## **D220 series pilot loaded models**



#### NOT CSA CERTIFIED

| CAPACITIES         | to 50,000 CFH  |
|--------------------|----------------|
| EMERGENCY EXPOSURE |                |
| INLET PRESSURES    | to 15 psi      |
| OUTLET PRESSURE    | 1 psi to 5 psi |

The D220 series, utilizing a servo-operated design rather than the more conventional spring-loaded design, delivers higher outlet pressure than the spring loaded models.

The main diaphragm on the Maxitrol D220 is loaded with gas pressure rather than with a spring. This gas pressure is precisely controlled by a small pilot regulator in the upper housing. When the regulated outlet pressure of the pilot regulator is changed, by spring adjustment, the outlet pressure of the main regulator will change proportionately.

Outlet pressure adjustments are readily made by first removing the hood of the Maxitrol D220. Then remove the cap atop the pilot regulator, which exposes the adjusting screw, and adjust to desired pressure.

Three positions can be tapped and plugged for making inlet or outlet pressure readings. The fourth position is used to supply inlet pressure to the pilot regulator. Remote sensing is also available. D220 series industrial regulators are intended for use with all fuel gases.

The regulator will perform most accurately when mounted in an upright postion in a horizontal pipe run. Gas flow must be oriented to arrow on regulator. When selecting for pipe size, make sure regulator is not more than one size larger or smaller than manifold pipe size.

Single vent, equipped with model 12A06 vent limiting orifice, is located in upper housing.

Ambient temperature limits are -40°F to 200°F. Maximum emergency exposure pressure is 25 psi. At this pressure the regulator will suffer no internal damage but it may not provide accurate regulation.

Two outlet pressure adjustment springs are available.

| R325C10-1022 (K spring) | 1 psi to 3 psi |
|-------------------------|----------------|
| R325C10-1530 (L spring) | 2 psi to 5 psi |

# **Pressure drop and dimensions**

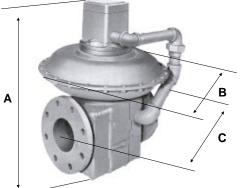
### PILOT LOADED DESIGN

| Flow   | Values expressed in inches w.c.         |  |  |   |  |  |   |  |
|--|---|--|--|---|--|--|---|--|
| Rate<br>CFH                                    | D220D                                   |  |  | D220E                                     |  | D220G                                    |   | D220J                                    |
|  | 1"                                      | <b>1</b> <sup>1/4</sup> "              | <b>1</b> <sup>1/2</sup> "              | 1 <sup>1/2</sup> "                        | 2"                                       | <b>2</b> <sup>1/2</sup> "                | 3"                                      | 4"                                       |
| 1,000<br>2,000<br>3,000<br>4,000<br>5,000      | 1.90<br>4.93<br>11.10<br>19.70<br>30.80 | 1.70<br>3.10<br>7.42<br>13.20<br>20.70 | 1.70<br>2.90<br>5.40<br>11.10<br>17.40 | 1.90<br>2.90<br>4.93<br>7.70              | 1.90<br>2.40<br>4.00<br>6.25             | 2.00<br>2.20                             | 1.90<br>2.10                            | 1.70<br>1.70                             |
| 6,000<br>7,000<br>8,000<br>9,000<br>10,000     | 44.20                                   | 29.70<br>40.60                         | 25.00<br>34.00<br>44.50                | 11.10<br>15.10<br>19.70<br>24.90<br>30.80 | 9.00<br>12.25<br>16.00<br>20.25<br>25.00 | 2.60<br>3.00<br>4.00<br>5.00<br>6.22     | 2.30<br>2.60<br>3.00<br>3.80<br>4.60    | 1.70<br>1.70<br>1.80<br>1.90<br>2.10     |
| 12,000<br>14,000<br>16,000<br>18,000<br>20,000 |   |  |  | 44.20                                     | 36.00                                    | 9.00<br>12.20<br>16.00<br>20.20<br>25.00 | 6.80<br>9.30<br>12.10<br>15.30<br>18.90 | 2.40<br>2.80<br>3.40<br>4.40<br>5.40     |
| 25,000<br>30,000<br>35,000<br>40,000<br>45,000 |   |  |  |   |  | 40.60                                    | 30.70<br>42.50                          | 8.90<br>12.40<br>17.05<br>21.70<br>27.40 |
| 50,000<br>55,000                               |   |  |  |   |  |  |   | 33.80<br>41.00                           |

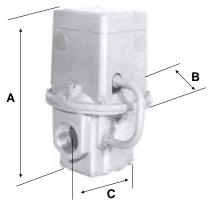
NOTE: Do not exceed 36" pressure drop when determining acceptable capacities at which these controls may be used. Under some conditions these limits may be surpassed, but only after consultation with Maxitrol Company. (NOT CSA CERTIFIED)

### DIMENSIONS

| Model | Α        | В       | С       |
|-------|----------|---------|---------|
| D220D | 10-3/16" | 7"      | 6"      |
| D220E | 11-1/4"  | 9-1/8"  | 7-5/8"  |
| D220G | 14-3/4"  | 13-1/2" | 10-3/8" |
| D220J | 20-1/2"  | 18"     | 13-7/8" |



company



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