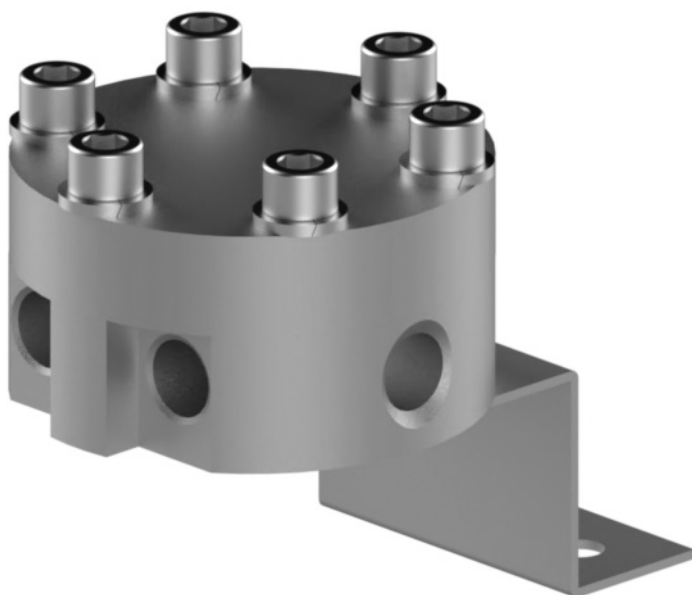


## Cyclone Single or Dual Element Bypass-type Filter



The Cyclone filter's unique design provides an unsurpassed combination of rapid response, minimum dead volume and high efficiency filtration. Using the proven bypass design, a large sample flow is passed through the filter body so the sample transport lag time is minimized. Only that portion of the sample needed for the process analyzer passes through the filter element. In this manner, low filtration rate and rapid response are both achieved. Careful flow design causes the unfiltered portion of the sample to sweep the filter element's surface to greatly extend the element's life. With the simple installation of a pipe plug in the bypass port, the Cyclone bypass filter can be converted to an in-line filter. All Cyclone filters have back-up screens to support the filter element and can be supplied with an optional stainless steel mounting bracket. Cyclone filters are available in three materials: 316L stainless steel, Monel®, and Hastelloy® C-276. On special order, filters can be supplied in most other machinable materials

### Features & Specifications

- Materials of construction are 316L stainless steel and Monel® (standard)
- Available in Hastelloy® C-276 and other machinable materials (optional)
- Filter element material is a Teflon® membrane
- O-ring seal material is available in either Viton® or Teflon®
- Available filter element porosities are 0.1, 0.22, 0.45, 1.0, 5.0
- Minimum sample flow rate on filtered side is 100cc/min of vapor or 50ml/min of liquid
- Minimum process flow rate on bypass side should be about 10 times the filtered sample flow rate

### GO Regulator

405 Centura Court • PO Box 4866 • Spartanburg, SC 29303  
Phone (864) 574-7966 • Fax (864) 574-5608  
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filters

# Cyclone Single or Dual Element Bypass-type Filter

## How to Order

CF – 1 1 2 D 5 0

**BODY MATERIAL**  
1 316L stainless steel  
4 Monel®  
6 Hastelloy® C-276

**PORT TYPE**  
0 ½" FNPT  
1 ¼" FNPT

**FILTER TYPE**  
1 Single element  
2 Dual element

**FILTER MOUNTING BRACKET**  
1 Include mounting bracket  
0 Omit mounting bracket

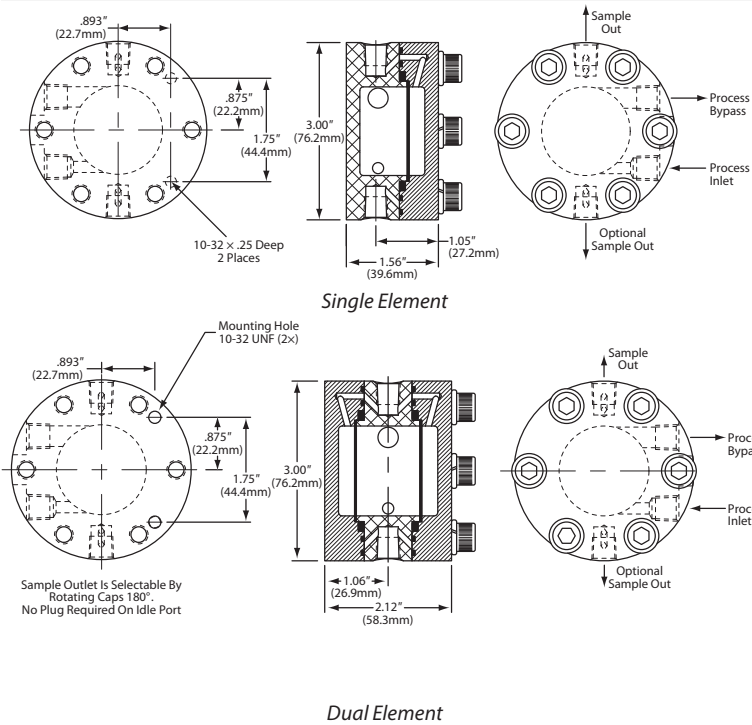
**MICRON RATING**  
1 0.22 micron  
2 0.1 micron  
3 1.0 micron  
4 0.45 micron  
5 5.0 micron

**O-RING MATERIAL**  
D Viton®  
I PTFE

## Specifications

|                                | Single Element                                                                                                                                         | Dual Element        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Body Material                  | 316L stainless steel, Monel®, (Hastelloy® C-276)                                                                                                       |                     |
| Filter Element Material        | PTFE membrane                                                                                                                                          |                     |
| O-ring Seal Material           | PTFE or Viton®                                                                                                                                         |                     |
| Filter Element Pore Sizes      | 0.1, 0.2, 0.22, 0.45, 1.0, 5.0microns                                                                                                                  |                     |
| Effective Filter Area          | 1.78 in² (11.3 cm²)                                                                                                                                    | 3.56 in² (22.6 cm²) |
| Internal Volume                |                                                                                                                                                        |                     |
| Filtered Side                  | 0.45 in³ (6.8 cm³)                                                                                                                                     | 0.9 in³ (13.6 cm³)  |
| Bypass Side                    | 1.56 in³ (25.3 cm³)                                                                                                                                    | 1.8 in³ (30.0 cm³)  |
| Pressure & Temperature Ratings | 3,600 psig @ 70° F (20° C)<br>1,500 psig @ 175° F (80° C)                                                                                              |                     |
| Recommended Flow Rates         | Minimum sample flow rate of 100 cc/min vapor or 50 ml/min liquid to minimize sample transport lag<br>Process flow should be about 10 times sample flow |                     |
| Connections                    | All connections are ½" or ¼" female NPT                                                                                                                |                     |
| Weight                         | 2.5 lbs (1.13 kg)                                                                                                                                      | 3.2 lbs (1.45 kg)   |

## Outline Dimensions



## Maximum Temperature & Operating Inlet Pressure

| Seal Material | Maximum Temperature | @ | Maximum Operating Inlet Pressure |
|---------------|---------------------|---|----------------------------------|
| Viton®        | 70° F (20° C)       | @ | 3,600 psig (24.82 MPa)           |
|               | 175° F (80° C)      | @ | 1,500 psig (10.35 MPa)           |
| PTFE          | 70° F (20° C)       | @ | 3,600 psig (24.82 MPa)           |
|               | 150° F (66° C)      | @ | 1,500 psig (10.35 MPa)           |

## Repair Kit Information

### Single Cyclone

| Part Number | Description                                                    |
|-------------|----------------------------------------------------------------|
| 100622-11   | St. steel filter kit with PTFE o-rings, 0.22µ filter element   |
| 100622-12   | St. steel filter kit with Viton® o-rings, 0.22µ filter element |
| 100622-21   | St. steel filter kit with PTFE o-rings, 1.0µ filter element    |
| 100622-22   | St. steel filter kit with Viton® o-rings, 1.0µ filter element  |
| 100622-31   | St. steel filter kit with PTFE o-rings, 5.0µ filter element    |
| 100622-32   | St. steel filter kit with Viton® o-rings, 5.0µ filter element  |
| 100622-51   | St. steel filter kit with PTFE o-rings, 0.1µ filter element    |
| 100622-52   | St. steel filter kit with Viton® o-rings, 0.1µ filter element  |
| 100622-61   | St. steel filter kit with PTFE o-rings, 0.45µ filter element   |
| 100622-62   | St. steel filter kit with Viton® o-rings, 0.45µ filter element |

### Dual Cyclone

| Part Number | Description                                                    |
|-------------|----------------------------------------------------------------|
| 100623-11   | St. steel filter kit with PTFE o-rings, 0.2µ filter element    |
| 100623-12   | St. steel filter kit with Viton® o-rings, 0.2µ filter element  |
| 100623-21   | St. steel filter kit with PTFE o-rings, 1.0µ filter element    |
| 100623-22   | St. steel filter kit with Viton® o-rings, 1.0µ filter element  |
| 100623-31   | St. steel filter kit with PTFE o-rings, 5.0µ filter element    |
| 100623-32   | St. steel filter kit with Viton® o-rings, 5.0µ filter element  |
| 100623-51   | St. steel filter kit with PTFE o-rings, 0.1µ filter element    |
| 100623-52   | St. steel filter kit with Viton® o-rings, 0.1µ filter element  |
| 100623-61   | St. steel filter kit with PTFE o-rings, 0.45µ filter element   |
| 100623-62   | St. steel filter kit with Viton® o-rings, 0.45µ filter element |

Monel® is a registered trademark of Special Metals Corporation.  
Hastelloy® C-276 is a registered trademark of Haynes International, Inc.  
Viton® is a registered trademark of DuPont Dow Elastomers  
Teflon® is a registered trademark of the DuPont Company.