

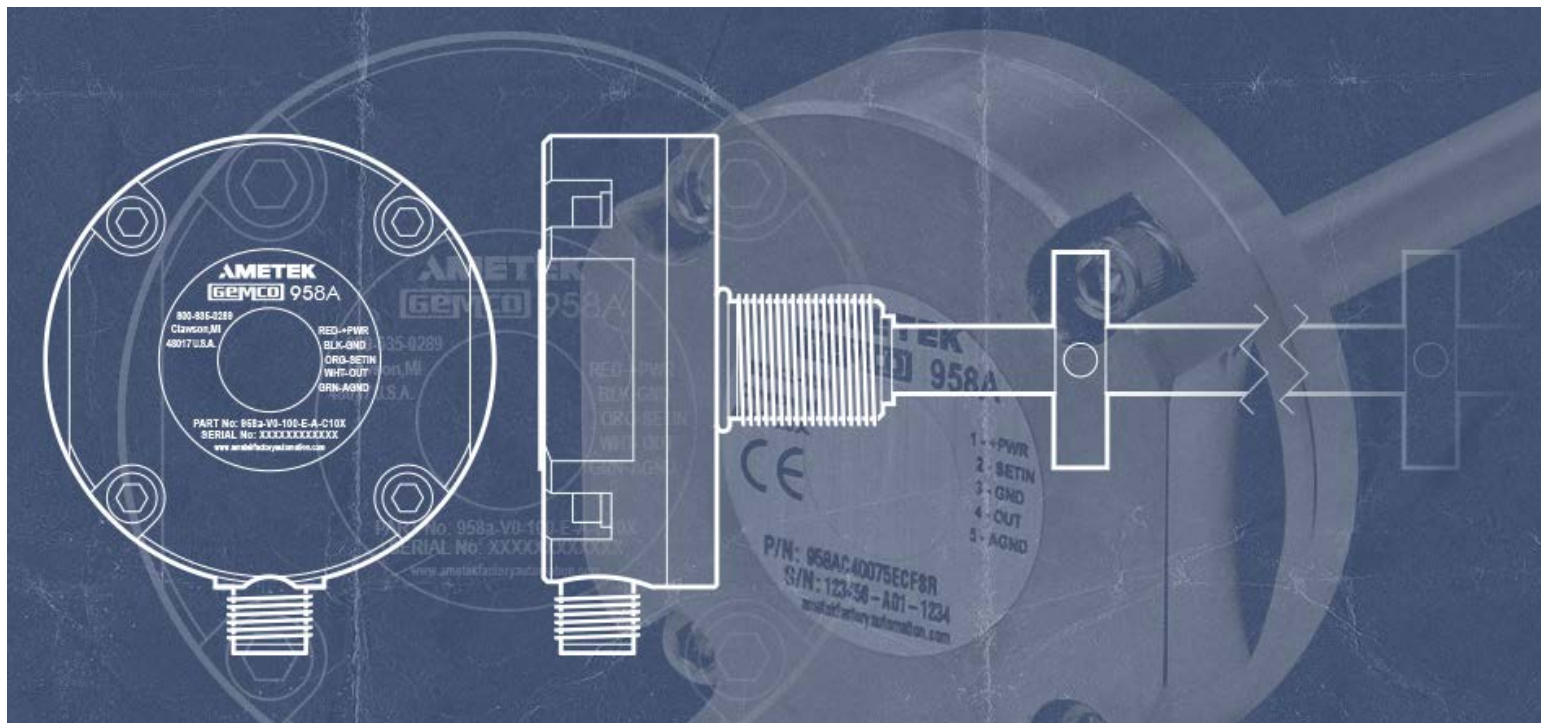


958A Compact Housing Linear Transducer



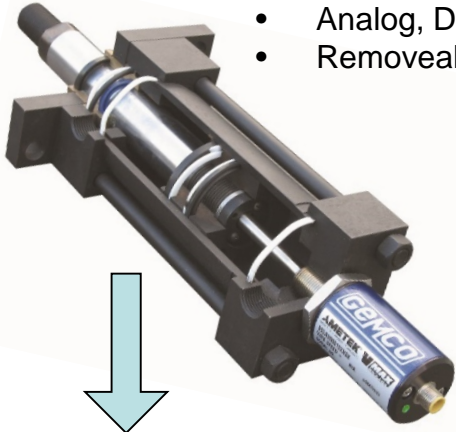
Today's industrial challenges are extreme. Factory Automation designs and builds the well-known Gemco™ sensors to meet and exceed the demands formed by every challenge, regardless of the type of application or environment.

Innovation, proprietary technology and decades of experience were the key to the development of the Gemco 953 VMax, Gemco 958A Embedded Housing and now also the Gemco 958A Compact Housing Linear Displacement Transducer.

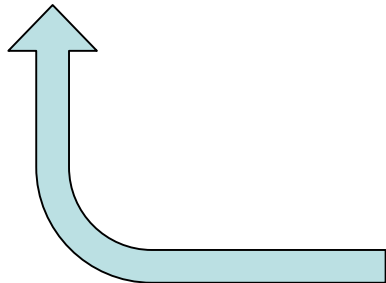


Gemco 953 VMax

- Designed for the Industrial Cylinder Market
- Analog, Digital, SSI and EtherNet/IP outputs
- Removeable cartridge



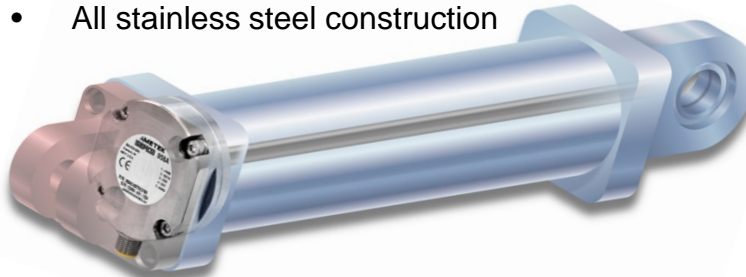
Industrial applications
Lumber industry
Steel mills
Tire & Rubber
Stamping



Highest Shock & Vibration Rating in the Industry

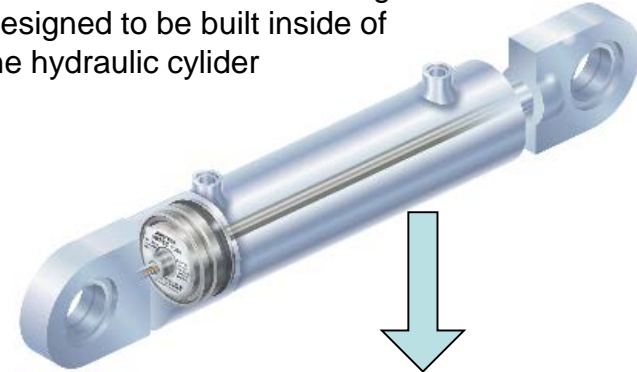
Gemco 958A Compact Housing

- Designed for the industrial **and** mobile cylinder markets
- Simplifies installation and serviceability in the mobile hydraulics market
- Compact head design for installation in applications where traditional "Rod style" LDT will not fit
- All stainless steel construction

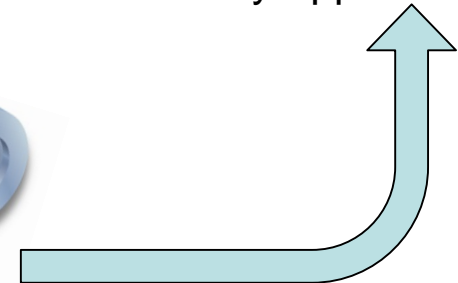


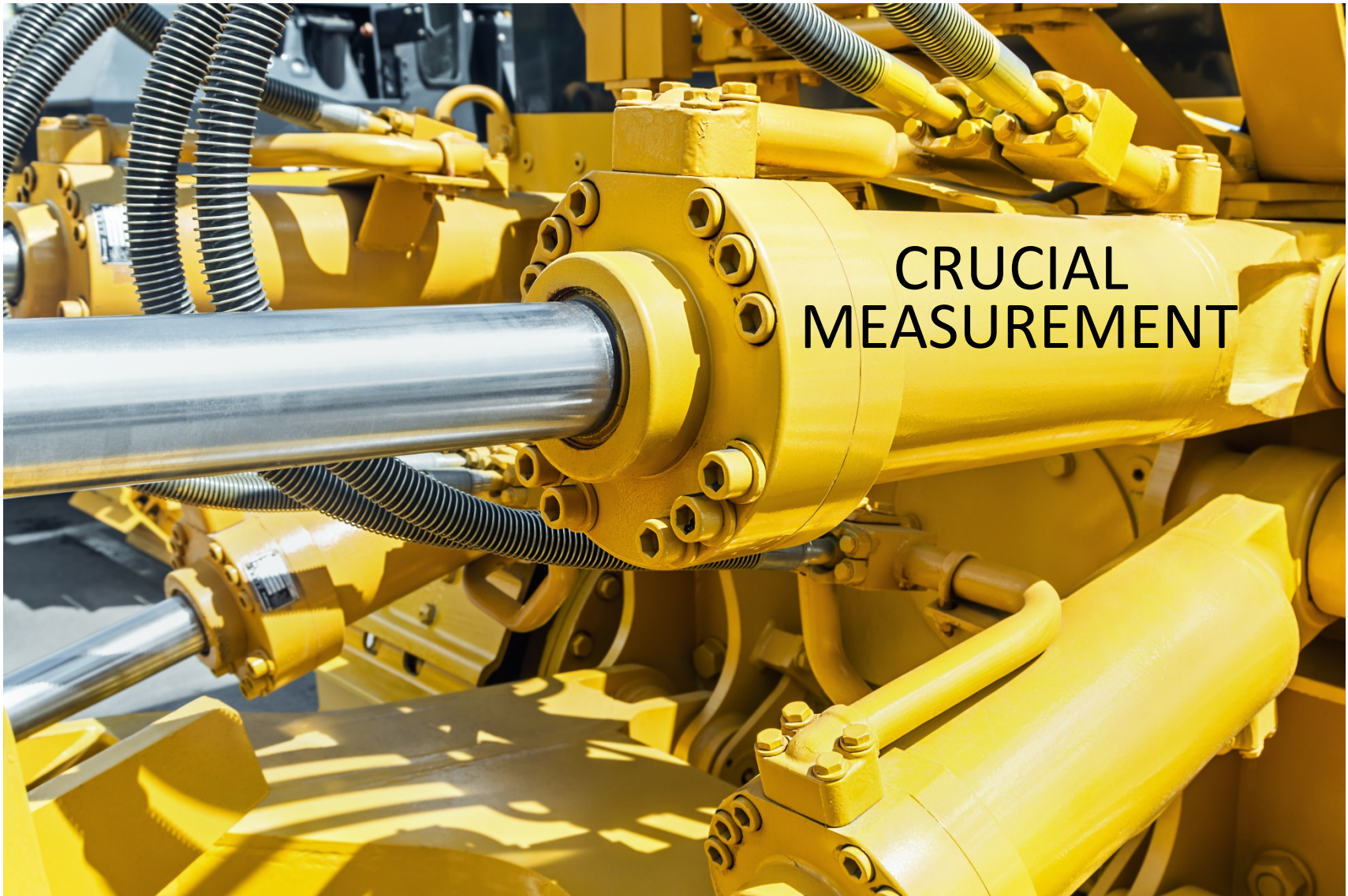
Gemco 958A Embedded Housing

- Designed for the mobile cylinder market
- 48mm embedded head design
- Designed to be built inside of the hydraulic cylinder



Mobile Hydraulics
Construction Machinery
Commerical Vehicle
Mining
Agriculture
Forestry
Railway Applications

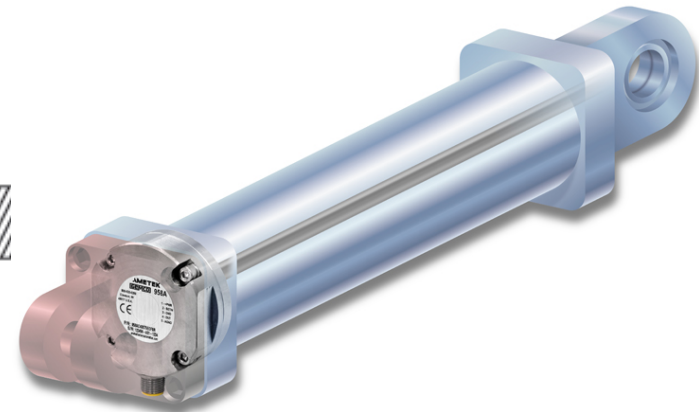
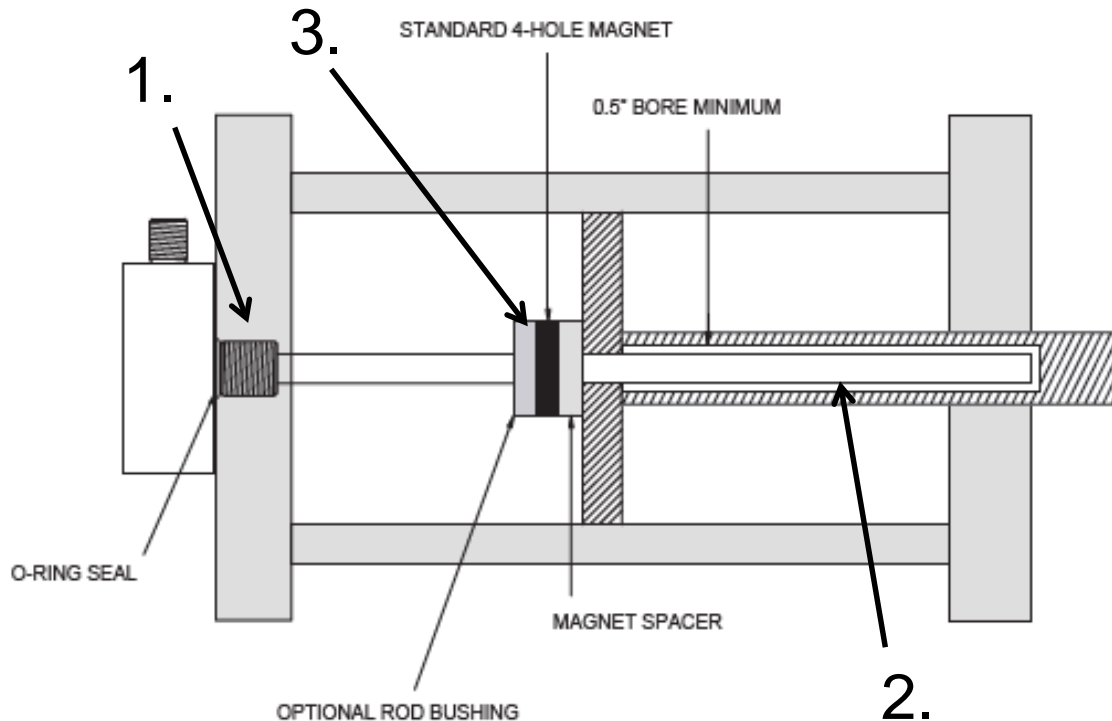




Gemco 958A Compact Housing allows the device to be installed in locations where traditional “rod-style” transducers will not fit.

3 easy steps to get started

1. Mounted on cylinder end cap
2. High pressure LDTs guide tube enters the cylinders piston
3. Magnet added to hydraulic cylinders piston



The Head

Only 1.19" (30mm) deep and diameter of 2.63" (66.8mm) allows **mounting in confined spaces**.

Made entirely from Stainless Steel and comes standard with either our M12 connector or Integral cable options. The **cover can be rotated after installation for connector orientation**.

Sealed to IP68 and designed to withstand **high pressure wash down**.

The Electronics

A **wide variety of analog outputs** are available to meet various needs.

Power supply from 8 - 30Vdc ensure that the units can be used in **both mobile and stationary applications**.

Programmable Zero & Span points allow scaling the analog output in the field to **match the exact requirements of your cylinder**.

Gemco 958A



Compact Housing

The Reliability

Ratings **unsurpassed in the industry**. Designed to withstand 1,000 G's of shock and 30 G's of vibration.

Diagnostics built into the analog output, warn the host controller if the magnet is ever lost or if the position moves outside the programmed values.

Wide operating temperature range of -40 to 105°C, ensures that the unit **will survive in the most hostile conditions**.

See for Yourself

These are all obvious reason to install Gemco 958A Compact Housing – but this may be the best reason:

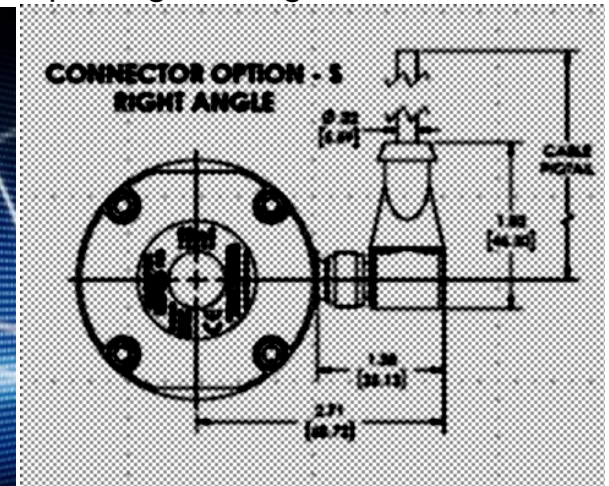
Contact Factory Automation to **get a demo** and see for yourself!

[Press here for Contact page](#)

- Highest shock & vibration rating in the industry – **1,000Gs shock and 30Gs random vibration**
- Stroke lengths from 2" to 100" (50mm to 2540mm)
- Wide input power range **8 to 30Vdc**
- Wide temperature range **-40° to 105°C**
- **IP68 rated** – High pressure cold water wash-down
- All **stainless steel** construction



- Position sensor for hydraulic cylinders
 - 2.63" diameter housing – Less than 1.2" (30mm) in depth
- Variety of analog outputs
- Programmable zero & span
- Diagnostics via analog output
- Integral cables and M12 connector options
- US & Metric mounting threads available
- High accuracy & repeatability
- **Automatic Gain Control**, Optional feature that finds the magnet on power up and automatically adjusts internal signals to optimum settings. This is valuable when replacing existing unit in the field.



Safety Approvals for Multiple Industries, Installations and Areas

CE	2014/30/EU When installed in grounded metal housing
ROHS	2011/65/EU
Electromagnetic Compatibility Part 6-4: Generic Standards Emission Standards for industrial environments	EN61000-6-4
Electromagnetic Compatibility (EMC) Part 6-2: Generic Standards Immunity Standards for industrial environments	EN61000-6-2
Agricultural and Forestry Machinery	ISO 01982:1998
Road Vehicles: Electrical Disturbances from Narrowband Radiated Electromagnetic Energy – Part 5: Stripline	ISO 11452-5
Road Vehicles: Electrical Disturbances from Conduction and Coupling	ISO 7637-1/2/3
Earth Moving Machinery	ISO 13766
Industrial Trucks	EN 12895
Railway Applications	EN 50121-3-2

Gemco 958A Compact Housing

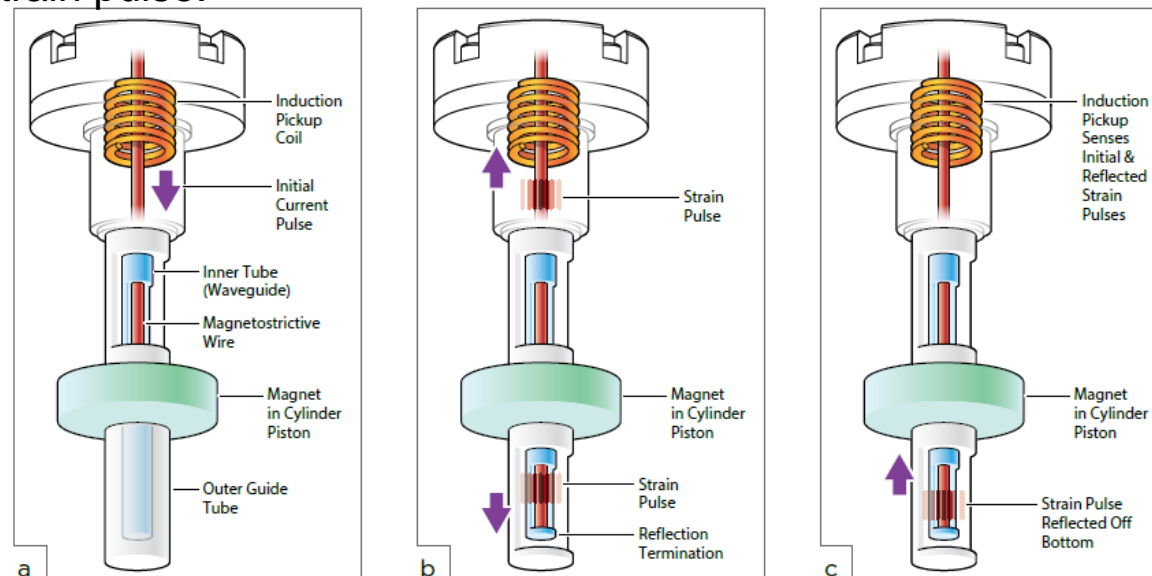
Displacement	2 to 100" (50 to 2540 mm) in 0,1" (5 mm) increments
Linearity	± 0.04% of span or ± 0.008" whichever is greater
Hysteresis	0.001" maximum
Repeatability	Equal to resolution of output signal, ± 0.01% of span or 0.001" whichever is greater
Update Time	0,5 ms minimum, proportional to length of LDT – does not exceed 4ms
Housing Diameter	2.63" (66,8mm)
Guide Tube Pressure	Continuous: 5076 psi (350 bar) / Spike 10.000 psi (689 bar)
Guide Tube Diameter	0.405" (10 mm – 10.29 mm actual)
Temperature	-40 to 105°C guidetube and storage / -40 to 85°C head electronics
Material	Stainless Steel 1.4404/AISL 316 Guide tube and housing
Ingress Protection	IP68 (per EN 60529)

For more details read the datasheet/brochure on www.ametekfactoryautomation.com

Fig A) A current pulse is sent down a magnetostrictive wire in a specially designed waveguide.

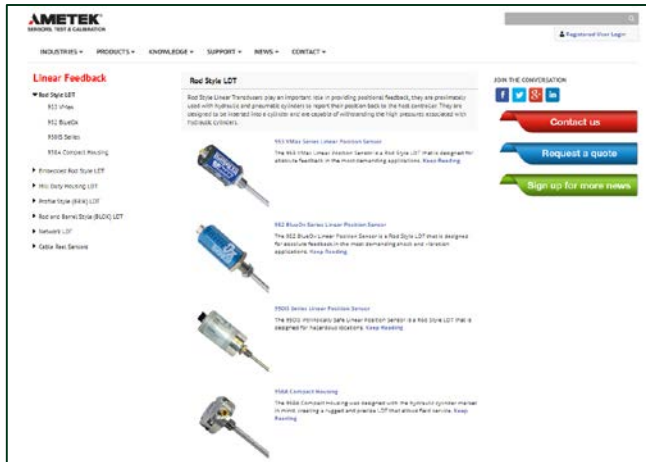
Fig B) The interaction of this current pulse with the magnetic field created by the movable magnet produces a torsional strain pulse, which travels at sonic speed along the wire.

Fig C) The strain pulse traveling up the wire is sensed by a small induction pickup coil in the head assembly of the LDT. The position of the movable magnet is determined with high precision by measuring the time between the launching of the current pulse and the arrival of the torsional strain pulse.



This is how a Gemco position sensor performs highly accurate non-contact position sensing with absolutely no wear on the sensing element due to virtually no physical contact of the magnetic sensor.

Website



Brochure / Data Sheets



www.ametekfactoryautomation.com

Sharing information on all Gemco products, including the 958A Compact Housing.

Go to the product website and find brochure, manual and loads of details.

Click on the pictures on this slide for direct access.

Manuals

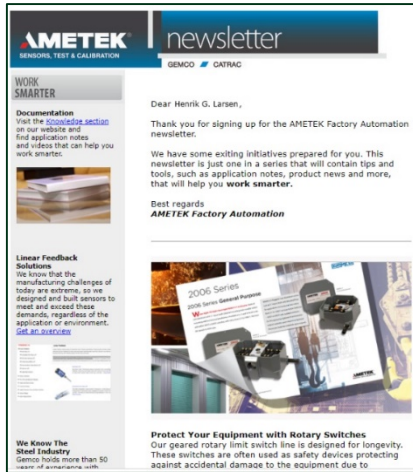




Sharing Knowledge

AMETEK STC shares information, news and more on Factory Automation. Connect to the [LinkedIn profile](#) to be first in line for product news.

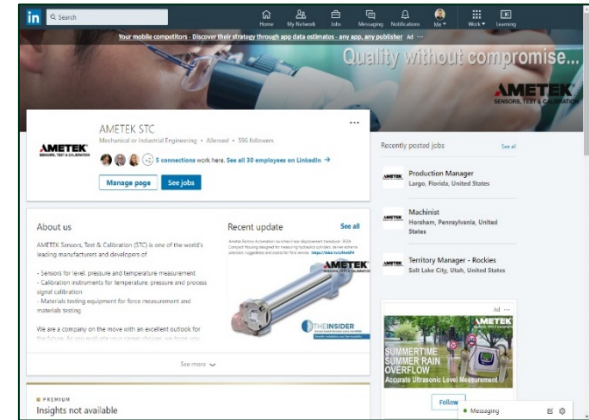
Newsletters



Sign up for our newsletter to receive tips and tricks as well as product information directly in your inbox.

We share application notes based on real life cases on social media, but you can also read the application notes on our website.

Social Media



Application Notes

Application Note **Hydraulic Cylinders**

Positional Feedback in Rugged Applications

Problem
Hydraulic cylinders are used in a variety of applications and industries to move heavy loads. To automate these machines the hydraulic cylinder is typically gun drilled and a Linear Transducer is installed to provide positional feedback. These devices need to be able to withstand high shock & vibration, as well as high pressures and temperature swings associated with hydraulic cylinders, while providing absolute feedback.

Solution
The 953 VMax LT2 is an ideal solution for use in hydraulic cylinders. The transducer utilizes our field proven Magnetostrictive technology to give absolute position, accurate to 0.01% of the programmable sensing distance. A variety of different outputs are available to interface into the host controller including Analog (Voltage or Current), Digital (Start/Stop or PWM) and SSI (Serial Synchronous Interface).

The 953 is the most rugged Linear Transducer in the marketplace. It is designed to with stand 1,000 G's of shock and 30 G's of vibration. Units are available in stroke lengths from 1" to 300" (20mm to 7.62m) with a variety of mounting (In-line) and connector options to meet your requirements.

All units are IP68 rated and come with a diagnostic LED that displays the health of the unit and to aid in troubleshooting. The 953 also has the ability to sense a magnet other than the standard ring magnet and adjust its signal strength accordingly, this is beneficial when retrofitting cylinders that had a competitive model transducer installed.

Potential Customers
Steel Mills, Lumber, Hydraulic Cylinders and anywhere hydraulic cylinders are used.

AMETEK
SENSORS, TEST & CALIBRATION

Factory Automation is one of the world's leading manufacturers and developers of process position feedback solutions within linear and rotary position feedback. Gemco and Catrac are some of the world-leading brands manufactured and supplied by AMETEK Factory Automation.

Gemco is the flagship product line that includes Linear and Rotary Position Sensors, PLC & Network Interface Products, Press Automation, Programmable Limit Switches, Industrial brakes, and more. These products are designed for applications where high accuracy, high speed and high reliability in harsh environments is important.

Catrac is our line of Heavy Duty Cable and Hose Carriers that is used on various types of machinery as a means of protecting cables and hoses that convey power, electricity, air, or fluid while the equipment is in motion.

Cranes

Steel Mills

Packaging Systems

Plastics

Printing

Lumber Mills

Agriculture

Automation

Heavy Industry

Contact Factory Automation

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