

FEATURES

- 3-way, 2 position (NO, NC & Distributor)
- Optional 'Hit and Hold' drive electronics using pulse width modulation (PWM) at 25-32 kHz
- Minimum flow of 8 lpm @ 6 psi and 22 lpm @ 30 psi
- 10 mm single piece body design
- Barbed pressure ports allow for direct tubing or manifold assemblies
- RoHS compliant

MEDIA COMPATIBILITY

Non-reactive gases

WETTED MATERIALS

PBT (polybutylene terephthalate) glass filled;
430FR series stainless steel; 302 series stainless steel; Viton (FKM) or silicone elastomer

ELECTRICAL

| | |
|------------------------|---------------------------|
| Power | 0.5 W |
| Voltage | 5, 12, 24 V _{DC} |
| Electrical connections | PC pins |



PHYSICAL PROPERTIES

| | |
|---|--|
| Operating environment (continuous duty) | 0 to 50 °C |
| Storage temperature | -40 to 70 °C |
| Spacing | 10 mm (centerline) |
| Porting | Barbs for 1.98 mm (0.078 in) I.D. tubing or manifold mount with gasket |
| Weight | |
| without electronics | 10.7 g |
| with electronics | 12 g |
| Internal volume | 0.131 cm ³ (0.0080 in ³) |

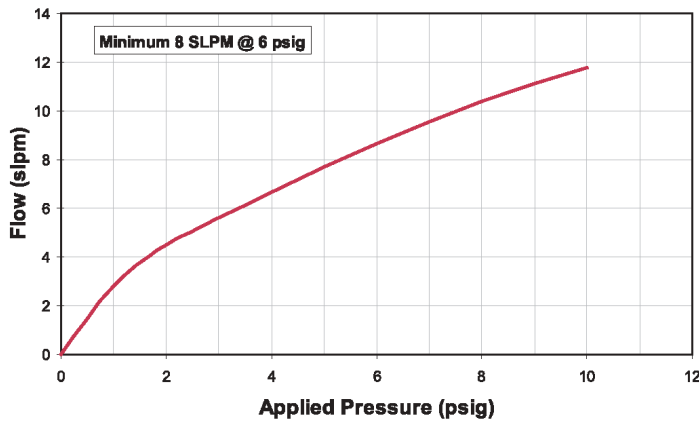
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PERFORMANCE CHARACTERISTICS

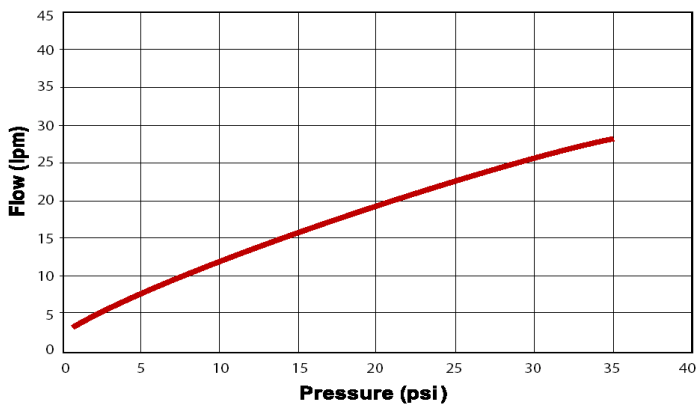
| Part no. | Pressure | Minimum flow | Orifice sizes/ Equivalent C_v ¹ | Leak rate ² | Response |
|----------------------------------|---|-----------------------------------|---|------------------------|-------------------|
| 914-1... (silicone elastomer) | 0...6 psi | 8 lpm @ 6 psi, 22 lpm @ 30 psi | 0.060" (1.52 mm)/ 0.042 C_v | ≤0.016 sccm | <5 ms cycling |
| 914-2... (Viton elastomer) | 0...6 psi, 0...20 psi, 0...30 psi | | | ≤0.2 sccm | <20 ms cycling |

FLOW CURVES (typical air flow at 24 °C)³

6 psi devices



20 psi and 30 psi devices

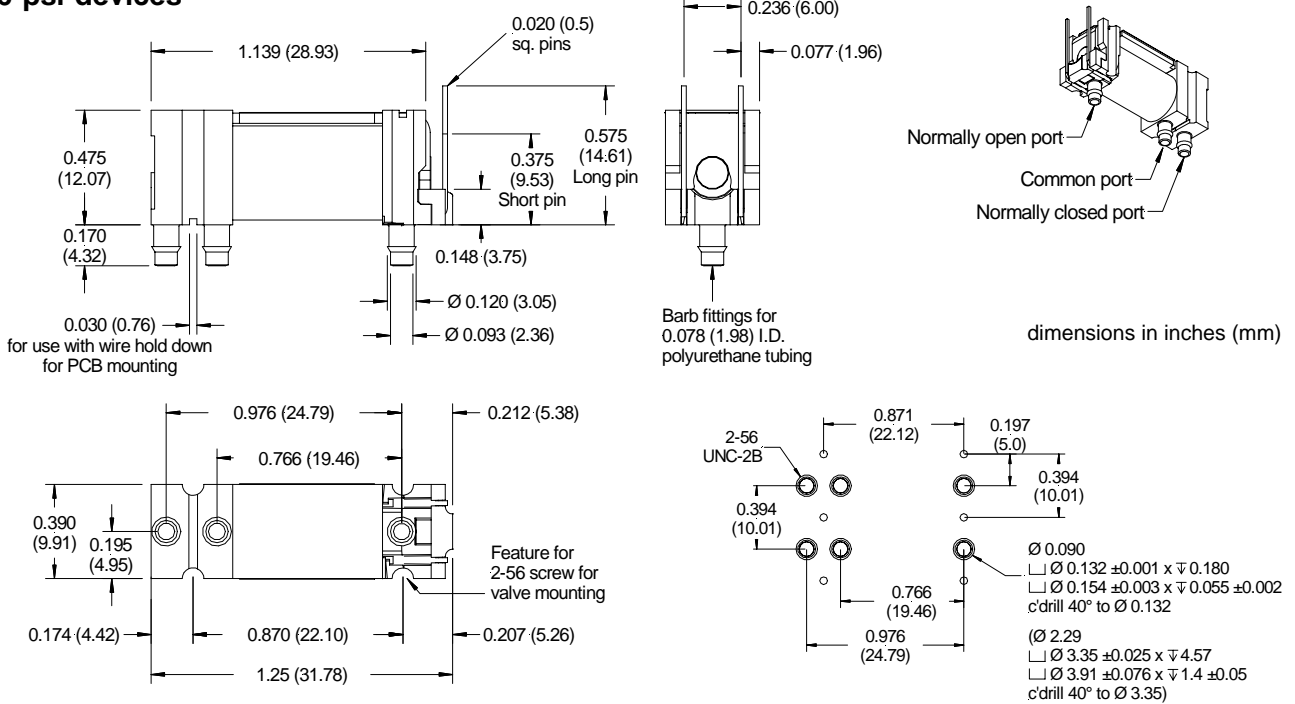


Notes:

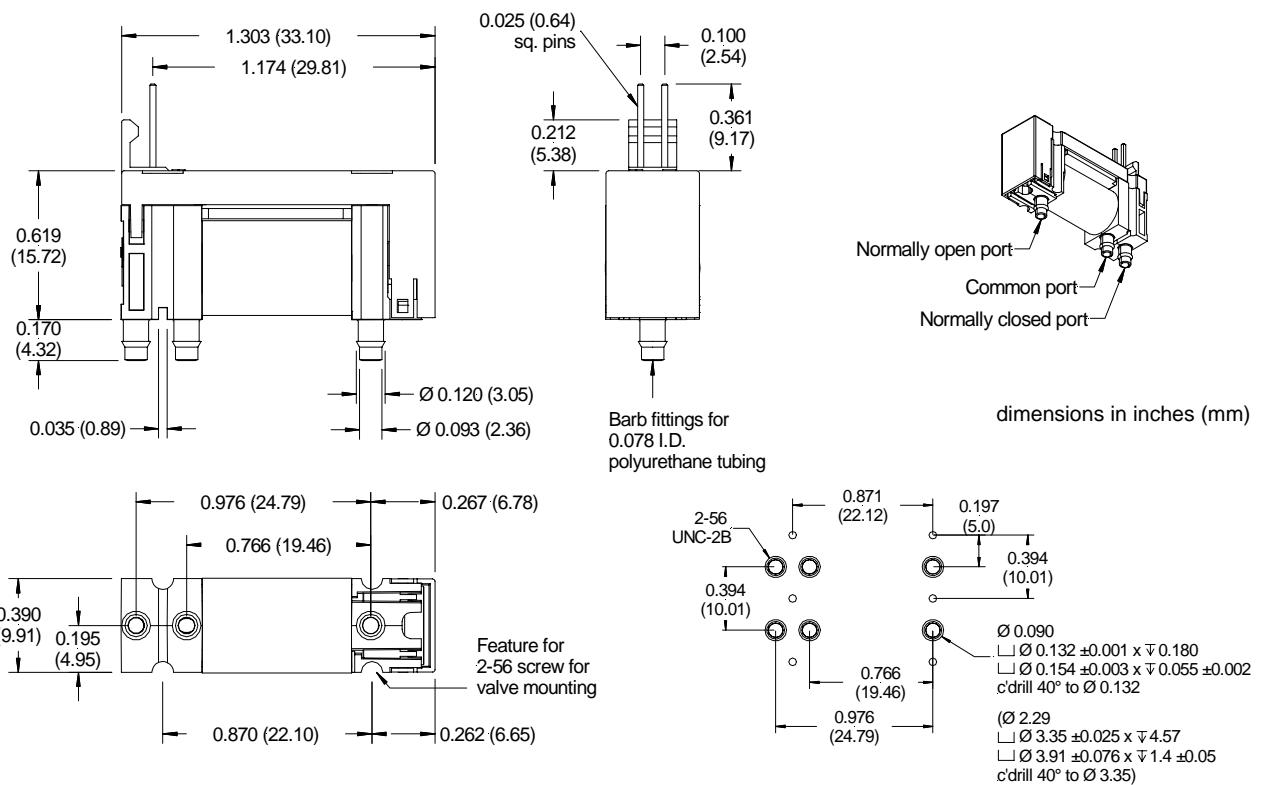
- ¹ The C_v value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. If several valves with the same nominal diameter are compared, the valve with the highest C_v value has the best flow dynamics design. The equivalent european measure is the k_v value expressed in m^3/h ($k_v = 0.86 C_v$).
- ² sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.
- ³ slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.

OUTLINE DRAWING AND MANIFOLD MOUNT DIAGRAM

6 psi devices



20 psi and 30 psi devices with electronics



ORDERING INFORMATION

6 psi devices

| Options | Series | Elastomer | | Type | | Model | | Voltage | | Electical | | Accessories* | |
|-----------------|--------|-----------|-------------|--|--------------------|-------|--------------------------------|---------|--------------------|-----------|------------|---------------------------|------|
| | 914 | 1 | Silicone | 1* | 2/3 way, NO, 6 psi | 1 | Standard (without electronics) | 05 | 5 V _{DC} | 1 | Short pins | 000 | none |
| | | 2 | Viton (FKM) | 2** | 2/3 way, NC, 6 psi | | | 12 | 12 V _{DC} | 2 | Long pins | | |
| | | | | 6** | Distributor, 6 psi | | | 24 | 24 V _{DC} | | | | |
| | | | | * Silicone elastomer only ** Viton (FKM) elastomer only | | | | | | | | * please order separately | |
| Example: | 914 | 1 | | 1 | | 1 | | 05 | | 1 | | 000 | |

20 psi and 30 psi devices with electronics

| Options | Series | Elastomer | | Type | | Model | | Voltage | | Electical | | Accessories* | |
|-----------------|--------|-----------|-------------|--|---------------------|-------|------------------------|---------|--------------------|-----------|----------------|---------------------------|------|
| | 914 | 2 | Viton (FKM) | 3* | 2/3 way, NC, 30 psi | 2 | Integrated electronics | 05 | 5 V _{DC} | 3 | Pins (2.54 mm) | 000 | none |
| | | | | 4** | 2/3 way, NO, 30 psi | | | 12 | 12 V _{DC} | | | | |
| | | | | 5** | Distributor, 20 psi | | | 24 | 24 V _{DC} | | | | |
| | | | | * Silicone elastomer only ** Viton (FKM) elastomer only | | | | | | | | * please order separately | |
| Example: | 914 | 2 | | 3 | | 2 | | 05 | | 3 | | 000 | |

Note: Not all combinations might be available. Please contact your nearest Sensortechincs sales representative for further information.

Accessories (please order separately using the following order numbers)

| Order No. | Description |
|--|--|
| 191-000112-010 (<i>free of charge</i>) | Mounting screws for 6 psi devices (2 screws per valve) |
| 191-000112-012 (<i>free of charge</i>) | Mounting screw for 20 psi and 30 psi devices (2 screws per valve) |
| 195-000211-001 (<i>free of charge</i>) | Manifold gasket (FKM) for 6 psi devices (1 gasket per valve) |
| 195-000242-001 (<i>free of charge</i>) | Manifold gasket (FKM) for 20 psi and 30 psi devices (1 gasket per valve) |
| 590-000073-001 (<i>extra charge</i>) | 18 " leads w/ connector (only for devices with integrated electronics) |

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