

Non-Contact, Continuous Level and Positioning  
Using LASER Measurement Beyond the Point  
Where Other Technologies Stop.

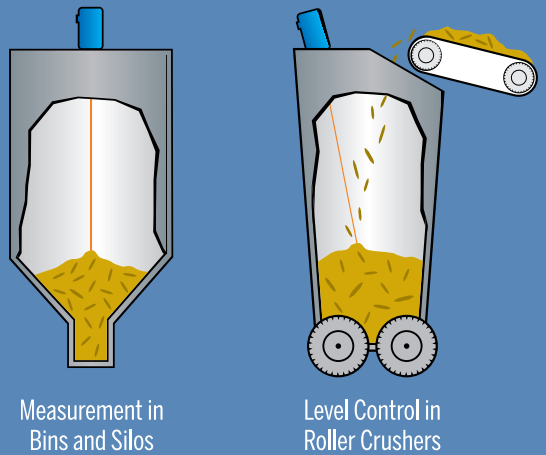
Light Years Ahead  
in Level Detection Transmitters for Solids

MAJOR LASER APPLICATION ADVANTAGES

- Non-Contact, Continuous Measurement
- Does Not Depend on Air Temperature, Pressure, Ambient Noise
- Lasers are Not Affected by Dielectric Constant
- Narrow Beam Ensures Accurate Measurement in Conic Bottom Silos
- Measure Great Distances Up to 1300 ft (450 m) for Positioning Applications
- Optional High Temperature/High Pressure Sight Glass for Continuous Measurement in Reactor Vessels
- Over 10,000 Installations Worldwide

Typical Laser Applications

- INVENTORY IN SILOS  
(GRANULAR PLASTICS, GRAIN, COAL, WOOD CHIPS, AGGREGATE)
- LEVEL CONTROL  
(CRUSHERS)
- BLENDING HOPPERS  
(GRANULAR PLASTICS)
- VOLUMETRIC MEASUREMENT  
(STOCK PILES, SILOS, BELT CONVEYORS)
- REACTOR VESSELS
- VARIOUS DRY BULK SOLIDS AND OPAQUE LIQUIDS IN SILOS
- POSITIONING  
(OVERHEAD CRANES, TRIPPER CARS)



Measurement in Bins and Silos

Level Control in Roller Crushers

Tripper Car Positioning

|                                           | LM™ 80                                                                                                      | LM™ 200                                         | SS 140XP                                                                                               | LM™ 2D                                              | LM™ 3D                                              |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| PROCESS MEASUREMENT                       | Level<br>(Solids, Opaque Liquids)<br>Position                                                               | Level<br>(Solids, Opaque Liquids)<br>Position   | Level<br>(Solids, Opaque Liquids)                                                                      | Volume<br>(Solids)                                  | Volume<br>(Solids)                                  |
| MEASURING RANGE                           | 100 ft (30 m) Level<br>500 ft (150 m) Position                                                              | 200 ft (60 m) Level<br>1312 ft (400 m) Position | 240 ft (75 m) Level                                                                                    | 33 ft (10 m)                                        | 115 ft (35 m)                                       |
| BEAM DIVERGENCE                           | <0.5°                                                                                                       | <0.2°                                           | <0.2°                                                                                                  | <0.2°                                               | <0.2°                                               |
| LASER POINTER                             | Optional for Level<br>Built-in for Positioning                                                              | Built-in Standard                               | Built-in Standard                                                                                      | Built-in Standard                                   | Built-in Standard                                   |
| ENCLOSURE                                 | Dual Compartment Aluminum or Stainless Steel<br>IP66, NEMA 4X                                               |                                                 | Dual Compartment Powder-Coated<br>Aluminum or Stainless Steel,<br>Explosion Proof Rated, IP67, NEMA 4X | Dual Compartment Powder-Coated Aluminum, IP65       |                                                     |
| RESOLUTION                                | +/- 0.4 in. (10 mm)                                                                                         | +/- 0.4 in. (10 mm)                             | +/- 0.4 in. (10 mm)                                                                                    | N/A                                                 | N/A                                                 |
| ACCURACY                                  | +/- 1 in. (25 mm)                                                                                           | +/- 1 in. (25 mm)                               | +/- 1 in. (25 mm)                                                                                      | Volumetric 0.5% to 1.5% Typical                     | Volumetric 1% Typical                               |
| POWER                                     | 16-32 VDC                                                                                                   | 110/220 VAC<br>or 16-32 VDC                     | 16-32 VDC                                                                                              | 24VDC @1.5A                                         | 24VDC @1.5A                                         |
| OUTPUT                                    | 4-20mA Active,<br>NAMUR Compliant                                                                           | 4-20mA Active,<br>Isolated NAMUR Compliant      | 4-20mA,<br>Current Sync, NAMUR Compliant                                                               | 4 Dedicated 4-20mA Active<br>NAMUR Compliant        | 4 Dedicated 4-20mA Active<br>NAMUR Compliant        |
| COMMUNICATION                             | RS232 for Set-Up and<br>Troubleshooting                                                                     | RS232 for Set-Up and<br>Troubleshooting         | HART                                                                                                   | RS232 for Set-Up,<br>Troubleshooting and Monitoring | RS232 for Set-Up,<br>Troubleshooting and Monitoring |
| SWITCHING OUTPUT                          | 2x SPST Programmable Relays 1Amp                                                                            |                                                 | No Relays                                                                                              |                                                     | 1XSPST Relay                                        |
| OPTICAL APERTURE—<br>MIN. PROCESS OPENING | 3 in. (75 mm)                                                                                               | 4 in. (100 mm)                                  | 3 in. (75 mm)                                                                                          | 3 in. (75 mm)                                       | 3 in. (75 mm)                                       |
| LASER SAFETY                              | Class 3R                                                                                                    |                                                 |                                                                                                        |                                                     |                                                     |
| APPROVALS                                 | FM Cl I Div 1 & 2 Gr A,B,C,D<br>DIP CL II/III Div 1 GP E,F,G<br>ATEX Ex nA nC II T4<br>Ex tD A21 IP66 T85°C | DIP Cl II/III<br>Div 1 Gr E,F,G                 | FM Cl I Div 1 & 2 Gr A,B,C,D<br>DIP CL II/III Div 1 GP E,F,G<br>(Pending)                              | N/A                                                 | N/A                                                 |

REPRESENTED LOCALLY BY:



18321 Swamp Rd. • Prairieville, LA 70769  
225.673.6100 • TOLL FREE: 800-735-5835  
FAX: 225.673.2525 • sales@ktekcorp.com  
www.ktekcorp.com

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THE DIRECTION IN LEVEL DETECTION!



The Worldwide  
Leader in **LASER**  
Level Detection

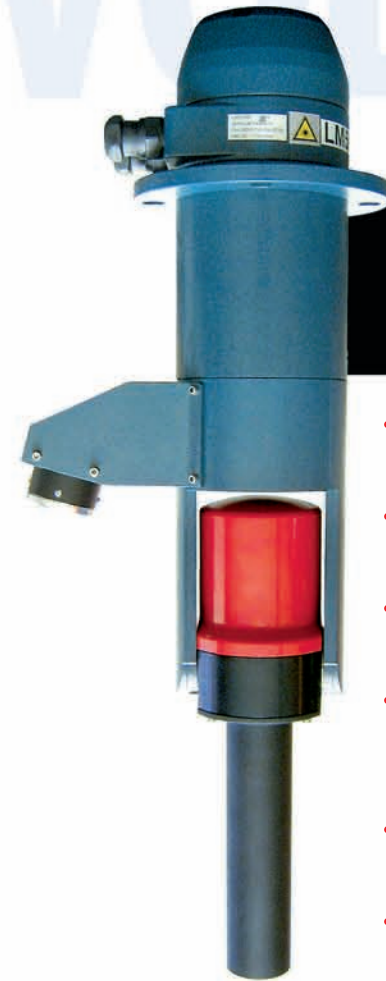
K-TEK is a leading global manufacturer of state-of-the-art instrumentation for liquid and bulk solids level detection. The company has over 250,000 installations worldwide in such applications as oil and gas production, chemical processing, pulp and paper processing, mining and construction, food and beverage manufacturing, plastics manufacturing, and power generation. K-TEK operates offices, service locations, and research and development facilities around the world.

K-TEK focuses its extensive engineering, manufacturing and applications expertise exclusively in the area of level measurement. Year after year, the company pushes the leading edge of techno-logical innovation. With it's consistent commitment to R&D, it boasts one of the largest investment per revenue ratio of any level company in the world.

K-TEK is also committed to the highest degree of product quality and customer service, which is exemplified in the solutions-oriented approach that is taken with each individual customer. K-TEK is set apart from the competition by its ability to design and manufacture equipment for some of the toughest industry applications. With the introduction of LaserMeter™80, the first low-cost, all digital design laser level and distance transmitter, K-TEK is assured to continue its advanceme over the competition.

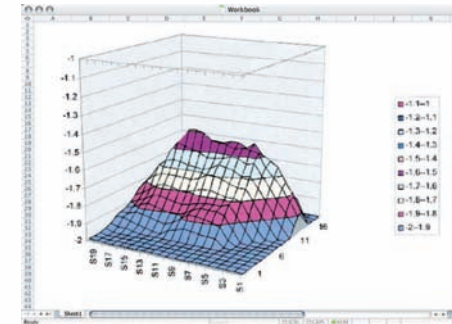


# VOLUMETRIC



## LaserMeter™ 2D Conveyor Belt Scanner

- Belt Scale Replacement Alternative
- Non-Contact Conveyor Volume and Speed
- Simple Installation During Conveyor Operation
- Totalizer Functionality for Real Time Throughput Mass Calculation
- Integral Non-Contact Belt Speed Sensor
- Integral Laser Pointer for Alignment

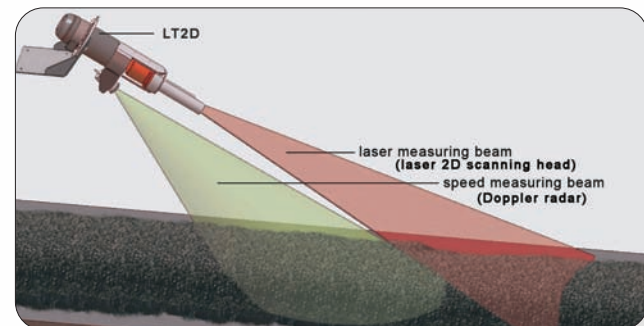


Sampling of Graphic Output from LaserTrak™ 3D



## LaserMeter™ 3D Volumetric Measurements Silos and Stock Piles

- Diagonal Measuring Range: 5 ft (1.5 m) to 115 ft (35 m)
- Non-Contact Three Dimensional Dry Bulk Material Profiling in Silos and Stock Piles
- Volume Measurement and Mass Calculation
- Easy Installation and Set-Up
- Rugged and Robust Housing
- Laser Pointer for Alignment
- Integral Dust Tubes



## INDUSTRIES SERVED

PLASTICS • FOOD and BEVERAGE • CHEMICAL • POWER GENERATION  
PHARMACEUTICAL • MINING • STONE, SAND and GRAVEL • PULP and PAPER



## LaserMeter™ 80 Intermediate Range Laser Transmitter

- Long Range – Up to 100 ft (30 m) – Level  
Up to 500 ft (150 m) – Positioning
- No Beam Divergence = No False Echoes
- Measures Any Surface at Any Angle with Narrow Beam
- Rugged Enclosure with Built-In Flange for Easy Installation
- Ideal for Plastic Pellets, Grain Silos, Indoor Positioning
- Optional Heated Glass to Eliminate Condensation Build-Up on Optics

Stainless Steel Dust Tube—  
Also Available with an  
Electropolished Finish for  
Sanitary Applications

## LaserMeter™ 200 High Performance Long Range Laser Transmitter

- Very Long Range – Up to 200 ft (60 m) – Level  
Up to 1310 ft (450 m) – Positioning
- No Beam Divergence = No False Echoes
- Measures Any Surface at Any Angle with Narrow Beam
- Built-In Pointer for Accurate Aiming
- Ideal for Coal, Grain Silos, Long Range Outdoor Positioning



Hand-Held Programmer Plugs Directly into the LM™ 80 and LM™ 200 Laser Transmitters



## SureShot™ 140XP Explosion Proof, Smart Laser Transmitter

- Range 240 ft (75m)
- No Beam Divergence = No False Echoes
- Measures Any Surface at Any Angle with Narrow Beam
- Explosion Proof Rated
- HART Communications Protocol



The SureShot™ 140XP Comes with an On-Board Graphic Display



SureShot™ 140XP Laser Transmitter

**HART**  
COMMUNICATION PROTOCOL