



**NEW
PRODUCT**

953A VMAX™ LDT Data Sheet

LINEAR DISPLACEMENT TRANSDUCERS

- **Vibration Resistant to 30Gs (lab tested)**
- **Shock Resistant to 1000Gs (lab tested)**
- **Analog Output 0-10 VDC or 4-20mA**
- **Wide Input Power Range 7-30 VDC**
- **Requires Less Than 1 Watt of Power**
- **Diagnostic Tri-Color LED**
- **Programmable Zero & Span**
- **Removable Cartridge**
- **IP68 Rating**





953A VMAX™ LDT

Mobile Equipment and Stationary Processing Systems demand absolute accuracy and reliability in linear position feedback . . . Regardless.

Innovation, proprietary technology and decades of experience were the key to the development of our 953A VMAX Linear Displacement Transducer.

We know the manufacturing challenges of today are extreme, so we designed and built a sensor to meet and exceed these demands, regardless of the application or environment.

Introducing the 953A VMAX LDT features:

- High Vibration Resistance to 30Gs (lab tested)
- High Shock Resistance to 1000Gs (lab tested)
- Wide Input Power Range of 7 to 30 VDC
- High Resolution to 0.00006" or 1.524 microns
- Applications Include All Mobile/Stationary Equipment, or Both with the Same Sensor
- Sensor Lengths up to 300"
- Easy Installation and Set-up with Automatic Adjustment Circuitry and Factory Calibrated Zero Point
- Durability and Reliability Exceeds Competitive Offerings
- Tri-Color Diagnostic LED Indicator
- Very Low Power Consumption, 1 Watt Typical, Allows Direct Connection to Display and Control Interface Modules
- Removable Cartridge for Hydraulic Applications
- Analog Output, 0 to 10 VDC or 4 to 20mA
- Programmable Zero and Span
- Contaminant Resistant
- IP68 Rated



Applications Include

Absolute linear position feedback for equipment and process automation in extreme applications.

Process Automation

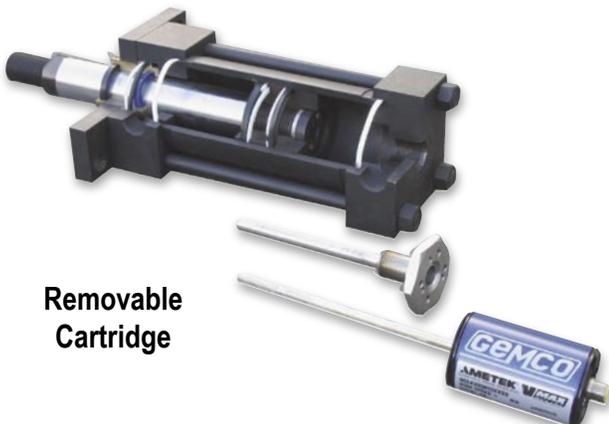
- Steel Mills, Primary and Secondary Metals Processing that include Stamping, Roll Forming and Die-Casting
- Hydraulic & Pneumatic Cylinders
- Adaptive Housing Options to Withstand Extreme Temperatures and Contaminants (Gemco 950MD units)

Mobile Equipment

- Lumber and Forest Products Processing
- Refuse Collection and Recycling or Compaction
- Off Road

Stationary Machines

- Sawmill, Plastic, Rubber, Injection Molding, Extrusion Equipment, Material Handling, Nonwovens, Dancers and Accumulators



Removable Cartridge



953A VMAX™ LDT

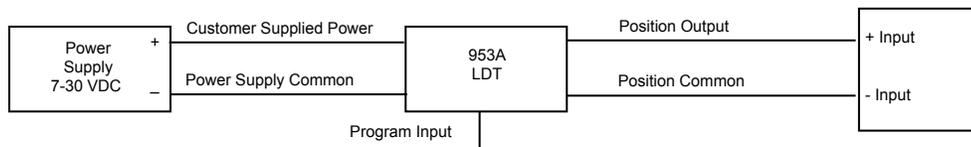
Specifications			
Connector Interface	Standard 5 Pin 12mm Euro micro. Others offered for compatibility.	Shock	1000Gs (lab tested) IEC 60068-2-27
Sensor Housing and Mounting Hex	Body length 3.2", hex base 1 3/4" dia., 3/4"x16x1" thread. Aluminum housing standard, stainless steel optional.	Vibration	30Gs (lab tested) IEC 60068-2-6
Displacement	1" to 300"	Guide Tube Pressure	5,000 psi continuous (10,000 psi spike)
Dead Band	2.50" (63.5 mm) standard	Approvals	CE (EMC)
Null Zone	2.00" (50.8 mm) standard	Input Voltage	7 to 30 VDC
Zero & Span Adjustability	Factory set at Null & Dead Band locations. Field re-settable at any location within active stroke.	Current Draw	1 watt typical 40mA at 24 VDC typical
Current Output	Max Load Resistance: 500 Ohms	Non-linearity	< 0.01% or +/- 0.005", whichever is greater
Voltage Output	Minimum Load Resistance: 2K Ohm Output Current: Guaranteed 5mA minimum Analog Ripple: ≤1 mV maximum	Repeatability	Equal to Resolution
Update Time	< 2mS Typical	Hysteresis	0.001"
Resolution Internal Output	0.00006" 16-Bit	Operating Temperature Head	-40° to 185° F (-40° to 85° C)
Output Type Voltage Current	0V to 10V, 10V to 0V 4mA to 20mA, 20mA to 4mA	Guide Tube	-40° to 221° F (-40° to 105° C)
Enclosure Rating	IP68 IEC 600529	Storage Temperature	-40° to 221° F (-40° to 105° C)

NOTE: Specifications subject to change and are based on a typical 36" stroke.

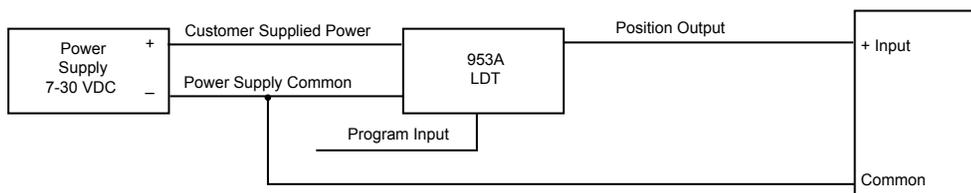
Wiring			
<p>Connector Option S</p>	Pin #	Wire Color	Function
	1	Brown	Customer Supplied Power (+VDC)
	2	White	Program Input
	3	Blue	Power Supply Common
	4	Black	Position Output
5	Gray	Position Output Common	

Accessories	
Part Number	Description
949011L6	6 Foot, 5 Pin, Straight, 12mm Euro Cable
949012L6	6 Foot, 5 Pin, Right Angle, 12mm Euro Cable
SD0400800	Standard 4 Hole Magnet
Consult factory or website for complete accessory offerings.	

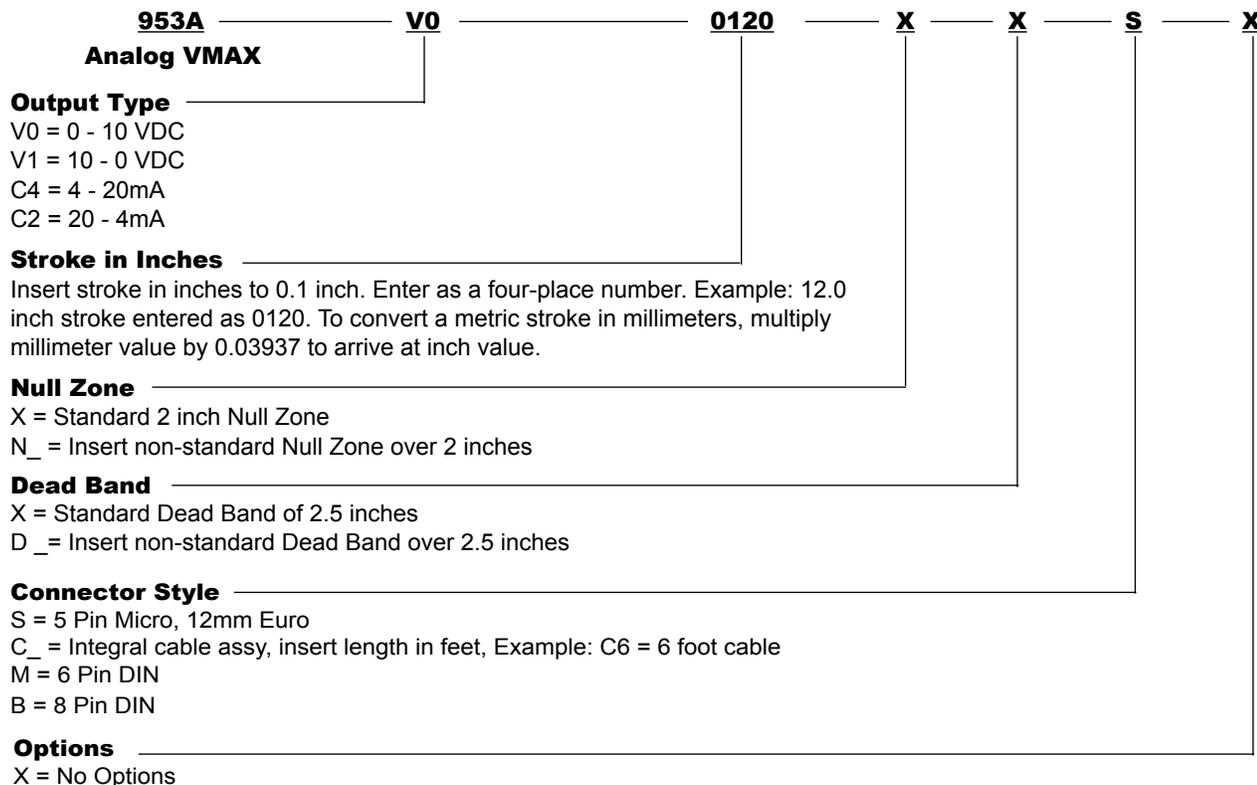
Current Sourcing: Differential Input



Current Sourcing: Single Ended Input



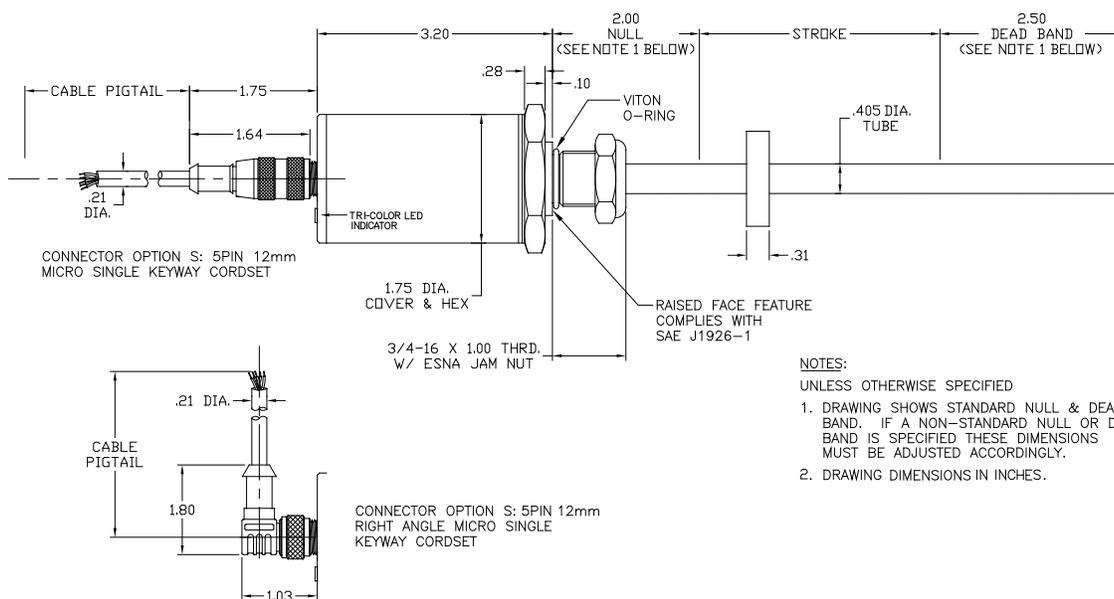
Part Numbering



NOTE 1: On unsupported stroke lengths greater than 4 feet, rod support bracket(s) and a special magnet should be used.

NOTE 2: Specify magnet as separate line item. Standard magnet is SD0400800.

Dimension Drawing



953A.DOR
 11/05.Z201
 3M