S144B
0,0 to 2,1	6,9 to 27,6	2,1	15,5	5	Teflon; Viton; 316L SS	1/4"	5,6	G	554
0,0 to 2,1	3,4 to 20,7	2,1	15,5	5	Buna-N; Aluminum	1/4"	5,6	G	454
0,0 to 2,1	6,9 to 41,4	2,8	2,8	5	Brass; Ni pl. Brass	1/4"	1,5	A	146
0,0 to 2,1	6,9 to 41,4	2,8	2,8	5	Welded 316L SS	1/2"	3,0	B	S146B
(bar)	(bar)	(bar)	(bar)	(kPa)		NPT (F)	(mm)		
0,2 to 2,1	0,1 to 0,2	34,5	41,4	5	Buna-N; Ni pl. Brass ^[2]	1/4"	1,5	J	701^[5]
0,0 to 6,9	0,0 to 0,1	6,9	15,5	25	Teflon; Viton; 316L SS	1/4"	5,6	G	555
0,0 to 6,9	0,0 to 0,1	6,9	8,6	25	Brass; Ni pl. Brass	1/4"	1,5	A	156
0,0 to 6,9	0,0 to 0,1	6,9	8,6	25	Welded 316L SS	1/2"	3,0	B	S156B
0,7 to 6,9	0,1 to 0,3	34,5	41,4	25	Buna-N; Ni pl. Brass ^[2]	1/4"	1,5	J	702
0,0 to 13,8	0,1 to 0,6	13,8	17,2	0.05 MPa	Ph. Bronze; Ni pl. Brass	1/4"	1,5	L	270
0,0 to 13,8	0,0 to 0,1	13,8	13,8	0.05 MPa	Brass; Ni pl. Brass	1/4"	1,5	A	164
0,0 to 13,8	0,0 to 0,1	13,8	13,8	0.05 MPa	Welded 316L SS	1/2"	3,0	B	S164B
0,0 to 13,8	0,1 to 0,6	13,8	17,2	0.05 MPa	316L SS	1/4"	1,5	L	358
0,0 to 20,7	0,1 to 0,7	20,7	24,1	0.1 MPa	Ph. Bronze; Ni pl. Brass	1/4"	1,5	L	274
0,0 to 20,7	0,1 to 0,6	13,8	24,1	0.1 MPa	316L SS	1/4"	1,5	L	361
2,1 to 20,7	0,1 to 0,5	34,5	41,4	0.1 MPa	Buna-N; Ni pl. Brass ^[2]	1/4"	1,5	J	703
0,0 to 34,5	0,2 to 0,8	13,8	39,6	0.1 MPa	316L SS	1/4"	1,5	L	376
3,4 to 34,5	0,2 to 0,8	103,4	172,4	0.1 MPa	Buna-N; Ni pl. Brass ^[2]	1/4"	1,5	J	704
13,8 to 68,9	0,3 to 1,7	103,4	172,4	0.25 MPa	Buna-N; Ni pl. Brass ^[2]	1/4"	1,5	J	705
13,8 to 206,8	2,8 to 17,2	413,7	689,5	0.5 MPa	316 SS, Buna-N ^[3]	1/4"	1,5	J	612^[4]
34,5 to 413,7	10,3 to 51,7	413,7	689,5	1 MPa	303 SS, Buna-N ^[3]	1/4"	1,5	L	15875^[4] ^[5]
34,5 to 413,7	3,4 to 41,4	413,7	689,5	2 MPa	316 SS, Buna-N ^[3]	1/4"	1,5	J	614^[4]

[1] Large 0.72" (18,3 mm) orifice can be used to provide clean-out purposes. Small 0.06" (1.5 mm) orifice is used to dampen pulsations from the process.

[2] Alternate wetted materials available.

[3] Model includes adjustable deadband switch.

[4] Not recommended for gas service due to potential drying of O-ring.

[5] Only available as H121.

J120K Series

Low Differential Pressure Models (up to 497,8 mbar)

Adjustable Set Point (mbar)	PRESSURE			PROCESS CONNECTION				Model
	DEADBAND (mbar)	Working (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	
0,5 to 17,4	0,1 to 1,5	13,8	27,6	Buna-N; Aluminum	1/8"	3,0	DF	540
2,5 to 49,8	0,2 to 2,5	13,8	27,6	Buna-N; Aluminum	1/8"	3,0	DF	541
12,4 to 124,5	0,5 to 6,2	13,8	27,6	Buna-N; Aluminum	1/8"	3,0	DF	542
12,4 to 199,1	2,5 to 10,0	15,5	15,5	Buna-N; Aluminum	1/4"	3,0	DD	455
24,9 to 497,8	1,2 to 19,9	13,8	27,6	Buna-N; Aluminum	1/8"	3,0	DF	543

Differential Pressure Models (up to 34,5 bar)

Adjustable Set Point (bar)	PRESSURE			PROCESS CONNECTION				Model
	DEADBAND (bar)	Working (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	
0,1 to 1,4	6,9 to 20,7 mbar	15,5	15,5	Buna-N; Aluminum	1/4"	3,0	DD	456
0,1 to 1,4	6,9 to 89,6 mbar	82,7	172,4	Buna-N; Aluminum	1/8"	3,0	DG	544
0,2 to 2,1	0,1 to 0,3	24,1	68,9	316 SS; Buna-N	1/4"	1,5	DB	36
0,2 to 2,1	20,7 to 103,4 mbar	6,9	12,4	Brass; Ni pl. Brass	1/4"	1,5	DC	147
0,2 to 2,1	20,7 to 103,4 mbar	6,9	20,7	316L SS	1/2"	3,0	DE	S147B
0,2 to 2,1	6,9 to 27,6 mbar	15,5	15,5	Buna-N; Aluminum	1/4"	3,0	DD	457
0,3 to 3,4	13,8 mbar to 0,2	82,7	172,4	Buna-N; Aluminum	1/8"	3,0	DG	545
0,7 to 6,9	34,5 to 137,9 mbar	10,3	12,4	Brass; Ni pl. Brass	1/4"	1,5	DC	157
0,7 to 6,9	34,5 to 137,9 mbar	12,4	20,7	316L SS	1/2"	3,0	DE	S157B
0,7 to 6,9	0,1 to 0,6	34,5	68,9	316 SS; Buna-N	1/4"	1,5	DB	37
0,7 to 6,9	0,3 to 0,7	24,1	34,5	316L SS	1/4"	1,5	DA	367
0,7 to 6,9	13,8 to 68,9 mbar	15,5	15,5	Buna-N; Teflon; Aluminum	1/4"	3,0	DD	559
0,7 to 8,6	27,6 mbar to 0,3	82,7	172,4	Buna-N; Aluminum	1/8"	3,0	DG	546
3,4 to 17,2	0,1 to 0,7	82,7	172,4	Buna-N; Aluminum	1/8"	3,0	DG	547
2,1 to 20,7	0,1 to 1,0	68,9	172,4	316 SS; Buna-N	1/4"	1,5	DB	38
3,4 to 34,5	0,2 to 1,4	68,9	172,4	316 SS; Buna-N	1/4"	1,5	DB	39
6,9 to 34,5	0,1 to 1,0	82,7	172,4	Buna-N; Aluminum	1/8"	3,0	DG	548

H121K/H122K Series

Differential Pressure Models (up to 6,9 bar)

Adjustable Set Point (bar)	PRESSURE				PROCESS CONNECTION				Model
	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Dial Division (kPa)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	
0,1 to 1,4	6,9 to 20,7	15,5	15,5	5	Buna-N; Aluminum	1/4"	3,0	DD	456
0,2 to 2,1	20,7 to 137,9	6,9	12,4	5	Brass; Ni pl. Brass	1/4"	1,5	DC	147
0,2 to 2,1	20,7 to 137,9	6,9	20,7	5	316L SS	1/2"	3,0	DE	S147B
0,2 to 2,1	6,9 to 27,6	15,5	15,5	5	Buna-N; Aluminum	1/4"	3,0	DD	457
0,7 to 6,9	34,5 to 206,8	10,3	12,4	25	Brass; Ni pl. Brass	1/4"	1,5	DC	157
0,7 to 6,9	34,5 to 206,8	12,4	20,7	25	316L SS	1/2"	3,0	DE	S157B
0,7 to 6,9	13,8 to 68,9	15,5	15,5	25	Buna-N; Teflon; Aluminum	1/4"	3,0	DD	559

B, C, E & F Series

Type B121 & B122, C120

TEMPERATURE				Material	STEM Size ^[2] (Diameter x Length)	Sensor Style	Model
Adjustable Set Point (°C)	Max (°C)	Dial Div. ^[1] (kPa)	Deadband @21 °C TYP				
-18 to 107	135	5	2%	Ni plated brass	14.3 mm x 47.7 mm below 1/2" NPT	TA	120
-18 to 107	135	5	2%	316SS	14.3 mm x 47.7 mm below 1/2" NPT	TA	120 + M504
93 to 107	246	5	2%	Ni plated brass	14.3 mm x 47.7 mm below 1/2" NPT	TA	121
93 to 107	246	5	2%	316SS	14.3 mm x 47.7 mm below 1/2" NPT	TA	121 + M504
-9 to 60	71	2	2%	304SS	14.3 mm x 68.3 mm long	TA	13272 (B121 only) ^[3]
-9 to 60	71	2	2%	304SS	14.3 mm x 68.3 mm long	TA	13322 (B122 only) ^[3]

[1] Dial available on B121 and B122 only.

[3] Heat tracing

[2] Optional immersion stem length available. Consult UE.

Type E121 & E122

TEMPERATURE				Material ^[2]	BULB Size ^[1] (Diameter x Length)	Sensor Style	Model
Adjustable Set Point (°C)	Max (°C)	Dial Div. (kPa)	Deadband @21 °C TYP				
-84 to 38	66	5	2%	304SS	9.6 mm x 66.7 mm	TB	2BSA
-1 to 121	149	5	2%	304SS	9.6 mm x 66.7 mm	TB	2BSB
38 to 204	232	5	2%	304SS	9.6 mm x 54 mm	TB	3BS
-4 to 38	66	1	2%	304SS	9.6 mm x 171.5 mm	TB	4BS
-29 to 27	54	2	2%	304SS	9.6 mm x 127 mm	TB	5BS
177 to 338	366	5	2%	304SS	9.6 mm x 82.6 mm	TB	8BS
-4 to 163	182	5	2%	304SS	6.4 mm x 241.3 mm	TB	13273 (E121 only) ^[3]
-4 to 163	182	5	2%	304SS	6.4 mm x 241.3 mm	TB	13321 (E122 only) ^[3]

[1] Optional capillary lengths available. Standard capillary length is 6ft, except models 13321 and 13273 which are 10 ft. Consult UE.

[2] Optional stainless steel armored or Teflon covered capillary available. Consult UE.

[3] Heat tracing

Type F120

TEMPERATURE			Material	BULB Size ^[1] (Diameter x Length)	Sensor Style	Model
Adjustable Set Point (°C)	Max (°C)	Deadband @21 °C TYP				
-87 to 177	204	1%	304SS	9.6 mm x 66.7 mm	TB	2BS
-87 to 260	288	1%	304SS	9.6 mm x 54 mm	TB	3BS
-40 to 49	77	1%	304SS	9.6 mm x 171.5 mm	TB	4BS
-40 to 82	110	1%	304SS	9.6 mm x 122.5 mm	TB	5BS
-18 to 121	149	1%	304SS	9.6 mm x 110.3 mm	TB	6BS
-18 to 204	232	1%	304SS	9.6 mm x 76.2 mm	TB	7BS
10 to 343	371	1%	304SS	9.6 mm x 82.6 mm	TB	8BS

[1] Optional capillary lengths available. Consult UE.

Pressure Options

J120

Option	Description	J120 Models																	J120K Models											
		126-164	171-174	183-186	188-189	190-194	270-274	356-376	450-454	483-486	488-489	490-494	520-525	530-535	550-555	565-567	612-616	680	701-705	15622	15834-15839	S126B-S164B	36 - 39	147 - 157	367	455 - 457	540-548	559	S147B - S157B	
Switch options																														
0140	1A Gold Contact	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	
0500	5A low Deadband	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•			•	•	•	•	•			•	•	
1010	10A 250VAC DPDT	•					•	•	•					•		•		•										•	•	
1070	10A 125VDC					•	•	•						•		•	•	•							•	•	•	•	•	•
1180	11A Hermetic switch SPDT	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•
1190	11A Hermetic switch DPDT, set on Rise	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•
1195	11A Hermetic switch DPDT, set on fall	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•
1519 [2]	Adjustable deadband	•					•	•	•					•			•	•					•	•	•	•	•	•	•	•
2000	20A 480VAC	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•					•	•	•	•	•		•	•
3000	30A 277VAC	•					•	•	•					•		•	•	•					•						•	•
Miscellaneous options																														
M201	Factory set one switch	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M277	Range in KPa/MPa	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M278	Range in Kg/cm2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M400	SIL2 (Consult factory)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•
M401	NACE® MR0175 [1]	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M444	Paper ID tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M446	Stainless steel tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M449	Mounting bracket											•	•																•	•
M550	O ₂ service cleaning	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					•	•	•	•			•	•

• Standard

[1] Consult UE. Potential impact on sensor repeatability, deadband and overpressure limits.

[2] Adjustable deadband switch can only be set on rise. It will ship with the lowest deadband setting.

Pressure Options

J120

Option	Description	J120 Models																J120K Models											
		126-164	171-174	183-186	188-189	190-194	270-274	356-376	450-454	483-486	488-489	490-494	520-525	530-535	550-555	565-567	612-616	680	701-705	15622	15834-15839	S126B-S164B	36 - 39	147 - 157	367	455 - 457	540-548	559	S147B - S157B
Pressure Connection Materials (Listed as "Pressure connection; diaphragm; O-Ring" unless otherwise noted)																													
M319	Diaphragm seal (consult factory)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M476	Stainless diff. diaphragm																												
M540	Standard + Viton ^[1]							•								•		•					•			•	•		
M913	1/4" NPT(F) stainless steel				•																	•							
M914	1/2" NPT(F) stainless steel						•										•												
XC001	Aluminum; Viton; Viton											•																	
XC002	Aluminum; Kapton; Buna N											•																	
XC003	Aluminum; Kapton; Viton											•																	
XC004	316LSS; 316LSS; Viton ^[2]											•																	
XC005	316LSS; Viton; Viton											•																	
XC007	316LSS; Teflon; Viton											•																	
XD002	Hastelloy C276 diaphragm			•	•				•	•																			
XD003	Monel 400 diaphragm			•	•				•	•																			
XP112	Hastelloy C276 press. Conn.			•	•				•	•																			
XP113	Monel 400 press. Conn.			•	•				•	•																			
XR211	Kalrez O-ring seal			•	•				•	•																			
XR213	EPR O-ring seal			•	•				•	•																			
XR214	Aflas O-ring seal			•	•				•	•																			
Accessories																													
6361-704	Mounting bracket kit	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6361-761	1/4" NPT to G1/2 male adapter	•				•	•	•							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6361-762	1/2" NPT to G1/2 male adapter	•	•	•	•				•	•	•	•	•									•							•

• Standard

[1] Includes adjustable deadband switch.

[2] Deadband and low end of range may increase.

Pressure Options

H121 / H122

Option	Description	PRESSURE																		DIFFERENTIAL PRESSURE								
		H121 Models									H122 Models									H121K models			H122K models					
		15875[i]	126 - 164	270 - 274	358 - 376	450 - 454	550 - 555	612 - 614	701 - 705	704 - 705	S126B - S164B	126 - 164	270 - 274	358 - 376	450 - 454	550 - 555	612 - 614	701 - 705	704 - 705	S126B - S164B	147 - 157	456 - 457	559	S147B - S157B	147 - 157	456 - 457	559	S147B - S157B
Switch options																												
0140	1A Gold Contact		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
0500	5A low Deadband		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1010	10A 250VAC DPDT		•	•	•	•	•	•	•	•																		
1070	10A 125VDC		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1180	11A Hermetic switch SPDT		•	•	•	•	•	•	•	•																		
1190	11A Hermetic switch DPDT, set on rise		•	•	•	•	•	•	•	•																		
1195	11A Hermetic switch DPDT, set on fall		•	•	•	•	•	•	•	•																		
2000	20A 480VAC		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Miscellaneous options																												
M201	Factory set one switch	•	•	•	•	•	•	•	•	•																		
M202	Factory set two switches										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M210	Differential press. indicator																					•			•			•
M277	Range in KPa/MPa		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M278	Range in Kg/cm2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M400	SIL2 (Consult factory)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M444	Paper ID tag		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M446	Stainless Steel Tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M550	O ₂ service cleaning		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Pressure Connection Materials																												
M319	Diaphragm seal (Consult factory)		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M540	Standard + Viton ^[1]					•		•					•		•							•				•		
M913	1/4" NPT(F) stainless steel									•												•						
914	1/2" NPT(F) stainless steel			•				•				•			•													
Accessories																												
6361-704	Mounting bracket kit	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6361-761	1/4" NPT to G1/2 male adapter	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•		•	•	•		•	•	•
6361-762	1/2" NPT to G1/2 male adapter									•												•				•		•

• Standard

[i] Deadband and low end of range may increase

Temperature Options

B, C, E and F temperature model options

Option #	Description	C120	B121		B122		F120	E121		E122	
		120 - 121	120 - 121	13272	120 - 121	13322	2BS - 8BS	2BSA - 8BS	13273	2BSA - 8BS	13321
Switch options											
0140	1A Gold Contact	•	•		•		•	•		•	
0500	5A low Deadband	•	•		•		•	•		•	
1070	10A 125VDC	•	•				•	•		•	
1180	11A Hermetic switch SPDT	•	•				•	•			
1190	11A Hermetic switch DPDT, set on Rise	•	•				•	•			
1195	11A Hermetic switch DPDT, set on fall	•	•				•	•			
1519	Adjustable deadband	•					•				
2000	20A 480VAC	•	•		•		•	•		•	
3000	30A 277VAC	•					•	•			
Miscellaneous options											
M201	Factory setting	•	•	•			•	•	•		
M202	Factory setting				•	•				•	•
M400	SIL2 (Consult factory)	•	•		•		•	•		•	
M444	Paper ID tag	•	•	•	•	•	•	•	•	•	•
M446	SS tag	•	•	•	•	•	•	•	•	•	•
M504	316L SS Immersion Stem	•	•		•						
M550	O ₂ service cleaning	•	•		•		•	•		•	
Accessories											
6361-704	Mounting bracket kit	•	•	•	•	•	•	•	•	•	•

• Standard

Option	Description	Material	Replacement Part
Union Connectors for bulb & capillary models except for 13273 & 13321			
W027	1/2" NPT with 3/4" bushing	Brass	SD6213-27
W028	1/2" NPT with 3/4" bushing	304 SS	SD6213-28
W045	3/4" NPT	Brass	SD6213-45
W046	3/4" NPT	304 SS	SD6213-46
W050	1/2" NPT	304 SS	SD6213-50
W051	1/2" NPT	Brass	SD6213-51

Option	Description	Material	Replacement Part
Thermowells for bulb & capillary^[1] models except for 13272 & 13322			
W075	4" BT (101,6 mm BT), 1/2" NPT with 3/4" NPT adapter bushing	Brass	SD6225-75
W076	4.5" BT (114,3 mm BT), 3/4" NPT	316 SS	SD6225-76
W191	4" BT (101,6 mm BT), 1/2" NPT	Brass	SD6225-191
W193	4.5" BT (114,3 mm BT), 1/2" NPT	316 SS	SD6225-193
W118	7" BT (177,8 mm BT), 1/2" NPT with 3/4" NPT adapter bushing	Brass	SD6225-118
W119	7.5" BT (190,5 mm BT), 3/4" NPT	316 SS	SD6225-119
W192	7" BT (177,8 mm BT), 1/2" NPT	Brass	SD6225-192
W177	7.5" BT (190,5 mm BT), 1/2" NPT	316 SS	SD6225-177

[1] Make sure that the bulb length is equal or less than the "Below Thread" length of the thermowell.



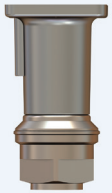

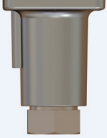

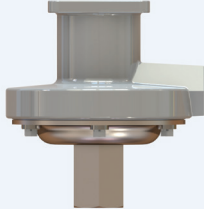
Temperature Options

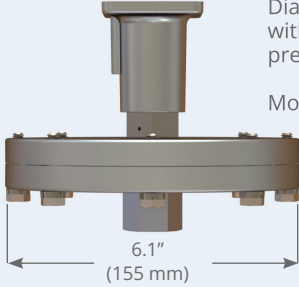
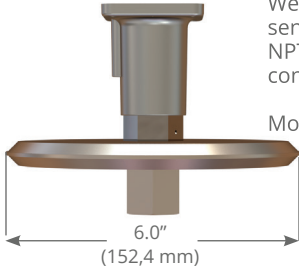
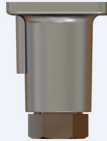


B, C, E and F temperature model options

Option	Description	Material	Replacement Part
Thermowells for all immersion stem models except for 13272 & 13322			
W139	3/4" NPT x 1-23/32" BT (44mm BT)	Brass	SD6225-139
W140	3/4" NPT x 1-23/32" BT (44mm BT)	316 SS	SD6225-140
W000	No thread	Brass	
W097	1/2" NPT x 1-23/32" BT (44mm BT)	Brass	
W099	1/2" NPT x 1-23/32" BT (44mm BT)	316 SS	

Sensors

Pressure sensors

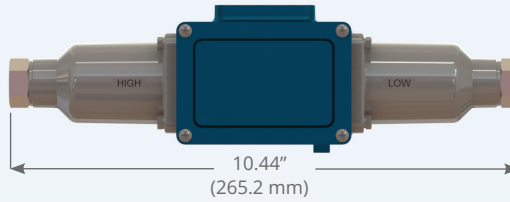
A		<p>Bellows sensor with 1/4" NPT (F) pressure connection</p> <p>Models: 126-164</p>
B		<p>Welded bellows sensor with 1/2" NPT (F) pressure connection</p> <p>Models: S126B-S164B</p>
C		<p>Welded diaphragm sensor with 1/2" NPT (F) pressure connection</p> <p>Models: 171-174</p>
D		<p>Diaphragm sensor with 1/2" NPT (F) pressure connection</p> <p>Models: 183-186, 483-486</p>
E		<p>Diaphragm sensor with 1/2" NPT (F) pressure connection</p> <p>Models: 188-199, 488-499</p>
F		<p>Bellows sensor with 1/4" NPT (F) pressure connection</p> <p>Models: 270-376, 680 (J120)</p>
G		<p>Diaphragm sensor with 1/4" NPT (F) pressure connection</p> <p>Models: 450-454, 550-555</p>

H		<p>Diaphragm sensor with 1/2" NPT (F) pressure connection</p> <p>Models: 520-525</p> <p>6.1" (155 mm)</p>
I		<p>Welded diaphragm sensor with 1/2" NPT (F) pressure connection</p> <p>Models: 530-535</p> <p>6.0" (152,4 mm)</p>
J		<p>Piston or diaphragm sensor with 1/4" NPT (F) pressure connection</p> <p>Models: 612-616, 701-705, 15622</p>
K		<p>Diaphragm sensor with 1-1/2" Sanitary fitting pressure connection</p> <p>Models: 565-567</p>
L		<p>Bellows sensor with 1/4" NPT (F) pressure connection</p> <p>Models: 270-376 (H121/H122)</p>

Sensors

Differential pressure sensors

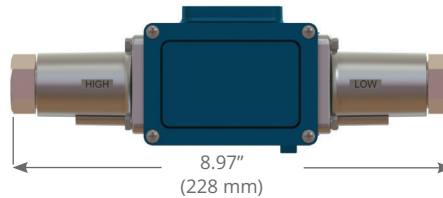
DA



Welded bellows sensor with 1/4" NPT (F) pressure connection

Models: 367

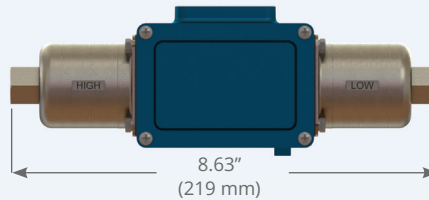
DB



Diaphragm sensor with 1/4" NPT (F) pressure connection

Models: 36-39

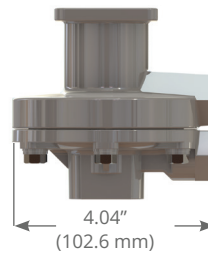
DC



Welded bellows sensor with 1/4" NPT (F) pressure connection

Models: 147-157

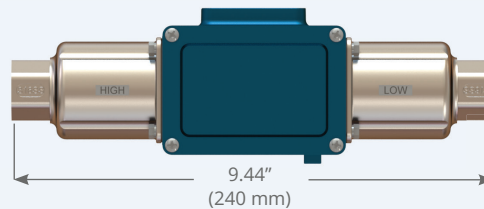
DD



Diaphragm sensor with 1/4" NPT (F) pressure connection

Models: 455-457, 559

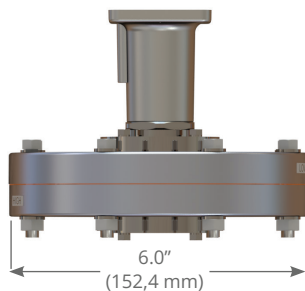
DE



Welded bellows sensor with 1/2" NPT (F) pressure connection

Models: S147B-S157B

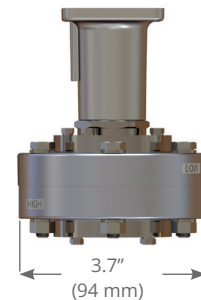
DF



Diaphragm sensor with 1/8" NPT (F) pressure connection

Models: 540-543

DG



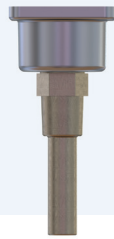
Diaphragm sensor with 1/8" NPT (F) pressure connection

Models: 544-548

Sensors

Temperature sensors

TA

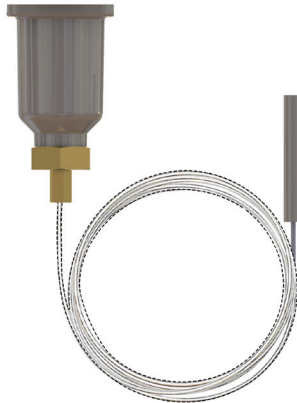


Immersion stem with 1/2" NPT (F) pressure connection

Models: 120-121, 13272*, 13322*

* No NPT connection available on these models

TB



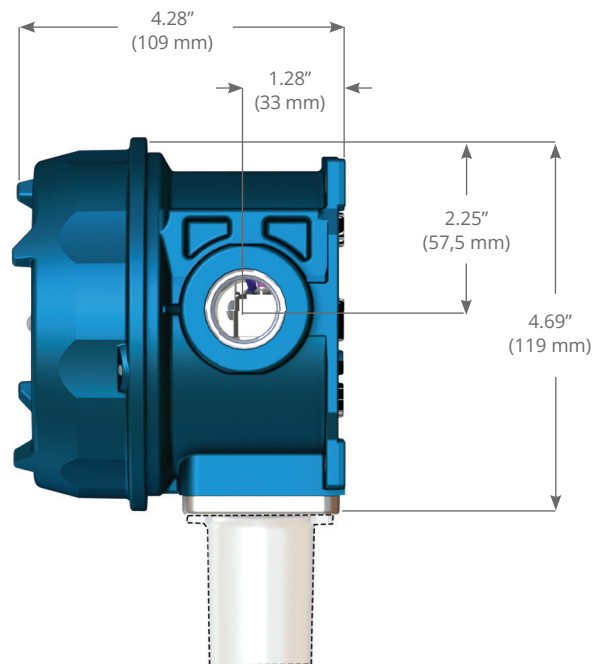
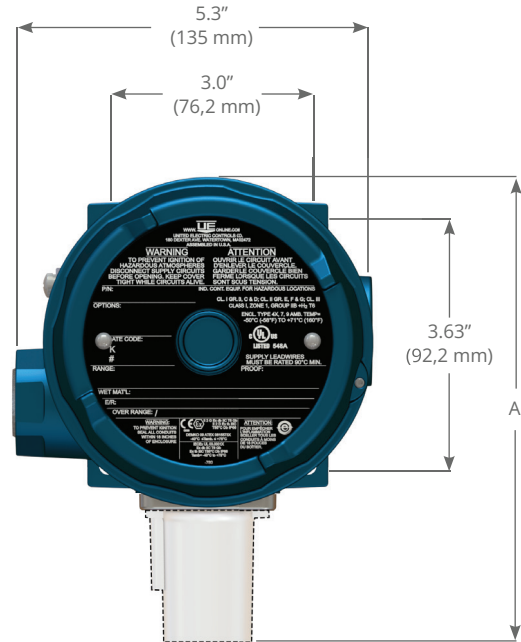
Bulb and capillary for remote installations

Models: 2BS-8BS, 13273, 13321

Types J120, J120K, C120, F120

Internal Set Point Adjustment

Dimension A			
Models	Inches	mm	NPT
Pressure			
126-164	7.25	184,2	1/4
S126B-S164B	7.63	193,3	1/2
171-174	8.72	221,5	1/2
183-186, 483-486	8.41	213,6	1/2
188-189, 488-489	7.47	189,7	1/2
190-194, 490-494	7.44	189,0	1/2
270-274	8.13	206,5	1/4
356-361, 376	8.09	205,5	1/4
450, 452	8.81	223,8	1/4
451, 453, 454	8.06	204,7	1/4
520-525	9.25	235,0	1/2
530-535	8.84	224,5	1/2
550, 552	8.81	223,8	1/4
551, 553-555	8.34	211,8	1/4
565-567	7.53	191,3	1-1/2" Sanitary
612, 616	7.88	200,2	1/4
680	8.13	206,5	1/4
701-705, 15622	7.44	189,0	1/4
Differential Pressure			
36-39, 147-157, 367	7.59	192,8	1/4
S147B-S157B	7.59	192,8	1/2
455-457, 559	8.44	214,4	1/4
540-543	9.34	237,2	1/8
544-548	9.41	239,0	1/8
Temperature			
120-121	9.13	231,9	Immersion Stem
2BS-8BS	8.47	215,1	Bulb & Capillary

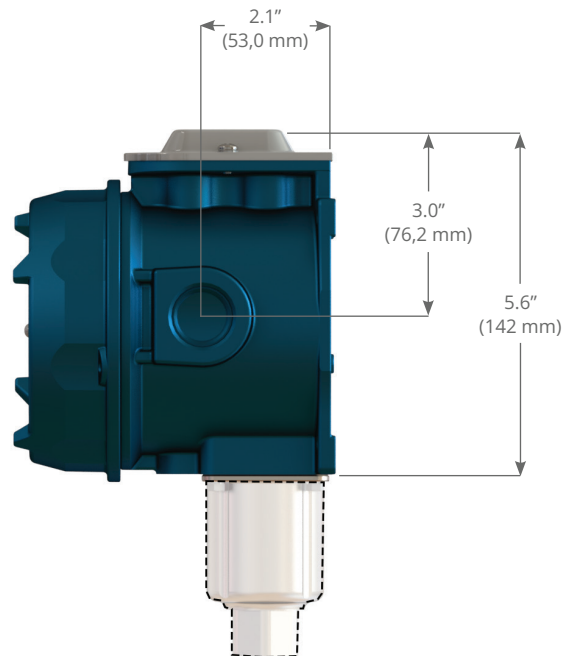
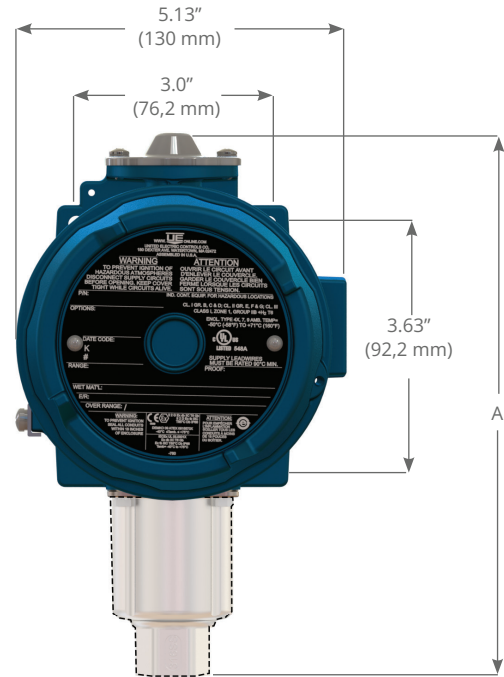


All dimensions stated in inches (millimeters)
 Dimensional drawings for all models may be found at www.ueonline.com

Types B121, B122, E121, E122, H121, H122, H121K, H122K




External Set Point Adjustment

Dimension A			
Models	Inches	mm	NPT
Pressure			
126-164	8.09	205,5	1/4
S126B-S164B	8.50	215,9	1/2
270-274	7.88	200,2	1/4
358-376	7.81	198,4	1/4
450, 452	9.69	246,1	1/4
453, 454	8.94	227,1	1/4
550, 552	9.75	247,7	1/4
553-555	9.31	236,5	1/4
612, 614	8.75	222,3	1/4
701-705	8.31	211,1	1/4
Differential Pressure			
147-157	8.44	214,4	1/4
S147B-S157B	8.44	214,4	1/2
456-457, 559	9.31	236,5	1/4
Temperature			
120,121	10.00	254,0	Immersion Stem
2BS-8BS	9.31	236,5	Bulb & capillary
13272, 13322	10.00	254,0	Immersion Stem (Heat tracing)
13273, 13321	9.31	236,5	Bulb & capillary (Heat tracing)










All dimensions stated in inches (millimeters)
Dimensional drawings for all models may be found at www.ueonline.com

Standard certifications

	Region	Agency	Classification
	North America	UL	<p>Class I, Division 1 and 2, Groups B, C & D Class II, Division 1 and 2, Groups E, F & G Class III $-50^{\circ}\text{C} < T_{\text{amb}} < 71^{\circ}\text{C}$</p> <p>Enclosure: Type 4X, IP66 Canadian registration number (CRN) for Canadian provinces can be found at www.ueonline.com.</p>
	Europe	ATEX	<p>II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T85°C Db IP66 $-40^{\circ}\text{C} < T_{\text{amb}} < +75^{\circ}\text{C}$</p> <p>II 1 G Ex ia IIC T6 Ga (OPTIONAL – code M405) $-50^{\circ}\text{C} < T_{\text{amb}} < +60^{\circ}\text{C}$</p> <p>Pressure Equipment Directive (PED) (2014/68/EU) Compliant to PED UL 508, UL 61010 Products rated lower than 7.5 psi are outside the scope of the PED Low Voltage Directive (LVD) (2014/35/EU) UEC compliant to LVD EN 61058-1, EN 61010-1 Products rated lower than 50 VAC and 75 VDC are outside of the scope of the LVD The Low Voltage Directive does not apply to products for use in hazardous locations</p>
	International	IECEX	<p>Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP66 $-40^{\circ}\text{C} < T_{\text{amb}} < +75^{\circ}\text{C}$ Ex ia IIC T6 Ga $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$</p>

Optional certifications

	Country	Option	Classification
	China	M408	<p>Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP66 $-40^{\circ}\text{C} < T_{\text{amb}} < +75^{\circ}\text{C}$</p> <p>Ex ia IIC T6 Ga $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$</p>
	Brazil	M391	<p>Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP66 $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$</p> <p>Ex ia IIC T6 Ga $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$</p>
	Korea	M395	<p>Ex d IIC T6 Ex td IIIC T85C $-40^{\circ}\text{C} < T_{\text{amb}} < +75^{\circ}\text{C}$</p>
	India	Standard M405	<p>Ex d IIC T6 Gb Ex ia IIC T6 Ga</p>
	United Kingdom	M462	<p>Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP66 $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$</p> <p>Ex ia IIC T6 Ga $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$</p>
	Ukraine	M404	<p>Ex db IIC T6 Gb $-40^{\circ}\text{C} < T_{\text{amb}} < +71^{\circ}\text{C}$</p>
	Taiwan		ITRI available through Taiwan channel partner. Consult United Electric.

LIMITED WARRANTY

Seller warrants that the product hereby purchased is, upon delivery, free from defects in material and workmanship and that any such product which is found to be defective in such workmanship or material will be repaired or replaced by Seller (Ex-works, Factory, Watertown, Massachusetts. INCOTERMS); provided, however, that this warranty applies only to equipment found to be so defective within a period of 24 months from the date of manufacture by the Seller. Seller shall not be obligated under this warranty for alleged defects which examination discloses are due to tampering, misuse, neglect, improper storage, and in any case where products are disassembled by anyone other than authorized Seller's representatives. EXCEPT FOR THE LIMITED WARRANTY OF REPAIR AND REPLACEMENT STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES WHATSOEVER WITH RESPECT TO THE PRODUCT, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

LIMITATION OF SELLER'S LIABILITY

SELLER'S LIABILITY TO BUYER FOR ANY LOSS OR CLAIM, INCLUDING LIABILITY INCURRED IN CONNECTION WITH (I) BREACH OF ANY WARRANTY WHATSOEVER, EXPRESSED OR IMPLIED, (II) A BREACH OF CONTRACT, (III) A NEGLIGENT ACT OR ACTS (OR NEGLIGENT FAILURE TO ACT) COMMITTED BY SELLER, OR (IV) AN ACT FOR WHICH STRICT LIABILITY WILL BE INPUTTED TO SELLER, IS LIMITED TO THE "LIMITED WARRANTY" OF REPAIR AND/OR REPLACEMENT AS SO STATED IN OUR WARRANTY OF PRODUCT. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL OR OTHER DAMAGES OF A LIKE GENERAL NATURE, INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS OR PRODUCTION, OR LOSS OR EXPENSES OF ANY NATURE INCURRED BY THE BUYER OR ANY THIRD PARTY.

UE specifications subject to change without notice.

UE is a registered trademark of United Electric Controls Company.

The following trademarks are property of the respective companies:

Aflas
Kapton, Kalrez
Monel
Hastelloy
NACE
Teflon, Viton

Asahi Glass Co., LTD
Du Pont De Nemours, Inc.
Huntington Alloys Corp.
Haynes International, Inc.
AMPP Global Center, Inc.
The Chemours Co.

FOR A LIST OF OUR INTERNATIONAL AND
DOMESTIC REGIONAL SALES OFFICES
PLEASE VISIT OUR WEBPAGE
WWW.UEONLINE.COM

 **UNITED ELECTRIC
CONTROLS**

180 Dexter Avenue
Watertown, MA 02472 - USA
Telephone: 617 926-1000 - Fax: 617 926-2568
www.ueonline.com