Accutech
Wireless Instrumentation

Koning & Hartman

Koning & Hartman BV
Postbus 416, 1000 AK Amsterdam
www.koningenhartman.com

Koning & Hartman

Inhoud

Accutech™ Wireless Instrumentation

Open the box, install, and power up. It's really that simple. With rough-and-ready Accutech wireless instrumentation, critical process data is wirelessly moved upstream from up to 100 field-based sensors to your centralized data system or RTU, with minimal installation and maintenance efforts; and thanks to years of field experience to back them up, you know that your Accutech equipment will be in service, reliably and economically, for the long haul.
By combining secure 900MHz spread-spectrum radio communication with advanced power management circuitry, Accutech virtually eliminates the need for local power sources and field wiring. All field devices are self-contained and self-powered, with maintenance-free operation for up to 10 years. Whether your installation is situated on a plant floor or a weather-beaten hilltop, Accutech products will work for you.

The Accutech Series of Wireless Instrumentation products provide cost-effective and easy to install alternatives to traditional, hardwired sensor sites. These rugged field units are designed for the majority of industrial applications and for installations ranging from the plant floor to remote installations with extreme temperature and humidity ranges. All Accutech products offer Class 1, Division 2 Hazardous Area Rating (Class 1, Div 1 on select models) and an industry leading 3 year warranty.
The Accutech Series is comprised of self-contained, self-powered field units providing process data to a centralized base radio through a 900MHz spread-spectrum, frequency hopping wireless connection. Networks of up to 100 field units can be created and polled by a single base radio using the secure, proprietary "Industrial Wireless" protocol, with a typical range between field unit and base radio of up to 5000ft (~1500m). With the capability to scale up to as many as 16 wireless instrumentation LANs, Accutech networks easily accommodate future expansion plans.
A wide selection of field units are available, each equipped with an integrated antenna, long-life battery (up to 10 years) and radio.

1 Base Radios

Central to the collection and distribution of process data from field-based instrumentation is the Accutech Base Radio. This device automatically communicates over a 900MHz license-free link with field units deployed in a local area star network and makes the field data available to existing control or data collection systems via a local serial Modbus interface. A third-party Modbus TCP/IP converter can also be employed to add Ethernet connectivity.

One base radio can communicate with up to a maximum 100 field units, spanning typical distances of up to 5000ft (~1500m) between field unit and base radio. In high-density industrial installations, multiple base radios can be used to accommodate additional field units. With the capability to scale up to as many as 16 wireless instrumentation networks, Accutech easily accommodates future expansion. For installations where centralized data collection is geographically displaced from the base radio, a 900MHz license-free long-haul Trio radio is offered as an integrated option.

Two base radio models are available:
BR10 Base radio housed within explosion and weather-proof enclosure
BR20 Base radio and optional long-haul Trio radio housed within din rail-mounted enclosure.

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2 Acoustic Monitor

The Accutech AM20 acoustic monitor field unit is designed to monitor applications that generate ultrasound in the 37.5 kHz to 42.5 kHz range. Pressure relief valves, steam traps, automatic tank cleaning (Clean-In-Place) and other systems will benefit from the product's integrated acoustic transducer, antenna and power source. The AM20 can also monitor on/off conditions of compressors and pumps, and operate as a flow switch.

The AM20 is suitable for compressible fluid applications but is not recommended for incompressible fluids, other than flow switch or other on/off applications.

The effectiveness of the acoustic measurement varies under different industrial environments, but has been demonstrated to work under the following conditions:

- Leak detection, steam: 30 PSIG min.
- Leak detection, other gas: 50 PSIG min.
- Leak rate: 6 standard cubic feet per hour (SCFH) at 100 PSIG min.

3 Level

Liquid-filled tanks and reservoirs are essential components in many industrial processes; from chemical batch production and storage, to water treatment and food processing, level measurement must be reliable, repeatable and reportable.

Accutech accommodates most level applications with a selection of hydrostatic pressure and float level field units that are available in flexible mounting variants, including integrated, remote and submersible sensor.

The GL10 Gauge Level Field Unit measures hydrostatic level in a vented tank and is equipped with an extended sensor, allowing for more advantageous positioning of the wireless transceiver without compromising the sensor's measurement accuracy.

For installations where a level sensor cannot easily be installed in the tank wall itself, the SL10 Submersible Level Field Unit offers a cable-mounted sensor that is dropped in the top of the tank and submersed in the liquid, where it measures hydrostatic pressure.

Specifically designed for level measurement in either single liquid or dual liquid (interface) applications, the FL10 Float Level Field Unit wirelessly provides accurate level readings thanks to the low-power Siemens Model 2100 digital level sensor. A built-in temperature sensor adds extra flexibility to the system.

4 I/O

Flexible and economical, Accutech's line of dedicated field units provide analog and discrete I/O and turbine meter interfaces for common control components such as contact-closure, radar tank gauges and flow meters. And because Accutech wireless instrumentation is made to work in hard-to-wire locations, costly hard-wired I/O installations are a thing of the past.

The AI10 and AV10 Multi-Input Field Units provide dual analog (4-20mA or 0-10V) and dual digital inputs, for simple contact-closure requirements.
To determine the status and change-of-state status of contact switches, the SI10 Switch Input Field Unit accommodates two switch contacts with each being sampled 11 times per second.

Accessory output modules offer an easy way to transfer field unit-based input values to output modules, via a connection to the local base radio. Output modules come in 4 analog output (4A0), 8 switch output (8SW) and combination (4AO-8SW) variants.

5 Pressure

The degree of success of any process control system is directly proportional to how accurately and timely process parameters can be measured and utilized by the control algorithms. This is especially true in processes that rely on critical pressure readings, such as water treatment and chemical production; where sensors are required to measure the pressure across a filter or orifice plate, or the level in a pressurized vessel.

Accutech offers three pressure-sensing field units designed for use in a variety of industrial applications.

The GP10 gauge pressure field unit provides static pressure data in a variety of ranges from 5 to 10000 psig and is ideally suited as a detector for any pressure-triggered event that requires attention, such as a pipe leak or pump fault. The AP10 absolute pressure field unit offers absolute pressure measurement in the 30 and 250 psia (2 and 17 bar) ranges. Both the GP10 and AP10 have remote pressure sensor options.

For installations requiring a pressure differential reading, the DP20 differential pressure field unit provides data in a variety of ranges from +/-100 inches and +/- 300 inches water, and 300 psi. The product also accommodates static pressures up to 2000 psi. The differential pressure field unit may be operated in one of four modes: Differential Pressure, Orifice Flow, Open Channel Flow and Level, and may be configured with a 22-point custom curve feature.

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6 Temperature

Add an Accutech Temperature field unit to your control system, PLC or PC for a fully functional temperature monitor or switching application. Accutech provides both thermocouple and RTD sensors in a range of sensor types and probe lengths for a variety of industrial process applications. These products are available in a standard integrated temperature sensor configuration or a remote sensor option that allows for two temperature sensors per field unit.

The TC10 thermocouple temperature field unit provides temperature data using a standard 'K'-type thermocouple.

The RT10 wireless RTD temperature field unit provides temperature data using standard and non-standard RTDs (Resistance Temperature Detectors), including 4-wire DIN 100 Ω platinum, SAMA 100 Ω platinum and DIN 1000 Ω platinum. Probes are available with either spring-loaded or direct-insertion fitting in a variety of probe lengths.

7 Flow

Whether your flow application is gas or liquid, Accutech field units provide a selection of options for measuring volumetric flow rate and totalized volume.

The DP20 Differential Pressure field unit may be operated in one of four modes: Differential Pressure, Orifice Flow, Open Channel Flow and Level. The product also has a square root function for use with orifice plates, v-cones, and pitot tubes, providing volumetric flow measurement. In Orifice Flow mode, differential pressure may be measured in a variety of ranges from +/-100 inches to +/- 700 inches water to 300 psi.

Open channel flow may be measured from liquid levels using the DP20 in Open Channel Mode and configured with a K factor to report directly in units of flow. Channels with irregular dimensions can be accommodated using an additional 22-point custom curve.

The highly accurate TM10 Turbine Meter Totalizer field unit accepts low-voltage pulses generated by most turbine meters (turbine meter not included) and calculates instantaneous flow rate and totalized flow volume of liquids and gases, based on the pulse frequency, 1Hz to 10kHz, and user-configured 'K' factor.

8 Accessories

Accutech offers a comprehensive accessory set selected to enhance the installation, maintenance and performance of your Accutech equipment. For more information, download the Accutech Accessories Datasheet.

8.1 Software and Configuration Tools

Accutech Manager provides a complete set of configuration tools and network diagnostics.
The Universal Interface Cable provides an interface from the RS-485 ports on the BR10 Base Radio, BR20 Base Radio and Output Modules, to the RS-232 or USB ports on the computer running Accutech Manager.

8.2 Output Modules

Accutech Output Modules wirelessly extend analog outputs and switch closures based on process values from an associated field unit. The product is configured using Accutech Manager and the Universal Interface Cable, and comes in three variants:
4AO (4 analog outputs)
8SW (8 switch closure digital outputs)
4AO & 8SW (combination 4 analog outputs & 8 switch closure digital outputs)

8.3 Power

Powering your Accutech product is easy with the following accessories:
DIN-rail mounted 120/240VAC to 24VDC power supply for base radio modules
Field unit replacement battery (one 'C' cell)
Field unit replacement battery for FL10 Float Level (two and four 'D' cell packs)
Field unit replacement battery for legacy Accutech products

8.4 Remote Antennas

Available antennas include Omni-directional and YAGI directional models equipped with 10 and 25 foot cables, lightning arrestors or neither for indoor use only.

8.5 Mounting Hardware

A variety of base radio and field unit mounting options include straight and angled mounting brackets and pipe yokes.

8.6 Network Devices

To assist in interfacing Accutech equipment to other communication devices, networking devices have been chosen; they include:
RS-485 to RS-232 converters in DIN rail-mount and cable-mount variants
RS-485 Modbus to TCP/IP converter
RS-485 to RS-485 isolator, DIN rail-mount

8.7 Miscellaneous

To round off the accessory offering, Accutech provides:
Portable diagnostics kit that includes a BR10 Base Radio, power supply, Accutech Manager and the Universal Interface Cable
Stainless-steel tag

9 Accutech Manager

To help you get the most value from your Accutech installation, the Accutech Manager software environment provides an easy-to-use, explorer-tree interface to configure Accutech devices locally from a technician's laptop, or remotely from a centralized, corporate server. Accutech Manager is also a mini-data collection system, storing and maintaining field unit monitoring and measurement data over time, thanks to an integrated database. Archived data can be exported to many popular software programs such as Oracle, SQL, and Excel for analysis and report creation.

Accutech manager is available free-of-charge with the purchase of each Accutech device, or requested in electronic format.

Download Accutech Manager

10 Industrial

No matter the industry, no matter the application, Accutech makes a valuable contribution with a solid selection of multi-use field units engineered to work in a variety of tough industrial environments.

Wherever field sensor access is physically restricted or a traditional hard-wired connection is not economically viable, Accutech's wireless technology brings remote IO functionality to your automation toolbox. Busy field technicians benefit from easy-to-program-and-maintain hardware; multi-tasking systems engineers take full advantage of the local and remote diagnostics tools available with Accutech Manager.

Interested in bringing a legacy control system into the 21st century? Begin with a base radio and field unit and then add new field units as old equipment is phased out. There's no need to worry about future expansion plans; your system is virtually future-proof with support for up to 100 field units per base radio and 16 base radios per Accutech network. There is always room to grow with Accutech.

Take advantage now with a varied selection of field units, and look forward to more exciting products coming down the road in the very near future!

Equipment Monitoring

The AM20 Acoustic Monitor measures ultrasound and ambient temperature levels to provide monitoring for pressure relief valves, steam traps, automatic tank cleaning (CIP) systems, on/off conditions of compressors and pumps, and any other application that generates ultrasound.

AM20 Wireless Acoustic Monitor

Pressure

Accutech wireless pressure sensors measure gauge, absolute or differential pressure in most corrosive or non-corrosive liquids and gases. Sensor diaphragm is 316 stainless steel (or Hastelloy C upon special request).

Pressure ranges available:

5 to 10000 psig
+/- 100 inches H2O to 300 psi differential
30 to 250 psia

GP10 Wireless Gauge Pressure
DP20 Wireless Differential Pressure
AP10 Wireless Absolute Pressure

Level

These wireless tank level field units use a submersible pressure sensor to provide hydrostatic level of a vented tank or well. Specific-gravity correction and all common level units are offered.

SL10 Wireless Submersible Level
GL10 Wireless Gauge Level

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Flow

The DP20 is ideally suited for level applications, especially in pressurized tanks. The product also has a square root function for use with orifice plates, v-cones, and pitot tubes, providing volumetric flow measurement in general industrial processes.

Open channel flow may be measured from liquid levels using the DP20 in Open Channel Mode and configured with a K factor to report directly in units of flow. Channels with irregular dimensions can be accommodated using an additional 22-point custom curve.

DP20 Wireless Differential Pressure

Highly accurate turbine meter totalizer measures liquid and gas volumetric flowrate and totalizes accumulated flow volume from standard turbine flow meters (customer supplied turbine meter). Frequency range 1Hz to 10kHz.

TM10 Wireless Turbine Meter Totalizer

Analog and Digital I/O

Ideal for adding wireless capabilities in remote or hazardous locations to existing or newly wired devices such as Residual Chlorine sensors, Dissolved Oxygen probes, Nephelometric Turbidity Units (NTU), ultrasonic and radar level meters: the Accutech AI10 and AV10 wireless multi-input field units provide two analog inputs in either current (4-20mA) or voltage (0-10V) configurations. Each unit also includes two discrete contact closures.

Analog outputs and switch closure outputs are also available in a DIN-rail mounted module at the Accutech base radio.

AI10 Wireless Multi-Input
SI10 Wireless Switch Input

11 Water Utilities

When your ultimate goal is providing customers with clean, clear drinking water, there's no room for second guessing your equipment. It's got to be robust, reliable and secure; and in the current economic times, cost-effective too.

Accutech wireless instrumentation is all this and more with a field-proven selection of self-contained and self-powered field units that utilize secure, frequency-hopping, spread-spectrum communications over local and long-haul distances; all at a fraction of the cost of traditional hard-wired installations.

Analog and Digital I/O

Ideal for adding wireless capabilities in remote or hazardous locations to existing or newly wired devices such as Residual Chlorine sensors, Dissolved Oxygen probes, Nephelometric Turbidity Units (NTU), ultrasonic and radar level meters: the Accutech AI10 and AV10 wireless multi-input field units provide two analog inputs in either current (4-20mA) or voltage (0-10V) configurations. Each unit also includes two discrete contact closures.

Analog outputs and switch closure outputs are also available in a DIN-rail mounted module at the Accutech base radio.

AI10 Wireless Multi-Input
SI10 Wireless Switch Input
4AO/8SW Analog & Switch Output Module

Level

These wireless tank level field units use a submersible pressure sensor to provide hydrostatic level of a vented tank or well. Specific-gravity correction and all common level units are offered.

SL10 Wireless Submersible Level
GL10 Wireless Gauge Level

Flow

Open channel flow may be measured from liquid level using the DP20 wireless differential pressure sensor. When the DP20 operates in Open Channel Mode it may be configured with a K factor to report directly in units of flow. Channels with irregular dimensions can be accommodated using an additional 22-point custom curve.

DP20 Wireless Differential Pressure

Highly accurate turbine meter totalizer measures liquid and gas volumetric flowrate and totalizes accumulated flow volume from standard turbine flow meters (customer supplied turbine meter). Frequency range 1Hz to 10kHz.

TM10 Wireless Turbine Meter Totalizer

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Pressure

Accutech wireless pressure sensors measure gauge, absolute or differential pressure in most corrosive or non-corrosive liquids and gases. Sensor diaphragm is 316 stainless steel (or Hastelloy C upon special request).

Pressure ranges available:

5 to 10000 psig
+/- 100 inches H2O to 300 psi differential
30 to 250 psia

GP10 Wireless Gauge Pressure
DP20 Wireless Differential Pressure
AP10 Wireless Absolute Pressure

Temperature

The TC10 wireless thermocouple provides temperature data using standard J, K, S and T-type thermocouples. Wireless RTD temperature field units offer standard and non-standard RTDs including 4-wire DIN 100 Ω platinum, SAMA 100 Ω platinum and DIN 1000 Ω platinum.

TC10 Wireless Thermocouple
RT10 Wireless RTD

12 Waste Water Treatment

"**Tough, Tested and Trusted**" rings especially true for Accutech products used in the Waste Water industry. From harsh, demanding environments such as chlorine dosing pumps and chemical batch tanks, to sewage lift stations and lagoons, Accutech products have the experience and stamina needed to reliably and efficiently deliver critical process data, no matter where they're installed.

Analog and Digital I/O

Ideal for adding wireless capabilities in remote or hazardous locations to existing or newly wired devices such as Residual Chlorine sensors, Dissolved Oxygen probes, Nephelometric Turbidity Units (NTU), ultrasonic and radar level meters: the Accutech AI10 and AV10 wireless multi-input field units provide two analog inputs in either current (4-20mA) or voltage (0-10V) configurations. Each unit also includes two discrete contact closures.

Analog outputs and switch closure outputs are also available in a DIN-rail mounted module at the Accutech base radio.

AI10 Wireless Multi-Input
SI10 Wireless Switch Input
4AO/8SW Analog & Switch Output Module

Level

These wireless tank level field units use a submersible pressure sensor to provide hydrostatic level of a vented tank or well. Specific-gravity correction and all common level units are offered.

SL10 Wireless Submersible Level
GL10 Wireless Gauge Level

Pressure

Accutech wireless pressure sensors measure gauge, absolute or differential pressure in most corrosive or non-corrosive liquids and gases. Sensor diaphragm is 316 stainless steel (or Hastelloy C upon special request).

Pressure ranges available:

5 to 10000 psig
+/- 100 inches H2O to 300 psi differential
30 to 250 psia

GP10 Wireless Gauge Pressure
DP20 Wireless Differential Pressure
AP10 Wireless Absolute Pressure

Temperature

The TC10 wireless thermocouple provides temperature data using standard J, K, S and T-type thermocouples. Wireless RTD temperature field units offer standard and non-standard RTDs including 4-wire DIN 100 Ω platinum, SAMA 100 Ω platinum and DIN 1000 Ω platinum.

TC10 Wireless Thermocouple
RT10 Wireless RTD

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13 Oil and Gas

Harness the power of innovative wireless technology for your oil and gas control instrumentation needs.

With its versatile selection of field units and base radios, Accutech provides key cost-saving components to help you get the highest rate of return from your control automation and data information systems, including:

- **Exploration & Production** (well head and production facility monitoring)
  Leak detection, water removal, plunger-lift sensor arrival, flow and casing pressure monitoring, heater and scrubber control.
- **Midstream Services** (gathering, compression and purification plants)
  Liquid level, low pressure and temperature monitoring, compressor control, tail gas filtering and incineration control
- **Transmission & Distribution** (inter and intrastate pipelines, delivery to customer)
  Pipe leak detection, high pressure and temperature monitoring, valve and compressor control, interface to SCADA system, gas sampling
- **Storage** (LNG tanks, underground reservoirs)
  Pipe leak detection, valve and compressor control, interface to SCADA system

Pressure

Accutech wireless pressure sensors measure gauge, absolute or differential pressure in most corrosive or non-corrosive liquids and gases. Sensor diaphragm is 316 stainless steel (or Hastelloy C upon special request).

Pressure ranges available:

5 to 10000 psig
+/- 100 inches H2O to 300 psi differential
30 to 250 psia

GP10 Wireless Gauge Pressure
DP20 Wireless Differential Pressure
AP10 Wireless Absolute Pressure

Temperature

The TC10 wireless thermocouple provides temperature data using standard J, K, S and T-type thermocouples. Wireless RTD temperature field units offer standard and non-standard RTDs including 4-wire DIN 100 Ω platinum, SAMA 100 Ω platinum and DIN 1000 Ω platinum.

TC10 Wireless Thermocouple
RT10 Wireless RTD

Flow

The Differential Pressure Field Unit may be operated in any one of four modes: Differential Pressure, Orifice Flow, Open Channel Flow and Level, and may be configured with a 22-point custom curve capability. The product also has a square root function for use with orifice plates, v-cones, and pitot tubes, providing volumetric flow measurement.

DP20 Wireless Differential Pressure

Highly accurate turbine meter totalizer measures liquid and gas volumetric flowrate and totalizes accumulated flow volume from standard turbine flow meters (customer supplied turbine meter). Frequency range 1Hz to 10kHz.

TM10 Wireless Turbine Meter Totalizer

Equipment Monitoring

The AM20 Acoustic Monitor measures ultrasound and ambient temperature levels to provide monitoring for pressure relief valves, steam traps, automatic tank cleaning (CIP) systems, on/off conditions of compressors and pumps, and any other application that generates ultrasound.

AM20 Wireless Acoustic Monitor

Level

The SL10 and GL10 wireless tank level field units use a submersible pressure sensor to provide hydrostatic level of a vented tank or well. Specific-gravity correction and all common level units are offered.

The DP20 is ideally suited for level applications in pressurized tanks, such as propane & butane tanks.

SL10 Wireless Submersible Level
GL10 Wireless Gauge Level

Analog and Digital I/O

Ideal for adding wireless capabilities in remote or hazardous locations to existing or newly wired devices such as proximity switches, level switches, valve position, ultrasonic and radar level meters, or any other analog or switch input: the Accutech AI10 and AV10 wireless multi-input field units provide two analog inputs in either current (4-20mA) or voltage (0-10V) configurations. Each unit also includes two discrete contact closures.

Analog outputs and switch closure outputs are also available in a DIN-rail mounted module at the Accutech base radio.

AI10 Wireless Multi-Input
SI10 Wireless Switch Input
4AO/8SW Analog & Switch Output Module

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14 Food & Beverage

How do you strike a fine balance between producing quality food products and keeping costs to a minimum? Let Accutech show you how with a wide selection of ready-to-run, versatile field units, tailor-made to fit the needs of your clean production plant. From remote process temperature, pressure and level sensors, to control I/O connections, Accutech provides tether-free instrumentation that can be installed throughout the plant with minimal changes to existing wiring, at a fraction of the cost of conventional, wired systems.

Equipment Monitoring

The AM20 Acoustic Monitor measures ultrasound and ambient temperature levels to provide monitoring for pressure relief valves, steam traps, automatic tank cleaning (CIP) systems, on/off conditions of compressors and pumps, and any other application that generates ultrasound.

AM20 Wireless Acoustic Monitor

Pressure

Accutech wireless pressure sensors measure gauge, absolute or differential pressure in most corrosive or non-corrosive liquids and gases. Sensor diaphragm is 316 stainless steel (or Hastelloy C upon special request).

Pressure ranges available:

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+/- 100 inches H2O to 300 psi differential
30 to 250 psia

GP10 Wireless Gauge Pressure
DP20 Wireless Differential Pressure
AP10 Wireless Absolute Pressure

Temperature

The TC10 wireless thermocouple provides temperature data using standard J, K, S and T-type thermocouples. Wireless RTD temperature field units offer standard and non-standard RTDs including 4-wire DIN 100 Ω platinum, SAMA 100 Ω platinum and DIN 1000 Ω platinum.

TC10 Wireless Thermocouple
RT10 Wireless RTD

Level

These wireless tank level field units use a submersible pressure sensor to provide hydrostatic level of a vented tank or well. Specific-gravity correction and all common level units are offered.

SL10 Wireless Submersible Level
GL10 Wireless Gauge Level

Analog and Digital I/O

Ideal for adding wireless capabilities in remote or hazardous locations to existing or newly wired devices such as proximity switches, level switches, valve position, ultrasonic and radar level meters, or any other analog or switch input: the Accutech AI10 and AV10 wireless multi-input field units provide two analog inputs in either current (4-20mA) or voltage (0-10V) configurations. Each unit also includes two discrete contact closures.

Analog outputs and switch closure outputs are also available in a DIN-rail mounted module at the Accutech base radio.

AI10 Wireless Multi-Input
SI10 Wireless Switch Input
4AO/8SW Analog & Switch Output Module

Flow

The DP20 is ideally suited for level applications, especially in pressurized tanks. The product also has a square root function for use with orifice plates, v-cones, and pitot tubes, providing volumetric flow measurement.

Open channel flow may be measured from liquid levels using the DP20 in Open Channel Mode and configured with a K factor to report directly in units of flow. Channels with irregular dimensions can be accommodated using an additional 22-point custom curve.

DP20 Wireless Differential Pressure

Highly accurate turbine meter totalizer measures liquid and gas volumetric flowrate and totalizes accumulated flow volume from standard turbine flow meters (customer supplied turbine meter). Frequency range 1Hz to 10kHz.

TM10 Wireless Turbine Meter Totalizer

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Notes

Met ruim 550 medewerkers levert Koning & Hartman producten en diensten voor met name industriële, telecom, kabel en energie-infrastructuren; totaaloplossingen waarmee de bedrijfsprocessen van onze opdrachtgevers sneller, beter en goedkoper worden. Het echte vakmanschap kenmerkt ons bedrijf. Het hoofdkantoor is gevestigd in Amsterdam, de overige kantoren in Delft, Veenendaal en Vilvoorde (België). NKM en Square Nederland zijn ook een Koning & Hartman onderneming. Lees hier meer over Koning & Hartman en de markten waarop wij actief zijn. Ga voor een overzicht van onze producten en diensten naar Telecom Solutions of Industrial Solutions.

Koning & Hartman BV

info@koningenhartman.com
www.koningenhartman.com

Nederland
River Building
Haarlerbergweg 21e-23e
1101 CH Amsterdam

Postbus 416
1000 AK Amsterdam

Telefoon +31 (0)20 587 6830

België
Woluwelaan 31
1800 Vilvoorde

Telefoon +32 (0)2 257 02 00