



400 Series

Pressure, Vacuum, Differential Pressure
and Temperature Switches

United Electric Controls is
ISO 9001:2015 certified



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

Building a Part Number

EXAMPLE: **J400-551-M201**

Type: Switch type from table below: _____

Type	
Pressure	
J400	One SPDT; internal hex screw adjustment
J402	Two SPDT; internal hex screw adjustment
J403	Three SPDT; internal hex screw adjustment
H400	One SPDT; internal adjustment with reference dial
H402	Two SPDT; internal adjustment with reference dial
H403	Three SPDT; internal adjustment with reference dial
Differential Pressure	
J400K	One SPDT; internal hex screw adjustment
J402K	Two SPDT; internal hex screw adjustment
H400K	One SPDT; internal adjustment with reference dial
H402K	Two SPDT; internal adjustment with reference dial
Temperature	
B400	Immersion stem; one SPDT; internal adjustment with reference dial
B402	Immersion stem; two SPDT; internal adjustment with reference dial
B403	Immersion stem; three SPDT; internal adjustment with reference dial
C400	Immersion stem; one SPDT; internal hex screw adjustment
C402	Immersion stem; two SPDT; internal hex screw adjustment
C403	Immersion stem; three SPDT; internal hex screw adjustment
E400	Bulb and capillary; one SPDT; internal adjustment with reference dial
E402	Bulb and capillary; two SPDT; internal adjustment with reference dial
E403	Bulb and capillary; three SPDT; internal adjustment with reference dial
F400	Bulb and capillary; one SPDT; internal hex screw adjustment
F402	Bulb and capillary; two SPDT; internal hex screw adjustment
F403	Bulb and capillary; three SPDT; internal hex screw adjustment

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

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Options: Select any of available options for your switch _____

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Specifications

Electrical Ratings

Models	Electrical Ratings
Standard Models	
All	15A @ 125/250/480 VAC
Models	VDC Electrical Data*
Standard Models	
All	2A Res. & 1A Inductive @24-30 VDC; 0.5A Res. & 0.03A Inductive @ 125 VDC

* VDC values are not UL rated, listed or stated on nameplates unless indicated. Published VDC values are based upon testing and/or experience.

Setpoint repeatability [% of full scale]

Temperature	Type B, C, E & F	± 2%
	440 - 457, 550 - 559	± 1%
Pressure & Differential	126 - 376, 520 - 535, 540 - 547, 570 - 572, S126B - S164B	± 2%
	610 - 614	± 3%

Setpoint typically shifts less than 1% of range for a 50 °F (28 °C) ambient temperature change

Ambient Temperature Limits	-40 to 160 °F (-40 to 71 °C)
Shock	Setpoint repeats after 15 G, 10 msec duration
Vibration	Setpoint repeats after 2.5 G, 5-500 Hz
Enclosure	Die cast aluminum, epoxy powder coated; gasketed; captive cover screws Designed to meet NEMA type 4X construction requirements
Switch Output	One, two, or three SPDT switches; may be separated up to 100% of range except models 521-524; models 531-534: 50%; models 520, 525, 530, 535, 570-572: switches may be wired "normally open" or "normally closed"
Weight	Approx. 3 to 7.5 lbs.; varies with model
Electrical Connection	One 3/4" NPT connection and two 7/8" diameter knockouts
Pressure Connection	Models 126-164, 270-376, 440-457, 550-572, 610-614, 16156: 1/4" NPT (female) connection Models 520-535, S126B-S164B, S147B-S157B: 1/2" NPT (female) connection Models 540-547: 1/8" NPT (female) connection

Switch Options	Electrical Ratings
0140 (1A Gold Contact)	1A @ 125 VAC
0500 (5A Close Deadband)	5A @ 125/250 VAC
1010 (10A 125/250 VAC DPDT)	10A @ 125/250 VAC; deadband and minimum setpoint will increase
1070 (10A 125 VDC)	10A @ 125 VDC; deadband and minimum setpoint will increase
1520 (15A Adjustable Deadband)	15A @ 125/250/277 VAC
1530 (15A External Manual Reset)	15A @ 125/250/480 VAC; latches on rise only
1535 (15A High Ambient)	15A @ 125/250/480 VAC; temperatures up to 250 °F/145 °C
2000 (20A 125/250/480 VAC)	20A @ 125/250/480 VAC

Temperature Assembly	'E' types use the same assemblies as 'F' types, however range spans are limited due to use of reference dials Bulb and capillary: 6 feet 304 stainless steel Immersion stem: models 120 & 121: nickel-plated brass; optional 316L stainless steel available	
Fill	Temperature Models: Non-toxic oil filled	
Temperature Deadband	Type F	Typically 1%
	Types E, B, & C	Typically 2% of range under laboratory conditions (70 °F ambient circulating bath at rate of 1/2 °F per minute change)
Differential Pressure Indicator	Option M210: Available for J400K and J402K models 147-S157B. Accuracy approximately 1.5% at 50% range, 3% at ends; window is plexiglass and gasketed; indicator may be field adjusted approximately ±1% accuracy at any setpoint within range.	

Type J400-403

Pressure Models

PRESSURE				PROCESS CONNECTION				Model
Adjustable Setpoint* ("wc)	Deadband** ("wc)	Over Range*** (psi)	Proof**** (psi)	Wetted Material	Thread NPT (F)	Orifice ^[1] Inches	Sensor Style	
300 Vac to 0	0.2 to 12	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	520 ^[3]
10 Vac to 10	0.1 to 1	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	521 ^[3]
50 Vac to 50	0.1 to 5	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	522 ^[3]
0.5 to 5	0.1 to 0.3	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	523 ^[3]
2.5 to 50	0.1 to 2	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	524 ^[3]
10 to 250	0.1 to 10	100	100	Buna-N; Epoxy coated Al ^[2]	1/2"	0.72"	E	525 ^[3]
300 Vac to 0	0.2 to 15	50	100	Welded 316L SS	1/2"	0.72"	F	530 ^[3]
10 Vac to 10	0.1 to 1	50	100	Welded 316L SS	1/2"	0.72"	F	531 ^[3]
50 Vac to 50	0.1 to 6	50	100	Welded 316L SS	1/2"	0.72"	F	532 ^[3]
0.5 to 5	0.1 to 0.3	50	100	Welded 316L SS	1/2"	0.72"	F	533 ^[3]
2.5 to 50	0.1 to 2.5	50	100	Welded 316L SS	1/2"	0.72"	F	534 ^[3]
10 to 250	0.1 to 10	50	100	Welded 316L SS	1/2"	0.72"	F	535 ^[3]
(psi) unless noted	(psi) unless noted	(psi) unless noted	(psi) unless noted	Wetted Material	NPT (F)	Sensor Style		Model
0 to 20	0.2 to 4	20	225	316L SS, Viton®	1/4"	D		570 ^[4]
0 to 50	0.7 to 6	50	225	316L SS, Viton	1/4"	D		571 ^[4]
0 to 100	1 to 7	100	225	316L SS, Viton	1/4"	D		572 ^[4]
30 "Hg Vac to 0	0.2 to 0.9 "Hg	3	5	Welded 316L SS	1/2"	B		S126B
30 "Hg Vac to 20 psi	0.2 to 1.2 "Hg	20	25	Welded 316L SS	1/2"	B		S134B
0 to 80 "wc	2 to 6 "wc	80 "wc	5	Welded 316L SS	1/2"	B		S137B
0 to 20	0.1 to 0.5	20	25	Welded 316L SS	1/2"	B		S144B
0 to 30	0.1 to 0.6	30	40	Welded 316L SS	1/2"	B		S146B
0 to 100	0.2 to 0.8	100	125	Welded 316L SS	1/2"	B		S156B
0 to 200	0.3 to 2	200	200	Welded 316L SS	1/2"	B		S164B

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Over Range Pressure:** The maximum pressure that may be applied continuously without causing damage and maintaining setpoint repeatability

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Large 0.72" orifice can be used to provide clean-out

[2] Alternate wetted materials available

[3] Model not available on types J400 and J403; actual deadband shown, do not double - switch separation a maximum of 30-50% of range

[4] Switch separation of 30% maximum for dual and triple switch units

Type J400-403

Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psi) unless noted	Deadband** (psi) unless noted	Over Range*** (psi) unless noted	Proof**** (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
0 to 200	1.5 to 8	200	250	Welded 316L SS	1/4"	C	358
0 to 300	2 to 9	300	350	Welded 316L SS	1/4"	C	361
0 to 500	3 to 12	500	575	Welded 316L SS	1/4"	C	376
100 to 1,000	30 to 150	6,000	10,000	303 SS; Buna-N ^[1]	1/4"	G	610
200 to 3,000	40 to 250	6,000	10,000	303 SS; Buna-N ^[1]	1/4"	G	612
500 to 6,000	50 to 400	6,000	10,000	303 SS; Buna-N ^[1]	1/4"	G	614
30 "Hg Vac to 0	0.2" to 0.9 "Hg	3	5	Brass; Ni pl. Brass; Zinc pl. Steel	1/4"	A	126
30 "Hg Vac to 20 psi	0.2" to 1.2 "Hg	20	25	Brass; Ni pl. Brass; Zinc pl. Steel	1/4"	A	134
0 to 80 "wc	2 to 6 "wc	3	5	Brass; Ni pl. Brass	1/4"	A	137
0 to 20	0.1 to 0.5	20	25	Brass; Ni pl. Brass	1/4"	A	144
0 to 30	0.1 to 0.6	30	40	Brass; Ni pl. Brass	1/4"	A	146
0 to 100	0.2 to 0.8	100	125	Brass; Ni pl. Brass	1/4"	A	156
0 to 200	0.3 to 2	200	200	Brass; Ni pl. Brass	1/4"	A	164
0 to 200	1.5 to 8	200	250	Phosphor Bronze; Ni pl. Brass	1/4"	C	270
0 to 300	2 to 10	300	350	Phosphor Bronze; Ni pl. Brass	1/4"	C	274

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Over Range Pressure:** The maximum pressure that may be applied continuously without causing damage and maintaining setpoint repeatability

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Not recommended for gas service since drying of the O-Ring seal can allow bleeding of medium into the atmosphere

Type J400-403

Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psi) unless noted	Deadband** (psi) unless noted	Over Range*** (psi) unless noted	Proof**** (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
0 to 2 "wc	0.07 to 0.25 "wc	3	225	Buna-N; Aluminum	1/4"	D	440 ^[1]
0 to 10 "wc	0.15 to 0.4 "wc	3	225	Buna-N; Aluminum	1/4"	D	441 ^[2]
0 to 20 "wc	0.2 to 0.6 "wc	3	225	Buna-N; Aluminum	1/4"	D	442
0 to 80 "wc	0.5 to 2 "wc	3	225	Buna-N; Aluminum	1/4"	D	443
80 "wc Vac to 0	1 to 3 "wc	3	225	Buna-N; Aluminum; Stainless Steel	1/4"	D	448
0 to 20 "wc	1 to 2 "wc	3	225	Buna-N; Aluminum	1/4"	D	449 ^[2]
30 "Hg Vac to 0	0.1 to 0.4 "Hg	3	225	Buna-N; Aluminum; Stainless Steel	1/4"	D	450
0 to 80 "wc	1 to 3 "wc	3	225	Buna-N; Aluminum	1/4"	D	451
30 "Hg Vac to 20 psi	0.2 to 1 "Hg	20	225	Buna-N; Aluminum; Stainless Steel	1/4"	D	452
0 to 20	0.05 to 0.2	20	225	Buna-N; Aluminum	1/4"	D	453
0 to 30	0.05 to 0.3	30	225	Buna-N; Aluminum	1/4"	D	454
30 "Hg Vac to 0	0.1 to 0.6 "Hg	3	225	Teflon®; Viton; 316L SS	1/4"	D	550
0 to 80 "wc	1.5 to 3.5 "wc	3	225	Teflon; Viton; 316L SS	1/4"	D	551
30 "Hg Vac to 20 psi	0.2 to 1 "Hg	20	225	Teflon; Viton; 316L SS	1/4"	D	552
0 to 20	0.05 to 0.3	20	225	Teflon; Viton; 316L SS	1/4"	D	553
0 to 30	0.1 to 0.4	30	225	Teflon; Viton; 316L SS	1/4"	D	554
0 to 100	0.25 to 0.75	100	225	Teflon; Viton; 316L SS	1/4"	D	555

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Over Range Pressure:** The maximum pressure that may be applied continuously without causing damage and maintaining setpoint repeatability

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage.

The unit may require calibration (e.g. start-up, testing)

[1] Model not available on types J402 and J403

[2] Model not available on type J403

Type H400-403

Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psi) unless noted	Deadband** (psi) unless noted	Proof*** (psi) unless noted	Scale Division (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
30 "Hg Vac to 0	0.2 to 0.9 "Hg	5	2 "Hg	Welded 316L SS	1/2"	B	S126B
30 "Hg Vac to 20 psi	0.2 to 1.2 "Hg	25	2 "Hg & 2 psi	Welded 316L SS	1/2"	B	S134B
0 to 80 "wc	2 to 6 "wc	5	5 "wc	Welded 316L SS	1/2"	B	S137B ^[1]
0 to 20	0.1 to 0.5	25	1	Welded 316L SS	1/2"	B	S144B
0 to 30	0.1 to 0.6	40	1	Welded 316L SS	1/2"	B	S146B
0 to 100	0.2 to 0.8	125	5	Welded 316L SS	1/2"	B	S156B
0 to 200	0.3 to 2	200	10	Welded 316L SS	1/2"	B	S164B
0 to 200	1.5 to 8	250	10	Welded 316L SS	1/4"	C	358
0 to 300	2 to 9	350	10	Welded 316L SS	1/4"	C	361
0 to 500	3 to 12	575	20	Welded 316L SS	1/4"	C	376
30 "Hg Vac to 0	0.2 to 0.9 "Hg	5	2 "Hg	Brass; Ni pl. Brass; Zinc pl. Steel	1/4"	A	126
30 "Hg Vac to 20 psi	0.2 to 1.2 "Hg	25	2 "Hg & 2 psi	Brass; Ni pl. Brass; Zinc pl. Steel	1/4"	A	134
0 to 80 "wc	2 to 6 "wc	5	5 "wc	Brass; Ni pl. Brass	1/4"	A	137 ^[1]
0 to 20	0.1 to 0.5	25	1	Brass; Ni pl. Brass	1/4"	A	144
0 to 30	0.1 to 0.6	40	1	Brass; Ni pl. Brass	1/4"	A	146
0 to 100	0.2 to 0.8	125	5	Brass; Ni pl. Brass	1/4"	A	156
0 to 200	0.3 to 2	200	10	Brass; Ni pl. Brass	1/4"	A	164
0 to 200	1.5 to 8	250	10	Phosphor Bronze; Ni pl. Brass	1/4"	C	270 ^[2]
0 to 300	2 to 10	350	10	Phosphor Bronze; Ni pl. Brass	1/4"	C	274 ^[2]
0 to 10 "wc	0.15 to 0.4 "wc	225	0.5 "wc	Buna-N; Aluminum	1/4"	D	441 ^[1]
0 to 20 "wc	0.2 to 0.6 "wc	225	1 "wc	Buna-N; Aluminum	1/4"	D	442 ^[1]
0 to 80 "wc	0.5 to 2 "wc	225	5 "wc	Buna-N; Aluminum	1/4"	D	443 ^[1]
80 "wc Vac to 0	1 to 3 "wc	225	5 "wc	Buna-N; Aluminum; Stainless Steel	1/4"	D	448 ^[1]
30 "Hg Vac to 0	0.1 to 0.4 "Hg	225	2 "Hg	Buna-N; Aluminum; Stainless Steel	1/4"	D	450 ^[2]
30 "Hg Vac to 20 psi	0.1 to 1 "Hg	225	2 "Hg & 2 psi	Buna-N; Aluminum; Stainless Steel	1/4"	D	452 ^[2]
0 to 20	0.05 to 0.2	225	1	Buna-N; Aluminum	1/4"	D	453 ^[2]
0 to 30	0.05 to 0.3	225	1	Buna-N; Aluminum	1/4"	D	454 ^[2]

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Model not available on types H402 and J403

[2] Model not available on type H403

Type H400-403

Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psi) unless noted	Deadband** (psi) unless noted	Proof*** (psi) unless noted	Scale Division (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
30 "Hg Vac to 0	0.1 to 0.6 "Hg	225	2 "Hg	Teflon; Viton; 316L SS	1/4"	D	550 ^[1]
30 "Hg Vac to 20 psi	0.2 to 1 "Hg	225	2 "Hg & 2 psi	Teflon; Viton; 316L SS	1/4"	D	552 ^[1]
0 to 20	0.05 to 0.3	225	1	Teflon; Viton; 316L SS	1/4"	D	553 ^[1]
0 to 30	0.1 to 0.4	225	1	Teflon; Viton; 316L SS	1/4"	D	554 ^[1]
0 to 100	0.25 to 0.75	225	5	Teflon; Viton; 316L SS	1/4"	D	555 ^[1]

*Low end of range on fall; high end of range on rise

** Doubles for 2 and 3 switch types

*****Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Model not available on type H403

Type J400K/J402K

Differential Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psid) unless noted	Deadband** (psi) unless noted	Working Pressure*** (psi) unless noted	Proof**** (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
3 to 30	0.5 to 2	30 "Hg Vac to 100	300	Welded 316L SS	1/2"	DC	S147B
10 to 100	0.5 to 3	30 "Hg Vac to 180	300	Welded 316L SS	1/2"	DC	S157B
3 to 30	0.5 to 2	30 "Hg Vac to 100	180	Brass; Ni pl. Brass	1/4"	DA	147
10 to 100	0.5 to 3	30 "Hg Vac to 150	180	Brass; Ni pl. Brass	1/4"	DA	157
5 to 80 "wcd	1 to 4 "wc	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	455
2 to 20	0.1 to 0.3	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	456
3 to 30	0.1 to 0.4	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	457

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Working Pressure:** The pressure range within which two opposing sensors can be safely operated and still maintain setpoint adjustability. Differential Pressure must be within the Adjustable Setpoint Range.

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Model not available on type J402K

Type J400K/J402K

Differential Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psid) unless noted	Deadband** (psi) unless noted	Working Pressure*** (psi) unless noted	Proof**** (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
1 to 7 "wcd	0.1 to 0.5 "wc	30 "Hg Vac to 200	400	Buna-N; Epoxy coated Aluminum	1/8"	DD	540 ^[1]
2 to 20 "wcd	0.5 to 2 "wc	30 "Hg Vac to 200	400	Buna-N; Epoxy coated Aluminum	1/8"	DD	541 ^[1]
5 to 50 "wcd	0.5 to 5 "wc	30 "Hg Vac to 200	400	Buna-N; Epoxy coated Aluminum	1/8"	DD	542 ^[1]
15 to 100 "wcd	0.5 to 7 "wc	30 "Hg Vac to 200	400	Buna-N; Epoxy coated Aluminum	1/8"	DD	543 ^[1]
2 to 20	1 to 2.5	30 "Hg Vac to 1200	2500	Buna-N; Epoxy coated Aluminum	1/8"	DE	544 ^[1]
5 to 50	1 to 3	30 "Hg Vac to 1200	2500	Buna-N; Epoxy coated Aluminum	1/8"	DE	545 ^[1]
10 to 100	1 to 5	30 "Hg Vac to 1200	2500	Buna-N; Epoxy coated Aluminum	1/8"	DE	546 ^[1]
20 to 200	1 to 7	30 "Hg Vac to 1200	2500	Buna-N; Epoxy coated Aluminum	1/8"	DE	547 ^[1]
10 to 100	0.2 to 1	30 "Hg Vac to 225	225	Teflon; Buna-N; Aluminum	1/4"	DB	559

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Working Pressure:** The pressure range within which two opposing sensors can be safely operated and still maintain setpoint adjustability. Differential Pressure must be within the Adjustable Setpoint Range.

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

[1] Model not available on type J400K

Type H400K/H402K

Differential Pressure Models

PRESSURE				PROCESS CONNECTION			Model
Adjustable Setpoint* (psid) unless noted	Deadband** (psi) unless noted	Working Pressure*** (psi) unless noted	Proof**** (psi) unless noted	Wetted Material	Thread NPT (F)	Sensor Style	
5 to 80 "wcd	1 to 4 "wc	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	455
2 to 20	0.1 to 0.3	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	456
3 to 30	0.1 to 0.4	30 "Hg Vac to 225	225	Buna-N; Aluminum	1/4"	DB	457
10 to 100	0.2 to 1	30 "Hg Vac to 225	225	Teflon; Buna-N; Aluminum	1/4"	DB	559

*Low end of range on fall; high end of range on rise

**May increase up to 2X on 402 and 403 switch types

*****Working Pressure:** The pressure range within which two opposing sensors can be safely operated and still maintain setpoint adjustability. Differential Pressure must be within the Adjustable Setpoint Range.

******Proof Pressure:** The maximum pressure to which a pressure sensor may be subjected, which causes no permanent damage. The unit may require calibration (e.g. start-up, testing)

Type B400-403 & C400-403

TEMPERATURE			Material ^[2]	STEM Size ^[3] (Diameter x Length)	Sensor Style ^[4]	Model
Adjustable Setpoint (°F)	Max (°F)	Scale Div. ^[1] (°F)				
0 to 225	275	5	Ni pl. Brass	9/16" x 1-7/8"	TA	120
200 to 425	475	5	Ni pl. Brass	9/16" x 1-7/8"	TA	121

Type E400-403

TEMPERATURE			Material ^[2]	BULB Size (Diameter x Length)	Sensor Style ^[4]	Model
Adjustable Setpoint (°F)	Max (°F)	Scale Div. ^[1] (°F)				
-120 to 100	150	10	304SS	3/8 x 2-5/8"	TB	2BSA
30 to 250	300	10	304SS	3/8 x 2-5/8"	TB	2BSB
100 to 400	450	10	304SS	3/8 x 2-1/8"	TB	3BS
25 to 100	150	5	304SS	3/8 x 6-3/4"	TB	4BS
-20 to 80	130	5	304SS	3/8 x 5"	TB	5BS
350 to 640	690	10	304SS	3/8 x 3-1/4"	TB	8BS

Type F400-403

TEMPERATURE			Material ^[2]	BULB Size (Diameter x Length)	Sensor Style ^[4]	Model
Adjustable Setpoint (°F)	Max (°F)	Scale Div. ^[1] (°F)				
-125 to 350	400	N/A	304SS	3/8 x 2-5/8"	TB	2BS
-125 to 500	550	N/A	304SS	3/8 x 2-1/8"	TB	3BS
-40 to 120	170	N/A	304SS	3/8 x 6-3/4"	TB	4BS
-40 to 180	230	N/A	304SS	3/8 x 5"	TB	5BS
0 to 250	300	N/A	304SS	3/8 x 4-1/2"	TB	6BS
0 to 400	450	N/A	304SS	3/8 x 3"	TB	7BS
50 to 650	700	N/A	304SS	3/8 x 3-1/4"	TB	8BS

[1] Only applies to types B400, B402, B403, E400, E402, and E403

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

[3] Optional immersion stem length available for B400-403 & C400-403. Consult UE.

[4] Excluding B400-B403, standard capillary length is 6ft ±1". Optional capillary lengths available. Optional capillary length tolerance is ± 1" per every 10' in length. Consult UE.

Pressure Options

J400 & J400K

Option	Description	J400 Models										J400K Models			
		126 - 274	358 - 376	440 - 443	448	449	450 - 454	550 - 555	570 - 572	610 - 614	S126B - S164B	147 - 157	455 - 457	559	S147B - S157B
Switch options															
0140	1A Gold Contact	•	•		•	•	•	•	•	•	•	•	•	•	•
0500 ^[1]	5A low Deadband	•	•		•	•	•	•	•	•	•	•	•	•	•
1010 ^[1]	10A 125/250VAC DPDT	•	•				•	•		•	•	•	•	•	•
1070 ^[1]	10A 125VDC	•	•		•	•	•	•		•	•	•	•	•	•
1520 ^[1]	15A 125/250/277VAC Adjustable deadband	•	•		•	•	•	•			•	•	•	•	•
1530 ^[1]	15A 125/250/480VAC External manual reset	•	•		•	•	•	•		•	•	•	•	•	•
1535 ^[1]	15A 125/250/480VAC High ambient; temperatures up to 250 °F/145 °C	•	•		•	•	•	•	•	•	•	•	•	•	•
2000 ^[1]	20A 125/250/480VAC	•	•		•	•	•	•		•	•	•	•	•	•
Miscellaneous options															
M020	Single red light, 115VAC only	•	•		•		•	•	•	•	•				
M201 ^[2]	Factory setting	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M202 ^[2]	Factory setting														
M203 ^[2]	Factory setting														
M210	Differential pressure indication											•			•
M277	Range in kPa/MPa	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M278	Range in kg/cm²	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M319 ^[3]	Diaphragm seal														
M391	INMETRO Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M405	ATEX and IECEx Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M406	EAC-Ex Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M408	CCC/NEPSI Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M438	EN 10204 type 2.1 Declaration of Material Compliance	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M439	EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M444	Paper ID tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M446	Stainless steel tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M449	Mounting bracket														
M462	UKCA Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M463	UAE (ECAS) Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M540	Viton diaphragm and/or O-ring. Standard pressure connection. ^[3]				•	•	•			•			•		
M550	O ₂ service cleaning ^{[4][5]}	•	•		•	•	•	•	•	•	•	•			•
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M913	1/4" NPT (female) stainless steel pressure connection										•				
M914	1/2" NPT (female) stainless steel pressure connection		•												

• Available

[1] Deadbands will decrease or increase with these switch options. Consult UE.

[2] Factory setpoint requires the setpoint, units, and rise or fall setting to be specified at the time of order. Selection of switch options may require additional information, consult UE.

[3] Consult UE.

[4] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[5] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Pressure Options

J402 & J402K

Option	Description	J402 Models										J402K Models					
		126 - 274	358 - 376	441 - 443	448	449	450 - 454	520 - 535	550 - 555	570 - 572	610 - 614	S126B - S164B	147 - 157	455 - 457	540 - 547	559	S147B - S157B
Switch options																	
0140	1A Gold Contact	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•
0500 ^[1]	5A low Deadband	•	•		•	•	•	•	•	•	•	•	•	•		•	•
1010 ^[1]	10A 125/250VAC DPDT	•	•				•		•		•	•	•	•		•	•
1070 ^[1]	10A 125VDC	•	•				•		•		•	•	•	•		•	•
1520 ^[1]	15A 125/250/277VAC Adjustable deadband	•	•		•	•	•		•		•	•	•	•		•	•
1530 ^[1]	15A 125/250/480VAC External manual reset	•	•		•	•	•		•		•	•	•	•	•	•	•
1535 ^[1]	15A 125/250/480VAC High ambient; temperatures up to 250 °F/145 °C	•	•		•	•	•		•	•	•	•	•	•	•	•	•
2000 ^[1]	20A 125/250/480VAC	•	•		•	•	•		•		•	•	•	•		•	•
Miscellaneous options																	
M020	Single red light, 115VAC only	•	•		•		•	•	•	•	•	•					
M201 ^[2]	Factory setting																
M202 ^[2]	Factory setting	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M203 ^[2]	Factory setting																
M210	Differential pressure indication												•				•
M277	Range in kPa/MPa	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M278	Range in kg/cm²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M319 ^[3]	Diaphragm seal																
M391	INMETRO Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M405	ATEX and IECEx Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M406	EAC-Ex Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M408	CCC/NEPSI Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M438	EN 10204 type 2.1 Declaration of Material Compliance	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M439	EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M444	Paper ID tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M446	Stainless steel tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M449	Mounting bracket							•							•		
M462	UKCA Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M463	UAE (ECAS) Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M540	Viton diaphragm and/or O-ring. Standard pressure connection. ^[3]				•	•	•				•			•	•		
M550	O ₂ service cleaning ^{[4][5]}	•	•		•	•	•	•	•	•	•	•	•		•		•
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
M913	1/4" NPT (female) stainless steel pressure connection											•					
M914	1/2" NPT (female) stainless steel pressure connection		•														
M921	1/4" NPT (female) brass presure connection										•						

• Available

[1] Deadbands will decrease or increase with these switch options.

[2] Factory setpoint requires the setpoint, units, and rise or fall setting to be specified at the time of order. Selection of switch options may require additional information, consult UE.

[3] Consult UE.

[4] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[5] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Pressure Options

J403

Option	Description	J403 Models								
		126 - 274	358 - 376	442 - 443	448	450 - 454	550 - 555	570 - 572	610 - 614	S126B - S164B
Switch options										
0140	1A Gold Contact	•	•		•	•	•	•	•	•
0500 ^[1]	5A low Deadband	•	•		•	•	•	•	•	•
1010 ^[1]	10A 125/250VAC DPDT									
1070 ^[1]	10A 125VDC	•	•			•	•		•	•
1520 ^[1]	15A 125/250/277VAC Adjustable deadband	•	•		•	•	•	•	•	•
1530 ^[1]	15A 125/250/480VAC External manual reset									
1535 ^[1]	15A 125/250/480VAC High ambient; temperatures up to 250 °F/145 °C	•	•		•	•	•	•	•	•
2000 ^[1]	20A 125/250/480VAC	•	•		•	•	•		•	•
Miscellaneous options										
M020	Single red light, 115VAC only	•	•		•	•	•	•	•	•
M201 ^[2]	Factory setting									
M202 ^[2]	Factory setting									
M203 ^[2]	Factory setting	•	•	•	•	•	•	•	•	•
M210	Differential pressure indication									
M277	Range in kPa/MPa	•	•	•	•	•	•	•	•	•
M278	Range in kg/cm²	•	•	•	•	•	•	•	•	•
M319 ^[3]	Diaphragm seal									
M391	INMETRO Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M405	ATEX and IECEx Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M406	EAC-Ex Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M408	CCC/NEPSI Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M438	EN 10204 type 2.1 Declaration of Material Compliance	•	•	•	•	•	•	•	•	•
M439	EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications	•	•	•	•	•	•	•	•	•
M444	Paper ID tag	•	•	•	•	•	•	•	•	•
M446	Stainless steel tag	•	•	•	•	•	•	•	•	•
M449	Mounting bracket									
M462	UKCA Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M463	UAE (ECAS) Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•
M540	Viton diaphragm and/or O-ring. Standard pressure connection. ^[4]				•	•			•	
M550	O ₂ service cleaning ^{[4][5]}	•	•		•	•	•	•	•	•
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting	•	•	•	•	•	•	•	•	•
M913	1/4" NPT (female) stainless steel pressure connection									•
M914	1/2" NPT (female) stainless steel pressure connection		•							
M921	1/4" NPT (female) brass presure connection									

• Available

[1] Deadbands will decrease or increase with these switch options.

[2] Factory setpoint requires the setpoint, units, and rise or fall setting to be specified at the time of order. Selection of switch options may require additional information, consult UE.

[3] Consult UE.

[4] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[5] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Pressure Options

H400 / H402 & H402K / H402K

Option	Description	PRESSURE										DIFFERENTIAL PRESSURE								
		H400 Models					H402 Models					H400K models		H402K models						
		126 - 164	358 - 376	441 - 443	448	450 - 454	550 - 555	S126B - S164B	126 - 274	358 - 376	443	450 - 454	550 - 555	S126B - S164B	455	456 - 457	559	455	456 - 457	559
Switch options																				
0140	1A Gold Contact	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
0500 ^[1]	5A low Deadband	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
1010 ^[1]	10A 125/250VAC DPDT	●	●			●	●	●	●	●		●	●	●	●	●	●	●	●	●
1070 ^[1]	10A 125VDC	●	●			●	●	●	●	●		●	●	●	●	●	●	●	●	●
1530 ^[1]	15A 125/250/480VAC External manual reset	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
1535 ^[1]	15A 125/250/480VAC High ambient; temperatures up to 250 °F/145 °C	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
2000 ^[1]	20A 125/250/480VAC	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
Miscellaneous options																				
M020	Single red light, 115VAC only	●	●		●	●	●	●	●	●		●	●	●						
M201 ^[2]	Factory setting	●	●	●	●	●	●	●							●	●	●			
M202 ^[2]	Factory setting								●	●	●	●	●	●				●	●	●
M203 ^[2]	Factory setting																			
M277	Range in kPa/MPa	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M278	Range in kg/cm²	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M319 ^[3]	Diaphragm seal																			
M391	INMETRO Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M405	ATEX and IECEx Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M406	EAC-Ex Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M408	CCC/NEPSI Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M438	EN 10204 type 2.1 Declaration of Material Compliance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M439	EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M444	Paper ID tag	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M446	Stainless steel tag	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M462	UKCA Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M463	UAE (ECAS) Certification for Intrinsic Safety	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M540	Viton diaphragm and/or O-ring. Standard pressure connection. ^[4]				●	●						●				●			●	
M550	O ₂ service cleaning ^{[4][5]}	●	●		●	●	●	●	●	●		●	●	●						
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M913	1/4" NPT (female) stainless steel pressure connection							●						●						
M914	1/2" NPT (female) stainless steel pressure connection		●							●										

• Available

[1] Deadbands will decrease or increase with these switch options.

[2] Factory setpoint requires the setpoint, units, and rise or fall setting to be specified at the time of order. Selection of switch options may require additional information, consult UE.

[3] Consult UE.

[4] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[5] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Pressure Options

H403

Option		Description	H403 Models		
			126 - 164	358 - 376	S126B - S164B
Switch options					
0140	1A Gold Contact		•	•	•
0500 ^[1]	5A low Deadband		•	•	•
1010 ^[1]	10A 125/250VAC DPDT				
1070 ^[1]	10A 125VDC		•	•	•
1530 ^[1]	15A 125/250/480VAC External manual reset				
1535 ^[1]	15A 125/250/480VAC High ambient; temperatures up to 250 °F/145 °C		•	•	•
2000 ^[1]	20A 125/250/480VAC		•	•	•
Miscellaneous options					
M020	Single red light, 115VAC only		•	•	•
M201 ^[2]	Factory setting				
M202 ^[2]	Factory setting				
M203 ^[2]	Factory setting		•	•	•
M277	Range in kPa/MPa		•	•	•
M278	Range in kg/cm ²		•	•	•
M319 ^[3]	Diaphragm seal				
M391	INMETRO Certification for Intrinsic Safety		•	•	•
M405	ATEX and IECEx Certification for Intrinsic Safety		•	•	•
M406	EAC-Ex Certification for Intrinsic Safety		•	•	•
M408	CCC/NEPSI Certification for Intrinsic Safety		•	•	•
M438	EN 10204 type 2.1 Declaration of Material Compliance		•	•	•
M439	EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications		•	•	•
M444	Paper ID tag		•	•	•
M446	Stainless steel tag		•	•	•
M462	UKCA Certification for Intrinsic Safety		•	•	•
M463	UAE (ECAS) Certification for Intrinsic Safety		•	•	•
M540	Viton diaphragm and/or O-ring. Standard pressure connection. ^[4]				
M550	O ₂ service cleaning ^{[4][5]}		•	•	•
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting		•	•	•
M913	1/4" NPT (female) stainless steel pressure connection				•
M914	1/2" NPT (female) stainless steel pressure connection			•	

• Available

[1] Deadbands will decrease or increase with these switch options.

[2] Factory setpoint requires the setpoint, units, and rise or fall setting to be specified at the time of order. Selection of switch options may require additional information, consult UE.

[3] Consult UE.

[4] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[5] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Temperature Options

B, C, E and F temperature model options

		B400	B402	B403	C400	C402	C403	E400				E402			E403			F400			F402			F403										
Option	Description	120 - 121	120 - 121	120 - 121	120 - 121	120 - 121	120 - 121	2BSA - 2BSB	3BS	4BS - 5BS	8BS	2BSA - 2BSB	3BS	4BS - 5BS	8BS	2BSA - 2BSB	3BS	4BS - 5BS	8BS	2BS	3BS	4BS - 5BS	8BS	2BS	3BS	4BS - 5BS	8BS	2BS	3BS	4BS - 5BS	8BS			
Switch options																																		
0140	1A Gold Contact	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
0500 ^[1]	5A low Deadband	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
1070 ^[1]	10A 125VDC				•	•	•													•	•	•	•	•	•	•	•	•	•	•	•			
1520 ^[1]	15A 125/250/277VAC Adjustable deadband				•	•	•													•	•	•	•	•	•	•	•	•	•	•	•			
1530 ^[1]	15A 125/250/480VAC External manual reset	•	•		•	•		•	•	•	•	•	•	•	•					•	•	•	•	•	•	•	•	•						
1535 ^[1]	15A 125/250/480VAC High ambient up to 250 °F/121 °C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
2000 ^[1]	20A 125/250/480VAC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Miscellaneous options																																		
M020	Single red light, 115VAC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
M201 ^[2]	Factory setting	•			•			•	•	•	•									•	•	•	•											
M202 ^[2]	Factory setting		•			•						•	•	•	•									•	•	•	•							
M203 ^[2]	Factory setting			•			•									•	•	•	•							•	•	•	•		•	•	•	•
M391	INMETRO Certification for Intrinsic Safety	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M405	ATEX and IECEx Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M406	EAC-Ex Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M408	CCC/NEPSI Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M444	Paper ID tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M446	Stainless steel tag	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M462	UKCA Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M463	UAE (ECAS) Certification for Intrinsic Safety	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M504	316L SS Immersion Stem	•	•	•	•	•	•																											
M550	O ₂ service cleaning ^{[3][4]}	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M900	Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

• Available

[1] Deadband will increase or decrease with these switch options. Consult UE.

[2] Adjustable deadband switches are shipped with the minimum deadband setting as default. If M201 factory setpoint option is selected, the desired deadband must be provided with the set-point and if switched on rise or fall.

[3] O-ring changes to Viton, diaphragm material may change to Viton or Teflon, and pressure connection may change to 316 SS depending on model. Deadband and low end of range may increase, ambient temperature limits may be affected.

[4] O₂ cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

Temperature Options

B, C, E and F temperature model options

				Local Stem Models ^[1]		Bulb and Capillary Models ^[2]							
				120	121	2BS, 2BSA, 2BSB	3BS	4BS	5BS	6BS	7BS	8BS	
Option	Replacement Part #	Material	Description										
Union Connectors for bulb & capillary models													
W027	SD6213-27	Brass	1/2" NPT W/3/4" bushing			●	●	●	●	●	●	●	
W028	SD6213-28	304 SS	1/2" NPT W/3/4" bushing			●	●	●	●	●	●	●	
W045	SD6213-45	Brass	3/4" NPT			●	●	●	●	●	●	●	
W046	SD6213-46	304 SS	3/4" NPT			●	●	●	●	●	●	●	
W050	SD6213-50	304 SS	1/2" NPT			●	●	●	●	●	●	●	
W051	SD6213-51	Brass	1/2" NPT			●	●	●	●	●	●	●	
Thermowells for bulb & capillary models													
W075	SD6225-75	Brass	4" BT, 1/2" NPT with 3/4" NPT adapter bushing			●	●				●	●	
W076	SD6225-76	316 SS	4.5" BT, 3/4" NPT			●	●			●	●	●	
W118	SD6225-118	Brass	7" BT, 1/2" NPT with 3/4" NPT adapter bushing			●	●	●	●	●	●	●	
W119	SD6225-119	316 SS	7.5" BT, 3/4" NPT			●	●	●	●	●	●	●	
W177	SD6225-177	316 SS	7.5" BT, 1/2" NPT			●	●	●	●	●	●	●	
W191	SD6225-191	Brass	4" BT, 1/2" NPT			●	●				●	●	
W192	SD6225-192	Brass	7" BT, 1/2" NPT			●	●	●	●	●	●	●	
W193	SD6225-193	316 SS	4.5" BT, 1/2" NPT			●	●				●	●	
Thermowells for all immersion stem models ^[3]													
W000 ^[4]		Brass	No thread	●	●								
W097	SD6225-97	Brass	1/2" NPT x 1-23/32" Below Thread	●	●								
W099	SD6225-99	316 SS	1/2" NPT x 1-23/32" Below Thread	●	●								
W139	SD6225-139	Brass	3/4" NPT x 1-23/32" Below Thread	●	●								
W140	SD6225-140	316 SS	3/4" NPT x 1-23/32" Below Thread	●	●								

• Available

[1] Optional stem length and thermowells available. Consult UE.

[2] Optional capillary length, capillary protection, and thermowells available. Optional capillary length to *50' may be available in Copper or 304 ST/ST. Armor or Teflon capillary protection may be available to lengths less than or equal to capillary length. Consult UE.

[3] Optional immersion stem lengths to 15" may be available in Brass, with or without 316 ST/ST thermowell. Consult UE.

[4] Option W000 is a special immersion stem construction that has no external thread. This option may be used with the following UE thermowells W097/W099 or customer supplied thermowell. It is secured with a set-screw.

Sensors

Pressure sensors

A



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

Models: 126-164

B



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

Models: S126B-S164B

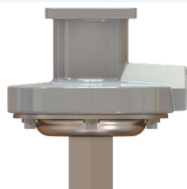
C



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

Models: 270-376

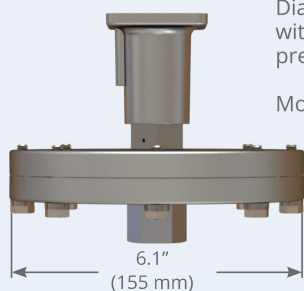
D



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

Models: 440-454, 550-
555, 570-572

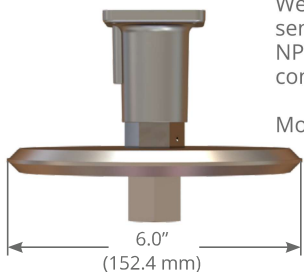
E



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

Models: 520-525

F



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

Models: 530-535

G



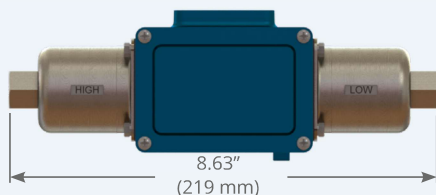
Piston sensor with
1/4" NPT (F) pressure
connection

Models: 610-614

Sensors

Differential pressure sensors

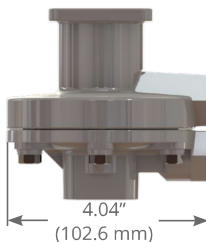
DA



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

Models: 147-157

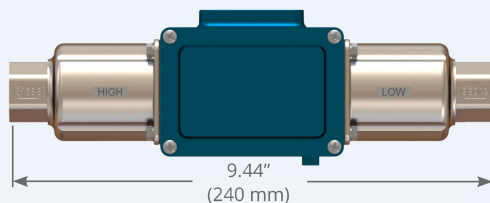
DB



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

Models: 455-457, 559

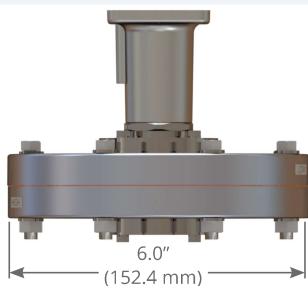
DC



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

Models: S147B-S157B

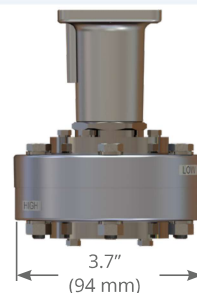
DD



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

Models: 540-543

DE



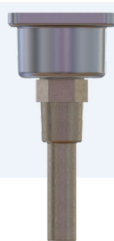
Diaphragm sensor with 1/8" NPT (F) pressure connection

Models: 544-547

Sensors

Temperature sensors

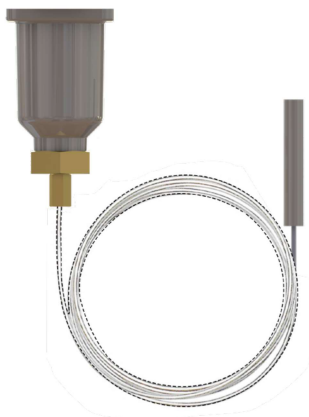
TA



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

Models: 120-121

TB



Bulb and capillary
for remote
installations

Models: 2BS-8BS

Dimensional Drawings

Internal Setpoint Adjustment

Types J400, J402, J403, J400K, J402K

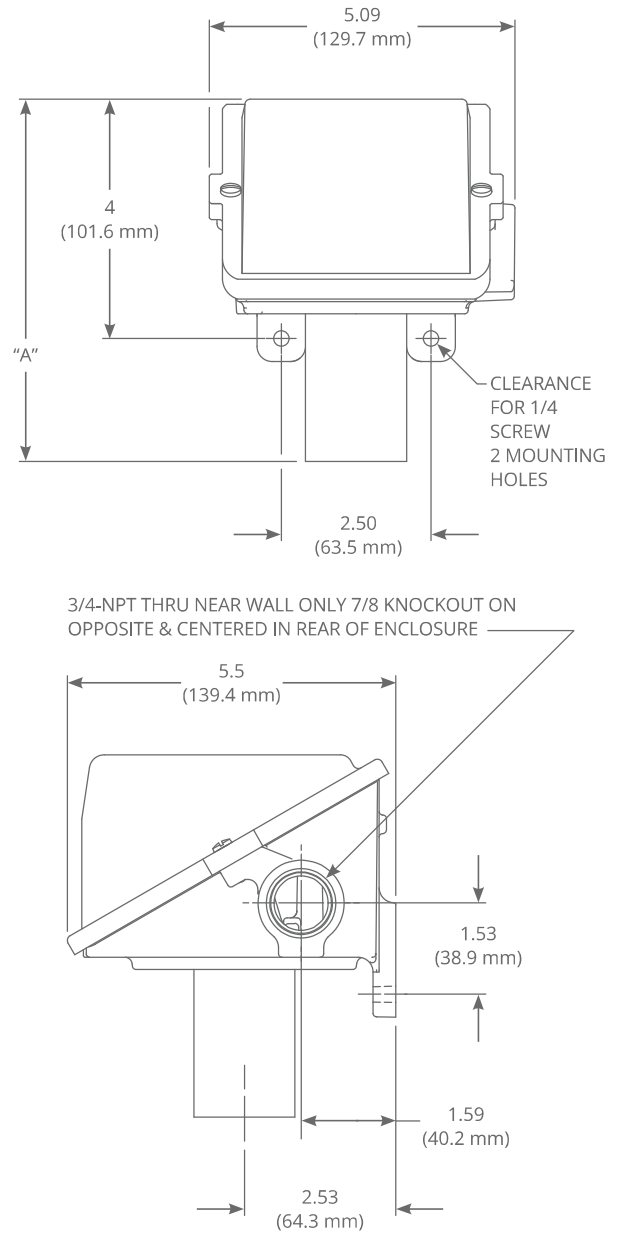
C400, C402, C403, F400, F402, F403

Setpoint Adjustment via Reference Dial

Types H400, H402, H403, H400K, H402K

B400, B402, B403, E400, E402, E403

Dimension A			
Models	Inches	mm	NPT
Pressure			
126-164	5.91	150.0	1/4
S126B-S164B	6.31	160.3	1/2
270-376	5.50	139.7	1/4
440-443, 449, 451, 453, 454	4.28	108.7	1/4
448, 450, 452, 16156	5.03	127.8	1/4
520-525	8.25	209.6	1/2
530-535	8.13	206.5	1/2
551, 553-555	4.56	115.8	1/4
550, 552	5.03	127.8	1/4
570-572	4.56	115.8	1/4
610-614	6.31	160.3	1/4
Differential Pressure			
147-157	6.13	155.7	1/4
S147B-S157B	6.13	155.7	1/2
455-559, 15747	7.00	177.8	1/4
540-543	7.97	202.4	1/8
544-547	8.03	204.0	1/8
Temperature			
120-121	7.38	187.3	Immersion Stem
2BS-8BS	6.72	170.7	Bulb & Capillary



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	UL Listed (400 and 402 Series) UL Recognized (403 Series) UL 508, CSA C22.2 No. 14 (Pressure Models) UL 873, CSA C22.2 No. 24 (Temperature Models)
		FM	FM Approved (All Models) Class 3510 (Pressure Models) Class 3545 (Temperature Models)
 	Europe	ATEX	For intrinsic safety certification only. Must order option M405: DEMKO 11 ATEX 1105261X II 1 G Ex ia IIC T6 Ga -50 °C ≤ Ta ≤ +60 °C Compliant to Pressure Equipment Directive (PED) (2014/68/EU) Compliant to Low Voltage Directive (LVD) (2014/35/EU)
 	International	IECEx	For intrinsic safety certification only. Must order option M405: IECEx UL 14.0075X Ex ia IIC T6 Ga -50 °C ≤ Ta ≤ +60 °C

Regional Certifications

	Country	Option	Classification
	Brazil	M391	Ex ia IIC T6 Gb -50 °C ≤ Ta ≤ +60 °C -Certificate #: UL-BR 15.0169X
	China	M408	Ex ia IIC T6 Gb Ta = -50 °C to +60 °C Certificate #: 2020322304002958
	India	M405	Ex ia IIC T6 Ga Ta = -50 °C to +60 °C Certificate #: P417586/1
	United Kingdom	M462	II 1 G Ex ia IIC T6 Ga Ta = -50 °C to +60 °C Certificate #: UL21UKEX2238X
	Eurasian Economic Union (EAC)	M406	0Ex ia IIC T6 Ga X Ta = -50 °C to +60 °C Certificate #: EA3C KZ.7500361.01.01.10671
	United Arab Emirates (ECAS)	M463	Ex ia IIC T6 Ga -50 °C ≤ Ta ≤ +60 °C Certificate #: 25-09-164495/E25-07-164736
	Taiwan		ITRI available through Taiwanese channel partner. Consult UE.

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