3 New Great Ways to Monitor Your Process
Agenda

1. Loop Leader Series
   Key Features & Applications

2. PDW Wireless Systems
   Key Features & Applications

3. Helios Series
   Key Features & Applications
Loop Leader Series
Loop-Powered Meters
Loop Leader Series

- 2-wire, loop-powered meters
- Process meters and flow/rate totalizers
- Information packed displays
- Alarms, pump control, & retransmission
- Hazardous area approvals pending
- On-board digital input
Loop Leader Standard Features

Completely redesigned loop-powered meters with many new standard features:

- 2 Open Collector Outputs
- 2 Color Backlight
- 2 Line Display
- 1.5 Voltage Drop
Loop Leader Optional Features

Innovative optional features, some never before seen on loop-powered devices:

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3 Display Types

Decimal Displays
PD6602 – Process Meter
PD6622 – Rate/Totalizer

Feet & Inches Display
PD6603 – Level Meter

Decimal + Bargraph Displays
PD6604 – Process Meter
PD6624 – Rate/Totalizer
Basic Display Features

- **Alphanumeric**: 8-character, 0.4" (10.2 mm) display
- **5-Digit**: 0.7" (17.8 mm) display
- **Predefined or Custom Units**
- **LED Backlight**
- **IP65 Front**
- **Buttons / Function Keys**
- **Alarm & Password Indicators**
Feet & Inches Display Features

- Volume, Percent, Predefined or Custom Units
- 999 FT 11 IN 15/16
- Feet & Inches Designations
- Fractions of an Inch
- Percentage Full
- 20-Segment Bargraph
Decimal with Bargraph Display Features
(shown on a rate/totalizer, available on process meter versions also)

- LED Backlight
- 5-Digit Rate
- Total, Grand Total, Predefined or Custom Units
- Commas for More Intuitive Readings
- Up to 8-Digit Total
- Bargraph for Rate or Total
- Rate or Total Percentage
Alarm Display Features

- Red Backlight for Alarms
- Programmable Flashing Display for Alarms
- Toggles Between Units & Custom Alarm Message
- Alarm Indicator
PD6600 Process Meters

Features
- Loop-powered backlight standard
- Alphanumeric tag names
- 2 open collector outputs standard
- 2 solid state relays option
- 4-20 mA analog output option
- Timer functions for OC and relays
- Relay pump alternation
- Relay runtime and cycle count
- 20-Segment bargraph display option
- Feet & inches display option

Applications
- Level
- Pump Control
- Pressure
- Hazardous Areas (coming soon)
PD6620 Flow Rate / Totalizers

Features
- Loop-powered backlight
- Display rate & total simultaneously
- Intuitive total display with commas
- Alphanumeric tag names
- Total, grand total, or non-resettable grand total
- Up to 8-digit total & grand total
- 2 open collector outputs standard
- 2 solid state relays option
- 4-20 mA analog output option
- 20-Segment bargraph display option

Applications
- Flow
- Open Channel Flow
- Differential Pressure Flow
- Hazardous Areas (coming soon)
Applications

Pump Alternation

- Relays 1 & 2 can be programmed for pump alternation
- Use the 2 open collector outputs to control relays that would control high and low alarm buzzers
- Pump alternation can be based on level or time
- Meter can display how long a pump has run and how many times it has cycled
Applications

- Use the programmable exponent function to linearize the level signal in open channel flow applications using weirs and flumes.
- Display flow rate in engineering units.
Applications

Round Horizontal Tank

- Automatically calculates the volume in a round horizontal tank with flat ends.
- Enter the diameter and the length in inches and the results are calculated automatically in US gallons.
- The meter can be scaled to display the volume in any engineering unit.
Applications

Differential Pressure Flow

• The square root function can be used to linearize the signal from a differential pressure transmitter

• Display flow rate in engineering units
Helios Series
Large Display Meters & Controllers
Helios Series

- Visible from 100 Feet Away
- Great for Outdoors
- On-Board USB Programming
- Superluminous Display
2 Display Types

Decimal Displays

Feet & Inches Display
Helios Series – Large Display Meters and Controllers

Features
- Superluminous SunBright display
- Readable from 100 feet away
- Field mount IP65 enclosure
- 4-20 mA, 0-10 VDC, pulse, thermocouple, RTD, modbus, discrete, strain, or mV signals
- Dual-line 6-digit display, 1.80” (46 mm)
- Decimal and feet & inches displays
- 24 VDC transmitter power supply
- 4 relays + isolated 4-20 mA out options
- Signal input conditioning for flow and level
- On-board MeterView Pro software and USB port

Applications
- Level
- Pump Control
- Flow
- Batch Control
- Temperature
- Modbus
- Weight
- Speed
- Power
Helios Features

- Extra-Large 1.8” (46 mm)
- Dual-Line 6-Digit Display
- Alarm Status Indicators
- Wall Mounting Hole
- IP65 Rated Enclosure
- User Configurable
On-Board USB & Programming Software

Features

- PC conveniently provides power to the unit via USB connection during programming
- Programming software automatically loads to PC when unit is connected.
- No need to download software and/or drivers
- USB cable provided with unit
Helios Models Available

- Process Meters
- Feet & Inches Level Meters
- Flow Rate/Totalizers
- Batch Controllers
- Temperature Meters
- Strain Gauge Meters
- High Voltage & Current Meters
- Modbus Input Scanners
Applications

Pump Alternation

- Control and alternate up to 4 pumps
- Relays 1 & 2 can be programmed for pump alternation control
- Relays 3 & 4 control high and low alarm buzzers
Applications

Tank Weighing

- 3-legged tank has a load cell under each leg
- Load cells are wired locally in parallel within a junction box
- The combined signals are then connected to the PD2-6100
- During field calibration, the weight of the empty tank (zero point) and the full tank weight (full scale) are programmed into the meter
- Over time, the tare feature on the PD2-6100 can account for obstacles like sludge buildup on the bottom of the tank when empty
Applications

Round Horizontal Tank

- Automatically calculates the volume in a round horizontal tank with flat ends.
- Enter the diameter and the length in inches and the results are calculated automatically in US gallons.
- The meter can be scaled to display the volume in any engineering unit.
Applications

Open Channel Flow

• Use the programmable exponent function to linearize the level signal in open channel flow applications using weirs and flumes
• Display flow rate in engineering units
Applications

Differential Pressure Flow

- The square root function can be used to linearize the signal from a differential pressure transmitter
- Display flow rate in engineering units
Applications

Batch Control

- Single or multi-stage batch control
- Display batch total, rate, grand total, count or preset
- Automatic overrun correction
- Automatic or manual batch control
- Count up or down with each batch
PDW
Industrial Wireless Systems
PDW30 – Point-to-Point Wireless Bridge

**Features**

- Replaces 4-20 mA wires
- Inputs and outputs on both field units
- 1 mile line-of-sight, 500 feet indoor range
- 4-20 mA, digital, and RS-485 Modbus® communications outputs
- Remote or attached antenna
- Flanges for wall or pipe mounting
- Backlight standard
- On-board USB
- PDW Manager programming software

**Applications**

- Level
- Flow
- Anywhere You Don’t Want to Run Wires
- Hazardous Areas (coming soon)
PDW30 Features

- 32-Character Dual-Line Alphanumeric Dot Matrix LCD with Backlight
- Micro USB Connection
- Mounting Flanges
- IP68 Rated NEMA 4X Aluminum Enclosure
- Four Buttons Behind Glass
- Antenna with 1/2" NPT Conduit Connection
PDW90 – Point-to-Multipoint Wireless Systems

Features
- Replaces 4-20 mA wires
- Connect up to 32 field units
- Up to 16 expansion modules
- RS-485 Modbus® standard
- Point-to-multipoint signal wire replacement
- 1 mile line-of-sight, 500 feet indoor range
- PDW Manager programming software
- Configure a system at www.predig.com/wireless

Applications
- Level
- Pump Control
- Flow
- Anywhere You Don’t Want to Run Wires
PDW90 Features

- LCD Displays Current Field Unit's Signal Strength
- USB for PC Programming Software
- Antenna Included
- 4 Types of Modules Available
System Accessories

- Dual Analog Input Module
- Dual Digital I/O Module
- Dual Relay Output Module
- Dual Analog Out Module
- Repeater
PDA10 Wireless Survey

• For use with PDW30 or PDW90
• 1 mile outdoor line-of-sight, 500 feet indoors range
• Includes a handheld unit and target unit
• Great for testing signal strength at desired installation
Applications

Point to Point

• This simple example demonstrates how the PDW30 may be used to wirelessly bridge an analog signal

• The PDW30 can input and output a 4-20 mA signal

• It is ideal for integration into existing 4-20 mA systems
Applications

Point to Multi-Point

- This diagram shows a typical PDW90 installation
- Multiple transmitters are outputting analog signals to wireless field units
- The analog signals are being wirelessly broadcasted to the PDW90 base station
- The PDW90 base station sends 4-20 mA signals to the destination devices
Summary

1. Reviewed the Loop Leader Series Key Features & Applications
2. Reviewed the PDW Wireless Systems Key Features & Applications
3. Reviewed the Helios Series Key Features & Applications
thank you

For more information

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