UNITED ELECTRIC CONTROLS

100 Series

Weatherproof pressure, vacuum, differential pressure and temperature switches

METRIC UNITS

United Electric Controls is ISO 9001:2015 certified

RoHS compliant

Table of Content

Glossary of Terms

Adjustable Set Point Range	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 affect 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 affect 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).
Working pressure range	The pressure range in which the differential pressure switch can be safely operated and still maintain set point, provided the difference in pressure between the low and high sides does not exceed the designated adjustable range.

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

Building a Part Number

EXAMPLE: H100-186-0140

Type: Switch type from table below:

Type	
Pressure	
H100	One SPDT output; epoxy coated enclosure; internal adjustment with “High-Low” reference scale
Differential Pressure	
H100K	One SPDT output; epoxy coated enclosure; internal adjustment with “High-Low” reference scale
Temperature	
B100	Immersion stem; one SPDT output; internal adjustment with reference dial
C100	Immersion stem; one SPDT output; internal adjustment with no reference
E100	Bulb and capillary; one SPDT output; internal adjustment with reference dial
F100	Bulb and capillary; one SPDT output; internal adjustment with no reference

Model: Select the range and materials best for your application

Options: Select any of available options for your switch

Specifications

Electrical Ratings without optional switches [1]

	Pressure & temperature	Specials (pressure)	Specials (temperature)
Models	All Standard catalog models	15623, 15731 - 15737, 15884	B100-13546 & E100-13545
Electrical rating	15A @ 125/250/480 VAC Resistive; 2A Res. & 1A Inductive @ 24-30 VDC; 0.5A Res. & 0.03A Inductive @ 125 VDC	20A @ 125/250/480 VAC	22A @ 125/250/480 VAC

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

Set point repeatability (% of full scale)

Temperature	All models	± 1%
Pressure & Differential	Models: 15623, 15731-15737, 171-174, 218, 270-376, 520-535, 540-543, 700-706	± 1%
	Models: 190-194, 183-189, 483-494, 544-548, 565-567, 610-680, 15884	± 1.5%

Temperature Limits

		Ambient [2]	Storage
Model	Models 520-525, 540-548, 700-706, 15731-15737	-17 to 71 °C	-54 to 71 °C
	All others	-40 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.
[2] Option may affect ratings, see option.

Shock	Set point repeats after 15 G, 10 millisecond duration
Vibration	Set point repeats after 2.5 G, 5-500 Hz
Enclosure	Die cast aluminum, epoxy powder coated, gasketed, captive cover screws
Enclosure classification	Certified to enclosure type 4X
Switch Output	One SPDT snap action switch; switch may be wired “normally open” or “normally closed”
Electrical connection	1/2” NPT (female); Two 23 mm diameter knockouts
Temperature Deadband	Type F typically 1% and type B, C, and E typically 2% of range under laboratory conditions (21 °C ambient circulating bath at rate of 0,3 °C per minute change)
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 100 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**

All temperature sensors use non-toxic oil fill.

Approx. Weight (lbs.)

Pressure Models	190-194, 490-494, 188-189, 488-489, 218-230, 270-274, 358-376, 700-706, 680, 15731-15736	0,9 kg
	171-174, 471-474, 565-567, 610-616, 15884, 15623	1,1 kg
	183-186, 483-486	1,6 kg
	520-525, 530-535, 15737	2,7 kg
Differential Pressure Models	540-548	2,7 kg
Local Temperature	B100 & C100	1,1 kg
Remote Temperature	F100 & E100	1,4 kg

H100 Series

Vacuum and Ultra Low Pressure Models (Adjustable Range Vacuum to 0,62 bar)

PRESSURE				PROCESS CONNECTION				
Adjustable Set Point (mbar)	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	Model
-746,7 to 0	0,5 to 19,9	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**520**
-746,7 to 0	0,5 to 37,3	3,4	6,9	316L SS	1/2"	18	F	**530**
-24,9 to 24,9	0,2 to 1,5	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**521**
-24,9 to 24,9	0,2 to 1,5	3,4	6,9	316L SS	1/2"	18	F	**531**
-124,5 to 124,5	0,2 to 7,5	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**522**
-124,5 to 124,5	0,2 to 7,5	3,4	6,9	316L SS	1/2"	18	F	**532**
-124,5 to 124,5	1,2 to 24,9	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**15737**[1]
1,2 to 12,4	0,2 to 0,7	6,9	6,9	Buna-N; Aluminum	1/2"	18	E	**523**
1,2 to 12,4	0,2 to 0,7	3,4	6,9	316L SS	1/2"	16	F	**533**
6,2 to 124,4	0,2 to 2	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**524**
6,2 to 14	0,2 to 2	3,4	6,9	316L SS	1/2"	18	F	**534**
24,9 to 622,1	0,2 to 14,9	6,9	6,9	Buna-N; Aluminum	1/2"	16	E	**525**
24,9 to 622,1	0,2 to 24,9	3,4	6,9	316L SS	1/2"	18	F	**535**
-1 bar to 0	33,9 to 67,7	0,2	2,1	Ph. Bronze; Ni pl. Brass	1/4"	1,5	D	**218**

[1] Models that include adjustable deadband switch.

Pressure Models (up to 6,9 bar)

PRESSURE				PROCESS CONNECTION				
Adjustable Set Point (bar)	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	Model
0,07 to 1,38	21 to 172	34,5	68,9	316 SS; Viton	1/2"	16	B	**183**
0,07 to 1,38	21 to 172	34,5	68,9	316 SS; Viton	1/2"	18	B	**483**
0,07 to 1.38	7 to 69	34,5	68,9	316L SS	1/2"	16	A	**171**
0,1 to 2,07	69 to 138	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	18	H	**701**
0,21 to 2,07	103 to 345	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	16	H	**15731** [1]
0,34 to 2,07	69 to 414	103,4	172,4	316 SS	1/2"	18	C	**190**
0,34 to 2,07	69 to 414	103,4	172,4	316 SS	1/2"	16	C	**490**
0,34 to 2,07	69 to 345	68,9	103,4	316L SS	38 mm sanitary connection		G	**565**
0,14 to 3,45	21 to 207	34,5	68,9	316 SS; Viton	1/2"	16	B	**184**
0,14 to 3,45	21 to 207	34,5	68,9	316 SS; Viton	1/2"	16	B	**484**
0,14 to 3,45	7 to 103	34,5	68,9	316L SS	1/2"	18	A	**172**
0,21 to 6,89	69 to 276	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	16	H	**702**
0,34 to 6,89	207 to 621	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	18	H	**15732** [1]
0,28 to 6,89	34 to 414	34,5	68,9	316 SS; Viton	1/2"	1,5	B	**185**
0,28 to 6,89	34 to 414	34,5	68,9	316 SS; Viton	1/2"	1,5	B	**485**
0,69 to 6,89	69 to 1,03 bar	103,4	172,4	316 SS	1/2"	18	C	**191**
0,69 to 6,89	69 to 1,03 bar	103,4	172,4	316 SS	1/2"	1,5	C	**491**
0,28 to 6,89	7 to 172	34,5	68,9	316L SS	1/2"	18	A	**173**
0,69 to 6,89	69 to 827	68,9	103,4	316L SS	38 mm sanitary connection		G	**566**

[1] Models that include adjustable deadband switch.

H100 Series

Pressure Models (up to 34,5 bar)

PRESSURE				PROCESS CONNECTION				
Adjustable Set Point (bar)	DEADBAND (mbar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	Model
0,55 to 13,8	69 to 758	34,5	68,9	316 SS; Viton	1/2"	18	B	**186**
0,55 to 13,8	69 to 758	34,5	68,9	316 SS; Viton	1/2"	1,5	B	**486**
0,55 to 13,8	7 to 241	34,5	68,9	316L SS	1/2"	1,5	A	**174**
0,28 to 13,8	69 to 552	13,8	17,2	Ph. Bronze; Ni pl. Brass	1/4"	18	D	**270**
1,03 to 13,8	69 to 414	13,8	55,2	316L SS	1/4"	1,5	D	**358**
1,38 to 13,8	827 to 1,79 bar	34,5	68,9	316 SS; Viton	1/4"	2,3	H	**15623**[1]
0,62 to 20,7	69 to 345	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**703**
0,62 to 20,7	276 to 1,1 bar	34,5	41,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**15733**[1]
1,03 to 20,7	69 to 1,72 bar	103,4	172,4	316 SS	1/2"	18	C	**192**
1,03 to 20,7	69 to 1,72 bar	103,4	172,4	316 SS	1/2"	1,5	C	**492**
1,03 to 20,7	207 to 1,52 bar	68,9	103,4	316L SS	38 mm sanitary connection		G	**567**
1,38 to 20,7	69 to 483	20,7	55,2	316L SS	1/4"	2,3	D	**361**
1,03 to 34,5	138 to 552	103,4	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**704**
1,03 to 34,5	552 to 2,14 bar	103,4	172,4	Buna-N; Ni pl. Brass	1/2"	1,5	H	**15734**[1]
1,38 to 34,5	276 to 3,1 bar	103,4	172,4	316 SS	1/2"	18	C	**193**
1,38 to 34,5	276 to 3,1 bar	103,4	172,4	316 SS	1/2"	1,5	C	**493**
0,41 to 20,7	69 to 689	20,7	24,1	Ph. Bronze; Ni pl. Brass	1/4"	1,5	D	**274**
1,72 to 34,5	103 to 552	34,5	55,2	316L SS	1/4"	2,3	D	**376**

[1] Models that include adjustable deadband switch.

Pressure Models (up to 344,7 bar)

PRESSURE				PROCESS CONNECTION				
Adjustable Set Point (bar)	DEADBAND (bar)	Over Range (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	Model
2,07 to 68,9	0,2 to 1,4	103,4	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**705**
2,07 to 68,9	0,6 to 6,2	103,4	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**15735**[1]
3,45 to 68,9	1,7 to 8,6	137,9	482,6	316 SS; Viton	1/2"	12,7	B	**188**
3,45 to 68,9	1,7 to 8,6	137,9	482,6	316 SS; Viton	1/4"	1,5	B	**488**
5,17 to 68,9	2,1 to 10,3	413,7	689,5	303 SS, Buna-N	1/4"	1,5	C	**610**
5,52 to 117,2	0,3 to 10,3	137,9	172,4	316 SS	1/2"	18	C	**194**
5,52 to 117,2	0,3 to 10,3	137,9	172,4	316 SS	1/2"	1,5	C	**494**
6,89 to 117,2	0,7 to 2,1	137,9	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**706**
6,89 to 117,2	1,7 to 6,9	137,9	172,4	Buna-N; Ni pl. Brass	1/4"	1,5	H	**15736**[1]
6,89 to 117,2	0,6 to 2,8	117,2	172,4	316 SS	1/4"	1,5	D	**680**
8,62 to 206,8	2,8 to 17,2	413,7	689,5	303 SS, Buna-N	1/4"	1,5	C	**612**
17,24 to 241,3	3,4 to 20,7	275,8	482,6	316 SS; Viton	1/2"	12,7	B	**189**
17,24 to 241,3	3,4 to 20,7	275,8	482,6	316 SS; Viton	1/2"	1,5	B	**489**
48,26 to 344,7	2,8 to 25,9	413,7	689,5	303 SS, Buna-N	1/4"	1,5	C	**616**
48,26 to 344,7	5,5 to 34,5	413,7	689,5	303 SS, Buna-N	1/4"	1,5	C	**15884**[1]

[1] Models that include adjustable deadband switch.

H100K Series

Low Differential Pressure Models (up to 498 mbar)

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

Medium Differential Pressure Models (up to 34,5 mbar)

PRESSURE				PROCESS CONNECTION				
Adjustable Set Point (bar)	DEADBAND (mbar)	Working Pressure (bar)	Proof (bar)	Wetted Material	Thread NPT (F)	Orifice (mm)	Sensor Style	Model
0,14 to 1,4	6,9 to 89,6	- 1 to 82,7	172,4	Buna-N; Aluminum	1/8"	3	DG	**544**
0,34 to 3,4	13,8 to 151,7	- 1 to 82,7	172,4	Buna-N; Aluminum	1/8"	3	DG	**545**
0,69 to 8,6	27,6 to 344,7	- 1 to 82,7	172,4	Buna-N; Aluminum	1/8"	3	DG	**546**
3,45 to 17,2	55,2 to 689,5	- 1 to 82,7	172,4	Buna-N; Aluminum	1/8"	1,5	DG	**547**
6,89 to 34,5	137,9 to 1034,2	- 1 to 82,7	172,4	Buna-N; Aluminum	1/8"	1,5	DG	**548**

B, C, E & F Series

Type B100, C100

TEMPERATURE				STEM			
Adjustable Set Point (°C)	Max (°C)	Dial Div. [1] (°C)	Deadband @21 °F TYP	Material	Size [2] (Diameter x Length)	Sensor Style	Type & Model
- 17,8 to 107,2	135	5	2%	Ni plated brass	14,3 mm x 48 mm below 1/2" NPT	TA	**120**
- 17,8 to 107,2	135	5	2%	316 SS	14,3 mm x 48 mm below 1/2" NPT	TA	**120 + M504**
93,3 to 218,3	246,1	5	2%	Ni plated brass	14,3 mm x 48 mm below 1/2" NPT	TA	**121**
93,3 to 218,3	246,1	5	2%	316 SS	14,3 mm x 48 mm below 1/2" NPT	TA	**121 + M504**
- 9,4 to 60	71,1	2	2%	304 SS	14,3 mm x 69 mm long	TA	**13546 (B100 only)** [3]

[1] Dial available on B100 only.
[2] Optional immersion stem length available. Consult UE.
[3] Heat tracing

Type E100

TEMPERATURE				BULB			
Adjustable Set Point (°C)	Max (°C)	Dial Div. (°C)	Deadband @21 °C TYP	Material [2]	Size [1] (Diameter x Length)	Sensor Style	Model
84,4 to 37,8	65,6	5	2%	304 SS	9,5 mm dia. x 67 mm long	TB	**2BSA**
84,4 to 37,8	65,6	5	2%	Copper	9,5 mm dia. x 67 mm long	TB	**2BCA**
- 1,1 to 121,1	148,9	5	2%	304 SS	9,5 mm dia. x 54 mm long	TB	**2BSB**
- 1,1 to 121,1	148,9	5	2%	Copper	9,5 mm dia. x 54 mm long	TB	**2BCB**
37,8 to 204,4	232,2	5	2%	304 SS	9,5 mm dia. x 172 mm long	TB	**3BS**
37,8 to 204,4	232,2	5	2%	Copper	9,5 mm dia. x 172 mm long	TB	**3BC**
- 3,9 to 37,8	65,6	1	2%	304 SS	9,5 mm dia. x 127 mm long	TB	**4BS**
- 3,9 to 37,8	65,6	1	2%	Copper	9,5 mm dia. x 127 mm long	TB	**4BC**
-28,9 to 26,7	54,4	2	2%	304 SS	9,5 mm dia. x 115 mm long	TB	**5BS**
-28,9 to 26,7	54,4	2	2%	Copper	9,5 mm dia. x 115 mm long	TB	**5BC**
176,7 to 337,8	365,6	5	2%	304 SS	9,5 mm dia. x 83 mm long	TB	**8BS**
176,7 to 337,8	365,6	5	2%	Copper	9,5 mm dia. x 83 mm long	TB	**8BC**
- 3,9 to 162,8	182,2	5	2%	304 SS	3,2 mm dia. x 296 mm long	TB	**13545** [3]

[1] Standard capillary length is 1,83 m, except model 13545 which is 3,05 m. Optional capillary lengths available. Consult UE.
[2] Optional stainless steel armored or Teflon covered capillary available. Consult UE.
[3] Heat tracing

B, C, E & F Series

Type F100

TEMPERATURE			BULB			Model
Adjustable Set Point (°C)	Max (°C)	Deadband @21 °C TYP	Material	Size [1] (Diameter x Length)	Sensor Style	
- 87,2 to 176,7	204,4	1%	304 SS	9,5 mm dia. x 67 mm long	TB	**2BS**
- 87,2 to 176,7	204,4	1%	Copper	9,5 mm dia. x 67 mm long	TB	**2BC**
- 87,2 to 260	287,8	1%	304 SS	9,5 mm dia. x 67 mm long	TB	**3BS**
- 87,2 to 260	287,8	1%	Copper	9,5 mm dia. x 67 mm long	TB	**3BC**
- 40 to 48,9	76,7	1%	304 SS	9,5 mm dia. x 54 mm long	TB	**4BS**
- 40 to 48,9	76,7	1%	Copper	9,5 mm dia. x 54 mm long	TB	**4BC**
- 40 to 82,2	110	1%	304 SS	9,5 mm dia. x 172 mm long	TB	**5BS**
- 40 to 82,2	110	1%	Copper	9,5 mm dia. x 172 mm long	TB	**5BC**
- 17,8 to 121,1	148,9	1%	304 SS	9,5 mm dia. x 127 mm long	TB	**6BS**
- 17,8 to 121,1	148,9	1%	Copper	9,5 mm dia. x 127 mm long	TB	**6BC**
- 17,8 to 204,4	232,2	1%	304 SS	9,5 mm dia. x 77 mm long	TB	**7BS**
- 17,8 to 204,4	232,2	1%	Copper	9,5 mm dia. x 77 mm long	TB	**7BC**
10 to 343,3	371,1	1%	304 SS	9,5 mm dia. x 83 mm long	TB	**8BS**
10 to 343,3	371,1	1%	Copper	9,5 mm dia. x 83 mm long	TB	**8BC**

[1] Optional capillary lengths available. Consult UE.

Common Options

Option	Description	Models														Temperature Models	
		171-174, 471-474, 190-194, 490-494	183-189, 483-489	218-230	270-274	358-376	520-525	530-535	565-567	610-616	680	700-706	540-548	15623, 15731-15737	15884	All Temp. Models	13545 & 1546
Switch options																	
0140	Gold Contact, 1A 125 VAC resistive	●	●	●	●	●	●	●	●	●	●	●	●			●	
0500	Close deadband, 5A 125/250 VAC resistive	●	●	●	●	●			●	●	●	●					
1010 [2]	DPDT switch, 10A 250 VAC resistive			●	●	●				●		●					
1070 [2]	High DC, 10A 125 VDC resistive			●	●	●				●	●	●	●			●	
1519 [3]	Adjustable deadband, 15A 120/250/480 VAC resistive			●	●	●	●	●			●	●	●			● [1]	
1530	External manual reset, latches on rise only, 15A 120/250/480 VAC resistive	●	●	●	●	●	●	●	●	●	●	●	●			●	
2000 [2]	20A 120/250/480 VAC resistive	●	●	●	●	●			●	●	●	●				●	
3000 [2]	30A 120/250/277 VAC resistive			●	●	●				●		●				●	
Misc. Options																	
M020	External red Pilot Light	●	●	●	●	●	●	●	●	●	●	●	●			●	
M201 [4]	Factory setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M400	SIL2 Certification	●	●	●	●	●	●	●	●	●	●	●	●			●	
M444	Paper ID tag	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●
M446	Stainless Steel tag	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Accessories																	
6361-704	Mounting bracket kit	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SD6285-51	1/2" NPT (F) conduit kit	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Available

[1] Not available on types B100 and E100

[2] Deadbands will increase with these switch options

[3] 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.

[4] Factory setpoint requires the setpoint, units, and on rise or fall to be specified at the time of order. Selection of special switch options may require additional information.

Pressure Options

H100 & H100K

Option	Description	Models													
		171-174, 471-474, 190-194, 490-494	183-189, 483-489	218-230	270-274	358-376	520-525	530-535	565-567	610-616	680	700-706	540-548	15623, 15731-15737	15884
Switch options															
M277	Range in KPa/MPa	●	●	●	●	●	●	●	●	●	●	●	●	●	
M278	Range in Kg/cm2	●	●	●	●	●	●	●	●	●	●	●	●	●	
M401	NACE MR0175 Compliance	● [2]	●												
M449	Mounting bracket						●	●					●		
M476	Stainless steel differential pressure sensor option												●		
M540	Viton elastomer									●		● [1]	●		
M550	O_2 service cleaning	●	●	●	●	●	●	●	●	●	●	●	●	●	
M914	1/2" NPT (F) connection					●				●					
M921	Brass connection									●					
XC001	Viton Elastomer						●								
XC002	Kapton Diaphragm						●								
XC003	Kapton Diaph. / Viton seal						●								
XC004	316 Stainless Steel Diaph. /Viton seal						●								
XC005	316L Stainless Steel / Viton diaph.						●								
XC007	316L Stainless Steel / Teflon & Viton						●								
XD002	Hastelloy C276 Diaph.		●												
XD003	Monel 400 Diaph.		●												
XP112	Hastelloy C276 P/C		●												
XP113	Monel 400 P/C		●												
XR211	Kalrez seal		●												
XR213	EPR seal		●												
XR214	Aflas seal		●												

● Available

[1] Not available on model 706
[2] Not available on model 194 & 494

Temperature Options

Option	Replacement Part #	Material	Description	Local Stem Models			Bulb and Capillary Models							
				120	121	13546	2BS, 2BC, 2BSA, 2BCA, 2BSB, 2BCB	3BS, 3BC	4BS, 4BC	5BS, 5BC	6BS, 6BC	7BS, 7BC	8BS, 8BC	13545
M504		316L SS	Immersion Stem	●	●									
M550			O_2 service cleaning	●	●		●	●	●	●	●	●	●	
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				●	●	●	●	●	●	●	
W051	SD6213-51	Brass	1/2" NPT				●	●	●	●	●	●	●	
W050	SD6213-50	304 SS	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				●	●				●	●	
W191	SD6225-191	Brass	4" BT, 1/2" NPT				●	●				●	●	
W193	SD6225-193	316 SS	4.5" BT, 1/2" 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				●	●	●	●	●	●	●	
W192	SD6225-192	Brass	7" BT, 1/2" NPT				●	●	●	●	●	●	●	
W177	SD6225-177	316 SS	7.5" BT, 1/2" NPT				●	●	●	●	●	●	●	
Thermowells for all immersion stem models														
W139	SD6225-139	Brass	3/4" NPT x 44 mm Below Thread	●	●									
W140	SD6225-140	316 SS	3/4" NPT x 44 mm Below Thread	●	●									
W000 [1]		Brass	No thread	●	●									
W097		Brass	1/2" NPT x 44 mm Below Thread	●	●									
W099		316 SS	1/2" NPT x 44 mm Below Thread	●	●									

● Available

[1] Option W000 is a special immersion stem construction that has no external thread. This option fits inside a special thermowell and is secured with a set-screw.

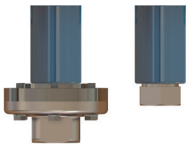
Sensors

Pressure sensors

A

Models 171-174

B



Models 183-189, 483-489

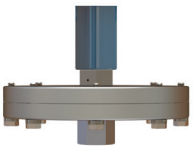
C

Models 190-194, 490-494, 610-616 and 15584

D

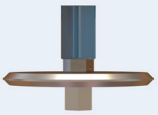
Models 218-274, 358-376 and 680

E



Models 520-525 and 15737

F



Models 530-535

G

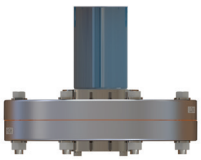
Models 565-567

H

Models 701-706, 15623 and 15731-15736

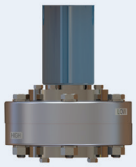
Differential Pressure sensors

DF



Models 540-543

DG



Models 544-548

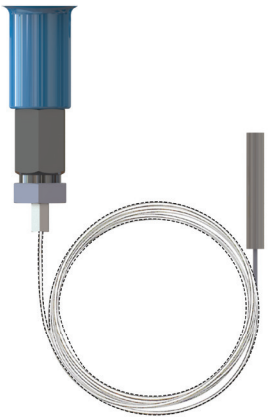
Temperature sensors

TA

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

Models 120-121, 13272*, 13322*
* No NPT connection available on these models

TB



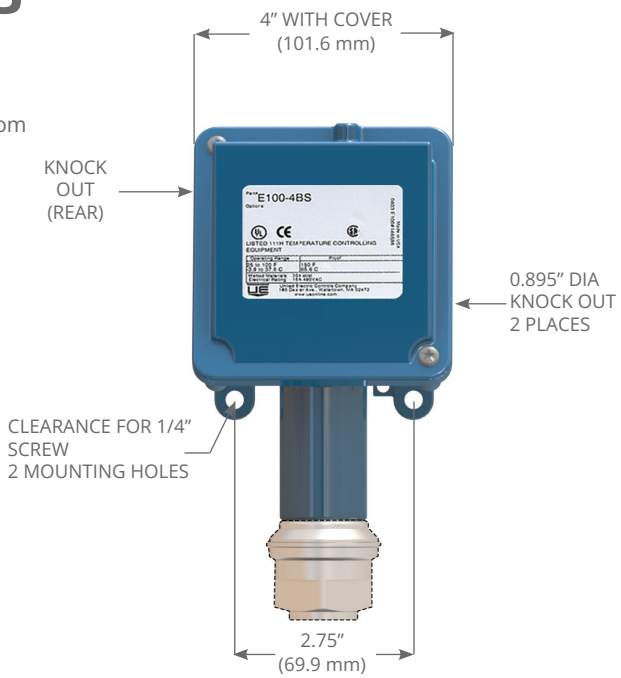
Bulb and capillary for remote installations

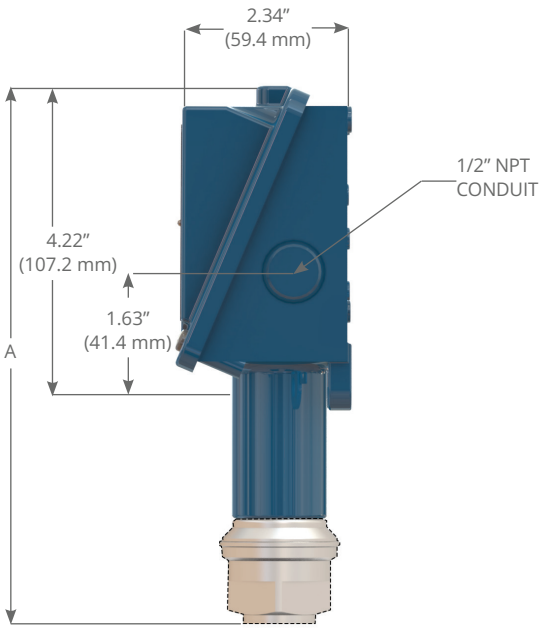
Models 2BS-8BS, 2BC-8BC, 13273, 13321

Dimensional Drawings

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

Dimension A		
Models	Inches	mm
Pressure		
171-174	7.63	193.8
183-186, 484-486	7.56	192.0
188-189, 488-489	6.63	168.4
190-194, 490-494	6.63	168.4
218	6.56	166.4
270-274	7.00	177.8
358-376	7.00	177.8
520-525, 15737	8.44	214.4
530-535	8.00	203.2
565-567	6.63	168.4
610-616, 680, 15884	7.00	177.8
701-706, 15623,15731-15736	6.63	168.4
Differential Pressure		
540-543	8.47	215.2
544-548	8.53	216.7
Temperature		
120, 121, 13546	9.38	238.3
2BC-8BC, 2BS-8BS,13545	8.69	220.7





Certifications

	Region	Agency	Classification
	North America	UL	Pressure Switch: UL E42272, V1S7 ANSI/UL 508; CSA-C22.2 No. 14 Certificate #: 20181026-E42272 Temperature Switch: UL E10667, V3S1 UL 873; CSA-C22.2 No. 24 Certificate #: 20181204-E10667
	Europe	ATEX	II 1 G Ex ia IIC T6 Ga (Optional – **code M405**) T_{amb} = -50 °C to +60 °C Certificate #: DEMKO 11 ATEX 1105261X Compliant to Pressure Equipment Directive (PED) (2014/68/EU) Compliant to Low Voltage Directive (LVD) (2014/35/EU)
	International	IECEx	Ex ia IIC T6 Ga (Optional – **code M405**) T_{amb} = -50 °C to +60 °C Certificate #: IECEx UL 14.0075X UEC compliant to IEC 61058-1, IEC 61010-1

Regional Certifications

	Country	Option	Classification
	China (CCC)	**M408**	Ex ia IIC T6 Ga T_{amb} = -50 °C to +60 °C CCC Certificate #: 2020322304002958
	Brazil (InMetro)	**M391**	Ex ia IIC T6 Ga T_{amb} = -50 °C to +60 °C Certificate #: UL-BR 15.0169X
	India (Peso)	**M405**	Ex ia IIC T6 Ga T_{amb} = -50 °C to +60 °C Certificate #: P417586/1
	United Kingdom (UKCA)	**M462**	II 1 G Ex ia IIC T6 Ga T_{amb} = -50 °C to +60 °C Certificate #: UL21UKEX2238X
	EAC (Russia, Armenia, Belarus, Kazakhstan, and Kyrgyzstan)	**M406**	0Ex ia IIC T6 Ga X T_{amb} = -50 °C to +60 °C EAC Certificate #: RU C-US.AA87.B.00503/20
	Taiwan		ITRI available through Taiwan channel partner. Consult United Electric.

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