

## Differential Pressure Transmitter for Static Pressure up to 1035 Bar

Oil and gas producers are drilling to new depths to keep up with demand. Traditional differential pressure transmitters that are not designed to operate above 6000PSI (414 bar) are challenged by the need to operate at high pressure. This challenging application needs a solution that is specifically designed to cope with higher static pressures, aggressive process and environmental conditions.

Based on extensive experience of supplying transmitters for this demanding application, **Fuji Electric** (France) is proud to announce the release of its latest, ATEX approved, Differential Pressure Transmitter as a direct response to their customers' requirement in high pressure applications that are traditionally found in oil and gas flow measurement. The experience and technical capability that Fuji built into the new transmitter enables it to measure differential pressures of 130mbar at static pressures of up to 1035 bar (15 000 Psi), typically found in top side and subsea applications.

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**Flow Measurement up to 400 °C. Non-Intrusive.**

Simple, flexible installation from the outside. At any time.

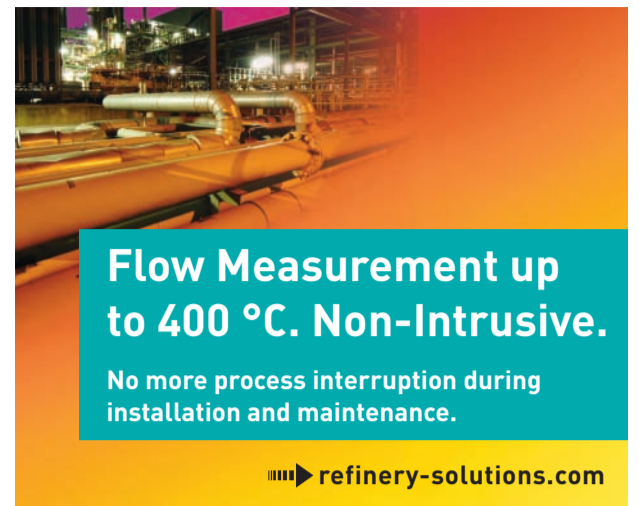
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## New Website Launched for LevelCom

**TMS, Inc.** (USA) recently launched a new website for its LevelCom line of Tank Level Indicators and Controllers. The LevelCom LC-100 Tank Level Indicator uses advanced bubbler technology. The LC-100 combines pulsed pneumatic depth sensing technology with features that include: SCADA interface; Modbus connectivity (Devicenet & Profibus Available); self diagnostic software and output relays for control or remote alarms. The LC-100 is field configurable, for weight, volume measurement and specific gravity. The LC-100 Tank level Indicator is a rugged and dependable with a long service life.

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**Flow Measurement up to 400 °C. Non-Intrusive.**

No more process interruption during installation and maintenance.

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## Mini Coriolis Flow Meters for Smallest Flow Rates

**Bronkhorst Cori-Tech B.V.** (The Netherlands) has released a new model in its series of compact Coriolis Mass Flow Meters/Controllers for accurate measurement and control of (very) low flow rates. With the mini Cori-Flow® model M12 the lowest capacity has been reduced to 0.4...20 g/h. The instruments are suitable for both measurement and control for liquid flow as well as gas flow applications. The unique design of the miniature Coriolis sensor features superior response time and high accuracy, irrespective of changing operating conditions with regard to pressure, temperature, density, conductivity and viscosity. The effective turndown is no less than 1000:1, with easy, on-site possibility for the user to re-range the instrument to his requirements, thus guaranteeing highest process flexibility.

Mini Cori-Flow® being the smallest Coriolis flow meters on the market, have a robust IP65 weatherproof housing and are available with approval for use in hazardous areas (ATEX Cat.3 Zone 2). The instruments offer integrated PID control and close-coupled control valves or pumps, thus constituting very compact Coriolis mass flow control loops.

Mini Cori-Flow® features state-of-the-art digital technology, offering standard analogue and RS-232 communication, optional fieldbus interfaces and additional functions such as alarms, totaliser (to measure fluid consumption) and batch dosing. Both fluid temperature and density are available as secondary digital outputs.

Typical applications include research laboratories, food and pharmaceutical industries, analytical installations, micro-reactors and anywhere requiring accurate, fluid independent mass flow measurement or dosage of very small flow rates.



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## The Kirkuk Oilfield

This oilfield in northern Iraq was discovered in 1927 and has been operated by the Iraq Petroleum Company since 1934. Its known reserves are of the order of 10 billion barrels. There is evidence that management of the resource during the regime of Saddam Hussein was unsatisfactory and led to heavy losses. There are pipelines from Kirkuk which pass through part of Turkey and convey crude oil to the Mediterranean coast for transfer to tankers.

The city of Kirkuk has a racially varied population and has for very many generations been home to a large number of Kurds. By way of background, up to WW1 the Kurds occupied parts of Iraq, Iran, Armenia and Syria and kept herds of goats and sheep. Their way of life was brought to an end with the dissolution of the Ottoman Empire and they became a dispossessed race as no territory was allocated to them; no part of the area they had previously occupied became 'Kurdistan' and that term, though widely used to mean the regions in which Kurds currently live, has no political or constitutional basis. Kurds are Shiite Muslims and have their own language and distinctive dress. They currently number 15 to 20 millions.



Many of the Kurds expelled by Saddam Hussein have returned to Kirkuk and are asserting oil rights. At present, when the US is occupying Iraq, both the Kurdish militia and the opposing Iraqi militia have large

numbers of troops in or close to Kirkuk. There are however persons of Kurdish race in the Iraqi militia and the extent to which the Kurds have infiltrated the Iraqi militia could be a decisive factor in any attempt by one side or the other to gain possession of Kirkuk after US presence in Iraq ceases. Meanwhile, those Kurds who want to see a formally constituted Kurdistan hold that the whole of Kirkuk should be within it. Neighbouring Turkey, which has itself over the decades had aspirations to a share in the oil resources of Kirkuk, has expressed a fear that seizure of the oilfields by the Kurds would finance a war for the creation of Kurdistan as a result of which they themselves would have to cede some land to the Kurds.

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