

The image shows an industrial facility with large, cylindrical storage tanks and a complex network of pipes and walkways. A large, dark blue diagonal shape is overlaid on the left side of the image, partially obscuring the tanks. The sky is clear and blue.

Precision Digital Presents

3 New Great Ways to Monitor Your Process

PRECISION DIGITAL

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
Series

PRECISION DIGITAL +

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:

2

**Solid State
Relays**

1

**4-20 mA
Analog Output**

1

**20-Segment
Bargraph**

3

**Display
Types**

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



Feet & Inches Display Features



Decimal with Bargraph Display Features

(shown on a rate/totalizer, available on process meter versions also)



Intelligent
Monitoring
& Control

Alarm Display Features



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



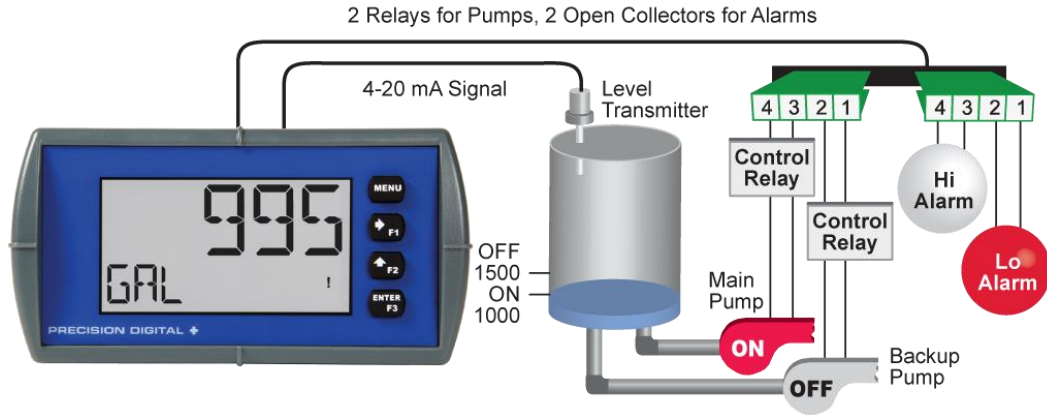
Features

- 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



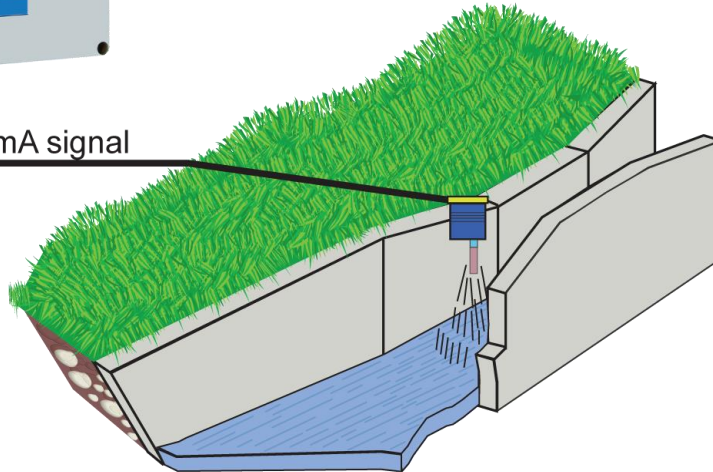
Pump Alternation

- 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



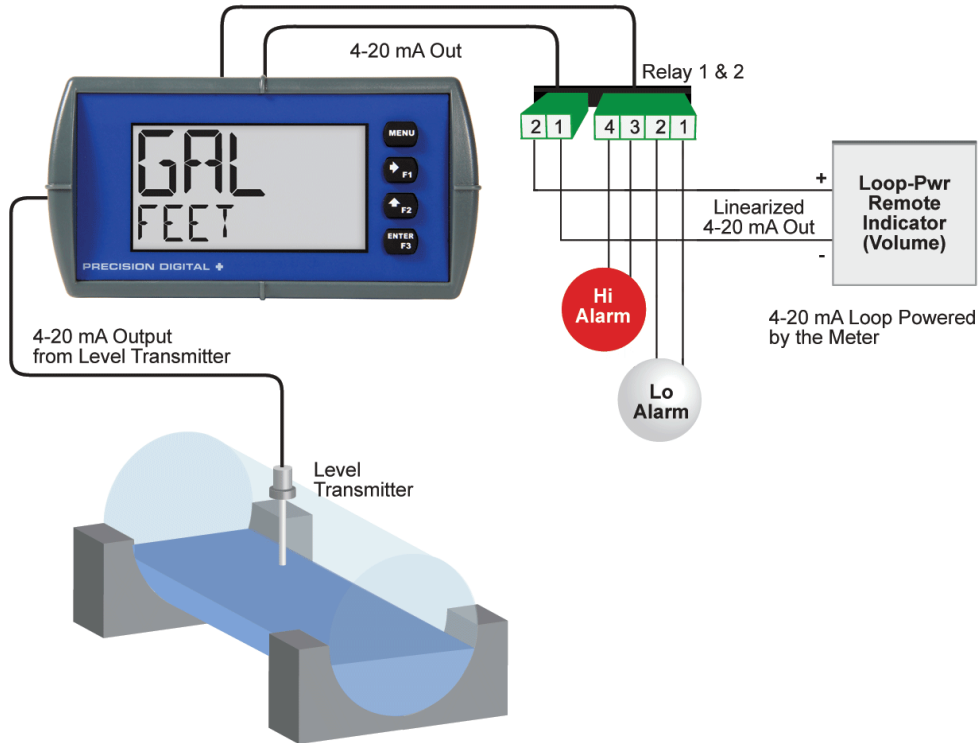
4-20 mA signal



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

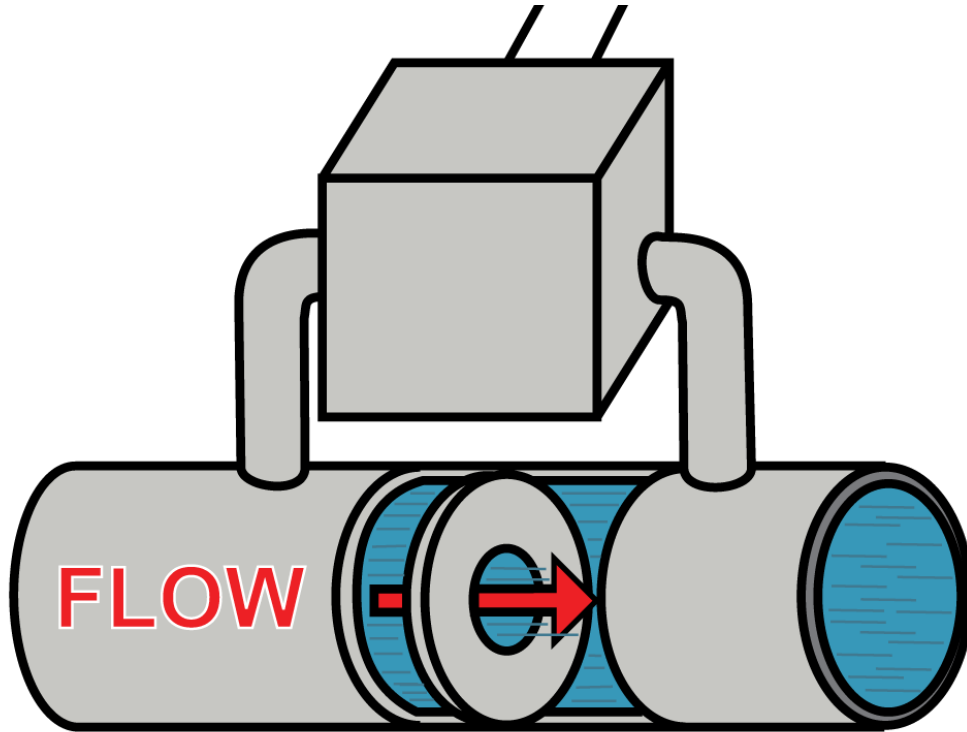
Applications



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

PRECISION DIGITAL 

Helios Series



Visible from
100 Feet Away



Great for
Outdoors



On-Board USB
Programming



Superluminous
Display



Intelligent
Monitoring
& Control

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



Intelligent
Monitoring
& Control

On-Board USB & Programming Software



Features

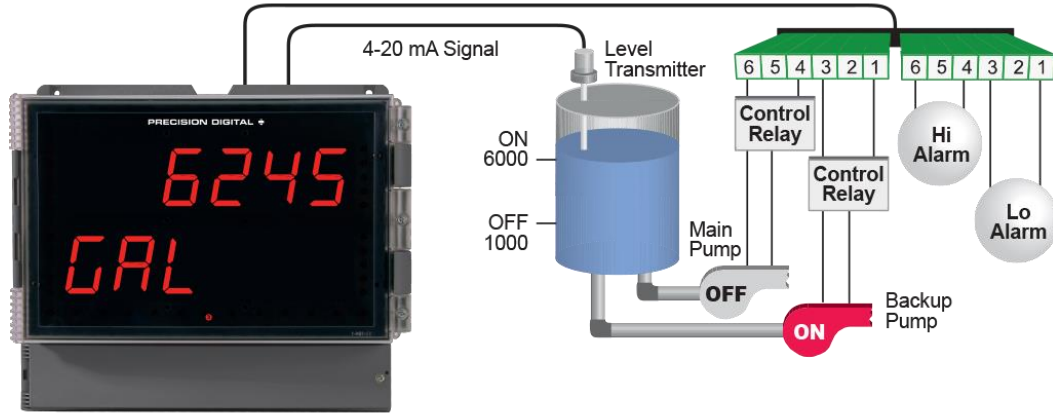
- PC conveniently provides power to the unit via USB connection during programming
- Programming software automatically loads to PC when unit is connected.
- No need to download software and/or drivers
- USB cable provided with unit

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



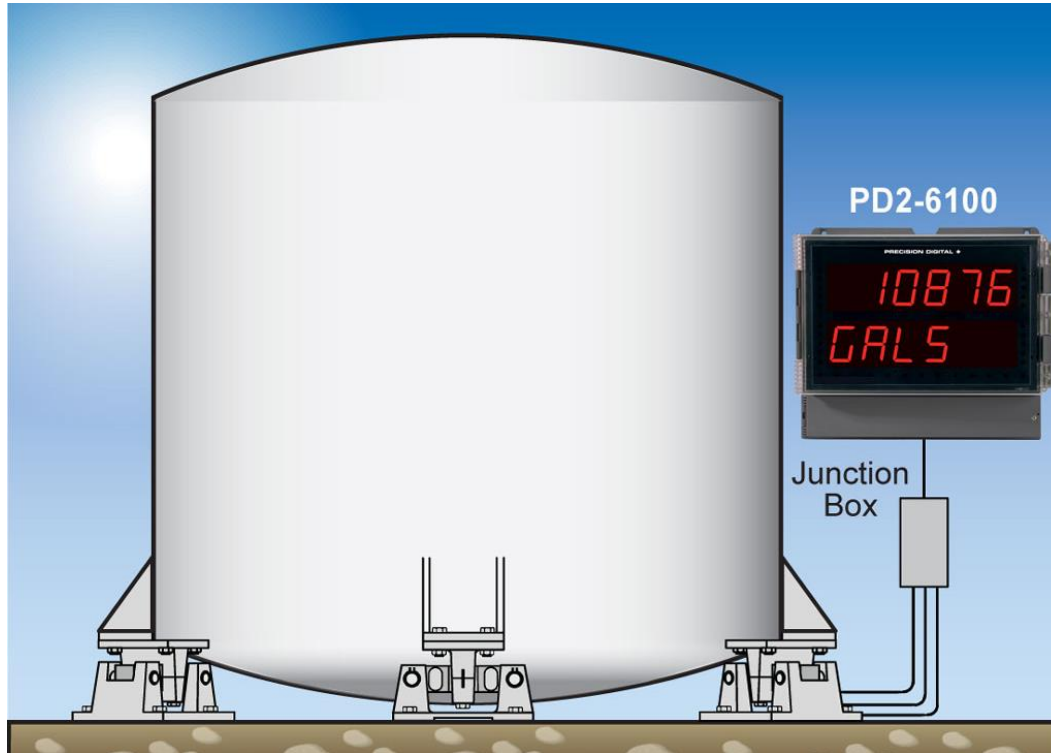
Applications



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

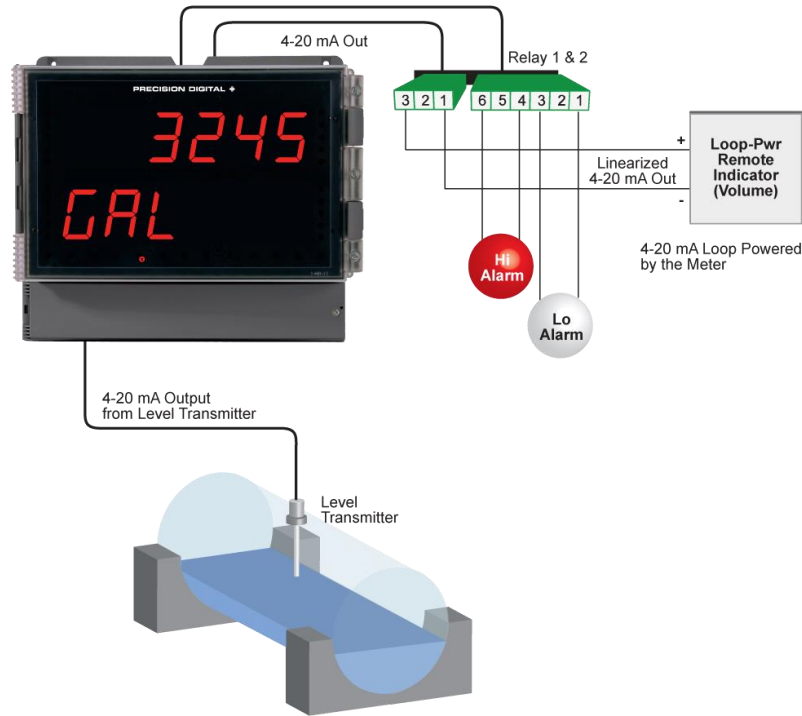
Applications



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

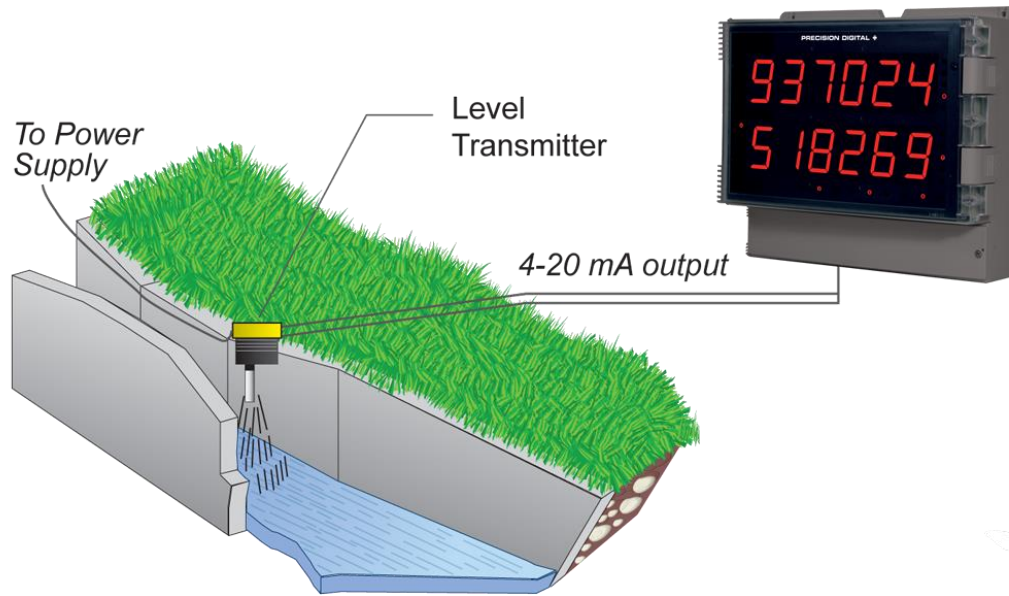
Applications



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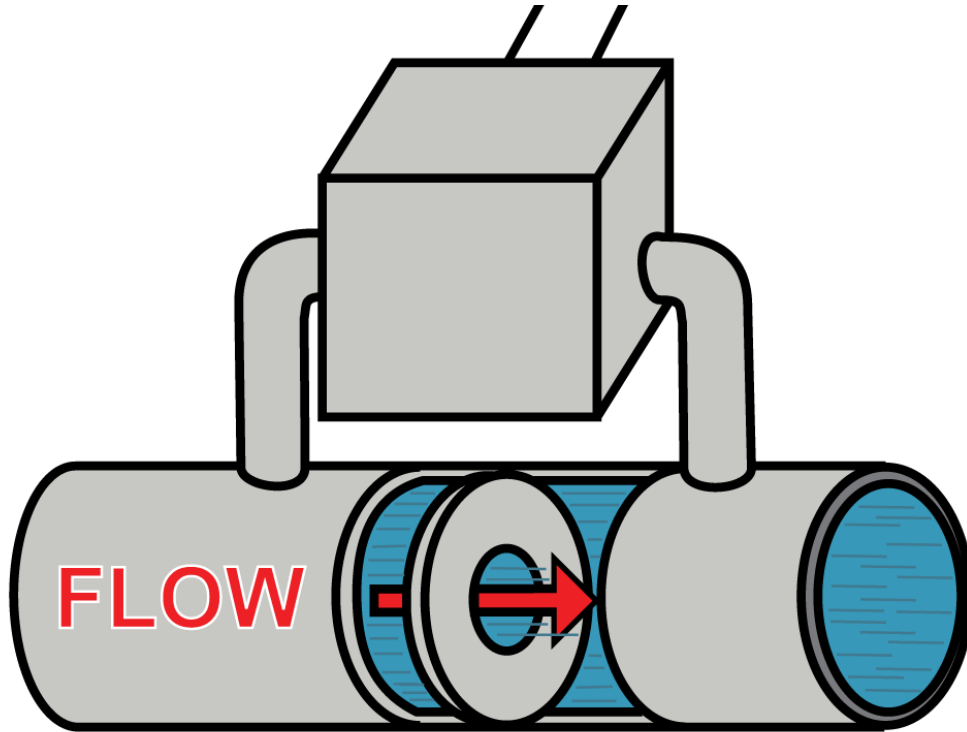
Applications



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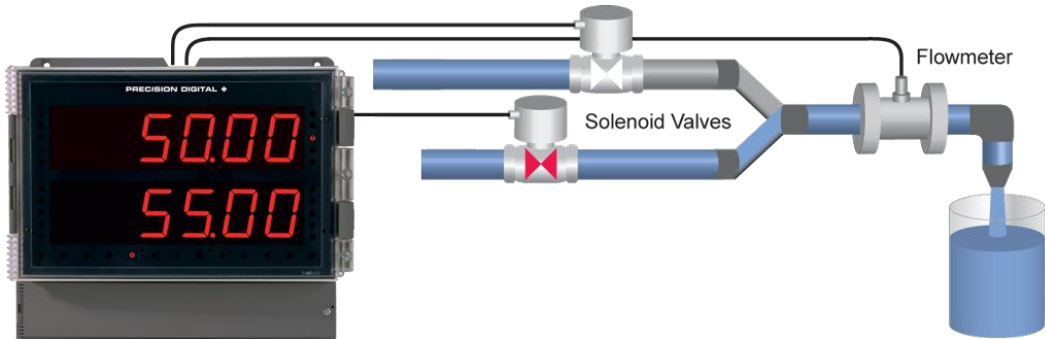
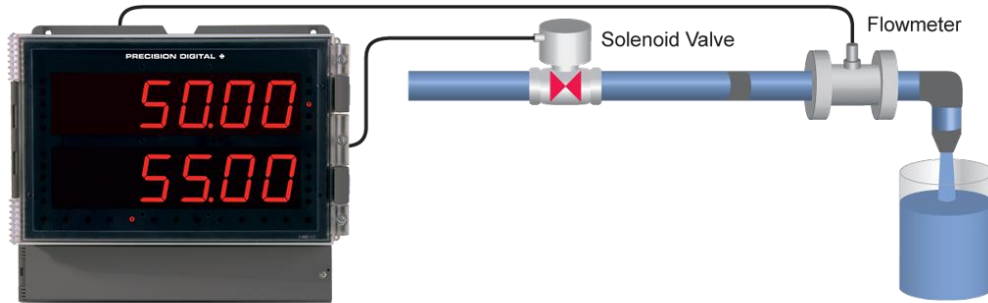
Applications



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



**PRECISION
DIGITAL** 
WIRELESS 

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

Antenna with 1/2" NPT Conduit Connection

Mounting Flanges

Micro USB Connection

IP68 Rated NEMA 4X Aluminum Enclosure

Four Buttons Behind Glass

32-Character Dual-Line Alphanumeric Dot Matrix LCD with Backlight



PDW90 – Point-to-Multipoint Wireless Systems



PRECISION
DIGITAL
WIRELESS

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

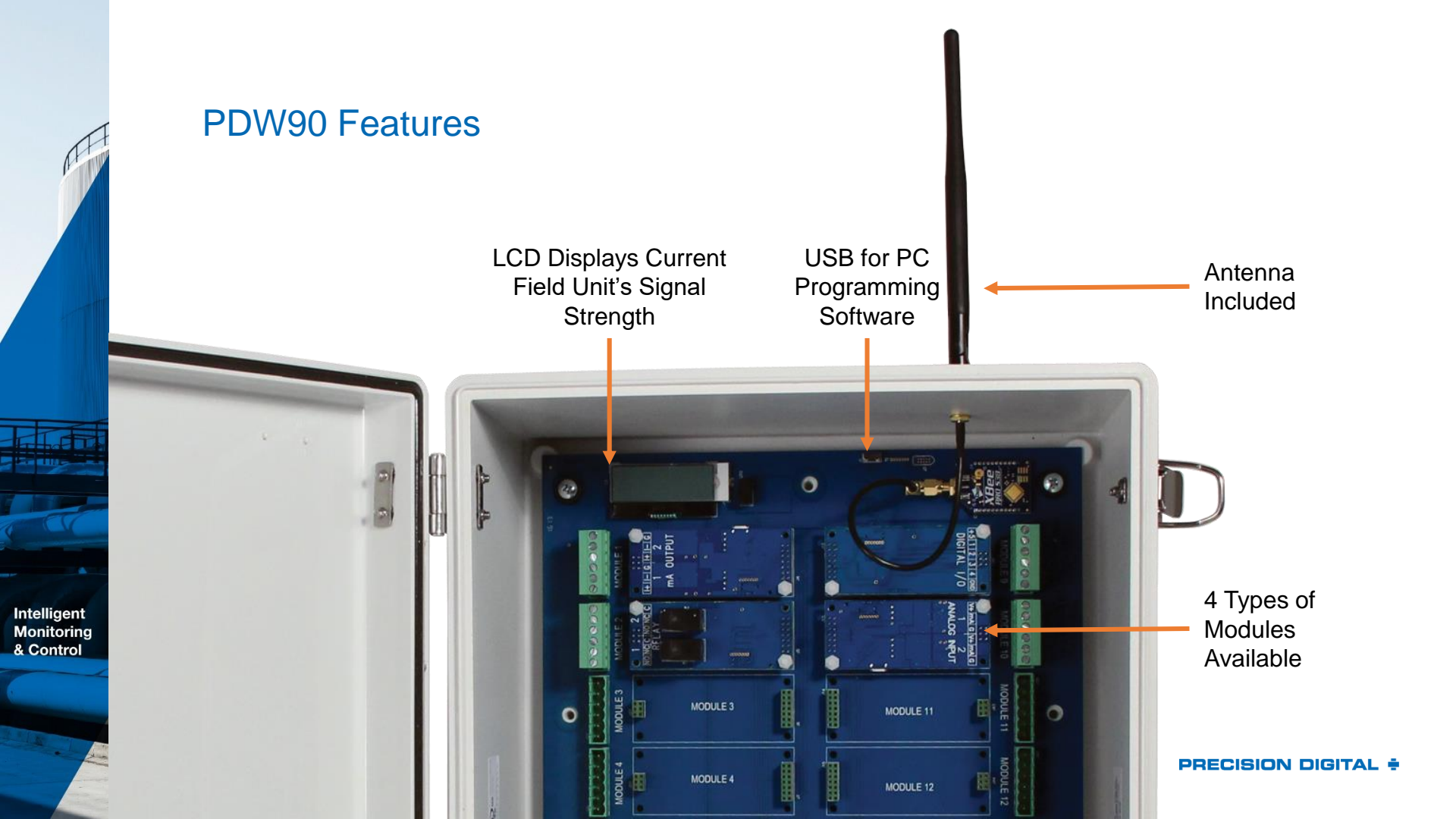
LCD Displays Current
Field Unit's Signal
Strength

USB for PC
Programming
Software

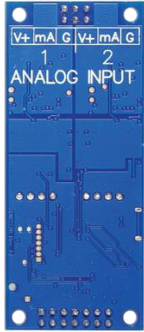
Antenna
Included

4 Types of
Modules
Available

Intelligent
Monitoring
& Control



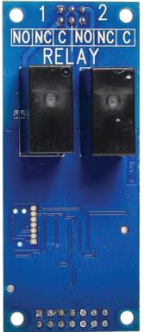
System Accessories



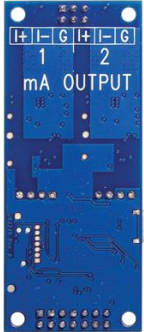
**Dual
Analog Input
Module**



**Dual
Digital I/O
Module**



**Dual
Relay Output
Module**



**Dual
Analog Out
Module**



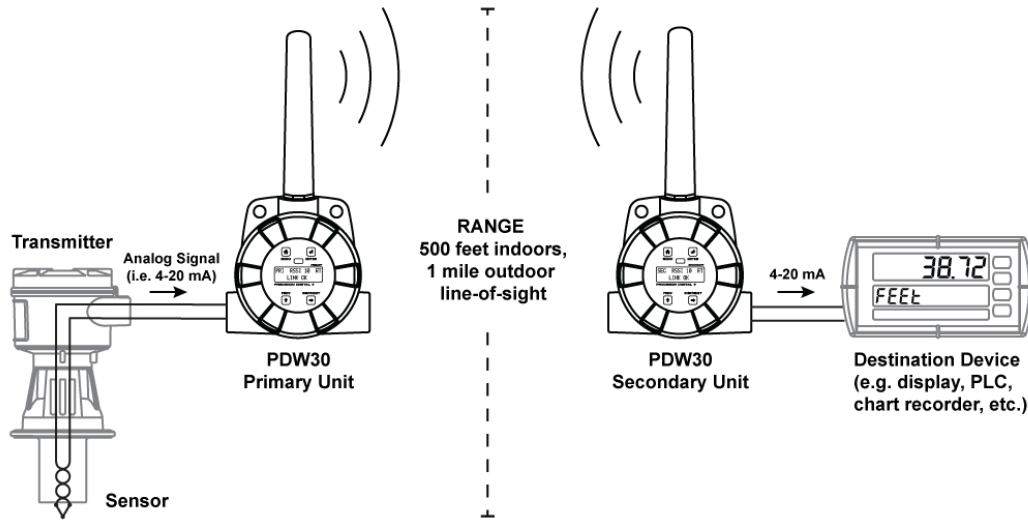
Repeater

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



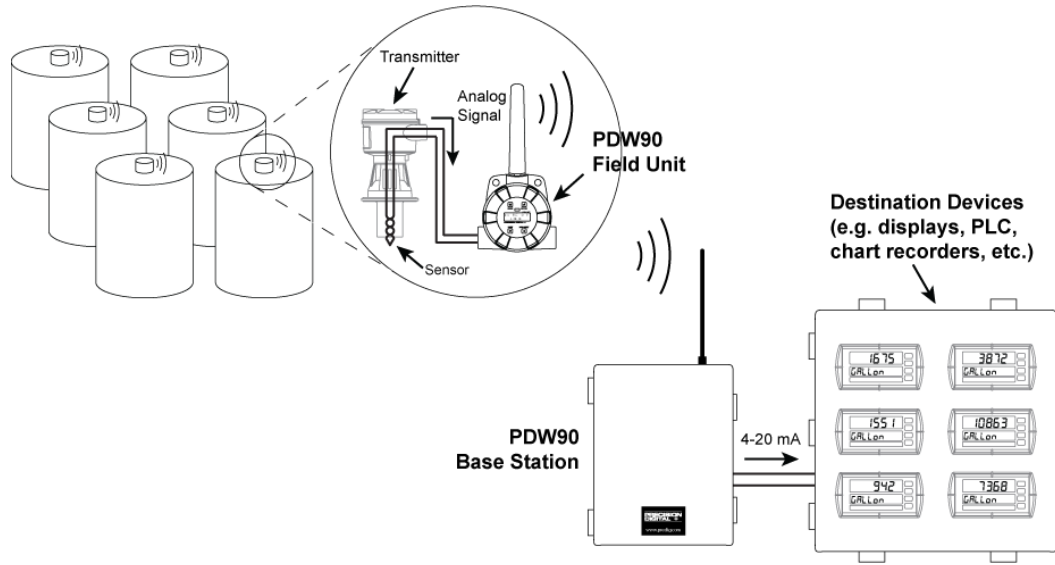
Applications



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

For more information



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thank you