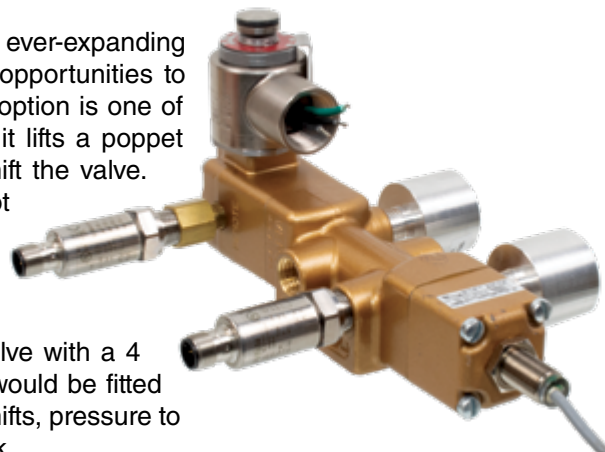




## Diagnostic Feedback Options

Real World Reliability requires constant communication through technologies such as the Industrial Internet of Things (IIoT). To meet these requirements, Versa is promoting field-proven Diagnostic Feedback Options. The same tried-and-true valves Versa had always offered are now available, with the addition of key modular components, with the added capability of intelligence through the use of strategic sensors.

In combination with our extensive valve options and the ever-expanding IIoT technologies, these developments offer users endless opportunities to engineer intelligent systems. Our Remote Sensor Port (-20) option is one of these options. When a spool valve's solenoid is energized, it lifts a poppet to allow air pressure to the piston, providing the force to shift the valve. Simultaneously, a 1/8" NPT port, connected to the pilot chamber, receives pressure. This port can be fitted with pressure sensors of various kinds for a wealth of diagnostic feedback information focused on the solenoid operation.



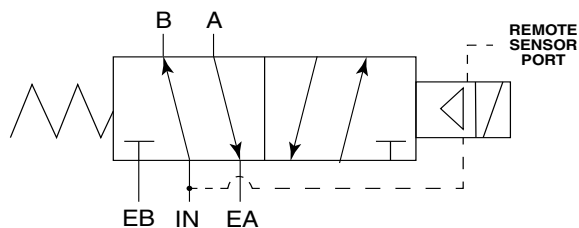
Another approach, is to replace a 3-way, 2 position (3/2) valve with a 4 way, 2 position (5/2). In this case, the unused cylinder port would be fitted with a pressure sensor, rather than a plug. When the valve shifts, pressure to the cylinder port will exhaust to the sensor providing feedback.

In some cases, pressure sensor feedback from spool position isn't enough. For those applications, we offer the option (-407) which is a spring cap sensor port with an M12 thread to accommodate a proximity sensor to physically read the spool position.

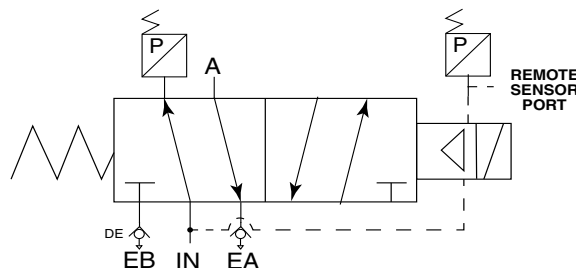
Versa's Diagnostic Feedback Options can be incorporated in a Smart Exercise & Bypass Circuit. This allows process monitoring, automated cycling, and diagnostic feedback from your control solenoids without cycling the ESD valve. By equipping valves with sensory feedback, you can add diagnostic intelligence to an already highly reliable system.

By applying Versa's Diagnostic Feedback Options you can add diagnostic intelligence to any valve circuit to build a data profile of the system operation.

5/2 4-Way Valve with Remote Sensor Port



5/2 Valve 3/2 Operation Fitted for Diagnostic Feedback



- 5/2 Valve body Converted to 3/2 operation
- Pressure sensor feedback from cylinder port infers spool position
- In combo with Remote Sensor Port, creates diagnostic feedback for spool position





## Real World Reliability Matrix

**V SG - 3 5 2 1 - 316 - PWR - XXN4 - Voltage**

V = V Series brass or stainless steel.

SG = Solenoid Spring Return  
AA = RAK  
SA = PWR

3 = Three-way  
4 = Four-way

3 = 1/4" NPT Series V or V-316  
4 = 3/8" NPT Series V or V-316  
5 = 1/2" NPT Series V or V-316  
6 = 3/4" NPT Series V or V-316  
7 = 1" NPT Series V or V-316

2 = Threaded sideports Inpilot solenoid

1 = 3-Way NC  
2 = 4-Way/2-Position

Add "316" for stainless steel valves. Leave blank for brass valves

### Valve Reliability Packages

-NGS: -S, -10, -31, -55M, -155  
-NGST: -S, -10, -31, -55M, -155, -44  
-B894: -S, -10, -31, -55C, -155,  
-B895: -10, -31, -55C, -155

### Temperature

-44 Low Temp -40°F  
-PLR Extreme Low Temp -67°F

### Diagnostic

-20 Remote sensor port  
-407 Spring cap proximity switch port

### Power Shift

-PWR:  
-SS Super strong spring  
-DP Double pilot piston on solenoid actuator

### Dust Proof

-DD Plunger, drilled end to end, (protective seals between body/caps)  
-DG Plunger, drilled end to end

### XXN4:

-XX Explosion-proof solenoid operator  
-D14 Water & dust excluder / silencer Assembly  
-LB 1.8 Watt  
-PC NEMA 4X

Additional solenoid packages available; consult factory.