Parker R-Max[™] Gen II

Stream Select Valve Designed for Reliable Operation in Difficult Process Analytical Applications



US Patent # 6619321

The Parker R-Max[™] Gen II combines the unique flexibility and functionality of a modular stream switching valve for proven application reliability and performance

- Parker Patented Technology for double block and bleed stream selection
- Fully swept low internal volume
- Numerous functional designs available normally open, normally closed, internal fast loop, diverter assembly, ARV module, lab sampling module, single 3-way and by-pass filtration
- High Cycle Life

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Learn how you can benefit from state-of-the-art stream switching technology and reliable low pressure valve actuation.

benefit from

• Field expansion and modification

Product Features:

Modular configuration

Dedicated ARV for gas

Captured vent

Position indicator

Product Benefits:

- Real-time valve evaluation
- Ease of maintenance and reduced downtime required for cartridge replacement
- Local indication of valve "on" and "off"
- Allows the sample shutoff and equilibration of the sample loop pressure to atmosphere
- Allows assembly expansion after installation and addition of low pressure actuator





Parker R-Max[™] Gen II Applications

ARV Assembly

- The dedicated ARV allows balancing atmospheric pressure for reliable sample injection
- Dedicated ARV allows the use of multiple R-MaxTM II valve functions in the same assembly
- Multiple sample streams are available for use in a single ARV module application



Remote ARV Modules

- Allows the use of R-MaxTM II with multiple injection valves
- Flow control architecture allowed upstream of ARV module
- Separation of ARV modules allows for trace analysis with different injection valves
- Targeted spacing within confined enclosures integration flexibility



Valve Daisy-Chaining

- R-MaxTM II two header system allows connection between two or more assemblies
- Integration flexibility minimizes spacing constraints within a sample system enclosure
- For high stream counts the valve assemblies can be spaced as needed within an enclosure



Normally Open

- The R-MaxTM II assembly may also be offered with NO (Normally Open) modules
- The NO module is typically supplied within an assembly and with only a single NO module
- This configuration allows for flow directly to the analyzer from the stream #2 module



Internal Fast Loop

- Internal fast loops provide a continuous sample flow through the R-Max[™]II valve assembly
- The internal fast loop (IF) option can easily be changed by replacing the inlet valve cartridge
- The fast loops will flow continuously out the DBB vent port



Dual-Stack Gas Monitoring

- The R-MaxTM II valve architecture provides the capability to evaluate analyzer systems and for validating sample system operation
- The "diverter" modules are actuated to send calibration gas to the stack for evaluation



Lab Sampler

- The R-MaxTMII lab sampler module allows collection of sample by actuating the valve module
- The lab sample module may also be used as a by-pass module. Sample can be 'cycled' to an analyzer or conditioning system from this module
- Liquid and gaseous samples may be collected from this module
- Pneumatic actuation allows the customer to remotely select or manually select (from solenoid valve) sample

TO CYLINDER SAMPLE OUTLET SAMPLE INLET ACTUATION AIR

Valve Purging

- R-Max[™]II can be purged between stream select operations
- Effective in trace oxygen applications
- The purge gas can also be applied to analyzer vent header to purge analyzer cell



Specifications:

- Pressure Rating: Vacuum: 500 psig (5.4 bar)
- Actuation Pressure:
 65 125 psig (4.4 8.5 bar)
 35* 125 psig (2.4 8.5 bar)
 *With LP Actuator
- Temperature Range: -26°C - 204°C
 Maximum temperatures will be effected by elastomer material

Materials:

- Wetted: 316 SS, Elastomers (i.e Fluorocarbon rubber [i.e Viton], Highly Fluorinated Fluorocarbon rubber [i.e Kalrez], EPR, Buna-N, Neoprene and EPDM)
- Non-wetted: Valve piston and indicator plate (anodized Aluminium)

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