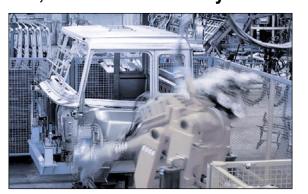


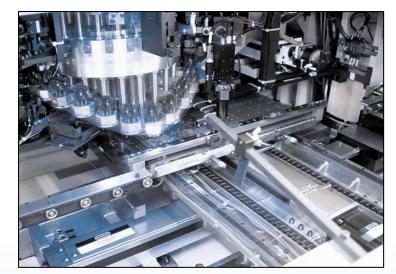
# **A WORLD OF SOLUTIONS**

Linear & Rotary Position Sensors, Programmable Limit Switches, Network Connectivity & More







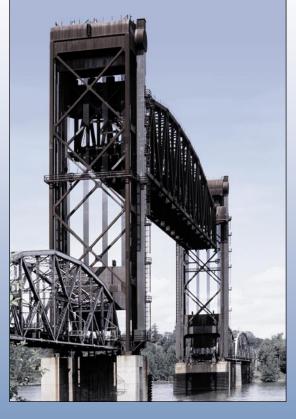












ABSOLUTE PROCESS CONTROL, KNOW WHERE YOU ARE... REGARDLESS. AMETEK Automation & Process Technologies 1080 N. Crooks Road, Clawson, MI 48017-1097 Phone: 248.435.0700 Toll Free: 800.635.0289 Fax: 248.435.8120 www.AMETEKAPT.com

### **Linear Position Sensors**

Gemco's durable and reliable linear position products are based on unique technologies, including magnetostriction. Our sensors come in a variety of packages and with features not found in competitive units. If you have an application requiring linear feedback and control, Gemco has the solution.

# 953 VMAX Linear Displacement Transducer



- Shock resistant to 1000Gs (lab tested)
- Vibration resistant to 30Gs (lab tested)
- Removable cartridge
- IP68 rating
- Stroke length to 300"
- Input power range is
- 7 to 30 VDC @ 1 watt typical
- Weather/contaminant resistant
- Analog output 0-10 VDC, 4-20mA
- Digital output Start/Stop, Control Pulse. and Variable Pulse (PWM)
- Programmable zero and span



- 925 Cable Reel Sensor Provides accurate position feedback
  - for linear motion up to 100 feet • Stainless steel cable, 12 gauge steel
  - housing for harsh environment Mounting for either resolver, encoder,
  - cam switch or rotary potentiometer • Any manufacturer's sensor can be integrated into this rugged housing

# 950IS Intrinsically Safe



- Intrinsically safe rod style LDT
- Analog output
- UL listed for Class I, Groups C and D, and Class II Groups E, F and G, and Class III hazardous locations

# 950MD Mill-Duty Housing



- Stainless steel mill duty "rod style"
- protective housing
  Stroke length to 20 feet
- Optional ports for air, water or vortex air cooling
- Ideal for retrofitting existing hydraulic cylinders
- Optional bellows boot

#### 951 Quik-Stik II®

- · High accuracy, high speed LDT
- Analog, digital and optional velocity
- Input voltage 13.5 to 26 VDC
- Programmable zero and span
- Stroke length up to 300"

### 952 BlueOx®



- High shock and vibration resistance Analog, digital and quadrature outputs
- Stroke length to 168"
- Input voltage 15 to 26 VDC Optional stainless steel housing
- Ideal for harsh environments

# 956 BLOK Housing Option For 955 Series LDT



- Two chamber industrial rod and barrel style enclosure for 955 series LDTs
- Stroke length to 36"
- Electronics are isolated in a chamber with an IP67, optional IP68 rating
- Optional spherical rod ends

#### 955 BRIK Gen III & 955S Smart BRIK



- Low profile LDT Analog output 4-20mA,
- 0-10 VDC, -/+ 10 VDC, digital output
- Programmable zero and span
- Stroke length to 180"
- · Wide input voltage range
- Optional floating magnet
- Diagnostic LED

# 955DQ BRIK w/Quadrature Output



- Low profile LDT
- Quadrature output
- Stroke length to 180"
- Input voltage 13.5 to 30 VDC
- Programmable zero
- "Burst" output for absolute positioning

# 7330 Pro-Stik II (Standard & Food Grade)



- Stainless steel "headless" rod style
- Ideal for liquid level sensing
- Intrinsically safe
- Wide range of float options
- Available in standard or 316 grit polished stainless steel

# 1746L LDT Interface Card



- Provides high resolution direct input into an A-B SLC-500 PLC
- Resolution to 0.001 inch (0.01 mm)
- Single or dual channel versions
- LDT is powered from card no external power supply required
- Motion detect and over-travel limits



#### **Rotary Position Sensors**

These sensors detect the rotary position of a machine. This makes it possible to make quick process decisions for simple stop/start control or for complex output operations. We designed these products to be easy to use and install so that machine change-over takes minutes, not hours.

# 1980 Rotating Cam Limit Switch



- 2 to 40 circuits
- NEMA 1, 4, 5, 7, 9, 12 enclosures
- Easy access and quick adjustment
- Unparalleled flexibility Gear reducers and multipliers
- Timing dials
- Provisions for other sensors

# 1980R Rotating Cam Limit Switch w/Resolver



- 2 to 40 circuits
- NEMA 1, 4, 5, 9,12 enclosures
- Combination cam box and
- No special tools required to adjust cam shaft
- Variety of resolver electronics to match the PLC

#### 1983 Optical Cam Limit Switch



- Micro-adjust cams for precision settings from 1° to 359°
- Speeds from 1 to 3600 RPM
- NEMA 1, 4, 7 & 12
- AC and DC outputs with 3 amp Plug-in Opto 22 outputs
- 2 to 40 circuits

#### 1986 Resolvers



- Precision resolvers allows up to 14-Bit resolution with absolute position
- Packages are direct bolt-in replacements for most english and metric size encoders
- Internal precision gear reducers for multi-turn applications
- Standard foot mount unit is the most rugged in the industry
- Single or dual resolvers

### 1986 Mill Duty Resolver



- 1/4" (6.35mm) plate steel construction and jackshaft input to drive resolvers, encoders, tach generators
- Air purge fittings for positive pressure or cooling
- Vortex cooler or internal heaters for temperature extremes

### 2000 & 2006 Rotary Limit Switches



- NEMA 1, 4, 7, 9, 12 enclosures Contacts rated to 10 amps @ 125 VAC
- Gear ratios from 5:1 to 5333.3 to 1 2. 3. 4 circuit

# **Programmable Limit Switches**

If you need dedicated control for the complexities of packaging, converting or gluing applications, or a basic I/O or shut height monitor on a stamping press, Gemco has a Programmable Limit Switch (PLS) for your application.

### 1771 High Speed PLS



- Allen-Bradley 1771 PLC-5 backplane • 16 ultra high speed (5 µs) output
- 16 high speed (500 µs) outputs presented to the I/O image table every 5 ms
- 8 inputs field configurable for product presence, registration mark synchronization, or remote set-point advance/ retard inputs
- for position accuracy

#### **2500 Programmable Limit Switch**



- 8 to 64 high speed outputs
- 12-Bit resolution
- speed offset feature
- Die protection

#### 1995 Micro-Set PLS



- Resolver or LDT input
- 6 to 30 circuits
- Programmable motion detect output relay
- Programmable speed compensation automatically advances or retards output on variable-speed lines
- Fault-check, self diagnostics monitor: resolver, microprocessor, interconnecting cables

### **2110 Shut Height Monitor**



- Large 6 position, 7 segment LED display
- Resolver or LDT input module
- Optional relay or digital output
- modules & analog modules
- Position accuracy of +/- .001"

#### **1992 Press-Set Automation Controller**



- 200 job set-up storage
- Stroke, batch and total counters
- Speed compensation
- Fail-safe control relays conform to OSHA specs for use as inputs to press control circuits
- Serial interface to supervisory control system

### 7500 Ultra High Speed PLS



- 16 ultra high speed (5 µs) outputs • 16 high speed outputs (network dependant)
- 8 optically isolated inputs (total of 10)
- Optional ControlNet or EtherNet/IP communications
- DIN rail mountable

# **Network Connectivity**

A seamless information relay from the production line to the people who need it requires a smart network. Gemco's connectivity products include a variety of LDTs, Resolvers and Programmable Limit Switches that make vital information available without interrupting production flow. We are the home of smart, rugged sensors that speak your language.

# 1746R & L Resolver & LDT Interface Cards



- Direct connectivity to AB-1746 backplane
- 1 or 2 axis input
- Provides position, RPM data & velocity
- Resolver or LDT input
- Sensor powered by the card

## 1771 High Speed PLS



- Allen-Bradley 1771 PLC-5 backplane
- 16 ultra high speed (5 µs) output 16 high speed (500 µs) outputs presented to the I/O image table every 5 ms
- 8 inputs field configurable for product presence, registration mark synchronization, or remote set-point advance/ retard inputs
- 14-Bit (16,384 count) resolution for position accuracy

# 7500 Ultra High Speed PLS



- 16 ultra high speed (5 µs) outputs 16 high speed outputs (network dependant)
- 8 optically isolated inputs (total of 10)
- Optional ControlNet or EtherNet/IP communications
- DIN rail mountable

#### 1986 Resolvers



- Precision resolver allows up to 14-Bit resolution with absolute position
- Packages are direct bolt-in replacements for most english and metric size encoders
- Internal precision gear reducers for multi-turn applications Standard foot mount unit is the most rugged in the industry Single or dual resolvers

# **1986DN DeviceNet Resolver**



- Combines the reliability and ruggedness of a resolver with the flexibility of DeviceNet communications
- 12-Bit resolution
- 8 user programmable set-points transmitted over the network Continuous position data and
- RPM over DeviceNet

# 1990DN DeviceNet Resolver Interface Module



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- Interfaces standard resolvers to DeviceNet network
- 12-Bit resolution
- 8 user programmable set-points transmitted over the network
- · Continuous position data and RPM over DeviceNet

#### **Other Solutions**

#### 1025 Footswitch



- Heavy duty treadle operated foot switch
- NEMA 1 & 4
- Optional protective cover
- Single or dual circuit
- Optional locking latch kit
- Optional pneumatic valve installed in place of electrical switches

#### **Linear Displacement Transducers**



- High speed
- Analog, digital, quadrature and optional velocity output
- Input voltage 13.5 to 26 VDC
- Programmable zero & span
- Stroke length up to 300"

### 1999 Semelex Safetimeter



- Portable stamping press safety device
- Checks stopping time and calculates safe distance for light curtains, mats and other safety devices Systems accessories allow
- testing of safety devices response time as part of setup Tachometer unit available to test
- rotary devices
- Battery powered for remote location testing

# **GEMCO Industrial Brakes**



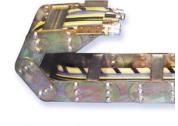
- AISE rated brakes
- Electro-thrust shoe, magnetic DC shoe, solenoid AC shoe and hydraulic shoe configurations
- Electro-thrust disc brakes up to 17 inch diameter

# 948 Limit Module



- 0 to 10 VDC analog input
- 4 adjustable setpoint outputs
- Solid state outputs (sourcing or sinking)
- Economical packaging

# CATRAC / SNAPTRAC Cable & Hose Carriers

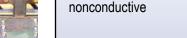


All steel or nylon construction Prevents twisting & wear

Steel withstands severe hydraulic

- shock loads Nylon resists corrosion and is





- $(100 \mu s)$ RS232/RS485 communication
- Brake monitor/motion detect Speed compensation/linear