

Control wireless dual valve

Bidirectional command and verification of independent dual-valve operation during Symphony live downhole reservoir testing

-  **Temperature:**
Up to 310 degF [160 degC]
-  24 cycles
-  Real-time wireless activation and confirmation

Applications

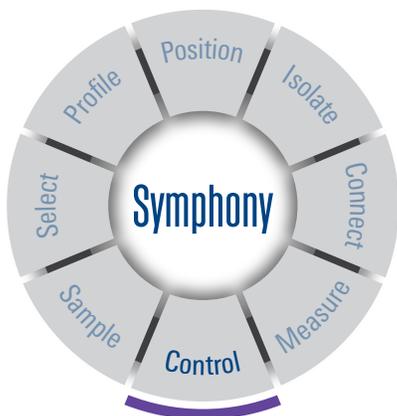
- Downhole reservoir testing
- Deviated and deepwater wells
- Exploration and appraisal testing

How it improves wells

The Control wireless dual valve is deployed in the Symphony* live downhole reservoir testing toolstring to optimize rig time through real-time test control and validation.

How it works

Symphony testing provides real-time digital control and verification of the circulating and test valves in the Control dual valve united via wireless bidirectional communication with the Muzic* wireless telemetry system. Valve operations are also recorded for postjob analysis. Not only are the circulating and test valves of the Control dual valve operated independently, but multiple Control wireless dual valves can be run in a single Symphony testing string for extended operations or multizone testing, with each tool independently operated.



With a simplified hydraulic design that provides immunity to mud debris and well effluent solids, the Control wireless dual valve is insensitive to pressure fluctuations, so control is maintained going in and coming out of the well at any depth. This rugged operational flexibility is enhanced through redundancy for the Control dual valve's wireless communication with contingency capabilities for low-pressure command sequences and mechanical override.

What it replaces

The Control wireless dual valve provides the highest level of flexibility without adding complexity, replacing traditional mechanical single-function tools. The simple mechanical section is based on a proven design, in which the moving parts are bathed in hydraulic oil at hydrostatic pressure to ensure the highest reliability in environments with debris or heavy mud. The circulating valve has eight 1/2-in-diameter circulating ports enabling higher reversing and circulating rates to reduce rig time during operations.

Control Wireless Dual Valve Specifications	
	Standard
Temperature rating, degF [degC]	320 [160]
Pressure rating, psi [MPa]	
Differential pressure, psi [MPa]	10,000 [69]
Max. annular pressure, psi [MPa]	13,000 [90]
Max. internal pressure, psi [MPa]	15,000 [103]
Max. opening differential, psi [MPa]	
For circulating valve (if external pressure > internal pressure), psi [MPa]	7,500 [52]
For test valve (if pressure below valve > pressure above valve), psi [MPa]	7,500 [52]
Min. operating pressure, psi [MPa]	1,500 [10]
OD, in [mm]	5 [127]
ID, in [mm]	2.25 [57]
Makeup length, ft [m]	24.7 [7.53]
Weight, lbm [kg]	994 [450]
Number of cycles	24
Min. battery autonomy, d	25
Connection	3 1/2-in PH-6
NACE MR0175/ISO 15156 compliance	H ₂ S, acid



Symphony testing uses the Control wireless dual valve to control circulation when testing single or multiple zones.

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What else I should know

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 at the most remote locations, through the Schlumberger global logistics network.

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