BDC Product Showcase, August 2016: Hawk Level Transmitters

For this month’s product showcase, we wanted to highlight some of the level transmitters from Hawk used to measure liquids, sludges, and powders. Hawk is an industry leader in level measurement technologies, offering cost-effective solutions to industries like mining, pulp and paper, food and agriculture, power, chemicals, and more.

Many of the Hawk level transmitters that BDC sells and services are distinguished by the way in which they measure the level and depth of the product being measured:

Hawk Centurion Guided Radar Level Transmitter

Guided Radar level transmitters use microwave pulses transmitted along a cable or probe to measure product level and interface. They are ideal for measuring liquids, sludge, powders, and granules to a range of 18.5m (60ft). Because radar is used, the unit is not affected by pressure, temperature, viscosity, vacuum, foam, dust, or changes in dielectric constant or coating of the probe. You can read more about their operation on our product page.

Common features include:

IECEx Ex ia/d [ia Ga] IIC T6 Ga/Gb Tamb 60°C

IECEx Ex ia tb [ia Da] IIIC T85C Da Db Tamb 60°C

Up to 18.5m (60ft 8in) range

Very short minimum range (150mm, 6in)

Simple setup

Auto-calibration to any dielectric ≥1.5

Adjustable sensitivity

Precise and continuous measurement

2 wire loop

4-20mA, HART

Protection class IP66, Nema 4x

Measures extremely low dielectric (1.5)

Programmable fail-safe mode

Hawk MiniWave Ultrasonic Level Transmitter

The MiniWave level transmitter is a compact, loop-powered ultrasonic level transmitter for continuous measurement of liquids. It is built with value and effortless, intuitive operation in mind.

The MiniWave level transmitter emits an ultrasonic pulse, which is reflected from the surface of the product being measured. The reflected signal is processed using specially developed software to enhance the correct signal and reject false echoes.

Adaptive sensitivity control allows the unit to dynamically adjust and improve the received echoes for the best possible measurement outcome.

Easy and flexible mounting combined with high chemical compatibility and 12m (40ft) measuring range makes the MiniWave suitable in multiple applications in all industries. You can read more about their operation on our product page.

Common features include:

2 wire 4-20mA with HART

Maximum range to 12m (40ft)

Non-contact measurement

Low cost per measuring point

Auto compensation for steam and signal losses

Ingress protection class IP67, NEMA 4x

Adaptive sensitivity control

Volume linearization to tank shapes or 32 point table (requires PC connection with GoshawkII)

Automatic temperature compensation

Hawk Sultan Acoustic Wave Level Transmitter

The Hawk Sultan Acoustic Wave Level Transmitter uses the transmission of high-powered acoustic waves to measure product, ensuring a minimal loss of signal through the environment. Due to the high-powered emitted pulse, any losses have far less effect than would be experienced by traditional ultrasonic devices. More energy is transmitted; hence more energy is returned. The reflected signal is processed using specially developed software to enhance the correct signal and reject false or spurious echoes. The self cleaning sensor face

is key to this low frequency, high power technology.

Advanced receiver circuitry is designed to identify and monitor low-level return signals even when noise levels are high. The measured signal is temperature compensated to provide maximum accuracy to the outputs and display. You can read more about their operation on our product page.

Common features include:

Non-contact measurement

High power even with two wire loop supply

Low cost per point

Wide range of communications: DeviceNet, Goshawk, HART, Modbus, Profibus DP, Foundation Fieldbus and Profibus PA

Pump control x5 pumps

Auto compensation for dust, steam, and losses

Protection class IP67, NEMA 4x (IP68 transducer)

Programmable fail-safe mode

3G remote setup options/configuration

Differential and average level control (2 transducers)

Which Hawk Level Transmitter is Right for You?

Of course, the kind of level transmitter you need will depend on your application, product, and operating parameters. For example, your choice of level may depend on phase (liquid, solid, or slurry),; temperature; pressure or vacuum; dielectric constant of the product, specific gravity of the

product; and whether there is any movement, such as agitation, vibration, or mechanical shock.

To find the Hawk solution that is right for you, we recommend that you speak directly to one of our engineers. This way, our engineer can ask these sorts of questions and zero in on the right equipment you need for your application.

Overall, though, we've been impressed by Hawk's ongoing commitment to having the highest possible standards in manufacturing and quality control. We are sure their products will continually evolve to ensure the best quality, the most accuracy, and the best sensors for the job.