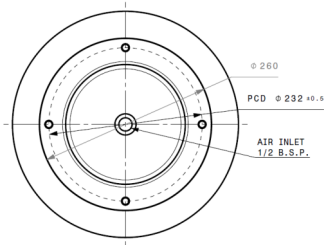
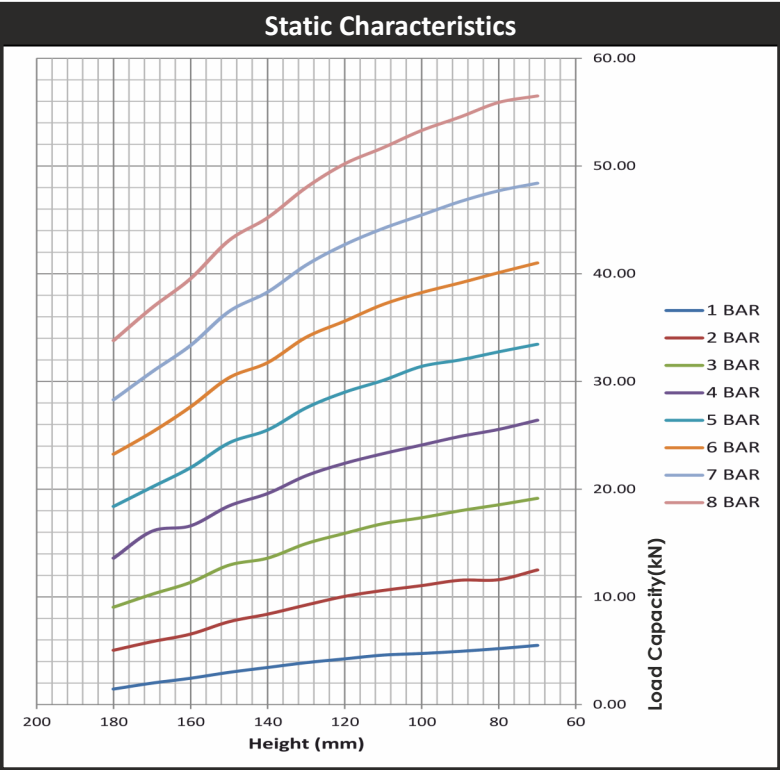
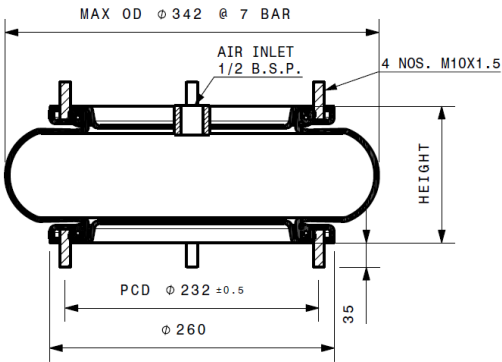


| Technical Data                                              |  |
|-------------------------------------------------------------|--|
| Part Description: D-Series convolute type complete assembly |  |
| Free Height: 220mm                                          |  |
| Minimum Recommended Height: 70mm                            |  |
| Design Height: 125mm                                        |  |
| Maximum Recommended Height: 180mm                           |  |
| Working Stroke: 110mm                                       |  |
| Loading Capacity @ 1 BAR @ 125mm (±5%): 4.1kN               |  |
| Loading Capacity @ 7 BAR @ 125mm (±5%): 41.6kN              |  |
| Maximum OD @ 7 BAR : Ø342mm                                 |  |
| Required Space: 375mm                                       |  |
| Weight (±0.2kg) : 6.10kg                                    |  |

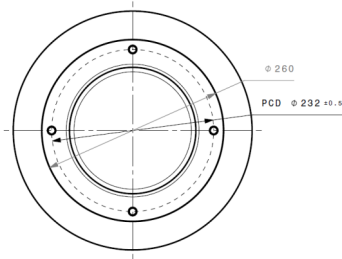
| Force (kN)                  |       |       |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Air Pressure<br>Height (mm) | 1 bar | 2 bar | 3 bar | 4 bar | 5 bar | 6 bar | 7 bar | 8 bar |
| 180                         | 1.45  | 5.05  | 9.05  | 13.60 | 18.40 | 23.25 | 28.30 | 33.80 |
| 170                         | 2.00  | 5.85  | 10.25 | 16.10 | 20.20 | 25.30 | 30.90 | 36.85 |
| 160                         | 2.45  | 6.55  | 11.35 | 16.60 | 22.00 | 27.65 | 33.35 | 39.55 |
| 150                         | 3.00  | 7.70  | 12.95 | 18.45 | 24.30 | 30.35 | 36.50 | 43.10 |
| 140                         | 3.45  | 8.40  | 13.60 | 19.60 | 25.50 | 31.75 | 38.30 | 45.20 |
| 130                         | 3.90  | 9.25  | 14.95 | 21.25 | 27.55 | 34.10 | 40.80 | 48.00 |
| 120                         | 4.25  | 10.05 | 15.90 | 22.40 | 29.00 | 35.60 | 42.70 | 50.20 |
| 110                         | 4.60  | 10.60 | 16.80 | 23.30 | 30.10 | 37.15 | 44.20 | 51.70 |
| 100                         | 4.75  | 11.05 | 17.35 | 24.10 | 31.40 | 38.25 | 45.45 | 53.30 |
| 90                          | 4.95  | 11.55 | 18.00 | 24.90 | 32.00 | 39.15 | 46.70 | 54.55 |
| 80                          | 5.20  | 11.60 | 18.55 | 25.55 | 32.75 | 40.10 | 47.70 | 55.90 |
| 70                          | 5.50  | 12.50 | 19.15 | 26.40 | 33.45 | 41.00 | 48.40 | 56.50 |



Top View



Section View



Bottom View

| CROSS REFERENCE |           |              |       |
|-----------------|-----------|--------------|-------|
| Gibraltar       | Firestone | Contitech    | Oria  |
| G12X1           | 12X1      | FS 412-10 DS | D12X1 |