

INSTRUMENTATION

OPTISONIC 3400: The new all-rounder for all process industries

KROHNE introduces the new OPTISONIC 3400 ultrasonic flowmeter for liquids. The 3-beam inline flowmeter is a multipurpose device that can be used for both standard and more demanding applications in terms of process temperature, pressure or high viscosities.

Being an ultrasonic flowmeter, the OPTISONIC 3400 offers bi-directional flow measurement independent of conductivity, temperature, density and pressure of medium. It is based on the transit time method and has three parallel acoustic/ultrasonic beams. They generate a measurement independent of flow profile to deliver accuracy also under less favorable flow profile conditions, e. g. short inlets and outlets. Within a flow range of 0,3 to 20 m/s, OPTISONIC

3400 features accuracy of $\pm 0,3\%$. To suit a broad range of applications, the temperature range extends from -200 to 250 °C, and viscosities can reach as high as 1000 cSt which applies e. g. for crude oil.

Its welded full bore, unobstructed sensor presents no pressure loss and has no potential leak points. OPTISONIC 3400 is available in compact and remote versions.

OPTISONIC 3400 features the new signal converter UFC 400 that enables single or multi-liquid applications with the same device. UFC 400 provides multiple communication options e. g. HART® 7, FOUNDATION Fieldbus, PROFIBUS PA, Modbus and various I/O selections, e. g. measurement of the velocity of sound for product identification or process analysis. It also fea-



tures enhanced diagnostic and status indications according to NAMUR NE 107.

www.krohne.com

For further information please circle No. 31

FlexiDrive provides safe, remote valve operation

Smith Flow Control's FlexiDrive valve actuator can be applied to any conventional wheel-operated device in processing plants to make them constantly accessible and safe. The FlexiDrive is a dependable, versatile and cost effective remote valve operator.



The FlexiDrive system allows a user to locate a point of operation in a place of safety or convenience. It is adaptable to any conventional valve with no modifications needed.

A patented flexible linear drive cable effectively delivers rotary torque for distances up to 30 m depending on the output torque required. The system can be passed through and around walls, bulkheads and floors, and is completely sealed and permanently lubricated for maintenance-free, continuous loop operation.

The FlexiDrive is suitable for underwater use and is constructed from corrosion-resistant 316 stainless steel.

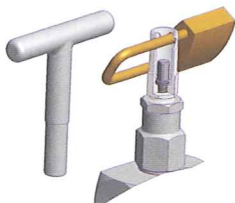
www.smithflowcontrol.com/flexidrive.html

For more information please circle No 32

Lockable valve head unit

AS-Schneider offers three different security options to protect equipment against unauthorized or unintentional operation of the valve head units:

Lockable Anti-Tamper' Design: The T bar key cannot be inserted when the padlock is hooked in place and therefore protects the equipment against unauthorized operation of valves.



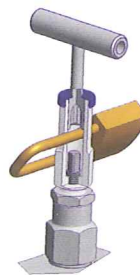
The Locking Plate Design is used if T bar handles are required. This option allows minimum T-handle movements and is ideal as a protection against unauthorized closing of the valve. The 'Lock-

ing Plate' option can be retrofitted to any standard valve head unit.

The Safe Lock Design represents the high-end version of a lockable valve from AS-Schneider. The valve can only be operated with the integral T bar key after removing the padlock. This design is the best option against unintentional or unauthorized operation of valves. The integral T bar key is secured against loss and unauthorized removal. All types are available with and without lock. A keyed alike lock with several keys is also possible.

www.schneider.com

For further information please circle No 33



BOOKS & REPORTS

IEA's energy sources annuals

Natural Gas Information 2013 – with 2012 data, 655 pages, ISBN 978-92-64-20314-3, paper 165 Euro, PDF 132 Euro, CD-ROM 550 Euro (2013)

A detailed reference work on gas supply and demand covering not only the OECD countries but also the rest of the world, this publication contains essential information on LNG and pipeline trade, gas reserves, storage capacity and prices.

The main part of the book, however, concentrates on OECD countries, showing a detailed supply and demand balance for each country and for the three OECD regions: Americas, Asia-Oceania and Europe, as well as a breakdown of gas consumption by end-user. Import and export data are reported by source and destination.

Oil Information 2013 – with 2012 data, 746 pages, ISBN 978-92-64-20312-9, paper 165 Euro, PDF 132 Euro, CD-ROM 550 Euro (2013)

A comprehensive reference book on current developments in oil supply and demand.

The first part of this publication contains key data on world production, trade, prices and consumption of major oil product groups, with time series back to the early 1970s.

The second part gives a more detailed and comprehensive picture of oil supply, demand, trade, production and consumption by end-user for each OECD country individually and for the OECD regions.

Trade data are reported extensively by origin and destination.

Also available:

– Coal Information 2013

– Electricity Information 2013

– Renewables Information 2013

www.iea.org