VAE CONTROLS GROUP INTEGRATED PIPELINE MEASURING STATION SYSTEMS

Flow Metering Skids for Pipeline, LACT And Marine Applications



ISO 9001:2008 ISO 10006:2004 ISO 14001:2004 OHSAS 18001:2007 NATO FCC

Key IPMS Features

- Highest available repeatability, linearity and measuring stability
- Proving in situ, on-site
- Maximum durability, reliability, providing confidence and security
- Redundant and full crossredundant style (on request)
- Remote diagnostic & service functionality (on request)
- Designed to meet industrial metrology standards such as AGA, API, or ISO, and national metrology standards such as OIML and MID
- Compliance with all applicable norms such as DIN, ANSI, UL, ATEX, PED, GOST and others on request
- Designed for ease of handling and transportability in ISO 20/40 ft. containers



The Integrated Pipeline Measuring Stations (IPMS) are designed for measurement of crude, and oil products typically on wellheads, gas-oil separation, process control, blending, pipeline, storage and transportation inclusive custody transfer. Application to application, working range varies from hundreds of liters to thousands cubic meters per hour and working pressure from near-to-zero to hundreds bars.

The IPMS come fully assembled on an auxiliary frame (skid). The robust construction guarantees mechanical stability and equipment protection. The skids can be handled with a crane or fork-lift, and transported inside 20 or 40ft open-top ISO containers. As standard skids packed Seaworthy for transportation.

According to the system application requirements, and customer preferences the IPMS can be single or multi-stream design. For mission-critical applications, IPMS is designed to run in totally redundant operation (i.e. Master/Slave) . Heating and insulation, filtering, air separating and pressure reduction equipment are available optionally, as well as automatic sampling, with water cut monitor and divert valve to protect the pipeline against delivery of "contaminated oil".

For calibration, the IPMS are already equipped with valve assembly and accessories. The main line block valve, the key important part of the calibration equipment, has double block and bleed design to ensure that all product that has passed through the meter will also pass through the prover. The outlets are equipped with dust caps or blind flanges to prevent 'leakage' or 'theft'.

On request the skids are equipped with shut-off valves, insulation valves and backpressure or flow control valves. All valves except for small bore used for instrumentation and service, are equipped with positioning sensors to indicate their status to the control system. On request the valves can be equipped with electric or pneumatic drives for fully automated switch-over or calibration.

PROFESSIONAL SOLUTIONS FOR OIL&GAS AND WATER INDUSTRY

VAE CONTROLS GROUP INTEGRATED PIPELINE MEASURING STATION SYSTEMS

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Complete = In-House Engineering, Fabrication And Testing

The skids are designed according to API Manual of Petroleum Measurements Standards. Flow meters, the key elements, are of following types: Coriolli (mass), PD (Positive-Displacement), Turbine, Helical Turbine and Ultrasonic.

The skids are complete fully equipped with electronic instruments, junction boxes, and flow computers, pre-wired and tested. We usually provide also remote equipment such as electrical cabinets with power supply modules, uninterruptible power supplies (UPS), surge protection, fuses, data network devices, Programmable Logic Controller (PLC) or Remote Terminal Unit (RTU), and PC based workstation with SCADA system.

Significant attention to ergonomic design, ease of use/maintenance with intuitive and safe operation. This includes, but limited to features like easy access to the equipment, identification / marking of system, pressure release, leak control, weather protection etc.

Complete tests (FAT) are performed before dispatch of the equipment. Presence of customer or independent authorities/witness is welcome.

On-Site Implementation

We provide complete system implementation from initial design approvals to supervision, start-up, and commissioning.

The local control system has nearly always an interface for integration into higher level information systems. As a unique supplier, VAE provide turnkey solution – from basic design to site commissioning including delivery of control and administration system and/or integration into existing systems. If possible, we establish remote service line for diagnostics and hot-line service, which offers the end user the best in class 'Life Cycle' investment.



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