



Flow Monitoring in Explosive Atmosphere

Titan Enterprises offers special options

for its Oval Gear flow meters to ensure safe operation in potentially explosive atmospheres such as are often encountered in the petrochemical industry.

OG Series flow meters

Based upon a proprietary oval gear design, Titan are designed to give reliable, high performance across a wide range of applications. Unlike other types of flowmeter, the measurement accuracy of these oval gear flow meters improves as liquid viscosity increases, from a



nominal 1% towards 0.1% of flow rate at higher viscosities. Titan OG flowmeters are also available to pressure in excess of 700bar, where required. Standard versions of these Oval Gear flow meters use electrical pulsed outputs and therefore Titan has developed options to ensure they meet the requirements for safe use in hazardous atmospheres.

Titan offer two options

for ATEX compliant operation of its Oval Gear flow meters in explosive atmospheres.

A simple option for monitoring flow in an explosive atmosphere is based upon using a Reed switch that operates via the customer's intrinsically safe circuit. Employing this design there is no potential for storage or generation of electricity, allowing the Oval Gear flow meters to fall under the "Simple Apparatus" definition. These units can therefore be used without the need for ATEX certification.





The second ATEX compliant

approach uses a fully certified NAMUR Proximity Switch to give the pulsed output from the oval gear meter. For customers that elect for this option, Titan will install the switch into the Oval Gear flow meter and can supply the appropriate amplifier if required

For any installation

in potentially explosive atmospheres, operators must ensure that correct standards are maintained for the full electrical installation, but with the two options available throughout the Titan OG range, you have the choice to optimise your installation depending on process and environment requirements.

Design

The OG range is offered with Stainless Steel, Aluminium, PEEK and Hastelloy housing options to provide a comprehensive range of chemical compatibility to suit almost any application.

For further information

please visit <https://www.flowmeters.co.uk/oval-gear-swept-volume-positive-displacement-flow-meters-overview/> or contact Titan Enterprises on +44-1935-812790 / sales@flowmeters.co.uk.

Titan Enterprises Ltd.

Drawing upon over 40 years of flowmeter innovation - Titan Enterprises Ltd are a manufacturer of high-performance solutions including the Atrato ultrasonic flowmeter, Oval Gear flowmeters, low flow Turbine flow meters and a flow instrument range. Titan's company philosophy of "pushing the envelope by trying to do things a little different and better" has resulted in sales of over 500,000 products into 50 countries worldwide and a repeat purchase percentage of 95%. All flow meters produced by Titan Enterprises are designed and manufactured to ISO9001 and calibrated to an uncertainty of $\pm 0.25\%$.

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