

IPC Titan - Intelligent Valve Retrofit

Vertechs IPC Titan - Intelligent Valve Retrofit upgrades conventional manual valves into intelligent all-electric controlled valves through a compact electric actuator, quick-connection adapter and IPC control system. It enables remote, automatic and precise valve / pressure control while preserving the value and pressure-tested integrity of existing valve assets. This upgrade significantly improves safety, efficiency and precision in valve-related operations in the oilfield.



FEATURES

- Retrofit conventional manual valves into all-electric intelligent valves
- Switchable manual and electric-drive configuration for operational flexibility
- Quick-connection adapter for rapid retrofit and reduced field intervention
- Compatible with horizontal and vertical mounting orientations

- Remote monitoring & control configuration for both on-site wired/wireless HMI control and remote monitoring from client office (subject to network).
- Real-time diagnostics for actuator faults and valve anomalies
- IPC MPD - Auto Control System: redundant design and equipped with IPC algorithm, enabling reliable multi-parameter control including Valve Set Point, SBP and SPP.
- Modular design: servo motor, reducer and transmission integrated
- Shock-resistant design for longer service life
- No on-site maintenance required

BENEFITS

- IPC Titan upgrades existing manual valve assets into electrically powered intelligent valves without replacing the full rig choke manifold or related valve assemblies, helping reduce retrofit cost and protect prior equipment investment.
- Remote operation and real-time status monitoring help reduce personnel exposure near high-pressure equipment during well-control and pressure-control operations
- Electric actuation, IPC control algorithms and remote operation capability improve repeatability, response speed and control precision across well-killing, drilling and production pressure-control workflows.



APPLICATION

- Well-control and well-kill operations, including the driller's method and wait-and-weight method
- Differential-sticking mitigation, circulation pressure management
- Christmas tree / production choke / valve retrofit
- Manual choke / choke manifold retrofit for other drilling, workover and pressure-control operations

SPECIFICATIONS

Compliant with	API Spec 6A / API Spec 16C	Actuator	IPC Titan 48 V DC electric actuator, manual/electric switchable
Rated Working Pressure	20,000 psi [140 MPa]	Position Control Accuracy	0.5°
Pressure Control Accuracy	±30 psi [±0.2 MPa]	Control Response Time	<0.1 s
Communication Protocol	WITS	Control Modes	Local panel, wired / wireless remote control
Ambient Temperature	-45 °C to 80 °C [-49 °F to 176 °F]	Status Monitoring	Torque, speed, valve position, motor current and diagnostics
Explosion-proof Rating	Zone 1	IP Rating	IP65

Mounting	Horizontal / Vertical	Connection	Flange / rotary stem connection with quick- connection adapter
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NOTE: Technical specifications are for reference only and may differ from final delivered equipment, subject to confirmation upon agreement.

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