talkline

Endress+Hauser
People for Process Automation

Index

Trade Shows 2015

October 22-23	NWOWWA, Thunder Bay, ON
October 27	Process & Automation Show, Saskatoon, SK
October 29	Process & Automation Show, Winnipeg, MB
November 11–12	Symposium sur la gestion de l'eau, Rivière-du-Loup, QC

Connect with us

For the latest updates, events and process automation news, join us on our social channels. Visit Endress+Hauser Canada Ltd on Facebook, Twitter and LinkedIn. See page 4 for a chance to win an Apple watch.

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Our valued friends, customers and business partners

Dear Reader,

Welcome to the latest issue of *Talkline*. A few short months ago I mentioned our long winters and suggested we all consider taking some vacation time to enjoy Canada's favourite season. I sincerely hope this issue finds you all rested and re-charged, following what has turned out to be another typical Canadian summer. There have been some significant differences in the weather across this great country of ours. Our thoughts and well-wishes are with those who have had to deal with extended heat waves, floods, drought and forest fires. It is definitely a source of pride to see Canadians from across the country coming together with volunteers from all over the world to help and support each other through such challenges. This reflects the spirit of Endress+Hauser. When people work through challenges together, their combined efforts and contributions lead to superior results.

Whatever your challenges, you can count on Endress+Hauser to partner with you in a spirit of cooperation, such that together, we successfully identify, address and deliver process improvements. Working together, we can identify and execute improvements that enhance your competitiveness, while delivering tangible results to your bottom line.

In the pages that follow, we share some of our expertise on instrumentation for wastewater treatment. You can also get the inside scoop on some of the work we have done in establishing a state-of-the-art work order management system for one of our customers. At Endress+Hauser, you find a partner that can provide more than quality measurement instrumentation. You also find a partner with a portfolio of services and solutions that can deliver significant added-value to your operations.

Again, we are here to help you be as competitive and successful as possible in the markets you serve. We are all focused on working with you towards the achievement of your goals. As the fall season starts to appear, please accept our best wishes for continued success in 2015!

Sincerely,

Richard

Richard Lewandowski
CEO

FOLLOW ENDRESS+HAUSER CANADA LTD FOR A CHANCE TO

WIN an Apple Watch

Follow

www.linkedin.com/company/endress-hauser-canada-ltd-

Follow Endress+Hauser Canada Ltd on LinkedIn between September 1 to December 31, 2015 and automatically be entered in a draw for a chance to win a free Apple Watch.*

*Not valid in Quebec. Some restrictions apply. For full rules and regulations, visit www.ca.endress.com.

Endress+Hauser

People for Process Automation

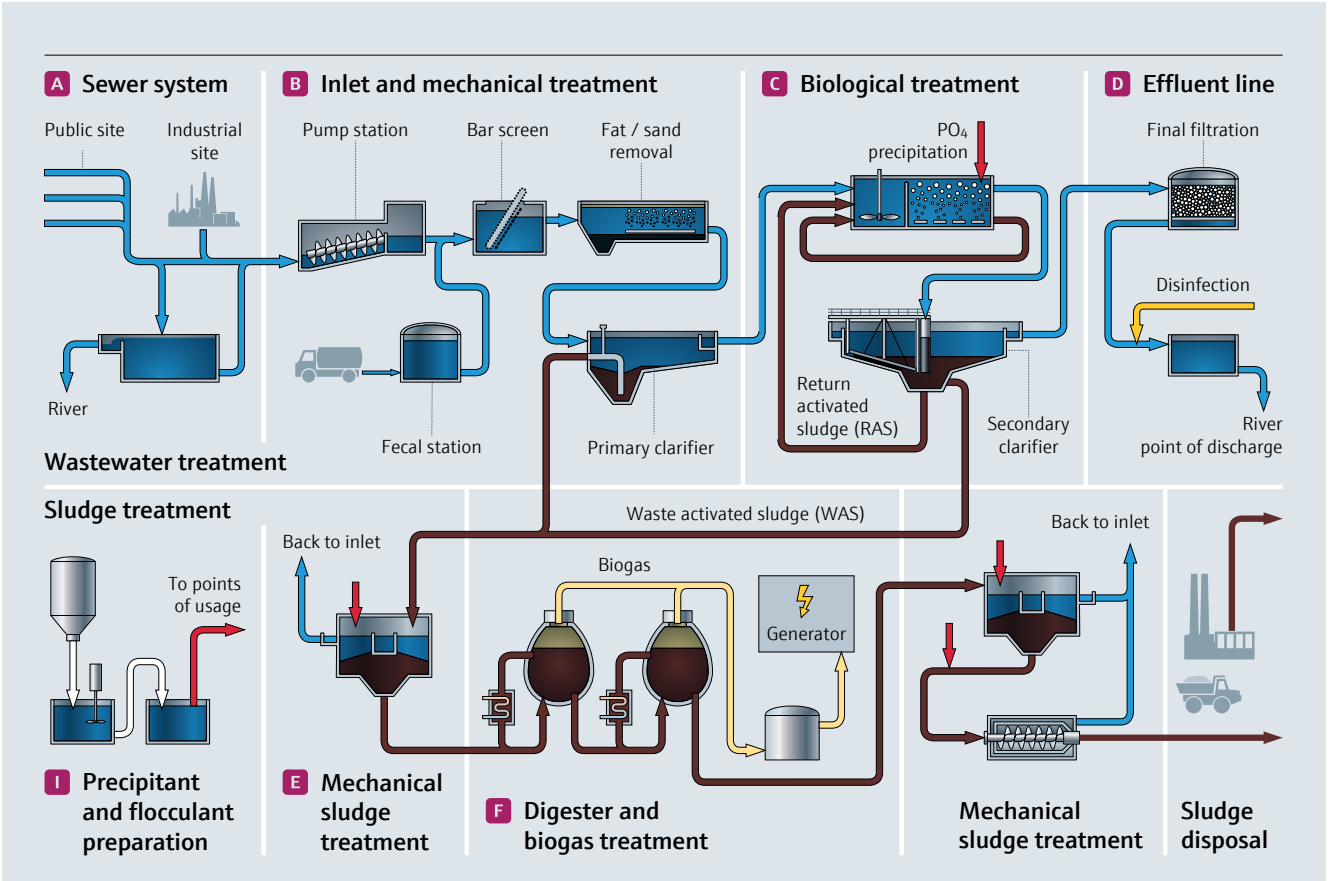
Instruments for Wastewater Treatment

A complete waste treatment plant is a very complex process requiring detailed monitoring for proper process operation.

At Endress+Hauser we offer instruments and solutions for all applications:

- Liquid Analysis
- Flow
- Level
- Pressure
- Temperature
- Recording
- Field Network Engineering
- Plant Maintenance Monitoring
- And more

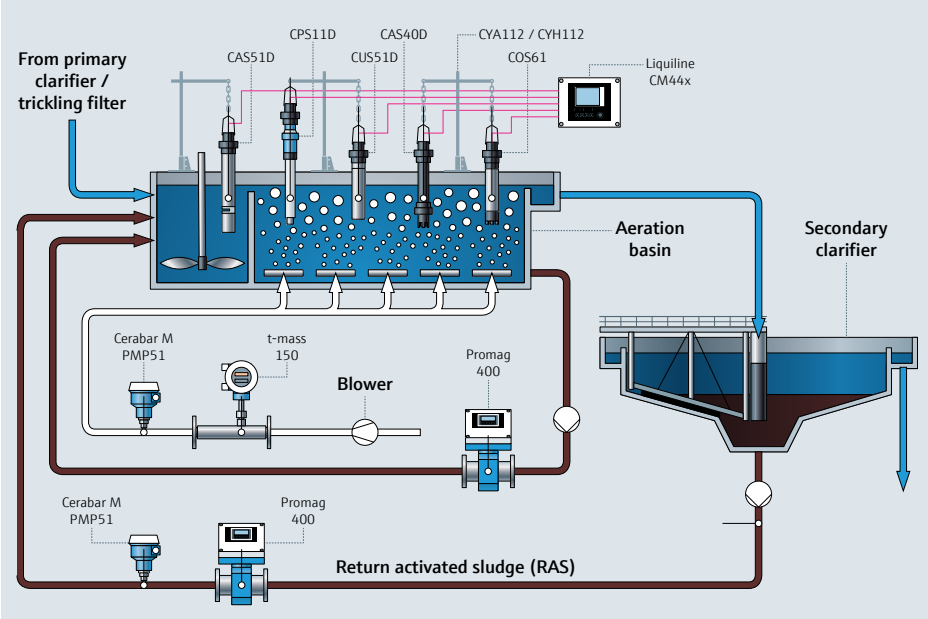
Wastewater and Sludge Treatment Process



Treatments

C Biological Treatment

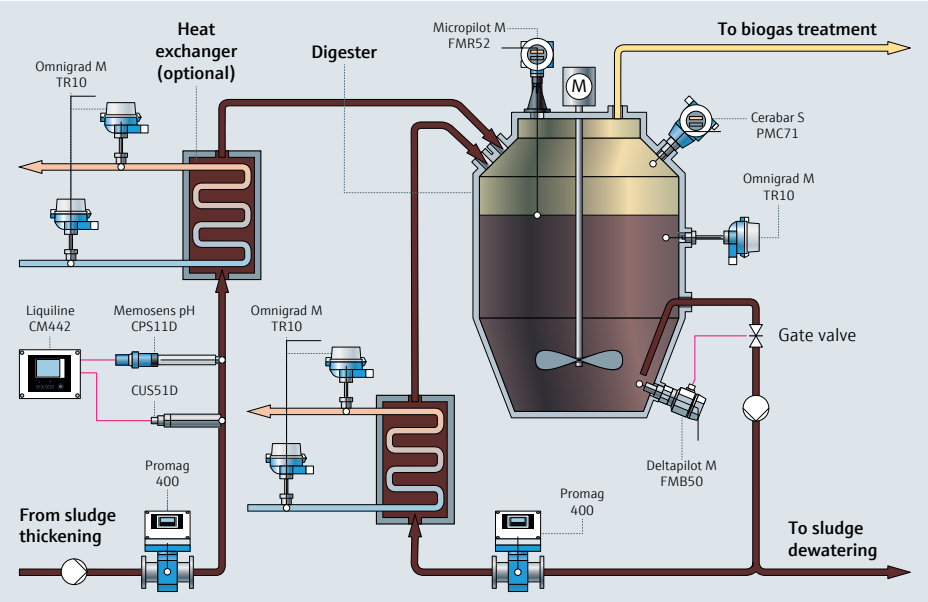
The heart of the plant, where microorganisms are used to remove nutrients from wastewater. Three main targets are BOD (carbon), ammonia (nitrogen) and phosphorous (P). Online measurement is key to proper aeration control and removal of nutrients. This process represents up to 60% of all energy used in a plant so it is critical to have proper measurements.



- **CAS51D** (nitrate) optical design, minimum maintenance
- **CPS11D** (pH) Memosens for easy remote calibration
- **CUS51D** (MLSS) optional air cleaning, minimum maintenance
- **CAS40D** (ammonium) four parameters, only one transmitter input
- **COS61D** (dissolved oxygen) 2-year cap life, air calibration
- **CM44x** (transmitter) Memosens digital technology
- **Promag 400** (sludge flow) Heartbeat™ verification, easy install flange design
- **T-mass 150** (aeration air flow) cost effect, fit for purpose design
- **PMP51**(pressure) compact, rugged design
- **CYA112/CYH112** universal mounting system
- Not Shown: Secondary clarifier
- **CUS71D** (sludge blanket) graphic display, same CM44x
- **CUS51D** (RAS density) retractable for easy cleaning

F Digester Control

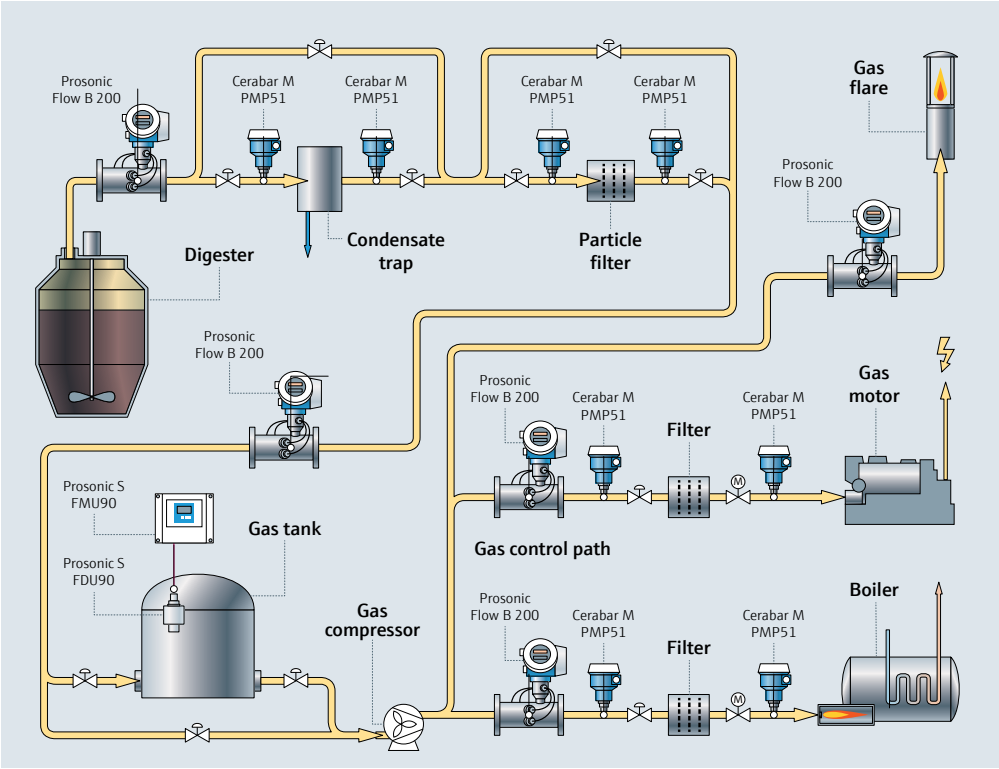
Treatment of primary and waste sludge. Results of digestion are sludge reduction and biogas production. It is a thermal process requiring proper monitoring to ensure optimized operation.



- **TR10** (temperature) easy install, rugged design
- **CPS11D** (pH) Memosens for easy remote calibration
- **CUS51D** (sludge density) retractable for easy cleaning
- **CM44x** (Transmitter) Memosens digital technology
- **FMR52** (level) encapsulated horn antenna moisture resistant design
- **PMC71** (digester pressure) ceramic diaphragm, extreme stability
- **FMB50** (pressure) Contite cell, condensate resistance
- **Promag 400** (sludge flow) Heartbeat™ verification, easy install flange design

F Biogas Control

A key process for energy recovery in the plant. Measurement of biogas is challenging due to low pressures, dirt and moisture. When the plant can optimize biogas usage they can reduce overall energy cost by generating electricity for local use (and returning to the grid), gas for boiler operation, and minimize waste due to flaring.



- **B 200** (biogas flow and methane concentration) no maintenance ultrasonic principle
- **PMP51** (biogas pressure, filter blockage) long-term stability
- **FMU90/FDU90** (condensate level in gas storage tank) speed of sound adjustment

For other areas such as primary treatment, chemical preparation, and effluent monitoring instruments, just ask your sales professional for more information.

P&H Milling Group, Acton mill

Finding a Fresh Solution for a Canadian Milling Icon

CompuCal serves work order management system need

P&H Milling Group needed a new work order management system in their Acton, Ontario plant and time was of the essence.

Canada's largest domestically owned milling company was looking to replace the Acton plant's outdated work order management system within four months. Endress+Hauser was quick to respond, providing an effective plan and an innovative product that was custom tailored to fit the customer's needs.

P&H Milling Group — a division of 106-year-old family-run agri-business Parrish and Heimbecker Limited — produces quality flour and cereal products in its mills, located in seven cities spread across Canada. The company supplies flour to customers in Canada, the United States, the Caribbean, the Middle East, Iceland and the Pacific Rim. Its operations are extensive and complex, making work order management crucial to the company's continued success.

The Acton mill produces bulk hard, soft and whole wheat flours for the bakery and food service market throughout Ontario. The operation was relying on a work order management system that was over 10 years old, running on an old server with no ability to upgrade and no backup. If that system failed, they would have lost a decade's worth of data. If they wanted to add new equipment in the plant, the data could not be fed into the existing system. Their work order management system was at the end of its life. Endress+Hauser met with P&H Milling representatives to assess their needs and discuss their future plans. As a result, they suggested CompuCal as the best solution to for their situation, today and down the road.

CompuCal is a high-performing software tool that was developed to efficiently maintain and calibrate on-site instrumentation, fulfilling the highest demands of the regulated industries. CompuCal would allow P&H Milling to control its maintenance and calibration schedules, issuing work orders and reports as defined by personnel. The software allows users to attach important documents (i.e., SOPs, Health and Safety sheets, Loop diagrams) to each tag. It incorporates audit trail and high-security features and delivers a full records sheet for each tag, allowing all important data to be logged and recorded.

"CompuCal can be accessed from anywhere within the P&H Millings network using just a web browser," says David Haener, Endress+Hauser consulting and implementation manager for Plant Asset Management. CompuCal provides customized certificates for calibration and general maintenance work orders, as well as extensive reporting options. "The names of input and output fields within CompuCal can be customized to comply with the customer's naming conventions, meaning CompuCal adapts to you and you don't need to adapt to CompuCal," Haener explains.

Most of P&H Milling's work orders were unplanned rather than on a fixed schedule. Endress+Hauser conducted a workshop for P&H to help them determine their "as-is" and "to-be" processes so they could move from unplanned to planned maintenance. The Endress+Hauser team also imported the customer's complete instrument list from two independent plant locations, allowing P&H to align maintenance strategies at the two facilities.

Given the short timeline allowed for the project, the team worked quickly.

"We had about a three-month preparation phase, in which P&H prepared the data for import from the old system. The installation and training was done within three days," says Haener. "There was no downtime required for P&H Milling because we implemented the system in parallel, making the switchover seamless."

In the end, P&H Milling Group met its goal and its timeline, with great satisfaction.

"This new system has enabled Acton to prepare their quality and maintenance audits consistently on time and complete. This system has been a substantial improvement for the Acton division," says the P&H quality manager. "This is due to all departments using CompuCal and the ease of use of this maintenance management software."

Now that CompuCal is in place at two plants, P&H Milling is in a position to expand the new strategy to other locations as well, capitalizing on the scalability and versatility of Endress+Hauser's software solution. CompuCal can also expand its functions to include customized certificates and remote work order execution strategies. Working in concert with other Endress+Hauser products, such as W@M Enterprise and FieldCare, it's possible to manage asset information, device configuration, calibration and maintenance of instruments throughout its operations.

With Endress+Hauser and CompuCal at work, the options are nearly limitless — even if time is of the essence.

EPC Contractor Training

Accurate, Efficient, Effective — Instrumentation Technology at Work

Level ▪ Analytical ▪ Pressure ▪ Nuclear Density + Level ▪ Flow ▪ Bus Communication ▪ Temperature ▪ Wireless Networks

UPCOMING SESSIONS:

Unlock the Potential of Bus Technologies

This session provides a summary of various bus technologies (Foundation Fieldbus, Profibus, WirelessHART, Modbus, EtherNet/IP, etc.) and explains the benefits of unlocking device intelligence and enabling Asset Information Management (AIM). We also discuss the impact of AIM on the capital expenditures of a project and how AIM delivers valuable returns throughout the facility's operational expenditures, after successfully deploying Fieldbus technologies.

Online Analytical Solutions for Process Industries

We discuss best practices for the selection of equipment and the absolute need for proper installation. Analytical instrumentation offers the best in flexibility and reliability. We explore what new operational and maintenance benefits can be achieved using these new digital devices.

Flow Measurement Technologies for Process Industries

Increase performance and consistency in your operations. Avoid potential downtime and quality control issues related to measurement error. The first step to ensure accurate measurements is selection of the right flow meter for your specific application.

Level Measurement Technologies

Ensure your level installations are successful. Learn how to select the ideal instruments for your processes. Identify the installation considerations that are most important to your operations.

Pressure and Temperature Measurement

Accurate temperature readings are critical to efficiency and quality control. Precise pressure measurement is important in its own right and provides imperative information about flow, level and density. Ensure you have the right sensors in place to provide accurate measurement and processing success in your operations.

DATES TBA
Calgary

COURSE OUTLINE

- Introduction to available technologies
- Theories of operation
- Industry standards and regulations
- Selection criteria and sizing parameters
- Installation guidelines
- Operation and maintenance requirements
- Identifying industry best practices

Contact Us
info@ca.endress.com

2016 Measurement Training Sessions

At Endress+Hauser, our focus is on the customer first

Endress+Hauser's new Customer Training Centre is housed in the company's soon to be open Regional Customer Support Centre in Edmonton, Alberta.

The 20,000-square-foot facility provides Endress+Hauser clients in Western Canada with ready access to some of the best technical support and measurement instrumentation in the world, as well as the state-of-the-art Customer Training Centre with functional process models and a certified Flow Calibration Lab.

Our Canadian business team works to provide the best solution in response to the unique challenges of every customer. And we know that an informed client is an important part of any project success. To that end, we have prepared five professional training sessions in our new Edmonton Customer Training Centre to demonstrate our capabilities specifically for you, working in the Canadian oil and gas industry.

As you visit Endress+Hauser's impressive Regional Customer Support Centre in Edmonton, you will participate in demonstrations that provide you with hands-on experience with the instruments and technology that keeps your facilities operating safely and effectively. In these state-of-the-art labs, you will see real-time demonstrations of measurement technology that can increase your profitability, enhance your reliability and, most importantly, improve your risk management capabilities. You will also learn how various technologies can be applied to benefit your operations in the field.

Please join us us for these customized sessions, allowing us to demonstrate our innovative response to the demands you face in your challenging industry. Your success is important to us. Your business is important to us.

ARCHITECTURAL RENDERINGS BY ONPA ARCHITECTS

Measurement Training Sessions

Fundamentals of Flow Measurement

IN THEORY

- Explore the principles of flow measurement
- Review related products — their applications, advantages and limitations
- Learn the preferred installation methods in a number of scenarios

IN PRACTICE

- Gain hands-on experience with: cavitation, pulsation, vibration, gas entrainment, improper installation, different process fluids impact on measurement

Fundamentals of Level Measurement

IN THEORY

- Explore the principles of level measurement
- Review related products — their applications, advantages and limitations
- Learn the preferred installation methods in a number of scenarios

IN PRACTICE

- Gain hands-on experience with: condensation, envelope curves, interface, turbulence, improper installation, different process fluids impact on measurement

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Fundamentals of Density Measurement

IN THEORY

- Explore the methods of density measurement
- Review related products — their applications, advantages and limitations
- Learn the preferred installation methods in a number of scenarios

IN PRACTICE

- Gain hands-on experience with: Liquiphant density, Coriolis flow, gamma (density in pipe), density profiling

Fundamentals of Profibus

IN THEORY

- Review the principles of fieldbus communication

IN PRACTICE

- Build and troubleshoot segments of a Profibus installation

FOUNDATION Fieldbus

IN THEORY

- Review the principles of certified digital, serial, two-way communications systems

IN PRACTICE

- Build and troubleshoot segments of a FOUNDATION Fieldbus installation

Products Spotlight

Cleanfit CPA875

Hygienic and sterile retractable assembly for pH, ORP, DO

- Modular design provides installation flexibility and reduces spare parts
- Unique seal design ensures safe and sterile online sensor exchange and cleaning
- High-pressure operation with either manual or pneumatic actuation

www.ca.endress.com/analysis

CUS52D

Low range online turbidity system

- Non-liquid verification and calibration for low range turbidity
- Direct pipe insertion design eliminates product loss
- Single sensor for all turbidity measuring ranges

www.ca.endress.com/CUS52D

CM44xR

Compact, DIN rail mount multi-parameter transmitter system

- Easy plug-and-play setup, commissioning and maintenance with Memosens digital sensors
- Standardized Liquiline modules reduce spare parts and simplify operator training
- DIN rail mount design, 8 channel expandability with optional remote display

www.ca.endress.com/analysis

TempC Membrane

For diaphragm seals

Temperature compensated membrane

- Up to 8X faster temperature recovery time to CIP/SIP
- Drastically reduced zero shift adjustments
- Up to 10X more accurate than conventional membrane

www.ca.endress.com/temperature

Products Spotlight

Memosens

Contactless, digital, innovative

- Inductive metal-free connection for increased signal stability with no corrosion or moisture influences
- Lab calibrations possible with in-sensor data storage (all sensors pre-calibrated at the factory)
- Sensor traceability with automated storage of process and sensor data

www.ca.endress.com/analysis

Memobase Plus CYZ71D

Calibrate, measure and document

- Save time and money with one simple calibration and documentation tool
- Simple sensor exchange for the highest plant availability
- Work safely in a clean, controlled environment and eliminate human error with electronic record keeping
- Create true sensor life-cycle management with complete calibration records, standards management and service history

www.ca.endress.com/CYZ71D

Prosonic FMU30

Ultrasonic level transmitter

Ultrasonic Transmitter for level applications in liquids and bulk solids

- Quick and simple commissioning via four-line plain text display
- Envelope curves on the display for simple diagnosis
- Non-contact measurement method minimizes service requirements

www.ca.endress.com/fmu30

TM41x iTEMP®

Innovative temperature measurement

- QuickSens Insert for the fastest temperature response on the market today (T90<1.5 seconds)
- StronSens Insert for long-term reliability and vibration resistance
- Save time during calibration with the Quickneck release design
- Stainless Steel construction with IP69K Ingress protection for guaranteed performance on wash-down applications

www.ca.endress.com/TM411

Micropilot FMR5x series

Radar level transmitters

- Hardware and software – IEC 61508 up to SIL3
- Extended temperature range -196...+450°C / -321...+842°F
- Highest reliability with new Multi-Echo Tracking evaluation
- Measuring accuracy up to ±2mm/0.078"
- HistoROM data management concept offers fast and easy setup, maintenance and diagnostics

www.ca.endress.com/fmr52

Smartec CLD18

Compact toroidal conductivity transmitter

- Specially designed for washdown and vibration applications (IP69K)
- Fast response reduces product loss and increases CIP efficiency
- Robust field proven hygienic design reduces unexpected downtime

www.ca.endress.com/CLD18

Prowirl 200

Vortex flowmeter

- HistoROM: secure automated device back up ensures high plant availability
- Heartbeat technology™: continuous self-diagnostics and device verification
- Wet steam alarm for safe and efficient operation of steam systems
- Life-time calibration eliminates errors caused by sensor drift

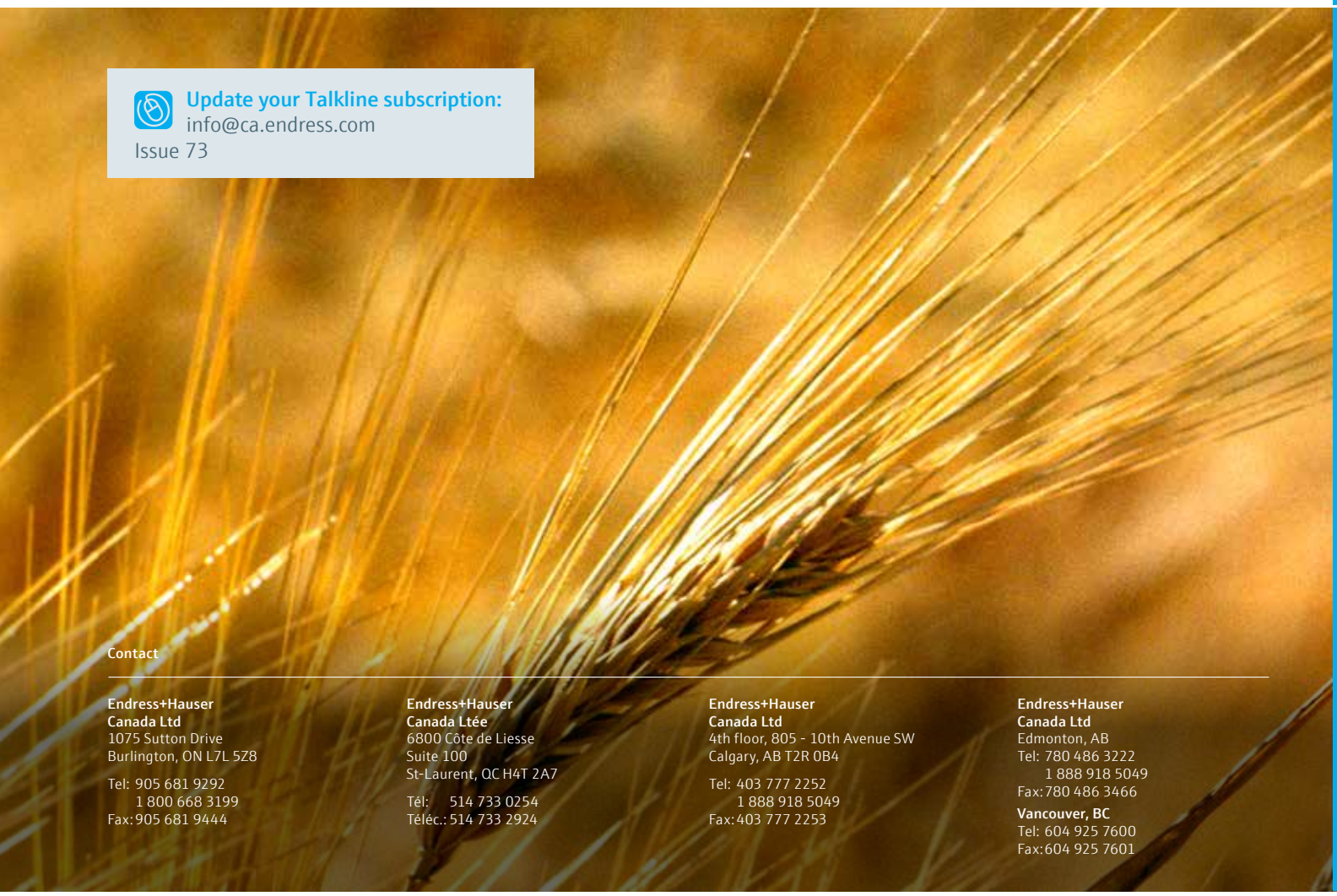
www.ca.endress.com/vortex

Proline Promag 400

Flowmeter

- HistoROM: secure automated device back-up ensures high plant availability
- Heartbeat Technology™: continuous self-diagnostics and device verification
- Built-in web server for fast and easy device configuration
- Certified corrosion protection for use underground or underwater without modifications

www.ca.endress.com/flow



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Issue 73

Contact

Endress+Hauser
Canada Ltd
1075 Sutton Drive
Burlington, ON L7L 5Z8

Tel: 905 681 9292
1 800 668 3199
Fax: 905 681 9444

Endress+Hauser
Canada Ltée
6800 Côte de Liesse
Suite 100
St-Laurent, QC H4T 2A7

Tél: 514 733 0254
Téléc.: 514 733 2924

Endress+Hauser
Canada Ltd
4th floor, 805 - 10th Avenue SW
Calgary, AB T2R 0B4

Tel: 403 777 2252
1 888 918 5049
Fax: 403 777 2253

Endress+Hauser
Canada Ltd
Edmonton, AB
Tel: 780 486 3222
1 888 918 5049
Fax: 780 486 3466

Vancouver, BC
Tel: 604 925 7600
Fax: 604 925 7601

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