

Orion VI DAS for Intervention



Proven data acquisition you can trust—for all your completions operations.

In the data-integrated oilfield, the most dependable and widely utilized data acquisition system (DAS) has greater utility than ever before. Leveraging the proven design of the original Orion™ DAS, we have re-engineered the Orion VI with upgraded core electronics to handle today's oilfield data processing requirements. This new design incorporates an integrated industrial PC (IPC) with a monitor in the cabin, streamlining your unit's computer management while freeing up valuable counter space.

Along with our renowned 24/7 customer support, the Orion DAS is the most versatile system in the well intervention industry, making your data tracking and reporting easy – all within a condensed footprint.

Configuration

The Orion system is modular and can be configured according to user requirements, including ATEX certification. It has increased I/O to support data-intensive operations. Depending on the number of channels requested, an additional enclosure may be required.

Our standard package is pre-configured based on the intended application, including the following channel types:

- Speed/depth
- String weight
- Circulating and wellhead pressures
- Rates/volumes
- Other process sensors

Optional upgrades and integrations

- Emergency Stop System (ESS)
- Hydra Rig™ injector chain auto-lubrication system
- Depth Measurement System (DMS) interface, eliminating the control box
- Remote Orion Viewer (ROVer™) HMI
- NOV-provided HMI (ATEX rated)
- Advanced communication solutions

Specifications

Power input:

- Safe area.....110-220 VAC at 50/60Hz or 10-36 VDC
- Safe area with IS upgrade.....220 VAC at 50/60Hz or 10-36 VDC
- Hazardous certified.....110-220 VAC at 50/60Hz

Operating temperature (95% non-condensing):

- Safe area.....-20 to +60°C
- Safe area with IS upgrade.....-20 to +60°C
- Hazardous certified.....-20 to +50°C

Storage temperature (95% non-condensing):-20 to +70°C

Shock: 5G continuous and 20G peak

Ingress rating: IP67

Enclosure dimensions (W x H x D):

- Safe area.....20 x 20 x 8 in.
- Safe area with IS upgrade.....24 x 24 x 8 in.
- Hazardous certified.....24 x 24 x 8 in.

Certifications:

- ATEX
- IECEx

Features and benefits

- Available in ATEX-certified or safe-area NEMA-4X stainless steel enclosures
- Wireless data transmission
- Flexible configurations that accept inputs, including Serial S232/485, ASCII, WITS0, TCP/IP, and output Serial ASCII with WITS0
- Pressure, weight, depth, and other analog, digital, or voltage sensors
- IPC with monitor eliminates the need for an in-cabin laptop
- Increased I/O to support data-intensive operations, including the following as standard:
 - Analog input (4-20mA): 40
 - Quadrature input: 4
 - Serial input (RS485): 1
 - Serial input (RS232): 1
 - Digital input (high speed, 100000 Hz): 4
 - Digital input (low speed, 100 Hz): 4
 - Voltage input (+/- 10 VDC): 4
 - Digital output: 8
- Automatic data backup, including diagnostic data, channel configuration changes, unit description, and serial number (Only accessible on the unit).

Available via OrionNET data acquisition software:

- Purpose-built for coiled tubing, snubbing, pressure pumping, and wireline operations
- Document and report detailed job events with comments, derived and manual channels, and time tracking of activities on location
- Wireless data transmission via Max Completions™ and LAN
- Includes local DAS health status with troubleshooting tips
- Force Monitor™ available locally and online in Max Completions with Cerberus™

Your operations, connected.

