



➤ **SAMPLEX inLINE Sampling Solution**

**Automatic Sampling System
in Line**

PRECISION & REALIABILITY



Optimize custody transfer sampling processes with a SAMPLEX™ inLINE System.

Why Use an Automatic Sampling System?

A crude oil custody transfer measurement system is essential for determining the quantity and quality of the oil being delivered. Using a system that verifies product quality at the delivery point provides benefits for both the buyer and the seller.

Accurately determining product quality ensures the correct quantity of hydrocarbon being transferred and helps prevent disputes, claims, or unnecessary payment adjustments.

SAMPLEX™ inLINE System Features

The SAMPLEX™ inLINE Automatic Sampling System is a practical and cost-effective solution for crude oil and condensate sampling applications based on API MPMS 8.2, ASTM D4177, and ISO 3171 standards. It is designed for pipeline transportation processes, custody transfer points, and loading or unloading operations for land and marine applications.

The inLINE system provides the advantage of being a complete solution specifically designed for sampling applications and is integrated with the following main components:

- SAMPLEX™ SP15 Sampling Probe
- SAMPLEX™ SR Sample Receivers
- SAMPLEX™ Control-X Sampling Controller
- SAMPLEX™ WS25 Weighing System
- SAMPLEX™ HPU Hydraulic Power Unit

The Benefits Come First

- API, ASTM, and ISO Compliance
- User-Friendly Operation
- Easy Maintenance
- Low Installation Cost

Get greater benefits from our technical specialists through a complete solution by requesting the following services:

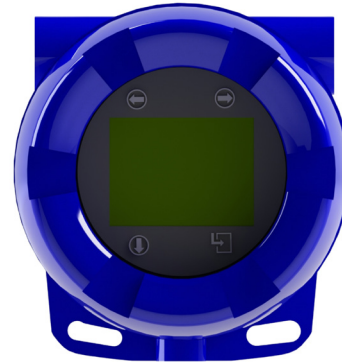
- **Engineering Development** – Ensuring proper implementation and compliance while avoiding unnecessary additional costs.
- **On-Site Commissioning** – Ensure your system starts operation smoothly and without any issues.
- **Professional Training** – Provide your technical personnel with the knowledge required for hydrocarbon sampling based on applicable standards, along with proper system operation and maintenance practices.



SAMPLEX SP15 Liquid Sample Probe



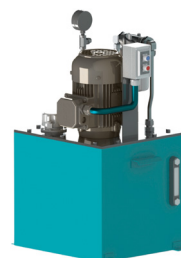
SAMPLEX SR Atmospheric Sample Receiver



SAMPLEX Control-X Sample Controller

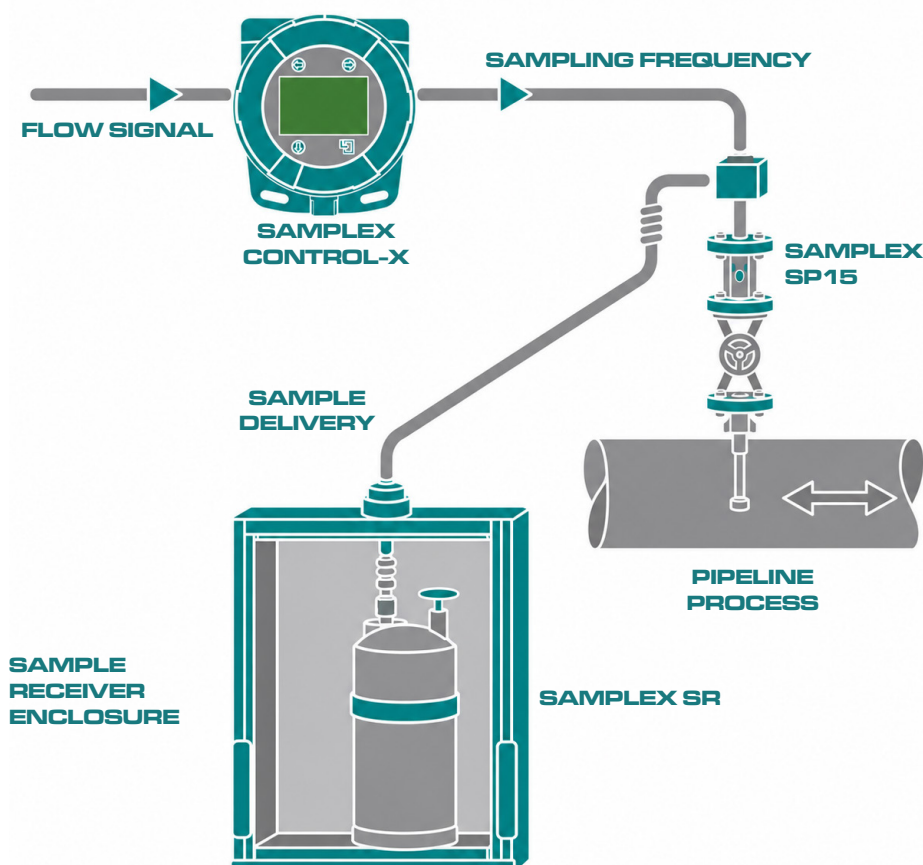


SAMPLEX WS20 Weighing System



SAMPLEX HPU Hydraulic Power Unit

Typical Schematic of the In-Line System



It is essential to have the correct sample extraction equipment that complies with the required tolerances and repeatability specifications. Once a homogeneous mixture has been achieved, it is critical that the sampler is regulated and activated proportionally to the main pipeline flow rate for proper sample collection and analysis.

For this type of sampling system, the SAMPLEX™ SP15 In-Line Insertion Sampling Probe is used, allowing the device to be installed directly into the pipeline. It is available in two versions: a fixed installation version and a hot-tap installation version, which allows the equipment to be installed without interrupting the main pipeline process.

The sampling probe can be operated pneumatically or hydraulically. All units are designed to extract sample volumes with repeatability better than $\pm 5\%$, regardless of the fluid type and process conditions. All samplers operate based on a time interval system (sampling frequency), where the configured activation time is controlled according to the following operating methods:

Flow-Proportional Sampling: In this mode, the sampling frequency varies according to changes in the dynamic process conditions; therefore, the sampling rate automatically adjusts based on the flow rate.

Time-Proportional Sampling: In this mode, a constant sampling rate is established over a fixed period of time, regardless of flow variations during the transaction.

The samples collected using the different sampling methods are stored in either an atmospheric sample receiver or a constant pressure sample receiver, depending on the process application requirements.

Constant pressure sample receivers are used for fluids with high vapor pressure or non-stabilized products, while atmospheric sample receivers are used for stabilized crude oil or condensate applications.

The sample receiver volume capacity is selected based on the collection period and the specific application requirements.