Measurement Products

Measurement & Automation Conference 2015 Event Guide

Power and productivity
for a better world™

ABB

2015 Event Guide
Measurement & Automation Conference

Learn from industry and ABB experts on topics ranging from production automation and optimization, to instrumentation, to natural gas measurement. Attend one of over twenty breakout sessions scheduled, go on a guided plant tour of the newly expanded Bartlesville facility, or chat with an expert at a listening post. This year's conference features many exciting changes including:

→ Multiple new instrumentation classes on a variety of products

→ Total Joe's Coffee Shop – A relaxing atmosphere where you can enjoy a warm cup of Topeca coffee, visit in-depth with an ABB specialist, or study product demonstrations with replicas of various field instrumentation

→ New vendors at our listening posts to discuss their products and services

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Keynote speaker
Wednesday morning we will kick off the conference with Robert Bryce as our keynote speaker. Bryce is an author, journalist, and public speaker. His articles have appeared in dozens of publications including the Wall Street Journal, New York Times, and the Washington Post. Bryce has also written five books, including, his new book, *Smaller Faster Lighter Denser Cheaper: How Innovation Keeps Proving the Catastrophists Wrong*, which was published in May 2014.

Breakout sessions
Classes on specific products and topics

Automation / Artificial Lift
Location – Maple
Trainer – Austin Lame
This class looks at applications in automation including emergency shut-down, the proportional-integral-derivative controller, valve control, data trending, and artificial lift applications.

Communications / Power
Location – Redbud
Trainer – Herb Hoover
A discussion of Class I, Div. II radios for XFCs and XRCs and the power required to support these radios. Power consumption and sizing batteries, panels and charger regulators using the power calculation spreadsheet.

Coriolis / Magmeter
Location – Pecan
Trainer – Mike Kohlmann
Overview of flow measurement, Coriolis, electromagnetic and mechanical flowmeters, including applications, sizing and proper installation, and the differences and uses for each.

DP Flow Measurement
Location – Dogwood
Trainer – Kevin Green
Overview of DP flow measurement, differences between meters, pros and cons of use, and product installation. Review the different applications and benefits of the flow meters.

Field Monitoring Devices
Location – Magnolia
Trainer – Cam Spitzer
Brief description about the features of ABB's line of wireless WellTell devices, pressure transmitters, temperature transmitters, I/P converters and multivariables (XMVs).

Field Troubleshooting
Location – Silver Oak B
Trainer – Russ Parsons
Troubleshooting steps for common problems addressed in customer service. Discussion of various scenarios for remote communication and an introduction to the communication test cable.

Flow Computer Applications
Location – Redbud
Trainer – Shawn Rector
Overview of selectable units, app instantiation and licensing, AGA3, AGA7, V-cone, NIST 14 gas, NIST 14Liquids, Wedge Gas, Flow Nozzle, API Liquids, Coriolis, meter installation and hands-on AGA3 tube setup.

Gas Chromatograph
Location – Silver Oak A
Trainer – Merle Bell
Review of the modular concept for the NGC/PGC analyzer platform & available analytical measurement applications. "Hands-on" activities include use of PCCU simulator to highlight possible startup or maintenance activities.

Grounding / Wiring
Location – Silver Oak B
Trainer – Leon Black
From simple to complex ideas for installation of measurement equipment in a high transient environment. Emphasis is given to wiring of ABB devices but the suggestions can also be applied to other instruments.

IEC 61131 / Operations
Location – Maple
Trainer – Dan Roecker
Explore the multiple ways to achieve custom programming on the G4 platform. Overview of IEC, Operations and EZ block programming will be discussed.

Level Measurement
Location – Magnolia
Trainer – Greg Smith
Presents the specifications of the LevelMaster, Guided Wave Radar, Vibrating Fork, and Ultrasonic transmitter, demonstrates how to setup the software for sensors, and explains installation / troubleshooting tips.

NGC Liquid Measurement
Location – Silver Oak A
Trainer – Steve Lakey
In this class, you will learn NGC liquid injection system. We will also be giving an overview of the NGC8106 composite sampler replacement.

RVP Analyzers
Location – Dogwood
Trainer – Barry Landaiche
This class explores the RVP Analyzer. It will be an overview of the safety benefits, technical aspects and economic benefits of the Reid Vapor Pressure Analyzer.

Spirit IT – FlowX and eXLerate
Location – Cedar
Trainer – Harry Kok/Brent Palmer
Overview of the Spirit IT FlowX flow computer, eXSite LACT systems, and eXLerate measurement software.

Totalflow Host Software
Location – Cedar
Trainer – Andrew Munn
Overview of the significant capabilities of each of the standard host apps available to support ABB products. Only cursory references are made to software specifics.

Totalflow Liquid Measurement
Location – Birch
Trainers – Barry Balzer/Braden Robinson
In this class you will learn how the liquid linear measurement app interfaces to the Liquid Transfer IEC app for measurement through a linear liquid primary meter. Also, how the LevelMaster app interfaces to the Oil Transfer app for Tank measurement.

Totalflow Web Interface
Location – Birch
Trainer – Brent Berry
Attendees of this class will be given an overview of the Totalflow Web Interface (TWI) system, including instructions on upgrading an existing G4 device.

Tropos Communications
Location – Sycamore
Trainer – Renner Vaughn
Overview of Tropos wireless communications routers, mesh-network architecture and operation in an oil/natural gas production environment. Review of installation and wiring of Tropos equipment to ABB devices.

XSeries Overview
Location – Sycamore
Trainer – Gerald Sharp
Attendees will be introduced to the various applications available in the XSeries platform. Focuses on I/O communication options, system and utility applications, including Trending, Save/Restore, Alarms, and more.

Ask ABB Session
Location – Pecan
Trainer – Upstream Oil & Gas Staff
The ABB Upstream Oil & Gas staff will be available to take comments and answer your questions regarding our products and/or services. You will also have the opportunity to give feedback on the registration survey.

Focus sessions
Industry experts discuss a broad range of useful topics

Protecting Energy Development from the Ground Up: It Begins with You in Your Community
Location – Council Oak Ballroom
Speaker – Karen Moreau

In the last 5 years, America has produced record amounts of oil and natural gas. While threats to this economic engine might appear to be OPEC and other nations, it is often our own government that presents the biggest threat. And nowhere is this more evident than in the local opposition to exploration, production and infrastructure. Those whose livelihood depends on energy production need well-defined tools for strengthening community support for energy development. The speaker will offer ideas and strategies, based on her career as an advocate for property rights and energy development in the face of local zoning controls.

Introduction to Spirit IT Hardware and Software Measurement Solutions
Location – Council Oak Ballroom
Speakers – Harry Kok/Brent Palmer

Flow measurement is a continuous process. Metering systems generate measurement data 24/7. Measurement errors can lead to serious repercussions and the accuracy of the measurement is a continuous concern for all the stake holders. Over time all metering equipment will have become smart devices, which are able to check their own health and to provide additional fluid property information such as temperature, density and velocity of sound. In most custody transfer systems this wealth of information is not used leaving the responsible metering staff unaware of potential issues. Come Learn how Spirit products are helping to identify measurement issues.

Listening posts
Ask questions, view demonstrations, and order/return parts

Stop by **Total Joe's Coffee Shop** in the second floor elevator lobby at any time during the conference to enjoy a warm cup of Topeca coffee, an in-depth conversation with an ABB specialist, or study product demonstrations with replicas of various field instrumentation.

Analytical Measurement
Experts will be available for discussion, assistance, and to help answer questions about the NGC8200 Series and the PGC1000 Series. We will also discuss the various applications available for both chromatographs.

Broadband Wireless Networks
Experts from the ABB Wireless product group will be on hand to describe how broadband wireless mesh networks can meet the communication needs of the digital oil and gas fields.

Documentation
ABB technical writers are always looking for ways to improve your user experience. We'd love to hear your opinion of our documentation: online help, user manuals, and quick start guides. Please stop by our booth and fill out a brief survey to be entered into a drawing for a prize.

Flow Computers and RTUs
Experts will be available for discussion, assistance and will help answer questions about the various XSeries products. We will also be on hand to answer questions regarding the various XSeries applications.

Flow, Pressure, and Temperature Measurement
Discover measurement solutions for onshore oil and gas exploration and distribution with flow, pressure and temperature products. See the CoriolisMaster, ProcessMaster, Wedge, OriMaster, valve positioner, Trio-Wirl, 266 Pressure Transmitter and Temperature devices on display.

Host Systems
Experts will be available for discussion, assistance, and will help answer questions about ABB Oil and Gas host software systems. Included in this list are WinCCU, TF.net, VAS, TDS, and Protocol Toolkit.
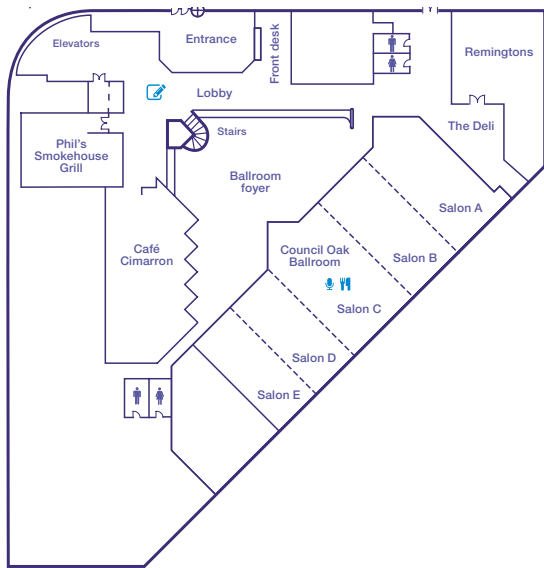
Inside Sales and Training
Come meet your inside sales team and pick up a copy of the 2015 spare parts list, the latest version of PCCU software, and a training DVD. We are here to help you with orders, returns, quotations and inquiries about our training classes and enrollment process.

Level Measurement
See dynamic Level Measurement Instrumentation including Guided Wave Radar, Magnetostrictive Transmitters and Magnetic Level Gauges. Experts will discuss the new level switch products, the wireless LevelMaster, liquid accuracy requirements, and integration with 3rd party systems.

SCADAvantage™
Come by the SCADAvantage™ booth to see why companies of all sizes from Production to Distribution use our product to automate and optimize their operations. We'll be showing a live demo of our new SCADAvantage version 5.5.
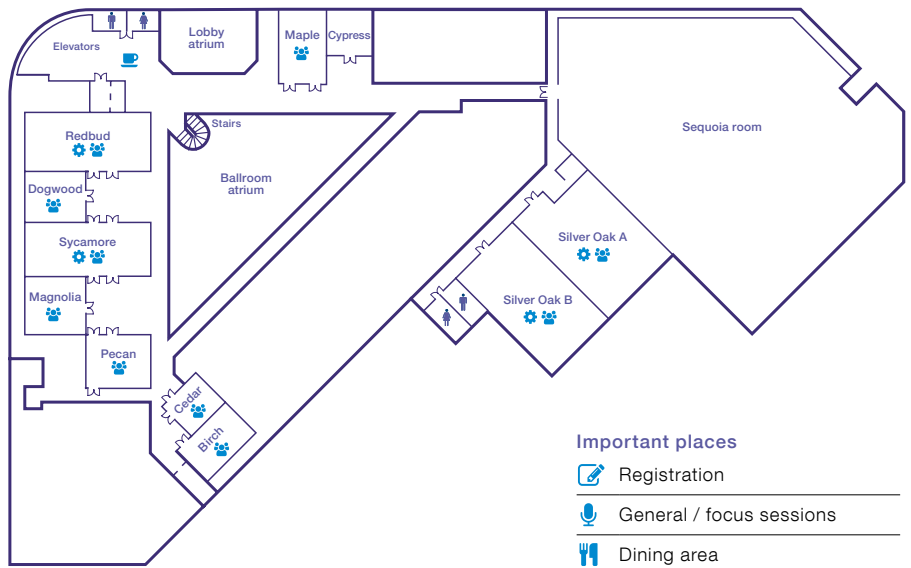
Spirit IT
From pipeline to LACT, well to awareness. Stop by and talk with our measurement professionals and see how Spirit's flow computers and software can improve your measurement accuracy and automation.

Conference schedule at a glance

First floor

Second floor

Important places

Icon	Place
✎	Registration
🎤	General / focus sessions
🍴	Dining area
⚙	Training Sessions
👥	Breakout Sessions
☕	Total Joe's Coffee Shop

Tuesday, February 17, 2015

Time	Event	Location
8.00a – 5.00p	Registration	Lobby
8.30a – 4.30p	Training classes	
12.00p – 1.00p	Lunch	Council Oak
6.00p – 8.30p	Welcome reception	Council Oak

Wednesday, February 18, 2015

Time	Event	Location
6.30a – 7.30a	Breakfast	Council Oak
6.30a – 5.00p	Registration	Lobby
7.30a – 9.00a	General session	Council Oak
9.15a – 10.45a	Breakout sessions	
9.15a – 12.00p	Listening posts	
11.00a – 11.45a	Breakout sessions	
12.00p – 1.00p	Lunch	Council Oak
1.15p – 2.30p	Focus session	Council Oak
2.30p – 5.15p	Listening posts	
2.45p – 5.45p	Plant tour	Bartlesville
2.45p – 4.15p	Breakout sessions	
4.30p – 5.15p	Breakout sessions	
5.45p – 9.00p	Entertainment/Casino	Council Oak

Thursday, February 19, 2015

Time	Event	Location
7.30a – 9.00a	Breakfast	Council Oak
7.00a – 12.00p	Registration	Lobby
8.00a – 8.15a	General session	Council Oak
8.45a – 11.45a	Plant tour	Bartlesville
9.15a – 10.45a	Breakout sessions	
9.15a – 12.00p	Listening posts	
11.00a – 11.45a	Breakout sessions	
12.00p – 1.00p	Lunch	Council Oak
1.15p – 2.30p	Focus session	Council Oak
2.45p – 3.30p	Breakout sessions	
3.45p – 4.30p	Breakout sessions	

Daily class schedule

Tuesday, February 17, 2015

8.30a – 4.30p	Gas Chromatograph	Silver Oak A
	RTU/Flow Computer	Silver Oak B
	Instrumentation/Wireless	Redbud
8.30a – 11.45a	Totalflow Web Interface	Sycamore
1.15p – 4.30p	Spirit IT FlowX Web Interface	Sycamore

Wednesday, February 18, 2015

9.15a – 10.45a	Gas Chromatograph	Silver Oak A
	Field Troubleshooting	Silver Oak B
	Flow Computer Applications	Redbud
	Totalflow Liquid Measurement	Birch
	Level Measurement	Magnolia
	Spirit IT – FlowX and eXLerate	Cedar
	Coriolis / Magmeter	Pecan
	DP Flow Measurement	Dogwood
	XSeries Overview	Sycamore
	Automation / Artificial Lift	Maple
11.00a – 11.45a	NGC Liquid Measurement	Silver Oak A
	Grounding / Wiring	Silver Oak B
	Communications / Power	Redbud
	Totalflow Web Interface	Birch
	Field Monitoring Devices	Magnolia
	Totalflow Host Software	Cedar
	Ask ABB Session	Pecan
	RVP Analyzers	Dogwood
	Tropos Communications	Sycamore
	IEC 61131 / Operations	Maple
1.15p – 2.30p	Protecting Energy Development	Council Oak
2.45p – 4.15p	Gas Chromatograph	Silver Oak A
	Field Troubleshooting	Silver Oak B
	Flow Computer Applications	Redbud
	Totalflow Liquid Measurement	Birch
	Level Measurement	Magnolia
	Spirit IT – FlowX and eXLerate	Cedar
	Coriolis / Magmeter	Pecan
	DP Flow Measurement	Dogwood
	XSeries Overview	Sycamore
	Automation / Artificial Lift	Maple
4.30p – 5.15p	NGC Liquid Measurement	Silver Oak A
	Grounding / Wiring	Silver Oak B
	Communications / Power	Redbud
	Totalflow Web Interface	Birch
	Field Monitoring Devices	Magnolia
	Totalflow Host Software	Cedar
	Ask ABB Session	Pecan
	RVP Analyzers	Dogwood
	Tropos Communications	Sycamore
	IEC 61131 / Operations	Maple

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9.15a – 10.45a	Gas Chromatograph	Silver Oak A
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1.15p – 2.30p	Introduction to Spirit IT	Council Oak
2.45p – 3.30p	Gas Chromatograph	Silver Oak A
	Field Troubleshooting	Silver Oak B
	Flow Computer Applications	Redbud
	Totalflow Liquid Measurement	Birch
	Level Measurement	Magnolia
	Spirit IT – FlowX and eXLerate	Cedar
	Coriolis / Magmeter	Pecan
	DP Flow Measurement	Dogwood
	XSeries Overview	Sycamore
	Automation / Artificial Lift	Maple
3.45p – 4.30p	NGC Liquid Measurement	Silver Oak A
	Grounding / Wiring	Silver Oak B
	Communications / Power	Redbud
	Totalflow Web Interface	Birch
	Field Monitoring Devices	Magnolia
	Totalflow Host Software	Cedar
	RVP Analyzers	Dogwood
	Tropos Communications	Sycamore
	IEC 61131 / Operations	Maple

Complimentary training
Hands-on, all day sessions

In-depth, all day training will be offered for the topics listed below pre-registration is required. Classes will be from 8.30a – 4.30p on Tuesday, February 17th.

RTU / Flow Computer
Location – Silver Oak B
Trainer – Steve O'Bannon
This class is designed as an overview to the G4 XSeries RTUs and flow computers. The G4 is the latest and most advanced generation of flow computers. This training session will cover a history of the FCU and the features of the G4 XFC including applications and licensing. The session will feature labs that cover save & restore, 32 bit loader, collecting and saving data, calibration, trending, display, operations, and ethernet remote communications. Time for questions and breaks between subjects will be allotted.

Gas Chromatograph
Location – Silver Oak A
Trainer – Daren Brumley
The NGC training class is designed to equip the students with a basic understanding of chromatography through configuration of the ABB chromatographs. The class takes a hands-on approach where there will be a comprehensive overview of chromatography as a whole, installation of the NGC, hardware components, PCCU setup, NGC station setup, manual peak find and other operational characteristics. Time for any questions and breaks between subjects will be allotted.

Instrumentation/Wireless
Location – Redbud
Trainers – Kevin Green, Cam Spitzer, Mike Kohlmann, Renner Vaughn
This class will be broken down into four sections with breaks in between. The **Swirl, Vortex, and Wedge** section will cover the different types of meters and their capabilities. The **Pressure, Temperature, I/P, XMV** will discuss each product and their applications and capabilities. The **Coriolis and Magmeter** section will give a basic overview of the meters and a review of G4 applications. The **Tropos** section overviews wireless communications routers, mesh-network architecture and operation.

Totalflow Web Interface (Half-Day)
Location – Sycamore
Trainer – Brent Berry
The session will begin with an overview of the capabilities for and rationale behind the design of TWI. Featured topics include TWI Admin, mapping the user interface hierarchy by configuring the Facility Management Application, dashboard options and how to configure for your needs, and how to utilize the UI Editor to add site schematics and graphics to TWI. Also, overview of many of the application specific configuration screens, and step by step instructions on upgrading an existing G4.

Spirit IT FlowX Web Interface (Half-Day)
Location – Sycamore
Trainer – Harry Kok/Brent Palmer
This training session will go into detail on programming the FlowX flow computers using it's web interface. We will cover I/O setup, remote communications, reports, proving and most of the other functions that can be achieved with the FlowX flow computers.

Industry partners
Visit their booths for information

A+ Corporation

A+ Corporation's booth will include sample conditioning systems (SCS) products such as sample probes, membrane separators, coalescing filters, heated regulators along with an example of our Analytically Correct Engineered Systems (ACES), 745 Production Gas Sampling System (PGSS for wet gas sampling), and our Genie Vaporizer.

AutoSol

AutoSol provides software that can individually or collectively solve SCADA and EFM/AMR data collection and delivery problems. At the core of AutoSol's capability is the ability to support device types from most any manufacturer in their native protocol over single and multiple telemetry circuits simultaneously.

CygNet

CygNet Software leads the oil and gas industry with a new generation of enterprise operations software and solutions. CygNet harnesses traditional silos of field, production and business data, allowing users across every business function to prioritize and analyze real-time information to support daily operations and strategic decision making.

eLynx Technologies

eLynx Technologies is the leading provider of web-based monitoring, exception based alarming, and field automation services to the oil and gas industry. With SCADALynx you can monitor flow computers, compressors, pipelines, tanks, artificial lift devices and more. eLynx provides pre-engineered user configurable solutions that are easy to learn, use, and can be implemented quickly.

Fielding Systems

Fielding Systems provides web and cloud-based software for oil and gas companies for field data capture, remote SCADA monitoring, and field automation. Our solutions helps producers optimize production, improve safety, and reduce costly downtime. For more information, visit www.fieldingsystems.com or call 877.987.4823.

Flow-Cal

Flow-Cal, Inc.'s software is used throughout the industry to validate, recalculate, store, and report gas and liquid measurement data. Our full line of measurement software applications range from simple, data management and reporting programs to enterprise-wide applications that are utilized by Fortune 500 companies.

FreeWave

FreeWave Technologies is a leader in wireless M2M (machine to machine) and Internet of Things (IoT) wireless networking solutions that support a wide range of industrial and military applications. Our mission is to help our customers transmit mission-critical data via secure, highly reliable licensed and license-free M2M communications solutions.

Kepware Technologies

Kepware Technologies provides a portfolio of software solutions to help businesses connect diverse automation devices and software applications. Established in 1995 and now distributed in more than 100 countries, Kepware's software solutions help thousands of businesses improve operations and decision making. Learn more at www.kepware.com.

Mustang Sampling

Mustang Sampling products have been developed to transport samples from gas and liquid pipelines and process streams to analytical equipment. Our slogan is "Analytically Accurate" and to our team, it means quality analysis is dependent upon a quality sample. For analysis of either gas or liquid, phase must be controlled to prevent sample distortion in Natural Gas, NGL and LNG.

OleumTech

OleumTech Corporation is a leading manufacturer of industrial automation systems for remote monitoring and control for industries such as oil & gas, refining, petro-chemical, utilities and water/wastewater. Specializing in self-contained, battery-powered wireless transmitters for CID1 hazardous locations, the company has a near limitless range of integrated and third-party sensors and enables "last mile" connectivity in any wireless SCADA and telemetry application.

Parker Hannifin's PGI

Division is a leading manufacturer of innovative products for the natural gas industry. Parker PGI provides a complete measurement package including instrument valves, manifolds, oilfield wellhead fittings, remote power supplies, thermowells and sampling systems. Parker PGI offers quality products that enable the highest degree of measurement accuracy, lowest emissions with optimal functionality.

SouthWest Electronics

Pure Lead and Li-Ion Battery Benefits in ABB XSeries RTUs. Southwest Electronic Energy Group battery technical experts will compare the features and benefits of pure lead AGM and advanced Lithium-Ion batteries versus classic lead calcium batteries regarding cold temperature performance, reliability, capacity, and life expectancy as applied in ABB XSeries RTUs. They will answer your battery technology questions and show sample comparisons of the battery technologies applied to ABB XSeries RTUs.

Superior services

Training courses

ABB has helped customers achieve optimized equipment performance by providing cost-effective, high quality, technical training. Our trainers have over 65 years of experience in the gas measurement industry. From equipment testing, field servicing and remote troubleshooting, they offer a wealth of information to increase your knowledge and productivity. We conduct an extensive set of training classes in our Bartlesville, Oklahoma facility, as well as our regional offices. We can also provide on-sight training, upon request.

To enroll in scheduled training classes held at any facility, students should enroll online at the ABB University website: www.abb.us/abbuniversity. If unable to enroll online, students can email training at totalflow.training@us.abb.com to request a manual enrollment form. Payment arrangements should be made at the time of enrollment. Students are responsible for travel, lodging and other expenses.

Technical support

By combining ABB regional offices with extensive service provider relationships, ABB has you covered when it comes to technical support. When you need help installing, configuring, troubleshooting, repairing, or just wanting to gain more knowledge, ABB is there to support you.
  – Telephone tech support using Powerhelp
  – Email tech support
  – Detailed start-up guides and manuals
  – Interactive website
  – Live training
  – Training videos
  – GoTo Assist on-line diagnostics
  – Factory repair service
  – Measurement & Automation Conferences

Toll-free phone technical support from the factory
  – 1 (800) 442-3097 (option 2)
  – Hardware and software support with overflow capacity

For more information, visit the Inside Sales and Training Listening Post during this year's conference.

Superior products

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6   7   8   9   10

1 Computer interface | 2 RTU | 3 Communications | 4 Pressure & Temperature | 5 Level | 6 Flow | 7 DP flow | 8 Flow computer | 9 Analyzers | 10 Control

Automation / Control	Applications	Measurement / Metering	Communication / User Interface
Remote controller (RTU)	Chemical injection	**Flow Computers**	SCADAvantage
XRC	Plunger lift	XFC (EFM)	TF.net
Valve Control	Gas lift	µFLO (Single-run EFM)	WinCCU
Valve Positioner	Valve control (AO/DO)	Explosion-proof XFC	PCCU
I/P Converter	PID loop	**Multivariable**	TWI
Pressure	Tube switching	XMV	Tropos control
High Pressure Transmitter	Station totalization	**Analyzers**	**Network wireless**
Low Pressure Transmitter	IsaGraf custom logic	NGC (Gas Chromatograph)	Tropos gateway
Temperature	Liquid transfer	PGC (Process Chromatograph)	Tropos radio
Head Mounted Transmitter	Pump control	RVP (Reid Vapor Pressure)	WellTell wireless
Field Mounted Transmitter	Emergency shutdown (ESD)	**Flow Meters**	
Level		CoriolisMaster Flowmeter	
Guided Wave Radar		Electromagnetic Flowmeter	
LevelMaster		Vortex Flowmeter	
High Level Switch		Swirl Flowmeter	
K-TEK Vibrating Fork		**DP Flow**	
		WedgeMaster Flowmeter	

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Power and productivity
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