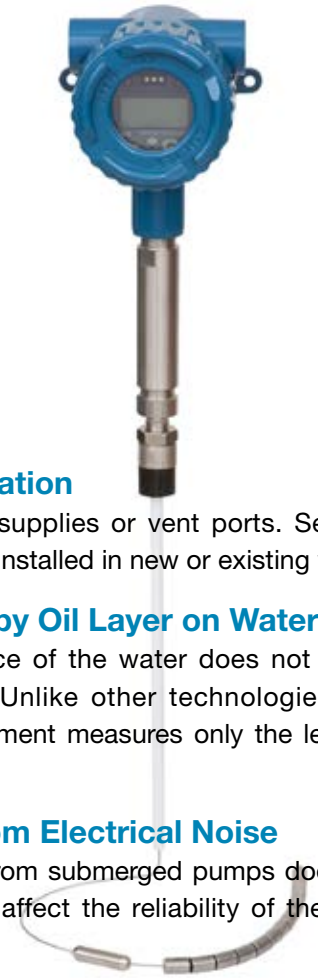
DREXELBROOK®

AMETEK®

DATA SHEET

CheckWell™ Water Well Level Monitor

Universal V™ Series



Simple Installation

No need for air supplies or vent ports. Sensing element is easily installed in new or existing wells.

Not Affected by Oil Layer on Water

Oil on the surface of the water does not "fool" the instrument. Unlike other technologies, the CheckWell instrument measures only the level of water in the well.

No Effects from Electrical Noise

Electrical noise from submerged pumps does not interfere with or affect the reliability of the level signal.

Easy Calibration Saves Time

Pushbutton calibration is menu-driven through the LCD display/keypad.

Consistent Accuracy and Reliability

Microprocessor-based circuitry means precise level indication along the entire sensing element. Internal circuitry provides ambient temperature compensation.

Eliminate Routine Maintenance

No moving parts to break or wear out. No need for routine maintenance or recalibration.

The CheckWell Level Monitor, using field-proven RF technology, provides a dependable, low-cost, continuous measurement of level or drawdown in production, monitoring, observation, extraction, and remediation wells.

RF technology is not dependent on density, which means the CheckWell instrument ignores an oil layer and only measures the actual water level in wells.

The rugged, PFA sensing element with 316 SS weight assembly never needs to be pulled from the well for maintenance.

A convenient integrally-mounted package (or remote up to 100 feet) comes with built-in local indication through a full LCD display.

Calibration is quick and easy through menu-driven pushbutton selection.

Each system is available with:

- User definable display. (percent or engineering units).
- Easy 2-point calibration.
- Adjustable time delay provides signal damping.
- Meter trim to adjust the output signal to a known plant standard.
- Diagnostic ability using Real-time View.
- Built-in display/keypad for quick and easy setup and local indication.

The CheckWell can also be configured with the HART® Communicator or AMETEK Drexelbrook software for more detailed setup and diagnostics.

CheckWell™

Specifications

System includes 4-20 mA two-wire, indicating electronic unit and sensing element. Cable is included with remote version. See Universal V (UV-A) datasheet for system model number.

Sensing Element	Process Pressure and Temperature	Standard Mounting	O.D.	Materials of Construction
700-0005-035	140°F @ 300 psi 60°C @ 20.7 BAR (see Note 1)	3/4-inch NPT or Flange, Union, or Angle Swivel	.09375 (3/32) inch (2.4 mm)	316 L SS and PFA
Sensing Elements include Spacers				
one spacer for each four feet (1.22 m) of insertion length			0.687 inch (17.44 mm)	Polypropylene or PFA (special)

Notes:
1. Maximum temperature rating is 300 °F (149 °C) with special PFA spacers.
2. When process temperature exceeds 212 °F (100 °C), the mounting must include a cooling extension to maintain the pressure rating.
3. Sensing element can be shortened in the field.

Technology
RF Admittance / Capacitance

Supply Voltage
16–-30VDC, 2-wire loop powered

Ouput/Digital Protocol
4-20mA, HART
Compatible with HART®
HART device description available

Load Resistance
Maximum 550 ohms at 24 VDC
Minimum 250 ohms for HART protocol

Ambient Temperature
-40 to 75 °C (-40 to 167 °F)

Process Connection
NPT, ANSI, DIN, and more upon request

Sensor Length
Pro Model - Up to 800 feet (244m)
Lite Model - Up to 140 feet (43.5m)

Capacitance Measurement Range
Autoranging (6 ranges)
1–45,000 pF (Pro model)
20–7,000 pF (Lite model)

Cote-Shield™
Pro Model: Coating rejection with 15Khz and 0° phasing
Lite Model: 15Khz without phasing for conductive non-coating applications only

Integral or Remote Configuration
100 ft max cable length for remote configuration

Accuracy
0.25% of span (ranges 2–6)
Includes the effects of linearity, hysteresis and repeatability on electronics only

Response Time to Level Changes
350 msec nominal (no damping applied)
1–90 seconds programmable damping time

Supply Voltage Effect
0.2% of full scale max

Temperature Effect
0.5% per 100 °F (37.7 °C) change

Start-Up Time
< 12 seconds

Configuration and Calibration
Standard LCD display and keypad on all models
HRTWIN™ PC-based software
Or
Third-party handheld communicators

Approvals
Intrinsically Safe (IS)
Explosion Proof (XP)
FM, FMc

DREXELBROOK® / AMETEK®
An ISO 9001 Certified Company
LEVEL MEASUREMENT SOLUTIONS

205 Keith Valley Road, Horsham, PA 19044
Telephone: 215-674-1234
E-mail: drexelbrook.info@ametek.com

ametek-measurement.com

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