



# 120 Series

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

METRIC UNITS

United Electric Controls is  
ISO 9001:2015 certified



120-B-M 14

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|                             |                                                                                                                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Set Point                   | The value at which the switch is set to actuate. Switches may be set to actuate on rising or falling pressure or temperature.                                                                                          |
| Deadband                    | The difference in pressure or temperature between which the switch actuates and de-actuates. Deadband is not adjustable unless specifically noted.                                                                     |
| Adjustable Set Point Range  | The pressure or temperature range within which the set point can be adjusted.                                                                                                                                          |
| Over Range Pressure         | The maximum pressure that may be applied continuously without causing the set point to shift.                                                                                                                          |
| Proof Pressure              | The maximum pressure that may be occasionally applied without causing damage. May cause the set point to shift resulting in the need for re-adjustment.                                                                |
| Differential Proof Pressure | The maximum pressure difference that may be applied between the high and low ports of a differential pressure switch without causing damage. May cause the set point to shift resulting in the need for re-adjustment. |
| Working Pressure            | The maximum pressure that may be applied simultaneously to the high and low ports. <b>Note:</b> In addition to the Working Pressure limit, the Adjustable Set point Range must be maintained.                          |

Use the following 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

|                    |       |          |
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| 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

| Models                                               | Electrical Ratings                                       |
|------------------------------------------------------|----------------------------------------------------------|
| <b>Standard Models</b>                               |                                                          |
| All                                                  | 15A @ 125/250/480 VAC                                    |
| <b>Adjustable Deadband Models</b>                    |                                                          |
| 15623, 15731-15737, 15884, 15622, 15834-15839, 15875 | 20A @ 125/250/480 VAC                                    |
| <b>Heat Trace Models</b>                             |                                                          |
| B121-13272, B122-13322, E121-13273, E122-13321       | 22A @ 125/250/480 VAC;<br>½ HP @ 125 VAC; 1 HP @ 250 VAC |

| Models                 | VDC Electrical Data*                                                   |
|------------------------|------------------------------------------------------------------------|
| <b>Standard Models</b> |                                                                        |
| All                    | 2A Res. & 1A inductive @24-30 VDC; 0.5 Res. & 0.03 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.

## Set point repeatability [% of full scale]

|                                    |                                                                       |        |
|------------------------------------|-----------------------------------------------------------------------|--------|
| <b>Temperature</b>                 | Type B, C & F                                                         | ± 1%   |
|                                    | Type E                                                                | ± 2%   |
| <b>Pressure &amp; Differential</b> | 450 - 457, 550 - 559                                                  | ± 0.5% |
|                                    | 36 - 39, 183 - 194, 483 - 494, 544 - 548, 565 - 567, 612 - 680, 15875 | ± 1.5% |
|                                    | All Others                                                            | ± 1%   |

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

|                                 |                                                                                                                                                                                                                                           |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shock</b>                    | Set point repeats after 15 G, 10 msec duration                                                                                                                                                                                            |
| <b>Vibration</b>                | Set point repeats after 2.5 G, 5-500 Hz                                                                                                                                                                                                   |
| <b>Enclosure</b>                | Die cast aluminum, epoxy powder coated; gasketed; cover lock<br>Internal set point lock standard on types J, C, F; gasketed stainless steel tamper-resistant dial cover on types B, H, E; Aluminum nameplate.                             |
| <b>Enclosure classification</b> | 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. |
| <b>Switch Output</b>            | One or two SPDT; Dual switch may be separated up to 100% of range. Switch may be wired normally open or closed.                                                                                                                           |
| <b>Reference Scales</b>         | Types B, E, & H external dial. Scale divisions vary with range (see model charts).                                                                                                                                                        |
| <b>Electrical connection</b>    | Type H, B, E: one 3/4" NPT connection with terminal block.<br>Type J, C, F: two 3/4" NPT connections with terminal block.                                                                                                                 |

| Switch Options                            | Electrical Ratings                                                                             |
|-------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>0140</b><br>(1A Gold Contact)          | 1A @ 125 VAC                                                                                   |
| <b>0500</b><br>(5A Low Deadband)          | 5A @ 480 VAC; 1/8 HP @ 125 VAC;<br>¼ HP @ 250 VAC                                              |
| <b>1010</b><br>(10A 250 VAC DPDT)         | 10A @ 125/250 VAC; 2A @480 VAC; 1/2A @125 VDC; 1/4A @ 250 VDC; 1/8 HP @125 VAC; ¼ HP @ 250 VAC |
| <b>1070</b><br>(10A 125 VDC)              | 10A @ 125 VAC OR VDC;<br>¼ HP @ 125VAC OR VDC                                                  |
| <b>1180</b><br>(Hermetic SPDT)            | 11A @125/250 VAC;<br>¼ HP @ 125/250 VAC; 5A @ 30 VDC                                           |
| <b>1190</b><br>(Hermetic DPDT, Rise)      | 11A @125/250 VAC;<br>¼ HP @ 125/250 VAC; 5A @ 30 VDC                                           |
| <b>1195</b><br>(Hermetic DPDT, Fall)      | 11A @125/250 VAC;<br>¼ HP @ 125/250 VAC; 5A @ 30 VDC                                           |
| <b>1519</b><br>(Adj. Deadband)            | 15A @125/250/480 VAC; 1/2A @ 125 VDC;<br>1/4A @ 250 VDC; 1/8 HP @ 125 VAC; 1/4HP @ 250 VAC     |
| <b>1535</b> (High Ambient to 250°F/121°C) | 15A @125/250/480 VAC;<br>1/8 HP @125 VAC; 1/4HP @ 250 VAC                                      |
| <b>2000</b><br>(20A 480 VAC)              | 20A @125/250/480 VAC; 1/4A @250 VDC;<br>1/2A @ 125 VDC; 3/4 HP @ 125 VAC; 1 1/2HP @ 250 VAC    |
| <b>3000</b><br>(30A 277 VAC)              | 30A @125/250/277 VAC;<br>1 HP @125 VAC; 2 HP @ 250 VAC                                         |

## Temperature Limits [2]

| Model                                                   | Ambient      | Storage      |
|---------------------------------------------------------|--------------|--------------|
| 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 |

[2] Consider use of an instrument siphon when the media temperature exceeds the ambient, operating temperature range. Consult UE for further guidance.

|                                      |                                                                                                                                                                                                                                                                  |                 |                          |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| 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. Changes may affect the low end of range, deadband and temperature limits of the 120 series switches. Please consult UE when selecting these materials. |                 |                          |
|                                      | Aflas®                                                                                                                                                                                                                                                           | Hastelloy®      | Polyether / Polyurethane |
|                                      | Aluminum                                                                                                                                                                                                                                                         | Kalrez®         | Stainless Steel          |
|                                      | Brass                                                                                                                                                                                                                                                            | Kapton®         | Teflon®                  |
|                                      | Buna-N                                                                                                                                                                                                                                                           | Monel®          | Viton®                   |
|                                      | EPDM/EPR                                                                                                                                                                                                                                                         | Phosphor Bronze |                          |

# Specifications

Approx. Weight (lbs.)

| Pressure models              |                                                                                                                          |                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------|
| Type                         | Model                                                                                                                    | Approximate Weight |
| <b>J120</b>                  | 126-164, 171-174, 188-194, 270-274, 356-376, 488-489, 490-494, 565-567, 612-616, 680, 701-705, 15622, 15834-15839, 15622 | 2,0 kg             |
|                              | 183-186, 483-486, S126B-S164B                                                                                            | 2,3 kg             |
|                              | 450-454, 550-555                                                                                                         | 2,7 kg             |
|                              | 520-525, 530-535                                                                                                         | 3,8 kg             |
| <b>H121</b>                  | 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             |
| <b>H122</b>                  | 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                                                                                                                    | Approximate Weight |
| <b>J120K</b>                 | 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             |
| <b>H121K</b>                 | 456-457, 559                                                                                                             | 3,2 kg             |
|                              | 147-157                                                                                                                  | 3,6 kg             |
|                              | S147B-S157B                                                                                                              | 3,8 kg             |
| <b>H122K</b>                 | 456-457, 559                                                                                                             | 3,4 kg             |
|                              | 147-157                                                                                                                  | 3,8 kg             |
|                              | S147B-S157B                                                                                                              | 4,1 kg             |
| Temperature models           |                                                                                                                          |                    |
| Type                         | Model                                                                                                                    | Approximate Weight |
| <b>C120</b>                  | 120, 121                                                                                                                 | 1,8 kg             |
| <b>B121</b>                  | 120, 121, 13272                                                                                                          | 2,3 kg             |
| <b>B122</b>                  | 120, 121, 13322                                                                                                          | 2,7 kg             |
| <b>F120</b>                  | 2BS-8BS                                                                                                                  | 1,8 kg             |
| <b>E121</b>                  | 2BSA-8BS, 13273                                                                                                          | 2,7 kg             |
| <b>E122</b>                  | 2BSA-8BS, 13321                                                                                                          | 2,9 kg             |

# Type J120

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

| Adjustable Set Point<br>(mbar) | PRESSURE           |                     |                | PROCESS CONNECTION                            |                   |                                |                 | Model |
|--------------------------------|--------------------|---------------------|----------------|-----------------------------------------------|-------------------|--------------------------------|-----------------|-------|
|                                | Deadband<br>(mbar) | Over Range<br>(bar) | Proof<br>(bar) | Wetted Material                               | Thread<br>NPT (F) | Orifice <sup>[1]</sup><br>(mm) | Sensor<br>Style |       |
| -1 to -0,1 bar                 | 3,4 to 13,5        | 199,2 mbar          | 15,5           | Teflon; Viton; 316L SS                        | 1/4"              | 5,6                            | G               | 550   |
| -1 to -0,1 bar                 | 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 bar                 | 3,4 to 10,2        | 199,1 mbar          | 15,5           | 316L SS; Buna-N                               | 1/4"              | 5,6                            | G               | 450   |
| -1 to -0,1 bar                 | 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 <sup>[2]</sup>        | 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 <sup>[2]</sup>        | 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 <sup>[2]</sup>        | 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 <sup>[2]</sup>        | 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 <sup>[2]</sup>        | 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 <sup>[2]</sup>        | 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 18,3 mm orifice can be used to provide clean-out.  
Small 1,5 mm orifice can be used to dampen pulsations from the process.

[2] Alternate wetted materials available.

# Type J120

Pressure Models [up to 6,9 bar]

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

[1] Large 18,3 mm orifice can be used to provide clean-out. Small 1,5 mm orifice can be 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, and not be used where system or start-up vacuum might exceed -900 mbar.

[3] Model includes adjustable deadband switch.

[4] Alternate wetted materials available.

# Type J120

Pressure Models (up to 344,7 bar)

| PRESSURE                      |                   |                     |                | PROCESS CONNECTION                    |                       |                                |              | Model                |
|-------------------------------|-------------------|---------------------|----------------|---------------------------------------|-----------------------|--------------------------------|--------------|----------------------|
| Adjustable Set Point<br>(bar) | Deadband<br>(bar) | Over Range<br>(bar) | Proof<br>(bar) | Wetted Material                       | Thread<br>NPT (F)     | Orifice <sup>[1]</sup><br>(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 <sup>[2]</sup>   |
| 0,6 to 13,8                   | 0,1 to 0,8        | 34,5                | 68,9           | 316 SS; 316L SS; Viton <sup>[5]</sup> | 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 <sup>[5]</sup> | 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 <sup>[3]</sup> |
| 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 <sup>[5]</sup>   | 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                            | J            | 15836 <sup>[3]</sup> |
| 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 <sup>[5]</sup>   | 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                            | J            | 15837 <sup>[3]</sup> |
| 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 <sup>[5]</sup>   | 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                            | J            | 15838 <sup>[3]</sup> |
| 3,4 to 68,9                   | 0,7 to 8,6        | 137,9               | 482,6          | 316 SS; 316L SS; Viton <sup>[5]</sup> | 1/2"                  | 18,3                           | E            | 188                  |
| 3,4 to 68,9                   | 0,7 to 8,6        | 137,9               | 482,6          | 316 SS; 316L SS; Viton <sup>[5]</sup> | 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                            | J            | 15839 <sup>[3]</sup> |
| 6,9 to 117,2                  | 0,6 to 2,8        | 117,2               | 172,4          | 316 SS                                | 1/4"                  | 1,5                            | F            | 680 <sup>[6]</sup>   |
| 8,6 to 206,8                  | 2,8 to 17,2       | 413,7               | 689,5          | 316 SS, Buna-N                        | 1/4"                  | 1,5                            | J            | 612 <sup>[4]</sup>   |
| 17,2 to 241,3                 | 1,4 to 20,7       | 275,8               | 482,6          | 316 SS; 316L SS; Viton <sup>[5]</sup> | 1/2"                  | 18,3                           | E            | 189                  |
| 17,2 to 241,3                 | 1,4 to 20,7       | 275,8               | 482,6          | 316 SS; 316L SS; Viton <sup>[5]</sup> | 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 <sup>[4]</sup>   |

[1] Large 18,3 mm orifice can be used to provide clean-out. Small 1,5 mm orifice can be 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, and not be used where system or start-up vacuum might exceed -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.

# Type H121/H122

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

| PRESSURE                      |                    |                     |                |                         | PROCESS CONNECTION                            |                   |                                |              | Model                       |
|-------------------------------|--------------------|---------------------|----------------|-------------------------|-----------------------------------------------|-------------------|--------------------------------|--------------|-----------------------------|
| Adjustable Set Point<br>(bar) | Deadband<br>(mbar) | Over Range<br>(bar) | Proof<br>(bar) | Dial Division<br>(mbar) | Wetted Material                               | Thread<br>NPT (F) | Orifice <sup>[1]</sup><br>(mm) | Sensor Style |                             |
| -1,0 to 0,0                   | 3,4 to 20,3        | 0,2                 | 15,5           | 16                      | Teflon; Viton; 316L SS                        | 1/4"              | 5,6                            | G            | <b>550</b>                  |
| -1,0 to 0,0                   | 6,8 to 30,5        | 0,2                 | 0,3            | 16                      | Brass; nickel plated brass; zinc plated steel | 1/4"              | 1,5                            | A            | <b>126</b>                  |
| -1,0 to 0,0                   | 3,4 to 13,5        | 0,2                 | 15,5           | 16                      | 316L SS; Buna-N                               | 1/4"              | 5,6                            | G            | <b>450</b>                  |
| -1,0 to 0,0                   | 6,8 to 30,5        | 0,2                 | 0,3            | 16                      | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S126B</b>                |
| (mbar)                        | (mbar)             | (bar)               | (bar)          | (mbar)                  |                                               | NPT (F)           | (mm)                           |              |                             |
| 5 to 199,1                    | 5 to 24,9          | 0,2                 | 0,3            | 5                       | Brass; Ni pl. Brass                           | 1/4"              | 1,5                            | A            | <b>137</b> <sup>[2]</sup>   |
| 6 to 199,1                    | 6 to 24,10         | 0,2                 | 0,3            | 5                       | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S137B</b> <sup>[2]</sup> |

[1] Large 18,3 mm orifice can be used to provide clean-out.  
Small 1,5 mm orifice can be used to dampen pulsations from the process.

[2] Only available as H121.

# Type H121/H122 Series

Pressure Models (up to 413,7 bar)

| PRESSURE                      |                    |                     |                |                        | PROCESS CONNECTION                            |                   |                                |              | Model                              |
|-------------------------------|--------------------|---------------------|----------------|------------------------|-----------------------------------------------|-------------------|--------------------------------|--------------|------------------------------------|
| Adjustable Set Point<br>(bar) | Deadband<br>(mbar) | Over Range<br>(bar) | Proof<br>(bar) | Dial Division<br>(kPa) | Wetted Material                               | Thread<br>NPT (F) | Orifice <sup>[1]</sup><br>(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            | <b>552</b>                         |
| -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            | <b>134</b>                         |
| -1,0 to 1,4                   | 6,8 to 33,9        | 1,4                 | 15,5           | 5                      | 316L SS; Buna-N                               | 1/4"              | 5,6                            | G            | <b>452</b>                         |
| -1,0 to 1,4                   | 6,8 to 40,6        | 1,4                 | 1,7            | 5                      | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S134B</b>                       |
| 0,0 to 1,4                    | 3,4 to 20,7        | 1,4                 | 15,5           | 5                      | Teflon; Viton; 316L SS                        | 1/4"              | 5,6                            | G            | <b>553</b>                         |
| 0,0 to 1,4                    | 3,4 to 13,8        | 1,4                 | 15,5           | 5                      | Buna-N; Aluminum                              | 1/4"              | 5,6                            | G            | <b>453</b>                         |
| 0,0 to 1,4                    | 6,9 to 34,5        | 1,4                 | 1,7            | 5                      | Brass; Ni pl. Brass                           | 1/4"              | 1,5                            | A            | <b>144</b>                         |
| 0,0 to 1,4                    | 6,9 to 34,5        | 1,4                 | 1,7            | 5                      | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S144B</b>                       |
| 0,0 to 2,1                    | 6,9 to 27,6        | 2,1                 | 15,5           | 5                      | Teflon; Viton; 316L SS                        | 1/4"              | 5,6                            | G            | <b>554</b>                         |
| 0,0 to 2,1                    | 3,4 to 20,7        | 2,1                 | 15,5           | 5                      | Buna-N; Aluminum                              | 1/4"              | 5,6                            | G            | <b>454</b>                         |
| 0,0 to 2,1                    | 6,9 to 41,4        | 2,8                 | 2,8            | 5                      | Brass; Ni pl. Brass                           | 1/4"              | 1,5                            | A            | <b>146</b>                         |
| 0,0 to 2,1                    | 6,9 to 41,4        | 2,8                 | 2,8            | 5                      | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S146B</b>                       |
| (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 <sup>[2]</sup>           | 1/4"              | 1,5                            | J            | <b>701<sup>[5]</sup></b>           |
| 0,0 to 6,9                    | 0,0 to 0,1         | 6,9                 | 15,5           | 25                     | Teflon; Viton; 316L SS                        | 1/4"              | 5,6                            | G            | <b>555</b>                         |
| 0,0 to 6,9                    | 0,0 to 0,1         | 6,9                 | 8,6            | 25                     | Brass; Ni pl. Brass                           | 1/4"              | 1,5                            | A            | <b>156</b>                         |
| 0,0 to 6,9                    | 0,0 to 0,1         | 6,9                 | 8,6            | 25                     | Welded 316L SS                                | 1/2"              | 3,0                            | B            | <b>S156B</b>                       |
| 0,7 to 6,9                    | 0,1 to 0,3         | 34,5                | 41,4           | 25                     | Buna-N; Ni pl. Brass <sup>[2]</sup>           | 1/4"              | 1,5                            | J            | <b>702</b>                         |
| 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            | <b>270</b>                         |
| 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            | <b>164</b>                         |
| 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            | <b>S164B</b>                       |
| 0,0 to 13,8                   | 0,1 to 0,6         | 13,8                | 55,2           | 0.05 MPa               | 316L SS                                       | 1/4"              | 1,5                            | L            | <b>358</b>                         |
| 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            | <b>274</b>                         |
| 0,0 to 20,7                   | 0,1 to 0,6         | 20,7                | 55,2           | 0.1 MPa                | 316L SS                                       | 1/4"              | 1,5                            | L            | <b>361</b>                         |
| 2,1 to 20,7                   | 0,1 to 0,5         | 34,5                | 68,9           | 0.1 MPa                | Buna-N; Ni pl. Brass <sup>[2]</sup>           | 1/4"              | 1,5                            | J            | <b>703</b>                         |
| 0,0 to 34,5                   | 0,2 to 0,8         | 34,5                | 55,2           | 0.1 MPa                | 316L SS                                       | 1/4"              | 1,5                            | L            | <b>376</b>                         |
| 3,4 to 34,5                   | 0,2 to 0,8         | 103,4               | 172,4          | 0.1 MPa                | Buna-N; Ni pl. Brass <sup>[2]</sup>           | 1/4"              | 1,5                            | J            | <b>704</b>                         |
| 13,8 to 68,9                  | 0,3 to 1,7         | 103,4               | 172,4          | 0.25 MPa               | Buna-N; Ni pl. Brass <sup>[2]</sup>           | 1/4"              | 1,5                            | J            | <b>705</b>                         |
| 13,8 to 206,8                 | 2,8 to 17,2        | 413,7               | 689,5          | 0.5 MPa                | 316 SS, Buna-N <sup>[3]</sup>                 | 1/4"              | 1,5                            | J            | <b>612<sup>[4]</sup></b>           |
| 34,5 to 413,7                 | 10,3 to 51,7       | 413,7               | 689,5          | 1 MPa                  | 303 SS, Buna-N                                | 1/4"              | 1,5                            | L            | <b>15875<sup>[3] [4] [5]</sup></b> |
| 34,5 to 413,7                 | 3,4 to 41,4        | 413,7               | 689,5          | 2 MPa                  | 316 SS, Buna-N                                | 1/4"              | 1,5                            | J            | <b>614<sup>[4]</sup></b>           |

[1] Small 1,5 mm orifice can be 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.

# Type J120K

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

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

[1] Stainless steel wetted material with option M476.

## Differential Pressure Models (up to 34,5 bar)

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

[1] Stainless steel wetted material with option M476.

# Type H121K/H122K

Differential Pressure Models (up to 6,9 bar)

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

## Type B121 &amp; B122, C120

| TEMPERATURE                  |             |                          |                        | STEM            |                                  |              | Model                        |
|------------------------------|-------------|--------------------------|------------------------|-----------------|----------------------------------|--------------|------------------------------|
| Adjustable Set Point<br>(°C) | Max<br>(°C) | Dial Div.<br>[1]<br>(°C) | Deadband<br>@21 °C TYP | Material        | Size [2]<br>(Diameter x Length)  | Sensor Style |                              |
| -18 to 107                   | 135         | 5                        | 2%                     | Ni plated brass | 14.3 mm x 47.7 mm below 1/2" NPT | TA           | <b>120</b>                   |
| -18 to 107                   | 135         | 5                        | 2%                     | 316SS           | 14.3 mm x 47.7 mm below 1/2" NPT | TA           | <b>120 + M504</b>            |
| 93 to 218                    | 246         | 5                        | 2%                     | Ni plated brass | 14.3 mm x 47.7 mm below 1/2" NPT | TA           | <b>121</b>                   |
| 93 to 218                    | 246         | 5                        | 2%                     | 316SS           | 14.3 mm x 47.7 mm below 1/2" NPT | TA           | <b>121 + M504</b>            |
| -9 to 60                     | 71          | 2                        | 2%                     | 304SS           | 14.3 mm x 68.3 mm long           | TA           | <b>13272 (B121 only)</b> [3] |
| -9 to 60                     | 71          | 2                        | 2%                     | 304SS           | 14.3 mm x 68.3 mm long           | TA           | <b>13322 (B122 only)</b> [3] |

[1] Dial available on B121 and B122 only.

[3] Heat tracing

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

## Type E121 &amp; E122

| TEMPERATURE                  |             |                   |                        | BULB     |                             |                      | Model                        |
|------------------------------|-------------|-------------------|------------------------|----------|-----------------------------|----------------------|------------------------------|
| Adjustable Set Point<br>(°C) | Max<br>(°C) | Dial Div.<br>(°C) | Deadband<br>@21 °C TYP | Material | Size<br>(Diameter x Length) | Sensor Style [4] [5] |                              |
| -84 to 38                    | 66          | 5                 | 2%                     | 304SS    | 9.6 mm x 66.7 mm            | TB                   | <b>2BSA</b>                  |
| -1 to 121                    | 149         | 5                 | 2%                     | 304SS    | 9.6 mm x 66.7 mm            | TB                   | <b>2BSB</b>                  |
| 38 to 204                    | 232         | 5                 | 2%                     | 304SS    | 9.6 mm x 54 mm              | TB                   | <b>3BS</b>                   |
| -4 to 38                     | 66          | 1                 | 2%                     | 304SS    | 9.6 mm x 171,5 mm           | TB                   | <b>4BS</b>                   |
| -29 to 27                    | 54          | 2                 | 2%                     | 304SS    | 9.6 mm x 127 mm             | TB                   | <b>5BS</b>                   |
| 177 to 338                   | 366         | 5                 | 2%                     | 304SS    | 9.6 mm x 82.6 mm            | TB                   | <b>8BS</b>                   |
| -4 to 163                    | 182         | 5                 | 2%                     | 304SS    | 6.4 mm x 241.3 mm           | TB                   | <b>13273 (E121 only)</b> [6] |
| -4 to 163                    | 182         | 5                 | 2%                     | 304SS    | 6.4 mm x 241.3 mm           | TB                   | <b>13321 (E122 only)</b> [6] |

[4] Standard capillary length is 1,83 m, except models 13321 and 13273 which are 3,05 m. Optional capillary lengths available. Consult UE.

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

[6] Heat tracing

## Type F120

| TEMPERATURE                  |             |                        | BULB     |                             |                      | Model      |
|------------------------------|-------------|------------------------|----------|-----------------------------|----------------------|------------|
| Adjustable Set Point<br>(°C) | Max<br>(°C) | Deadband<br>@21 °C TYP | Material | Size<br>(Diameter x Length) | Sensor Style [7] [8] |            |
| -87 to 177                   | 204         | 1%                     | 304SS    | 9.6 mm x 66.7 mm            | TB                   | <b>2BS</b> |
| -87 to 260                   | 288         | 1%                     | 304SS    | 9.6 mm x 54 mm              | TB                   | <b>3BS</b> |
| -40 to 49                    | 77          | 1%                     | 304SS    | 9.6 mm x 171,5 mm           | TB                   | <b>4BS</b> |
| -40 to 82                    | 110         | 1%                     | 304SS    | 9.6 mm x 122.5 mm           | TB                   | <b>5BS</b> |
| -18 to 121                   | 149         | 1%                     | 304SS    | 9.6 mm x 110.3 mm           | TB                   | <b>6BS</b> |
| -18 to 204                   | 232         | 1%                     | 304SS    | 9.6 mm x 76.2 mm            | TB                   | <b>7BS</b> |
| 10 to 343                    | 371         | 1%                     | 304SS    | 9.6 mm x 82.6 mm            | TB                   | <b>8BS</b> |

[7] Standard capillary length is 6ft. Optional capillary lengths available. Consult UE.

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

# Pressure Options

## J120 & J120K

| 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 <sup>[1]</sup>    | 5A low Deadband                                                                                           | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                |         |         | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       |     | •             | • |
| 1010 <sup>[1]</sup>    | 10A 250VAC DPDT                                                                                           | •           |         |         |                  |         | •       | •       | •       | •       |         |                  |         |         | •       |         | •       |     | •       |       |             | •            |         | •         |     | •         |         | •   | •             |   |
| 1070 <sup>[1]</sup>    | 10A 125VDC                                                                                                | •           |         |         |                  |         | •       | •       | •       | •       |         |                  |         |         | •       |         | •       | •   | •       |       |             |              |         | •         | •   | •         | •       | •   | •             |   |
| 1180 <sup>[1]</sup>    | 11A Hermetic switch SPDT                                                                                  | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| 1190 <sup>[1]</sup>    | 11A Hermetic switch DPDT, set on Rise                                                                     | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| 1195 <sup>[1]</sup>    | 11A Hermetic switch DPDT, set on fall                                                                     | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| 1519 <sup>[1][2]</sup> | Adjustable deadband                                                                                       | •           |         |         |                  |         | •       | •       | •       |         |         |                  |         |         | •       |         |         | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| 1535                   | High ambient up to 250 °F (121 °C) 15 A 250 VAC resistive                                                 | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                |         |         | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| 2000 <sup>[1]</sup>    | 20A 480VAC                                                                                                | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                |         |         | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       |     | •             |   |
| 3000 <sup>[1]</sup>    | 30A 277VAC                                                                                                | •           |         |         |                  |         | •       | •       | •       | •       |         |                  |         |         | •       |         | •       | •   | •       |       |             | •            |         |           |     |           |         |     | •             |   |
| Miscellaneous options  |                                                                                                           |             |         |         |                  |         |         |         |         |         |         |                  |         |         |         |         |         |     |         |       |             |              |         |           |     |           |         |     |               |   |
| M201 <sup>[3]</sup>    | Factory set one switch                                                                                    | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M277                   | Range in kPa/MPa                                                                                          | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M278                   | Range in Kg/cm²                                                                                           | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M400                   | SIL2 Certification                                                                                        | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M401                   | NACE® MR0175 <sup>[1]</sup>                                                                               |             | •       | •       | • <sup>[4]</sup> | •       |         |         |         | •       | •       | • <sup>[4]</sup> |         |         |         |         |         |     |         |       |             |              |         |           |     |           |         |     |               |   |
| M438                   | EN 10204 type 2.1 Declaration of Material Compliance <sup>[4]</sup>                                       | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M439                   | EN 10204 type 3.1 Declaration of Material Compliance with specific Material Certifications <sup>[4]</sup> | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M444                   | Paper ID tag                                                                                              | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M446                   | Stainless steel tag                                                                                       | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       | •     | •           | •            | •       | •         | •   | •         | •       | •   | •             |   |
| M449                   | Mounting bracket                                                                                          |             |         |         |                  |         |         |         |         |         |         |                  | •       | •       |         |         |         |     |         |       |             |              |         |           |     |           |         | •   |               |   |
| M550                   | O <sub>2</sub> service cleaning <sup>[5] [6]</sup>                                                        | •           | •       | •       | •                | •       | •       | •       | •       | •       | •       | •                | •       | •       | •       | •       | •       | •   | •       |       |             | •            | •       | •         | •   |           | •       |     | •             |   |

• Available

[1] Deadbands will decrease or increase 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] 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.

[4] Not available on models 194 and 494.

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

[6] O<sub>2</sub> cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

# Pressure Options

## J120 & 120K

| 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 |
| Wetted material options |                               |             |             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| M319                    | Diaphragm seal (consult UE)   | ●           | ●           | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●       | ●   |         |              | ●           | ●           | ●       | ●         | ●   | ●         | ●       | ●   | ●             |
| M476                    | Stainless diff. diaphragm     |             |             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           | ●       |     |               |
| M540 <sup>[1]</sup>     | Standard + Viton              |             |             |         |         |         |         |         | ●       |         |         |         |         |         |         |         | ●       |         | ●   |         |              | ●           |             |         |           | ●   | ●         |         |     |               |
| M913                    | 1/4" NPT(F) stainless steel   |             |             |         | ●       |         |         |         |         |         |         |         |         |         |         |         |         |         |     |         | ●            |             |             |         |           |     |           |         |     |               |
| M914                    | 1/2" NPT(F) stainless steel   |             |             |         |         |         | ●       |         |         |         |         |         |         |         |         |         | ●       |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC001 <sup>[1]</sup>    | Aluminum; Viton; Viton        |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC002 <sup>[2]</sup>    | Aluminum; Kapton; Buna N      |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC003 <sup>[1]</sup>    | Aluminum; Kapton; Viton       |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC004 <sup>[1]</sup>    | 316LSS; 316LSS; Viton         |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC005 <sup>[1]</sup>    | 316LSS; Viton; Viton          |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XC007 <sup>[1]</sup>    | 316LSS; Teflon; Viton         |             |             |         |         |         |         |         |         |         |         |         | ●       |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XD002                   | Hastelloy C276 diaphragm      |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XD003                   | Monel 400 diaphragm           |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XP112                   | Hastelloy C276 press. Conn.   |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XP113                   | Monel 400 press. Conn.        |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XR211 <sup>[2]</sup>    | Kalrez O-ring seal            |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XR213 <sup>[2]</sup>    | EPR O-ring seal               |             |             | ●       | ●       |         |         |         |         | ●       | ●       |         |         |         |         |         |         |         |     |         |              |             |             |         |           |     |           |         |     |               |
| XR214 <sup>[2]</sup>    | 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 |             | ●           | ●       | ●       | ●       |         |         |         | ●       | ●       | ●       | ●       | ●       |         |         |         |         |     |         |              | ●           |             |         |           |     |           |         |     | ●             |

• Available

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

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

# Pressure Options

## H121 / H122 & H121K / H122K

| Option                        |                                                                                            | Description | PRESSURE    |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           | DIFFERENTIAL PRESSURE |           |               |              |           |     |               |           |           |     |
|-------------------------------|--------------------------------------------------------------------------------------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------|-----------|---------------|--------------|-----------|-----|---------------|-----------|-----------|-----|
|                               |                                                                                            |             | H121 Models |           |           |           |           |           |           |           |           | H122 Models   |           |           |           |           |           |           | H121K models          |           |               | H122K models |           |     |               |           |           |     |
|                               |                                                                                            |             | 15875       | 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 |
| Switch options                |                                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 0140                          | 1A Gold Contact                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 0500 <sup>[1]</sup>           | 5A low Deadband                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1010 <sup>[1]</sup>           | 10A 250VAC DPDT                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1070 <sup>[1]</sup>           | 10A 125VDC                                                                                 |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1180 <sup>[1]</sup>           | 11A Hermetic switch SPDT                                                                   |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1190 <sup>[1]</sup>           | 11A Hermetic switch DPDT, set on rise                                                      |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1195 <sup>[1]</sup>           | 11A Hermetic switch DPDT, set on fall                                                      |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 1535                          | High ambient up to 121 °C 15 A 250 VAC resistive                                           |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 2000 <sup>[1]</sup>           | 20A 480VAC                                                                                 |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| Miscellaneous options         |                                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M201 <sup>[2]</sup>           | Factory set one switch                                                                     |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M202 <sup>[2]</sup>           | Factory set two switches                                                                   |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M210                          | Differential press. indicator                                                              |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M277                          | Range in KPa/MPa                                                                           |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M278                          | Range in Kg/cm²                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M400                          | SIL2 Certification                                                                         |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| 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                                                                        |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M550 <sup>[3][4]</sup>        | O₂ service cleaning                                                                        |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| Pressure Connection Materials |                                                                                            |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M319                          | Diaphragm seal (Consult UE)                                                                |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M540 <sup>[3]</sup>           | Standard + Viton                                                                           |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M913                          | 1/4" NPT(F) stainless steel                                                                |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |
| M914                          | 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                                                              |             |             |           |           |           |           |           |           |           |           |               |           |           |           |           |           |           |                       |           |               |              |           |     |               |           |           |     |

● Available

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

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

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

[4] O<sub>2</sub> cleaning in accordance with ASTM G93, verification type 1, tests 1-3.

# Temperature Options

B, C, E and F temperature model options

|                         |                                                  | C120      | B121      |       | B122      |       | F120      | E121       |       | E122       |       |
|-------------------------|--------------------------------------------------|-----------|-----------|-------|-----------|-------|-----------|------------|-------|------------|-------|
| Option #                | Description                                      | 120 - 121 | 120 - 121 | 13272 | 120 - 121 | 13322 | 2BS - 8BS | 2BSA - 8BS | 13273 | 2BSA - 8BS | 13321 |
| Switch options          |                                                  |           |           |       |           |       |           |            |       |            |       |
| 0140                    | 1A Gold Contact                                  | ●         | ●         |       | ●         |       | ●         | ●          |       | ●          |       |
| 0500 <sup>[1]</sup>     | 5A low Deadband                                  | ●         | ●         |       | ●         |       | ●         | ●          |       | ●          |       |
| 1070 <sup>[1]</sup>     | 10A 125VDC                                       | ●         | ●         |       |           |       | ●         | ●          |       | ●          |       |
| 1180 <sup>[1]</sup>     | 11A Hermetic switch SPDT                         | ●         | ●         |       |           |       | ●         | ●          |       |            |       |
| 1190 <sup>[1]</sup>     | 11A Hermetic switch DPDT, set on Rise            | ●         | ●         |       |           |       | ●         | ●          |       |            |       |
| 1195 <sup>[1]</sup>     | 11A Hermetic switch DPDT, set on fall            | ●         | ●         |       |           |       | ●         | ●          |       |            |       |
| 1519 <sup>[1] [2]</sup> | Adjustable deadband                              | ●         |           |       |           |       | ●         |            |       |            |       |
| 1535                    | High ambient up to 121 °C 15 A 250 VAC resistive | ●         | ●         |       | ●         |       | ●         | ●          |       | ●          |       |
| 2000                    | 20A 480VAC                                       | ●         | ●         |       | ●         |       | ●         | ●          |       | ●          |       |
| 3000                    | 30A 277VAC                                       | ●         |           |       |           |       | ●         | ●          |       |            |       |
| Miscellaneous options   |                                                  |           |           |       |           |       |           |            |       |            |       |
| M201 <sup>[3]</sup>     | Factory setting                                  | ●         | ●         | ●     |           |       | ●         | ●          | ●     |            |       |
| M202 <sup>[3]</sup>     | Factory setting                                  |           |           |       | ●         | ●     |           |            |       | ●          | ●     |
| M400                    | SIL2 Certification                               | ●         | ●         | ●     | ●         | ●     | ●         | ●          | ●     | ●          | ●     |
| M444                    | Paper ID tag                                     | ●         | ●         | ●     | ●         | ●     | ●         | ●          | ●     | ●          | ●     |
| M446                    | SS tag                                           | ●         | ●         | ●     | ●         | ●     | ●         | ●          | ●     | ●          | ●     |
| M504                    | 316L SS Immersion Stem                           | ●         | ●         |       | ●         |       |           |            |       |            |       |
| M550 <sup>[4]</sup>     | O <sub>2</sub> service cleaning                  | ●         | ●         |       | ●         |       | ●         | ●          |       | ●          |       |
| Accessories             |                                                  |           |           |       |           |       |           |            |       |            |       |
| 6361-704                | Mounting bracket kit                             | ●         | ●         | ●     | ●         | ●     | ●         | ●          | ●     | ●          | ●     |

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

[4] O<sub>2</sub> 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 <sup>[1]</sup> |     |       | Bulb and Capillary Models <sup>[2]</sup> |          |     |          |              |  |
|----------------------------------------------|--------------------|----------|-------------------------------------------------------------|----------------------------------|-----|-------|------------------------------------------|----------|-----|----------|--------------|--|
| Option                                       | Replacement Part # | Material | Description                                                 | 120                              | 121 | 13272 | 1BS, 2BS, 2BSA, 2BSB 3BS                 | 4BS, 5BS | 6BS | 7BS, 8BS | 13273, 13321 |  |
| 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 (101,6 mm BT), 1/2" NPT with 3/4" NPT adapter bushing |                                  |     |       | ●                                        |          |     | ●        |              |  |
| W076                                         | SD6225-76          | 316 SS   | 4.5" BT (114,3 mm BT), 3/4" NPT                             |                                  |     |       | ●                                        |          | ●   | ●        |              |  |
| W191                                         | SD6225-191         | Brass    | 4" BT (101,6 mm BT), 1/2" NPT                               |                                  |     |       | ●                                        |          |     | ●        |              |  |
| W193                                         | SD6225-193         | 316 SS   | 4.5" BT (114,3 mm BT), 1/2" NPT                             |                                  |     |       | ●                                        |          | ●   | ●        |              |  |
| W118                                         | SD6225-118         | Brass    | 7" BT (177,8 mm BT), 1/2" NPT with 3/4" NPT adapter bushing |                                  |     |       | ●                                        | ●        | ●   | ●        |              |  |
| W119                                         | SD6225-119         | 316 SS   | 7.5" BT (190,5 mm BT), 3/4" NPT                             |                                  |     |       | ●                                        | ●        | ●   | ●        |              |  |
| W192                                         | SD6225-192         | Brass    | 7" BT (177,8 mm BT), 1/2" NPT                               |                                  |     |       | ●                                        | ●        | ●   | ●        |              |  |
| W177                                         | SD6225-177         | 316 SS   | 7.5" BT (190,5 mm BT), 1/2" NPT                             |                                  |     |       | ●                                        | ●        | ●   | ●        |              |  |
| Thermowells for all immersion stem models    |                    |          |                                                             |                                  |     |       |                                          |          |     |          |              |  |
| W139                                         | SD6225-139         | Brass    | 3/4" NPT x 1-23/32" BT (44 mm BT)                           | ●                                | ●   |       |                                          |          |     |          |              |  |
| W140                                         | SD6225-140         | 316 SS   | 3/4" NPT x 1-23/32" BT (44 mm BT)                           | ●                                | ●   |       |                                          |          |     |          |              |  |
| W000 <sup>[3]</sup>                          |                    | Brass    | No thread (immersion stem only)                             | ●                                | ●   |       |                                          |          |     |          |              |  |
| W097                                         | SD6225-97          | Brass    | 1/2" NPT x 1-23/32" BT (44 mm BT)                           | ●                                | ●   |       |                                          |          |     |          |              |  |
| W099                                         | SD6225-99          | 316 SS   | 1/2" NPT x 1-23/32" BT (44 mm BT)                           | ●                                | ●   |       |                                          |          |     |          |              |  |
| W346                                         |                    | 316 SS   | 4"BT (101,6 mm BT), 3/4 NPT                                 | ●                                | ●   |       |                                          |          |     |          |              |  |
| W347                                         |                    | 316 SS   | 6" BT (1,83 m BT), 3/4 NPT                                  | ●                                | ●   |       |                                          |          |     |          |              |  |
| W348                                         |                    | 316 SS   | 8" BT (2,44 m BT), 3/4 NPT                                  | ●                                | ●   |       |                                          |          |     |          |              |  |
| W349                                         |                    | 316 SS   | 10" BT (3,05 m BT), 3/4 NPT                                 | ●                                | ●   |       |                                          |          |     |          |              |  |
| W350                                         |                    | 316 SS   | 12" BT (3,66 m BT), 3/4 NPT                                 | ●                                | ●   |       |                                          |          |     |          |              |  |
| W351                                         |                    | 316 SS   | 15" BT (4,57 m BT), 3/4 NPT                                 | ●                                | ●   |       |                                          |          |     |          |              |  |

• Available

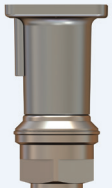
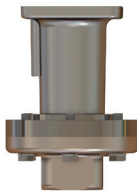
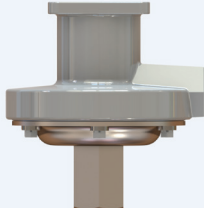
[1] Optional stem length and thermowells available. Consult UE.

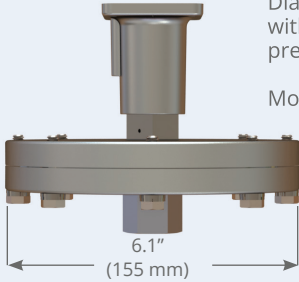
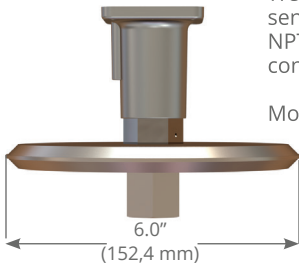
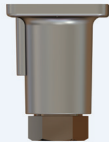
[2] Optional capillary length and thermowells available. Consult UE.

[3] 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

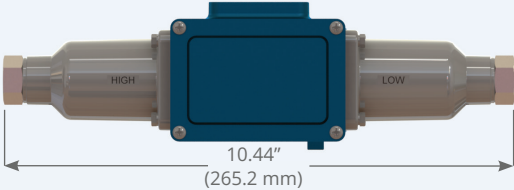
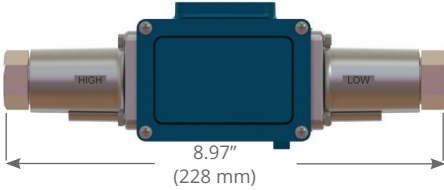
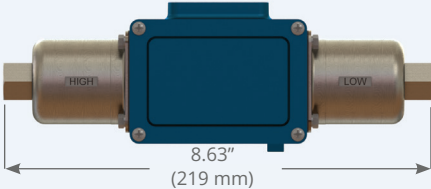
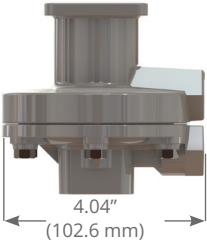
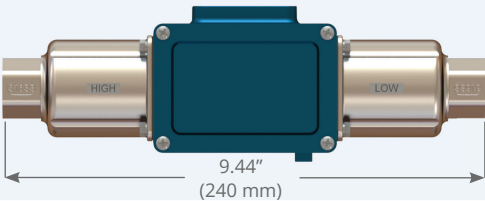
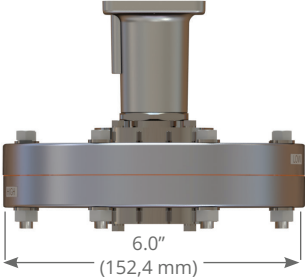
## Pressure sensors

|   |                                                                                     |                                                                                                                  |
|---|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| A |    | <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: 188-189, 190-194, 488-489-, 490-499</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>                     |

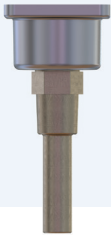
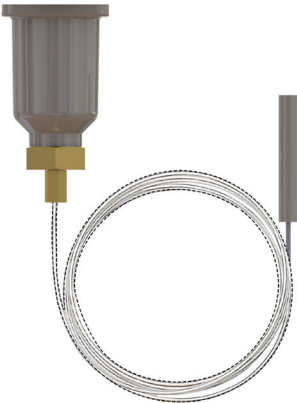
# Sensors

## Differential pressure sensors

|    |                                                                                                                 |                                                                                        |
|----|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| DA |  <p>10.44"<br/>(265.2 mm)</p> | Welded bellows sensor with 1/4" NPT (F) pressure connection<br><br>Models: 367         |
| DB |  <p>8.97"<br/>(228 mm)</p>    | Diaphragm sensor with 1/4" NPT (F) pressure connection<br><br>Models: 36-39            |
| DC |  <p>8.63"<br/>(219 mm)</p>    | Welded bellows sensor with 1/4" NPT (F) pressure connection<br><br>Models: 147-157     |
| DD |  <p>4.04"<br/>(102.6 mm)</p>  | Diaphragm sensor with 1/4" NPT (F) pressure connection<br><br>Models: 455-457, 559     |
| DE |  <p>9.44"<br/>(240 mm)</p>  | Welded bellows sensor with 1/2" NPT (F) pressure connection<br><br>Models: S147B-S157B |
| DF |  <p>6.0"<br/>(152,4 mm)</p>  | Diaphragm sensor with 1/8" NPT (F) pressure connection<br><br>Models: 540-543          |
| DG |  <p>3.7"<br/>(94 mm)</p>   | Diaphragm sensor with 1/8" NPT (F) pressure connection<br><br>Models: 544-548          |

# Sensors

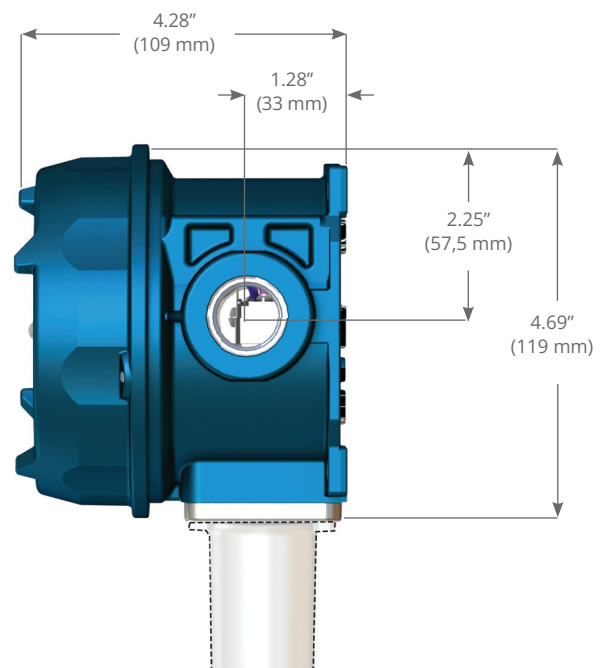
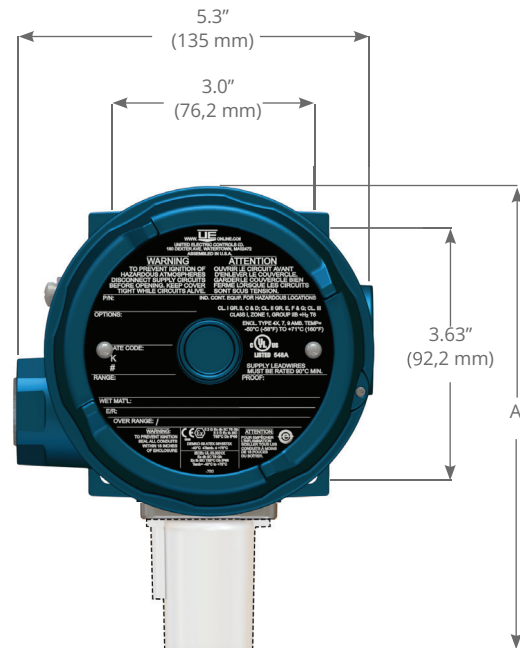
## Temperature sensors

|           |                                                                                   |                                                                                                                                                         |
|-----------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TA</b> |  | <p>Immersion stem with 1/2" NPT (M) pressure connection</p> <p>Models: 120-121, 13272*, 13322*</p> <p>* No NPT connection available on these models</p> |
| <b>TB</b> |  | <p>Bulb and capillary for remote installations</p> <p>Models: 2BS-8BS, 13273, 13321</p>                                                                 |

# 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 |



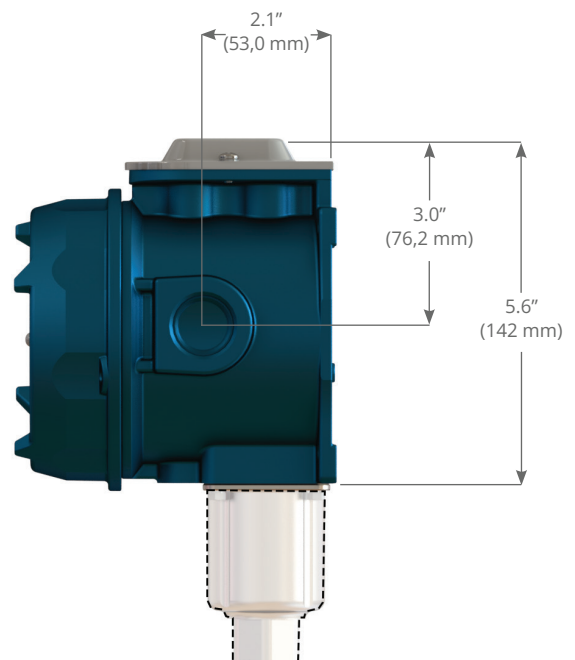
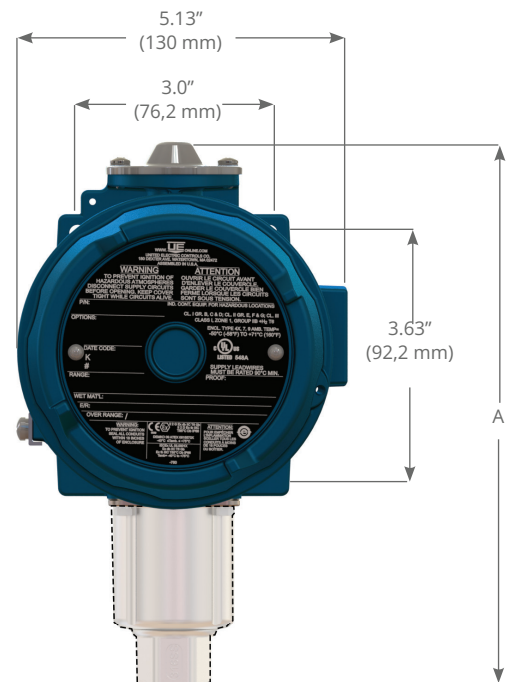
All dimensions stated in inches (millimeters)

Dimensional drawings for all models may be found at [www.ueonline.com](http://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](http://www.ueonline.com)

# Standard Certifications

|                                                                                   | Region        | Agency | Classification                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|---------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | North America | UL     | Class I, Groups B, C & D;<br>Class II, Groups E, F & G; Class III<br>Class I, Zone I, Group IIB + H2 T6<br>Enclosure Type 4X, IP66<br>Canadian Registration Number (CRN) for Canadian provinces can be found at <a href="http://www.ueonline.com">www.ueonline.com</a>                                                                                  |
|  | Europe        | ATEX   | II 2 G Ex db IIC T6 Gb<br>II 2 D Ex tb IIIC T85°C Db, IP66<br>-40 °C ≤ Ta ≤ +75 °C<br><b>For intrinsic safety certification only. Must order option M405 (includes PESO)</b><br>II 1 G Ex ia IIC T6 Ga<br>-50 °C ≤ Ta ≤ +60 °C<br>Compliant to Pressure Equipment Directive (PED) (2014/68/EU)<br>Compliant to Low Voltage Directive (LVD) (2014/35/EU) |
|  | International | IECEx  | Ex db IIC T6 Gb<br>Ex tb IIIC T85°C Db, IP66<br>-40 °C ≤ Ta ≤ +75 °C<br><b>For intrinsic safety certification only. Must order option M405 (includes PESO)</b><br>Ex ia IIC T6 Ga<br>-50 °C ≤ Ta ≤ +60 °C<br>UEC compliant to IEC 61058-1, IEC 61010-1                                                                                                  |

# Regional Certifications

|                                                                                     | Country                                              | Option   | Classification                                                                                                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------|
|  | Brazil                                               | M391     | Ex db IIC T6 Gb<br>Ex tb IIIC T85 °C Db, IP66<br>-40 °C ≤ Ta ≤ +75 °C<br>Ex ia IIC T6 Ga<br>-50 °C ≤ Ta ≤ +60 °C                     |
|  | Korea                                                | M395     | Ex d IIC T6<br>Ex tb IIIC T85°C<br>-40 °C ≤ Ta ≤ +75 °C                                                                              |
|  | Ukraine                                              | M404     | Ex db IIC T6 Gb<br>-40 °C ≤ Ta ≤ +71 °C                                                                                              |
|  | China                                                | M408     | Ex db IIC T6 Gb<br>Ex tb IIIC T85°C Db, IP66<br>-40 °C ≤ Ta ≤ +75 °C<br>Ex ia IIC T6 Ga<br>-50 °C ≤ Ta ≤ +60 °C                      |
|  | India                                                | Standard | Ex db IIC T6 Gb                                                                                                                      |
|                                                                                     |                                                      | M405     | Ex ia IIC T6 Ga                                                                                                                      |
|  | United Kingdom                                       | M462     | II 2 G Ex db IIC T6 Gb<br>II 2 D Ex tb IIIC T85°C Db, IP66<br>-40 °C ≤ Ta ≤ +75 °C<br>II 1 G Ex ia IIC T6 Ga<br>-50 °C ≤ Ta ≤ +60 °C |
|  | Russia, Armenia, Belarus, Kazakhstan, and Kyrgyzstan | M406     | 1Ex db IIC T6 Gb X<br>Ex tb IIIC T85°C Db, IP66<br>0Ex ia IIC T6 Ga X                                                                |
|  | United Arab Emirates (ECAS)                          | M463     | Ex db IIC T6 Gb<br>Ex tb IIIC T85°C Db<br>-40°C ≤ Ta ≤ +75°C<br>Ex ia IIC T6 Ga<br>-50°C ≤ Ta ≤ +60°C                                |
|  | Taiwan                                               |          | ITRI available through Taiwanese channel partner. Consult UE.                                                                        |

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