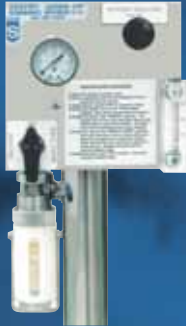


Samplers For Process Industries

LIQUIDS • GAS • GAS/LIQUIDS • LPG



Backed By
Over 85 Years of
Sampling Experience

www.sentry-equip.com



Take the best sample you can get — use a Sentry Process Sampler

The whole concept of sampling is to determine the content, quality or status of the product or process being sampled. To maximize the results, the sampling method must be safe, simple and accurate. This is the hallmark of our sampling products and custom systems:

- Maximize safety to the operator and the environment
- Keep it simple and easy to use
- Achieve the most representative and accurate sample possible



All of our standard samplers can be designed to meet specific customer requirements when requested. As a manufacturer of sample conditioning components for over 85 years, we bring a breadth of expertise that you can't get from a systems integrator. You can count on Sentry for Safe, Simple and Accurate sampling.

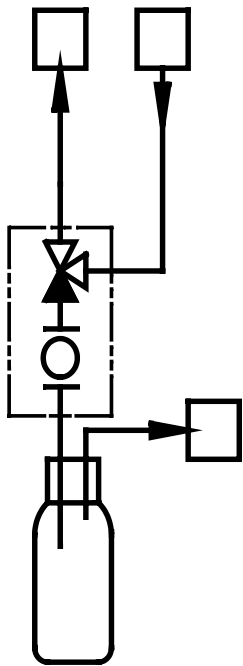
SAFE • SIMPLE • ACCURATE

To learn more about Sentry Equipment and download referenced bulletins, visit us at:

www.sentry-equip.com

LIQUID SAMPLERS

MVD Needle/Stub Sampler



Double Ball Valve Assembly

- 3-way and 2-way ball valves in series provide a double block valve combination, substantially increasing leak-tight integrity and eliminating dead volume.
- 3-way valve speed loop provides a contemporary sample at all times.
- Optional nitrogen purge.
- 2-way valve features adjustable throttling stop and spring return for improved safety.

Needle Assembly

- One-piece needle assembly is easily removed for cleaning or replacement without dismantling the entire valve or removing it from service.
- Patented non-coring needle design preserves septum integrity, allowing septum to reseal sampling is complete.
- Side discharge needle helps dissipate energy against the side of the bottle, reducing bubbling or churning

Bottle Shroud

- Tapered shroud assures septum and needle alignment, preventing accidental spillage or needle breakage.

Sample Bottle

- 60-1000 ml (2-32 oz) round borosilicate glass with septa cap. Other materials and sizes available.
- **SEPTUM:** Teflon[®]-backed silicone. Other materials available upon request.

Options

- Needle size
- Tube stub
- Sample cooler
- Activated carbon vent canister

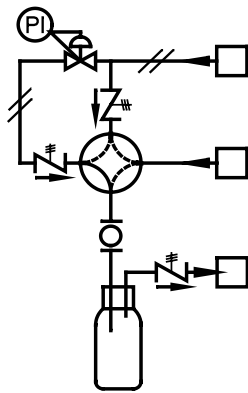
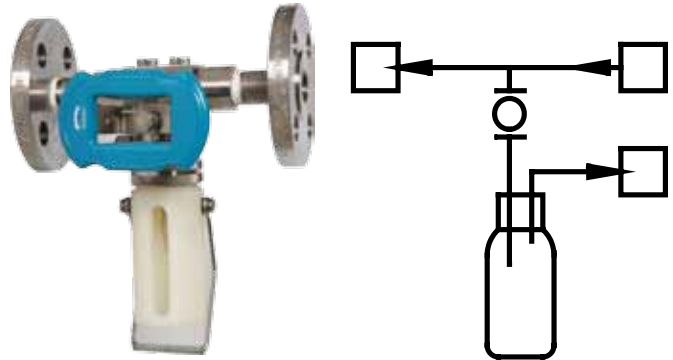
Ask for bulletin 1.5.4

LIQUID SAMPLERS

MIL In-Line Sampler

- Direct inline liquid sampling
- Flanged or NPT end connections
- Pressure ratings up to 2200 psig (152 barg)
- Low dead volume and optional nitrogen purge

Ask for bulletin 1.5.15



MBP Back Purge Sampler

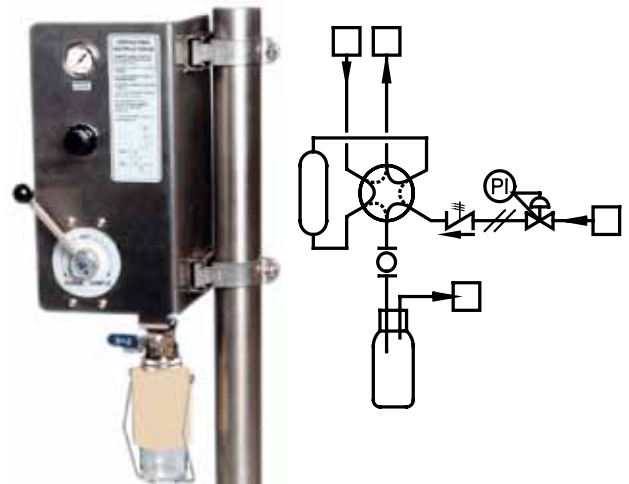
- Contemporary samples from tanks, vessels or pipelines without a speed loop or bypass
- Eliminates sample waste by pre-purging old sample
- Design assures that both sampler and sample line are purged both before and after taking a sample

Ask for bulletin 1.5.7

MFV Fixed Volume Sampler

- Provides representative and repeatable fixed volume sample with a single operator that provides multiple functions with each manipulation of the valve handle
- Precise sample size minimizes waste and potential for overfilling
- Complete purge of previous sample from the sampler
- Fully isolated sample loop from sample source

Ask for bulletin 1.5.6



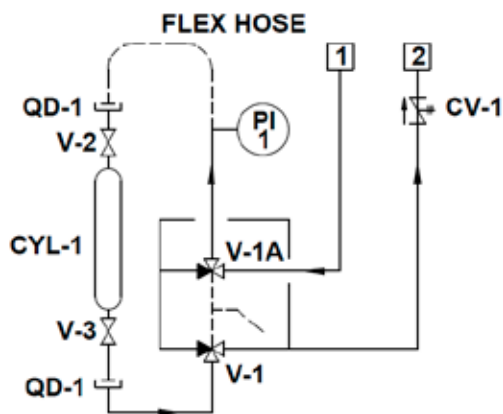
GAS, GAS/LIQUID AND LPG SAMPLERS

When process conditions require the use of a cylinder-type sampling system, Sentry has the experience and skill to meet a broad variety of needs with one of our standard Closed Loop Cylinder Sample Panels or a custom sample panel.

Model MCG/MCL

- Continuous flow of sample assures representative sample
- Quick disconnects allow for easy removal and transportation of the sample cylinder
- Self-sealing quick disconnect fittings prevent leakage when cylinder is removed
- Outage tube prevents over-pressurization of cylinder when taking samples
- Closed loop sample cylinder primarily used for gaseous or two-phase liquids.

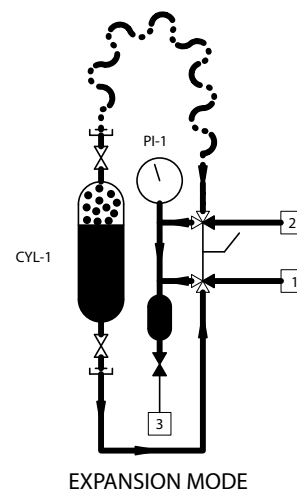
Ask for bulletin 1.5.8 (gas) or 1.5.9 (liquid)



Model MLG

- Safe and accurate sampling of LPG and liquefied gases
- 6-port/multi-function tandem valve simplifies operation and reduces valve maintenance
- Expansion vessel reduces sample cylinder volume after the sample is captured, assuring safety, accuracy, and representativity

Ask for bulletin 1.5.21



EXPANSION MODE

GAS, GAS/LIQUID AND LPG SAMPLERS

Model MGC: Gas Grab™ Gas Concentration Sampling System

- Minimizes fugitive toxic gas emissions, protecting the operator and the environment from dangerous vapors
- Provides representative sample at constant atmospheric pressure
- Tandem 3-way valve switching assemblies allow sampler to be flushed or purged of old material, providing a contemporary, representative sample.
- Typical applications include acetone, ammonia, benzene, chlorine, cyanide, hexane, hydrogen sulfide (H₂S), natural gas, oxygen, ozone, pentane, sulphur dioxide, trichlorethylene, and many others

Ask for bulletin 1.5.18



Custom Applications

Sentry has provided numerous custom gas and two-phase liquid samplers to meet specific customer needs. Specific capabilities include:

- Fixed volume expansion vessels
- All welded construction
- Custom valving
- Special materials
- Preheating/Cooling

Gas/Liquid Sampler
with electric heater
and flanged customer
connections



CUSTOM SAMPLERS AND SAMPLING SYSTEMS

Sentry's Expertise

Sentry has extensive experience in solving specialized sampling problems in a variety of industries including oil refining, petrochemical processing, chemical and pharmaceutical manufacturing, and power generation. Special containments, hazardous area design, ASME and PMI are just a few of the things we can do.

Options and Accessories

- Sample coolers
- Thermal Shut Off Valves
- Activated Carbon Canisters
- Special Bottles and Septums
- Special Materials of Construction

Hazardous Liquid Sampler
enclosed in a glove box with
forced ventilation



**Self Contained Explosion
Proof Liquid Sampler**
with blower and vent gas
recovery system



**High Temperature
Process Fluid Sampler**
incorporates double block valve
and cabinet to isolate sample from
the operator and the environment



A SAMPLING OF SENTRY EQUIPMENT'S PRODUCTS



WATER/STEAM SAMPLING

- Sample Coolers
- VREL[®] Pressure Reducers
- Back Pressure Regulator/Relief Valves
- Thermal Shut Off Valves
- Single Line Sample Panels
- Cation Resin Columns
- Degassed Conductivity Panels
- Corrosion Products Samplers
- Temperature Control Units
- Sample Sequencers
- Custom Sampling Systems

PROCESS SAMPLING

Sampling Equipment for:

- High vapor pressure gases/liquids
- High pressure gases
- Gas concentration measurement
- Liquids and slurries
- Bulk Solids
- For use in industries such as chemical, petroleum refining, cement, nuclear, mining, pharmaceutical, food and more



⚠ WARNING

It is solely the responsibility of the end-user, through its own analysis and testing, to select products and materials suitable for their specific application requirements, ensure they are properly installed, safely applied, properly maintained, and limit their use to their intended purpose. Improper selection, installation, or use may result in personal injury or property damage.



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