

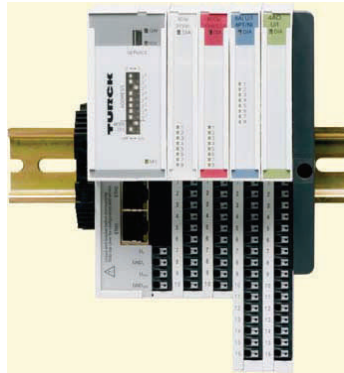
Mtech Product Update

TURCK
WORKS Product News

www.turck-usa.com

Compact In-the-Cabinet Distributed I/O for Ethernet

TURCK announces the availability of BL20 Economy gateways for EtherNet/IP™ and Modbus TCP. Providing a flexible in-the-cabinet system for distributed I/O, these economical gateways can be paired with a broad range of I/O slices to suit virtually any application's communications and transparency requirements. Unique to TURCK's modular I/O systems, RFID can be incorporated to any distributed I/O product simply by applying the necessary RFID-S slices. The gateways provide sophisticated features in an economical and compact package, including dual Ethernet ports and functionality with digital and analog, as well as specialty modules.



BL20 Economy gateways are equipped with an integrated Ethernet switch that allows a line topology between multiple gateways without using an external switch, eliminating the need for additional cable runs to the PLC. BL20 Economy gateways bridge the backplane communication to the network communication, such as EtherNet/IP, Modbus TCP, DeviceNet™, CANopen or PROFIBUS®.

TURCK's BL20 Economy gateways accommodate up to 32 I/O modules, resulting in a system that may contain up to 512 digital I/O points or 128 analog I/O points, as well as a combination of digital and analog points, on a single gateway. Analog inputs and outputs are configurable by channel for current, voltage or RTD, so that users do not need to stock multiple cards for design or replacement. Gateways are addressed via a dip switch, I/O assistant software or through the integrated web server.

The BL20 Economy gateway is available with an integrated power supply, eliminating the need for an additional power module to feed the I/O bus. The BL20 Economy Gateway is designed to work with all TURCK Economy I/O slices, as well standard BL20 slices, which are uniquely hot swappable and available in either tension (spring) or screw bases.

BANNER
more sensors, more solutions Product News

www.bannerengineering.com

L-GAGE® LH Series

Banner's LH Series Laser Displacement Sensor brings a sophisticated and cost-effective solution to precision measurement applications. Featuring a narrow effective beam, excellent resolution, and user configurable outputs, the LH Series sensor solves a variety of measurement applications with an all-in-one design. The LH Series Sensor can serve as a displacement measurement sensor or can perform thickness delta measurements when two sensors are configured to work together. The LH Series Configurator is a software tool for setting up a network of sensors, configuring sensors, and acquiring measurements using serial communication over RS-485. Measurements from multiple sensors can be simultaneously acquired using the LH Network protocol.

The LH series of precision laser displacement sensors were developed to add a high performance sensor to Banner's triangulation displacement product offering. The LH series is a high speed, high precision, non-contact measurement sensor which provides accurate and stable displacement or thickness measurement on wood, metal, rubber, ceramic, and plastic parts.

Features

- Provides precise displacement measurements or thickness delta measurements (thickness delta measurements requires two self-synchronize sensors); no external controller required
- Self-contained Class 2 modulated visible laser gauging sensor
- Needs no separate controller
- Narrow effective beam is excellent for precision gauging applications
- Automatic run mode dynamically adjusts laser power and measurement rate based on target conditions
- 4-20 mA analog output that can be easily scaled over a specified measurement window
- Target displacement or target thickness measurement available as a RS-485 serial communication outputs
- Extremely accurate, robust and self-contained laser displacement using a 1024 pixel CMOS linear imager
- Precise narrow laser spot for easy alignment to the target
- Reliable and accurate measurement results on real machined metal, wood, ceramic, paper and painted targets
- Non-contact measurement for use on moving processes, hot parts, machined parts, and soft or sticky parts



Inside this Issue:

- > Turck Product News
 - Compact In-the-Cabinet Distributed I/O for Ethernet
- > Banner Product News
 - L-GAGE® LH Series
 - EZ-LIGHT™ K50 Beacon
 - VSM Series—Heavy-Duty Miniature Sensors
 - Lensed WLA Series Work Light—General-Purpose LED Work Light
 - SureCross Performance Gateways and Nodes
- > Exlar Product News
 - Tritex II™ Redefines Electric Actuation for Process Control Valves in Hazardous Areas
 - K Series Linear Actuators



EZ-LIGHT™ K50 Beacon

Banner Engineering is pleased to announce a new Daylight-Visible, General-purpose Indicators for Indoor or Outdoor Use. This K50 Beacon indicator was developed for areas where high brightness is needed with viewing from all directions. They are intended for indoor and outdoor for general status indication including areas with high levels of ambient light that would normally wash out a standard indicator light.

The new EZ-LIGHT K50 Beacon is daylight-visible for use in areas of high ambient light. Light from the EZ-LIGHT K50 Beacon is also able to cut through fog or mist making a carwash or gate entrance ideal locations. Factory floor settings and parking ramps are also great locations for the EZ-LIGHT K50 beacon because of its high visibility from a distance. Models are available with perimeter and perimeter plus top view in multiple LED colors.

Features

- Intense levels of light output for areas with high ambient light — even outdoors
- Viewable around entire perimeter; some models also emit light from top
- 1- or 2-color models available
- Rugged, sealed thermoplastic housing rated for IP67 and IP69K
- Cabled and quick-disconnect models available
- 12 to 30V dc or 85 to 130V ac (75 to 120V dc) operation, depending on model
- 12V dc operation useful for applications on mobile vehicles
- Consult factory for models with strobing capability



VSM Series—Heavy-Duty Miniature Sensors

Tiny sensors to fit in the most confined spaces

Banner Engineering has released a new line of miniature metal sensors (VSM Series) that can mount directly on or inside manufacturing equipment. The VSM robust metal sensors are a complement to Banner's already popular and extensive line of miniature sensors. An extended sensing range and tiny stainless steel housing make them an ideal replacement for range limited proximity sensors, and for areas previously only accessible to remote sensors and fiber optic cable. The tightly collimated beam and self-contained housing of the VSM are suitable for very precise, small object sensing applications in the automotive, food and beverage, semiconductor and electronics, assembly, metal stamping and other industries where significant mounting space restrictions are common.

Applications

- Hygienic applications with frequent cleaning
- In-die sensing for part presence verification
- Assembly machines with articulated or reciprocating motion
- Leading edge detection on small electronic component

Features

- Tough, 300 series stainless steel body with sapphire lens withstands a wide variety of chemicals.
- Miniature sensors are available as small as a 4 mm barrel (about the size of a single optical fiber assembly).
- Economical, self-contained sensors are available in convergent or opposed sensing modes; no separate amplifier required.
- Specially designed optics and electronics provide reliable sensing without adjustments.
- Advanced convergent optical design provides high performance, very repeatable sensing.
- Well-focused, narrow beam allows the entire sensor to be recessed into fixtures.
- Smooth, stainless steel barrel is perfect for hygienic applications requiring routine cleaning.



Rugged workhorse sensors with a space-saving footprint

Banner Engineering is introducing a new High-performance photoelectric sensors in a compact, rugged, sealed housing. The new standard for industry-standard sensors. Banner's new WORLD-BEAM® Q20 delivers a host of sensing modes in a durable, IP67-sealed housing with industry-standard 25.4 mm mounting. The compact Q20 is the newest member of the World-Beam family of sensors, Banner's complete line of cost-effective, rugged and powerful photoelectric sensors.

The new Q20 offers a **wide array of models and sensing modes:**

Diffuse (250, 800 and 1500 mm)

Opposed (10 and 15 m)

Polarized retro-reflective (4 m)

Non-polarized retro-reflective (6 m)



Features

- Provides molded-in threaded mounting holes including M3 (3 mm) threaded brass inserts and 25.4 mm standard (1-inch) spacing
- Offers a compact ABS housing with over-molded construction for rugged, reliable sensing
- Features advanced ASIC design for excellent cross-talk avoidance
- Offers excellent EMI/RFI noise immunity
- Delivers High-visibility LED indicators for signal operating status, visible from 360°
- Visible red beam for easy alignment on most models
- Solves demanding industrial and commercial applications, including packaging and materials handling and power
- Water-tight IP67/NEMA 6 rated enclosure—Washdown rated to 1200 psi
- 10 to 30V dc operation with complementary PNP (sourcing) or NPN (sinking) outputs
- Single-turn gain potentiometer for easy configuration
- 2 m or 9 m attached cable, or Pico- or Euro-style quick-disconnect

Lensed WLA Series Work Light—General-Purpose LED Work Light

Banner has introduced a new lensed WLA Worklight Series. It was developed for lighting industrial work cells including areas with exposure to liquids such as food and beverage processing applications and machining centers. They are rugged, energy efficient, and provide a bright, even pattern of cool white light.

Features

- High power solid state LED array with cool white light
- Illuminates a large area with an even pattern of light and no shadows
- Designed for area and machine lighting
- Rugged thermoplastic housing rated to IP69K
- Lensed models provide a concentrated, more intense beam pattern
- Available in four sizes (105x180, 190x180, 275x180, 360x180)
- Cabled and Quick Disconnect models available

Specifications

Supply Voltage and Current: 12 to 30V dc (10% max. ripple)

Max current per length:

Light Length	12V dc	24V dc	30V dc	Watts	Lumens (Typical)
105 mm	1.0A	0.5A	0.4A	12	450
190 mm	2.0A	1.0A	0.8A	24	900
275 mm	3.0A	1.5A	1.2A	36	1350
360 mm	4.0A	2.0A	1.6A	48	1800

Light Characteristics Color Temperature (CCT): 5000 - 8300K
Color: Cool White

Useful Life When operating within specifications, output will decrease less than 30% after 50,000 hours.

Construction PBT housing; acrylic window; nickel-plated brass connector or PVC-jacketed cable

Mounting Flat-mount or accessory bracket

Environmental Rating Rated IEC IP67 and IP69K, per DIN 40050

Connections Integral 4-pin Euro style QD, or 2 m (6.5') integral cable

Operating Temperature -20° to +50° C (-4° to +122° F)

Storage Temperature -40° to +70° C (-40° to +158° F)

Vibration & Mechanical Shock All models meet Mil. Std. 202F requirements method 201A (vibration: 10 to 60 Hz max., double amplitude 0.06", maximum acceleration 10G). Also meets IEC 947-5-2; 30G 11 ms duration, half sine wave.



SureCross Performance Gateways and Nodes

Banner is pleased to introduce the new SureCross Performance Wireless I/O gateways and nodes — designed to deliver reliable, long-range control for remote locations. These new models are ideal for numerous applications: reporting machine status in large manufacturing facilities, controlling equipment over long distances without installing high gain antennas, and enabling indoor applications without line of sight between radios. These new radios provide long-range wireless monitoring and control with increased range: up to 6 miles in 900 MHz frequency band. The new performance radios can output up to 1 watt of signal power to give you extended ranges for wireless communications. The new radios also offer options with integrated battery and wiring terminals in single unit. As with most DX80 products, the new high performance radios are available with up to 12 discrete inputs or outputs or up to four temperature inputs. They also offer universal analog inputs for current or voltage selections in the field.

Gateways

These SureCross Performance Gateways are designed to function with the SureCross Performance Nodes, but may be also be configured to work with the existing DX80 Nodes.

- Enhanced Gateways offer increased range in the 900 MHz frequency band
- High density I/O capacity provides up to 12 discrete inputs or outputs or up to four temperature inputs (thermocouple or RTD)
- Universal analog inputs allow current or voltage to be selected in the field

The GatewayPro "T" models provide a simple interface to serial communication protocols such as Modbus/TCP and EtherNet/IP. The GatewayPro "A" models enable full configuration capability and access to many advanced settings for complete custom setup of the SureCross product line. This device can be used for complex mapping and to interface with existing PLC or DCS systems.



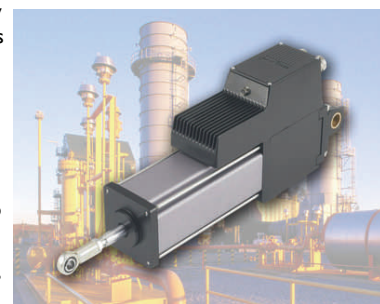
Tritex II™ Redefines Electric Actuation for Process Control Valves in Hazardous Areas

Exlar has launched a revolutionary improvement in electric actuator technology for the operation of control valves. Now with CSA Class I, Division 2 ratings and simplified valve configuration software, the Tritex II™ Series of electric actuators provides an ideal solution for high speed, modulating electric actuator requirements.

Exlar's Tritex II linear actuator combines a brushless motor, a specially designed roller screw mechanism for converting electric motor power into linear motion and a built-in position controller. With forces up to 3685 pounds, strokes up to 18 inches and speeds up to 33 inches per second, the Tritex II redefines electric actuator capability for 100 percent duty applications. Exlar's Tritex II linear actuator is ideally suited for control valve and damper applications requiring an extremely fast response to the smallest command signal changes without overshoot—even when friction is present.

The Tritex II is also available in a rotary configuration for ball and butterfly valves, providing continuous torque ratings up to 4000 lbf-in for modulating duty applications. The Tritex II rotary actuator allows users to directly couple the actuator to the shaft of the valve, eliminating all linear to rotary linkages and significantly reducing backlash.

Both linear and rotary models in the Tritex II Series have CSA Class I Div 2 groups A, B C and D certification, -20 to 65° C temperature range with an option for lower temperatures and IP65 and Type 4 environmental ratings. The Tritex II Series can also be mounted on any valve from any manufacturer.



Exlar Tritex II™ with CSA Class I, Division 2 ratings

K Series Linear Actuators

Exlar has launched a linear actuator line called the K series. The K Series actuators provide a truly universal solution for rod style actuator applications. The series is available with the option of multiple grades of planetary roller screws and with an option for an ACME screw.

These multiple grades of screw type allow you to select the configuration best suited to your application.

The K Series provides an ideal replacement for pneumatic cylinders, with dimensions and form factor consistent with ISO Metric pneumatic cylinder specifications.

The availability of high performance planetary roller screw drive allows the K Series to also replace hydraulic cylinders and provide a solution that offers superior life and performance to ball screw actuators.

Multiple Models to Fit your Needs

Four product performance levels are available so you can choose which option best suits your application and budgetary requirements.

KT Series incorporates Exlar's highest performance precision planetary roller screw. The KT option is perfectly suited for high load and high cycle rate applications where maximum life is required.

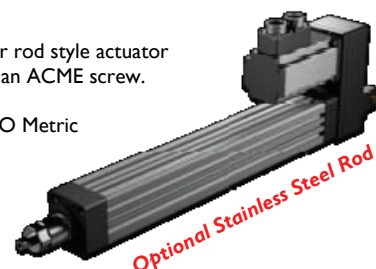
KX Series provides a high performance planetary roller screw for performance far superior to competing actuator technologies. The KX is an ideal choice for demanding applications in industrial automation, mobile equipment, process control and others.

KM Series gives you the benefits of planetary roller screw technology over ball screws at a very economical cost.

KA Series actuators are constructed with an ACME screw for low duty cycle applications with 2.54 mm and 5.08 mm leads. The KA Series can provide non-back driving solutions with a 2.54 mm lead. The KA Series is an excellent choice for applications that position and hold a load, or need effective low duty cycle electro-mechanical motion.

Features

- Proven Exlar roller screw technology
- Adapts to various types of motors
- Flexible mounting options
- Optional gear drives for high force output from lower motor torques



Optional Stainless Steel Rod

*Mtech Represents
the following fine manufacturers*



OUR OBJECTIVE

Mtech is a manufacturer's representative dedicated to providing O.E.M.'s and users with solutions to their factory automation applications. This objective is accomplished by integrating over 70 combined years of experience with state of the art products to fill our customer requirements.

REGIONS SERVED

TURCK, BANNER, & AMC
Minnesota, Western Wisconsin, North Dakota, & South Dakota
EXLAR, HORNER & PULS
Minnesota, Western Wisconsin, North Dakota, South Dakota, Iowa, & Nebraska

Premium, world class products and high caliber support result in successful projects for Factory and Process Automation

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