

Sample wireless selective sampling system

Selective control of representative downhole sampling during Symphony live downhole reservoir testing

-  **Temperature:**
329 degF [165 degC]
-  **Pressure:**
up to 20,000 psi [137.9 MPa]
-  **Real-time wireless activation and confirmation**

Applications

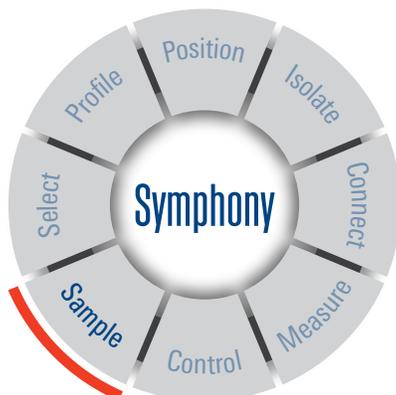
- Downhole reservoir testing
- Exploration and appraisal testing
- Advanced or routine PVT and compositional analysis
- Flow assurance measurement acquisition
- Heavy oil sampling
- Near-saturated reservoir sampling
- Sulfur- and mercury-species analysis

How it improves wells

The Sample wireless selective sampling system is seamlessly integrated in the Symphony* live downhole reservoir testing toolstring to obtain contamination-free, selective representative reservoir fluid samples. Due to the wireless initiation, there are no casing pressure limitations, enabling more flexibility in the sample periods.

How it works

As a component of the Symphony testing string, the Sample system is selectively activated using wireless commands at any



time during the flow periods. Whether fluid samples are collected individually or simultaneously, activation is confirmed wirelessly in real time.

What it replaces

The Sample system replaces pressure-activated rupture disc systems that require a large pressure window, which limits the choice of sample locations and restricts what type of fluid samples can be taken. In addition to selective wireless activation from surface via the Symphony testing string, the Sample system includes a contingency pressure backup option for operational flexibility and the ability to control sample collection with confidence. And confidence in your samples continues at surface, where Schlumberger maintains them intact under strict chain-of-custody sample management tracking.

What else I should know

Each of the up to 8 INCONEL® samplers has a small nitrogen gas charge to ensure that once it self-closes downhole, its sample remains single phase. Optional Dursan® nonreactive sample chambers ensure that H₂S, mercaptans, and trace elements are retained to deliver the most-representative reservoir fluid samples.

Each deployment of the fully customizable design of the Symphony reservoir testing string is reviewed to optimize risk mitigation with the experts at the Operational Control Center. These technical and domain specialists also monitor each test in real time and are available to assist operations as needed. The logistics team ensures that your equipment arrives on time, even to the most remote locations, through the Schlumberger global logistics network.

Sample Wireless Selective Sampling System Specifications	
	Sampling System United by Muzic* Wireless Telemetry
Temperature rating, ¹ degF [degC]	329 [165]
Pressure rating, psi [MPa]	20,000 [137.9]
OD, in [mm]	5.5 [139.7]
ID, in [mm]	2.25 [57]
Makeup length, ft [m]	24 [7.3]
Weight, lbm [kg]	1,130 [511]
Differential pressure rating across wall (burst and collapse), psi [MPa]	15,000 [103.4]
Max. absolute pressure, psi [MPa]	20,000 [137.9]
Connection	3½-in PH-6
Max. makeup torque for body, lbf.ft [N.m]	4,000 [5,423]
Sample carrier	8 SLS
Sample volume, fl ozUS [cm ³]	10 [300]
Battery autonomy, ² d	60
Mechanical override with pressure rupture disc	Yes
NACE MR0175 compliance	Yes

¹Specific maintenance service level required for operations at temperatures above 300 degF [149 degC].

²Double battery pack required

Symphony testing uses the Sample wireless selective sampling system to capture and maintain highly representative single-phase fluid samples.

