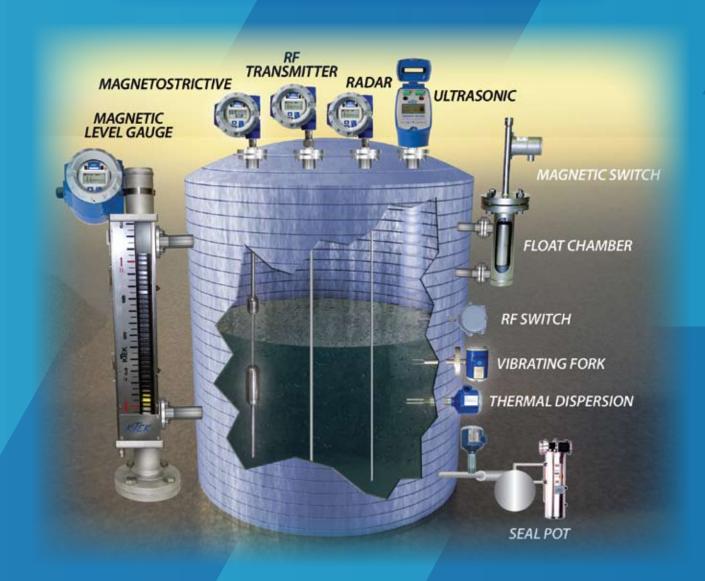


# Liquid Level Solutions



### THE GLOBAL LEADER IN LEVEL DETECTION















KIEK

30 =

20

AT200 Magnetostrictive

Level Transmitter shown with KM26S World's FIRST
\*SIL2 Certified
Magnetostrictive Level Transmitter

6





Redundant level measurement
 Guided Wave Radar (GWR)

MagnetostrictiveLow cost of ownership

■ 5 year warranty

Highly visible indication



Magnetic Liquid Level Gauge

#### Benefits:

- Low cost of ownership
- Safe and simple installation
- 5 year warranty
- High visibility

#### Configurations:

- High pressure (4500 psi)
- High temperature (1000°F)
- Extruded outlets
- Engineered floats (>0.25 SG)

# MS30EX

#### **Electric Switch**

**IEC61508 CERTIFIED** 

- Hazardous area rating: FM approved and CSA Certified
- Enclosure: hermetically sealed/explosion proof, NEMA 4x/IP56, ½"FNPT
- Switching mechanism: reed, AC/DC 1 amp, max process temp 600°F (316°C) with IP option, 1/8" deadband, SPDT



# MS40EX

#### **Electric Switch**

- Hazardous area rating: FM approved and CSA Certified
- Enclosure: stainless steel/explosion proof, NEMA 4x/lp56, 34" FNPT
- Switching mechanism: cam driven, snap-action; AC:10 amp DC: ½ amp; min process temp -60°F (-51°C) and max process temp 300°F (149°C), 600°F (316°C) with IP option; 13/16" deadband, DPDT
- For high-temperature, vibration and high-corrosive applications



## MS41<sup>™</sup> Electric Switch (Dual

- Compartment Housing)

  Hazardous area rating: FM approved; CSA and ATEX Certified
- Enclosure: stainless steel, dual compartment, hermetically sealed, explosion-proof; NEMA 4x/IP56; ½" FNPT
- Switching mechanism: cam driven, snap-action; AC: 10 amp DC: 2.6 amp; min process temp -320°F (-195°C) with option and max process temp 300°F (149°C), 1000°F (538°C) with IP option; 15/16", DPDT
- For high-temperature, vibration and high-corrosive applications





# AGUTTOK

# K-TEK MAGNETOSTRICTIVE LEVEL TRANSMITTERS

### IEC61508 CERTIFIED

World's FIRST
\*SIL2 Certified
Magnetostrictive Level Transmitter



AT200 Magnetostrictive Level Transmitter shown with KM26S

### AT200

#### Magnetostrictive Level Transmitter

- Designed to mount externally to K-TEK's KM26 or other magnetic level gauges
- High accuracy: .01% of full scale
- Superior piezo ceramic sensor (patent #5,473,245)
- Never requires recalibration: set it and forget it

\*SIL2 certification valid only at Prairieville manufacturing facility.



### AT100

#### Magnetostrictive Liquid Level Transmitter

- Dual compartment housing with separate field terminal compartment
- Pressure to 3000 psi (207 bar), Std. 1800 psi (124.1 bar)
- Temperature range: -320° F to 800° F (-196° C to 427° C) with options
- HART protocol or Honeywell DE communications available



### AT500

Compact Magnetostrictive Liquid Level Transmitter for Direct Insertion

- High accuracy .02%
- Loop powered to 16ft (5m) probe length
- High resolution 4-20 mA output
- High accuracy .02%

### AT600

Compact Magnetostrictive Liquid Level Transmitter for Non-Contact

- Designed to mount externally to K-TEK KM26 or other magnetic level gauges
- High resolution 4-20 mA output
- Suitable for high temperature applications
- Calibrates without opening enclosure

AccuTrak AT600 Compact Magnetostrictive Level Transmitter







**Dual compartment** 



State-of-the-Art Loop Powered, 4-20mA Output GWR Transmitter for Liquid **Level Applications** 

- Reliable level measurement over varied process conditions
- Distance 2 to 200 ft. (61 m)
- Temperatures to 800° F (427° C)
  Pressures to 5000 psi (344 bar)



External chamber used for side tank mounting

State-of-the-Art Loop Powered, 4-20mA Output GWR Level Transmitter for Level and **Interface Applications** 

- The MT5100 provides both lower and upper level fluid indications
- Flooded or non-flooded chambers
- Transmission of interface and upper fluid Signals with the use of the optional R100 repeat indicator transmitter
   Detection of the presence of a rag layer
- (patent pending)

Coaxial probe with slotted groove design provides maximum signal strength without the use of an external chamber

High temperature extension



WaveForm display allows engineer/technician to view measurements in real-time

Centering disc





LM80 with 4"Tri-Clover and Heated Optic — food processing /beverage and pharmaceutical



LASER IRANSMITTE





Hand-held programmer plugs into LM™80 and LM™200 laser transmitters

### LINSO

Versatile, Intermediate Range Laser Level and Positioning Transmitter

- Long range to 500 ft. / 150 m (positioning applications) and up to 100 ft. / 30 m (level applications)
- Measures any surface at any angle with narrow beam
- Easy installation and intuitive setup
- Aiming laser optional

### LMZOO

High Performance, Long Ranges Laser Level and Position Transmitter

- Long range up to 200 ft / 60 m (level applications) and up to 1312 ft / 400 m (positioning applications)
- Measures any surface at any angle with narrow beam
- Rugged and robust enclosure
- Accepts 110/220 VAC and +24VDC input voltages
- Built-in aiming laser



### SURESHO

#### Explosion Proof, Smart Laser Level Transmitter

- Long range 240 ft (75 m)
- Measure any surface at any angle with narrow beam
- Explosion-proof dual compartment enclosure
- HART protocol
- Built-in aiming laser







### Ultrasonic Level Transmitter

- Up to 16 ft. / 5 m measuring range
- Low cost, compact level transmitter with integral transducer
- Four digit alpha-numeric display
- Auto variable power control for difficult applications
- PVDF wetted parts for corrosive applications

#### KSONIK™ MICRO COMPACT **Ultrasonic Level Transmitter**

- Up to 13 ft. / 4 m measuring range
- Low cost, compact level transmitter with integral transducer
- Temperature compensation
- PVDF wetted parts for corrosive applications

#### KSONIK™ MICRO Ultrasonic **Level Transmitter and Switch**

- Up to 32 ft. / 10 m measuring range
- Low cost, compact level transmitter with integral transducer
- 128 x 64 dot matrix display
- Open channel flow measurement
- Auto variable power control for difficult applications
- PVDF wetted parts for corrosive applications
- Continuous level transmitter and level switch
- Trend recorder

#### KSONIK™ I Short Range Ultrasonic **Level Transmitter**

- Range to 50 ft. / 15 m
- Graphic LCD display
- Integrated KSCOPÉ software
- Automatic variable GAP for difficult applications
- Open channel flow
- Trend recorder

## KSONIM

KTEK

#### KSONIK™ III Long Range Ultrasonic Level Transmitter

evel 2470ft

- Long range up to 195 ft. / 60 m
- Graphic LCD display
- Single or dual channel configuration
- Integrated KSCOPE software
- Automatic variable GAP for difficult applications
- Trend recorder



### Vibrating Liquid Level Switches Series



Model RS85

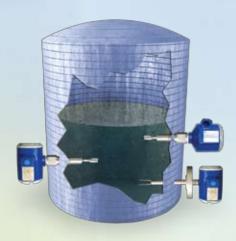


Resonator

## PS95 Multi Option Vibrating

RS85 Multi-Option Vibrating Liquid Level Switch

- Continuous self-test diagnostics
- Extended probe lengths to 120" (3048mm)
- Exotic metal options
- Variety of process connections





RS80 Vibrating Liquid Level Switch

Direct replacement for ultrasonic GAP

- Direct replacement for ultrasonic GAP switches, RF capacitance switches, float switches and other technologies
- Immune to low to medium coating or build-up on sensor
- Standard 3/4" MNPT process connection
- Field selectable parameters with external magnet or internal pushbuttons (fail safe, density)





The Resonator utilizes a piezoelectric driven tuning fork that exhibits a large change in resonant frequency when immersed in any liquid. A "smart" microprocessor-based electronic unit keeps the sensor in a resonant state as it changes from dry to wet or wet to dry.

The resonant frequency is continuously monitored for changes created by a wet or dry sensor and an alarm is provided via a relay.

An important feature of the Resonator is that its resonant frequency is not significantly affected by coating on the fork until the space between the forks is bridged.

The Resonator's ability to identify true liquid level in viscous, coating or aerated liquid is unparalleled. The self-test option checks for fault conditions such as crystal damage and excessive product build up on the sensor.

Applications include: redundant high/low liquid level without concern for parameters such as specific gravity, dielectric constant or mounting position of the sensor.

Model VF30

Model RS80



Vibrating Liquid Level Switch (Loop Powered Only)

- Any mounting 3/4 inches NPT or larger
- Adjustable time delay (0.1 30 seconds)
- Optional special alloy sensors: Hasetalloy C-276 or Monel







### KCAP300°

RF Capacitance Switch with KSHIELD™ Sensing Probes & Single Setpoint Electronics

- Liquids and bulk solids
- KSHIELD™ sensing probes and single setpoint
- Electronics that provide immunity to buildup
- Element sensitivity down to 0.5 pF



### KCAPHOO

RF Capacitance Switch with Dual Setpoint & Pump Control

- Liquids and bulk solids
- Easy setup via external magnet or push buttons
- Wide variety of 2-element sensing probes available up to 1400°F / 3000 psi
- Field selectable modes of operations that include: single setpoint, dual setpoint and pump control



#### Loop Powered RF Level Transmitter

- Low cost loop powered, 4-20 mA output
- Integral transmitter with dual compartment housing
- External magnet calibration no need to open case
- Explosion-proof enclosure, intrinsically safe probes eliminate explosion-proof conduit seal requirement



### A75"

#### Compact All Star II RF Level Switch

- Totally potted electronics
- Vibration resistant
- NEMA 4 enclosure
- 5, 10 or 15 second time delay



#### Robust All Star II RF Level Switch

- DPDT relay
- Rugged probe designs
- Explosion-proof enclosure
- 5, 10 or 15 second time delay



### Multi Purpose & High Sensitivity

#### **RF Level Switch**

- Remote mounting up to 50 ft / 15 m
- Explosion-proof enclosure
- 0 to 30 second time delay
- Temperature compensation







### Thermal Dispersion Flow / Level / Temperature Switch (Standard Response Time)

- For liquids, gases and small granular solids
- One switch for gas or liquid flow, liquid level, interface level or temperature
- Explosion proof, no moving parts
- Temperature range of -320°F to 900°F (-195°C to 482°C)
- Pressure to 10,000 psi (689 bar)







### Thermal Dispersion Flow / Temperature Switch (In-Line Unit)

- One switch for either flow or temperature applications
- No moving parts
- 316L stainless steel wetted parts
- Ideal for low flow applications





### Thermal Dispersion Flow/Level/Temperature Switch (Sanitary)

- One switch for gas or liquid flow, liquid level, interface level or temperature
- Designed to 3A standards
- Temperature range of -50°F to 350°F (-46°C to 177°C) standard
- Optional electropolished wetted parts





- Operating temperature of -50°F to 350°F (-46°C to 177°C)
- Pressure to 2000 psi(138 bar)
- Ideal for extremely low flow applications





### Thermal Dispersion Flow / Level / Temperature Switch (Fast Response)

- For liquids or small granular solids
- One switch for gas or liquid flow, liquid level, interface level or temperature
- 316L stainless steel all welded construction standard
- Temperature range of -50°F to 350°F (-46°C to 177°C) standard





#### MS50 MS50 Multi Point Lie

#### MS50 Multi Point Liquid Level Sensor

- Unique magnetic coupling concept
- Switch trip points adjustable without removing vessel from service
- Up to six (6) SPDT switches per unit
- Interface level capability



## MS10 Electric Level Switch

- Hermetically sealed SPDT switch
- Pressure to 5000 psi (345 bar)
- Choice of international flanges
- Precision fabricated floats

### MSBD

#### MS8D Electric Level Displacer Switch

- Polypropylene displacer for high pressure applications
- Vibration resistant
- Electrical contacts are magnetically isolated from process
- Hermetically sealed SPDT switch (NO / NC Contact)



#### MS8F Extended Body Horizontal Electric Level Switch

- Custom insertion length up to 24 inches (610mm)
- Available with polypropylene displacer (MS8D) or stainless steel float (MS8F)
- Electrical contacts are magnetically isolated from process
- Hermetically sealed SPDT switch



#### Mechanical Cage Level Switch

- Rugged and robust chamber design for demanding applications
- One step switch point adjust
- precision fabricated floats and displacers
- Easily retrofitted to most competitor models)





### KVIEW100 Digital Controller

#### MODBUS RTU communications

- Ability to read 8 ea. 4-20 mA inputs and 4 ea. pulse inputs
- Relay outputs with adjustable dead band
- 2 ea. 4-20 mA programmable outputs
- Large transflective display makes it easy to read indoors or in direct sunlight

# K-TEK

FIELD INDICATORS & CONTROLLERS



#### KVIEW10"

#### **KVIEW10 Digital Controller**

- MODBUS RTU communications
- Ability to read and power 4 ea. 4-20 mA input signals and 2 ea. pulse inputs
- Relays with adjustable DB and 4 ea. 4-20 mA outputs
- Large transflective display makes it easy to read indoors or in direct sunlight
- Displays in feet and inches, psi, mA, qpm, or custom units





#### **Loop Powered Digital Indicator**

- Two ranges of zero and span allows calibration in engineering units
- Operating power derived from current loop
- 2.5 volt maximum voltage drop
- NEMA 4X or explosion-proof versions



## Digital Process Monitor

- Accepts 0-5V, 0-10V, 1-5V, 4-20mA or 0-20mA analog signal input
- NEMA 4X and explosion-proof enclosure option
- +24V output available for loop power
- Optional RS422 or RS323 serial communication





#### IR10 & PP10 External Relays

- Simplifies field relay implementation
- Easy mounting and installation
- Vibration resistant
- 10 amp contact rating







HIGH

NORM





- High visibility, magnetically coupled barrier fluid level indication
- Magnetically coupled high / low level switches available
- Designed for barrier fluid specific gravity requirements
- Used in applications where a 2 to 5 gallon vessel is needed

### Acculrak AT500MD Drilling Mud Pit Level Transmitter

- High resolution 4-20 mA output no signal conditioner required
- Rugged design: 3/4 inch schedule 40
- Zero and span setpoints adjust digitally
- Calibrates without opening enclosure

# KFIEK

### Providing Level Solutions: Anytime, Anywhere.



## www.ktekcorp.com



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