



Motion Logic Controller

LOWERS COSTS AND SIMPLIFIES INTEGRATION

The Bosch Rexroth MLC motion logic controller with Version 10 firmware is based on a one-gigahertz PAC controls platform that provides high-performance motion logic and robotics capabilities. Rexroth's most advanced platform supports real-time Ethernet communication on Ethernet platforms, including SERCOS III, Ethernet IP and ProfiNet for interfacing with connecting controls, drives, I/Os, safety, HMI, web and machine-to-machine synchronization, which helps to lower the controls cost and simplify integration for OEMs, systems integrators and end users. The MLC motion control has a free web-based service and engineering tool for easy access using a web browser to access the system data, and also has configuration tools for maintenance and commissioning. The system status and diagnosis of control hardware, drives and communication interfaces can all be viewed. The parameter editor, PLC variables and electronic name plate data

are also available.

The MLC uses the *IndraLogic 2G* PLC editor that offers several enhancements: new visualization concept for testing and monitoring functions, object-oriented programming in project structure, new data types, new operators and variables. *IndraLogic 2G* also supports standard IEC 61131-3 program languages such as: Function Block Diagrams (FBD), Ladder Diagrams (LD), Instruction Lists (IL), Sequential Function Chart (SFC), and Structured Text (ST). Suitable for the most sophisticated packaging and high-speed robotics applications, the Rexroth MLC powerful processor allows for control of up to 16 robotic kinematics concurrently, and up to 64 axes of motion and logic on a single controller. The latest *Version 10* firmware also provides advanced Flex Profile camming capabilities to help reduce engineering time and provide automatic cycle time optimization of machines and entire packaging lines. With Flex Profile, cams can be multi-segmented

and cycle times can be automatically optimized for velocity, acceleration, position or time to avoid having to rebuild cams each time a parameter changes. Flex Profile provides masters as an axis, as a specific time, or a combination of both. By changing values in the segments, the profile can be automatically modified to accommodate any changes in products. The MLC 10 can generate PLC function blocks for online creation of FlexProfiles, CAM preview with several axes simultaneously and provide definition of FlexProfile events.

For more information:

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www.boschrexroth-us.com

Shaft Collars

OFFER HIGH HOLDING POWER AND CONTROLLED FACE TOLERANCE

Ruland Manufacturing Co., Inc. offers a full range of shaft collars with controlled face tolerance and high holding power. Shaft collars can be used on a variety of equipment including motors, gearboxes, linear actuators, packaging equipment, printing presses, medical devices and precision instruments. Ruland shaft collars are single-point faced during the boring process to ensure a high level of face-to-bore perpendicularity. This results in a face runout TIR (total indicated runout) of less than .05 mm (.002") on standard collars with even tighter tolerances on bearing locknuts and special designs. The face-to-bore relationship is important for many applications where components such as bearings need to be properly aligned on the shaft. It also creates even pressure on the interfaced components, prolonging their life, and reduces the likelihood that the shaft collar will shift when it is subjected to shock loads. A circular groove on the shaft collar indicates that it has been single-point faced. Ruland collars should be installed so that the circular groove is on the side that will receive the shock load or against the components that need precise positioning or even pressure.

Ruland shaft collars are offered in aluminum, black oxide carbon steel, stainless steel and engineered plastic. One- and two-piece clamp shaft collars are available with bore sizes from 3 mm to 80 mm in the metric series and from



1/8" to 6" in the inch series. Clamp style shaft collars wrap around the shaft for even distribution of clamping forces. This results in a tight fit and greater holding power, without the shaft damage caused by set screws. Two-piece, clamp-style collars have an additional advantage since they can be installed on the shaft without removing other components. Ruland uses forged socket hardware in all its shaft collars, which allows for higher screw torque and increased holding power. All Ruland

products are RoHS- and REACH-compliant.

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Marlborough, MA 01752
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marketing@ruland.com
www.ruland.com

Guide System

ENSURES SMOOTH,
EVEN SPOOLING

The Amacoil/Uhing GS Guide System helps assure smooth, even spooling by keeping the wire or other material being spooled in line between pay off and take up points. The GS system consists of guide wheels attached to

the end of adjustable arms. The guide is available for Uhing traverse drive models KI3-15, RG3-15-2 and RG3-20-2 and may also be used with non-Uhing traverses.

continued

product news

Guide wheel arms connect to each other in a modular fashion, permitting combinations of multiple arms, although normal use is with two arms only. The angle of the guide arms relative to each other is fully adjustable, which provides added flexibility in set-up. The GS system may be used with tensioning devices such as dancers; however, the GS itself does not provide tensioning control.

All metal parts are stainless steel, and the GS guide wheels are composite with ceramic groove linings. Ten sizes of guide wheels are available, accommodating wire with outside diameters from 2 to 8 mm (.079" to .315"). Three guide wheel arm lengths—4.62", 6.89" and 9.21"—meet most needs for spooling thin- to medium-gauge materials. The GS guide is assembled before shipping and lists for about \$250 depending on sizes of guide wheels and guide wheel arms selected. Individual parts are also sold separately upon request.

For more information:

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Aston, PA 19014
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www.amacoil.com



Maxon

EXPANDS MOTOR LINE

Maxon is expanding its existing range of industrial type motors with the addition of two new sizes with IP54 protection rating as well as mounting brakes. The two mechanically

commutated DC motors, with output powers of 200 and 250 watts, are protected on the commutation side with sealed aluminum housing. The cable outputs are sealed with PG cable fittings, and the shaft is secured with a radial shaft seal to guarantee IP54 rating on the flange side. These two industrial versions, with diameters of

50 and 65 mm, are available as standard with various winding options. They achieve nominal torque of up to 0.9 Nm, nominal speeds of up to 5,500 rpm and an efficiency level of more than 90 percent. Low nominal voltage, high power density, a flexible combination range and IP54 protection rating make both power packages suitable for use in



Offset couplings from Zero-Max. This new coupling feature eliminates the need for periodic coupling lubrication and the resulting downtime. These couplings provide precision for parallel offset shafts. They transmit constant angular velocity and torque in a wide range of parallel shaft misalignments.

They are designed for a wide range of machine applications including printing, embossing, paper converting, pharmaceutical and automated assembly systems. The new sealed bearing feature incorporates needle bearings with internal micro-poly

continued

industrial equipment, such as automatic dispensing machines, handling and packaging machinery, as well as in battery-operated applications such as electric vehicles, transport and logistics facilities.

For more information:

Maxon Motors
101 Waldron Road
Fall River, MA 02720
Phone: (508) 677-0520
info@maxonmotorusa.com
www.maxonmotorusa.com

Zero Maintenance Bearings

AVAILABLE FOR SCHMIDT
OFFSET COUPLINGS



Zero maintenance bearings are now available as an option for Schmidt



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GEAR WORKS, INC.
South Bend, IN/Rockford, IL

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lubrication. There are no lube fittings, making for a cleaner coupling setup. Compact in design, the couplings keep out contaminants and foreign matter, enabling the couplings to be used in less than ideal operating environments. The Schmidt Offset couplings are designed

to handle parallel offset up to 17 in. and are available with torque capacities up to 459,000 in-lbs. They impose no side loads on shafts or bearings to eliminate radial shaft vibrations.

For more information:

Zero-Max
13200 Sixth Avenue North
Plymouth, MN 55441
Phone: (800) 533-1731
Zero-max@zero-max.com
www.zero-max.com

SKF Bearings

OFFER LESS FRICTION
AND CONSUME LESS ENERGY

SKF ball bearings for electric motors have been introduced as alternatives to standard bearings by generating significantly less friction and reducing energy consumption. These deep groove ball bearings join a growing family of SKF energy efficient bearing solutions. The bearings exhibit 30 to 50

percent lower friction compared with conventional types and benefit from an optimized design balance between highly engineered internal geometries, grease and bearing cages. Additionally, these bearings promote smooth-running performance and generate less noise and heat. Extended bearing service

life up to double the ISO calculated life can be realized, according to the company's press release. The bearings comply with ISO 15:1998 in a range of select off-the-shelf sizes to allow for interchangeability within existing design envelopes. They can be specified for electric motors up to 37 kW with shaft dimensions up to 60 mm. Custom solutions can be developed to satisfy particular application needs.



For more information:

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www.skfusa.com

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Wittenstein

OFFERS GEARBOX FOR HARSH ENVIRONMENTS



When environmental conditions demand a higher level of protection, the alpha SG stainless steel gearbox from Wittenstein offers a solution. Specially designed for washdown and food-grade environments, this product includes stainless steel housing, stainless steel shaft, stainless steel fasteners, NSF H1-approved food-grade lubricant and custom engineered, corrosion resistant, rotary shaft seals. Applications for this product include food packaging/processing, pharmaceutical manufacturing or wherever clean room or harsh environments are a critical issue. This product is available as standard in sizes 095 and 130. Full technical details and dimensional drawings are available at www.wittenstein-us.com.

For more information:

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info@wittenstein-us.com
www.wittenstein-us.com

Bellows

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are available in diameters ranging from .394 to 26 in. (10 mm to 660 mm) and in lengths up to 96 in. (24.38 mm). Material thickness ranges from .002 to .036 in. (.05 mm to .91 mm) and includes titanium, 316LSS, AM350 SS, aluminum and Inconel/Hastelloy. All designs are custom and optimized by BellowsTech to meet the customer's specific requirements. Custom metal and precision prototype manufacturing fabrication are also available.

For more information:

BellowsTech LLC
1289 N. U.S. Highway 1, Ste. 1
Ormond Beach, FL 32174
Phone: (386) 615-7530
bellows@bellowstech.com
www.bellowstech.com



Haydon Kerk

ADDS PROGRAMMABLE LINEAR ACTUATOR DRIVE TO PRODUCT LINE

Haydon Kerk Motion Solutions, Inc. recently introduced the PCM4806 IDEA programmable linear actuator drive. The PCM4806 is the most recent addition to the IDEA Drive family of products. It is optimized to regulate a low current power stage suitable for controlling the smaller Haydon can-stack linear actuators. With the addition of the PCM4806, there's a programmable drive available for use with just about the entire line of Haydon stepper motor linear actuators. The IDEA Drive is a compact, easy-to-use electronic drive and fully programmable control unit with a patent pending graphic user interface. The drive is programmed by use of on-screen buttons instead of complicated command sets or other proprietary programming languages. A unique feature of the graphic user interface is automatic population of the motor and drive parameters based on entering a Haydon actuator part number when prompted by the user interface. Complex parameter calculations or in-depth stepper motor knowledge from the user is completely unnecessary. For a more experienced user, default values



can easily be adjusted as long as they remain within the safe range calculated by the software. The software allows the system designer to troubleshoot programs using line-by-line or multiple-line program execution using the interactive debug feature. Inputs and outputs can also be simulated in software before ever connecting actual I/O hardware.

For more information:

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www.haydonkerk.com

Lee Linear

OFFERS
CUSTOM-MACHINED
BALL SCREWS



Lee, a manufacturer of linear motion components, now provides fast turnaround of high-quality, end-machined, precision-rolled ball screws. "Our ball screws maintain their accuracy and quality while remaining cost effective," says Jim Ashworth, vice president at Lee Linear. "Even at high speeds, they offer quiet and smooth operation."

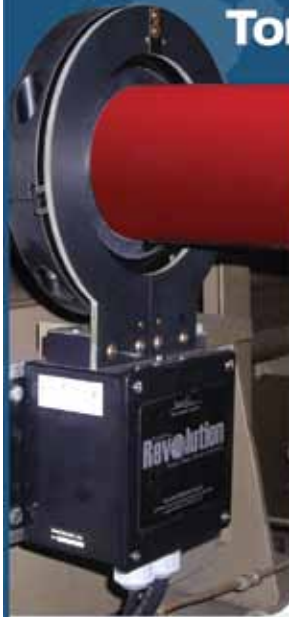
Made from induction case hardened alloy steel, Lee ball screws are integrally sealed and are available in both inch and metric configurations. Suited for close-tolerance work, Lee ball screws and ball nuts are available in regular, high-lead and miniature flange types.

"Selecting the correct ball screw may be challenging," Ashworth says. "Our customers can rely on their Lee representative to work with them to determine the ball screw, nut type, thread length and total length that is best suited for the application."

For more information:

Lee Linear
727 South Ave.
Piscataway, NJ 08854
Phone: (732) 752-5200
www.leelinear.com

Need to Measure Real Torque & Power Output?



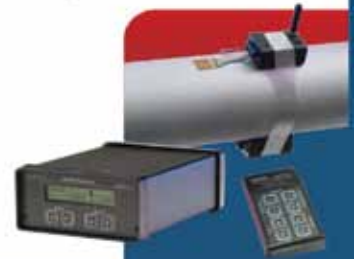
With Binsfeld systems you can do that. Whether for temporary measurements or continuous monitoring, Binsfeld telemetry instruments deliver *true mechanical* torque and power data direct from the shaft.

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Pressure Transducer

FEATURES AMPLIFIED OUTPUT

Stellar Technology Inc. offers the new Model FT29XX amplified pressure transducer.

This all-welded stainless steel sensor combines a standard NPT male process connection with a flush diaphragm. In addition, the FT29XX pressure transmitter is designed with internal signal conditioning. Customers can select current outputs, numerous voltage outputs, as well as digital outputs including RS232, RS485, and CANbus. The unique design of the isolation diaphragm reduces stress levels normally

caused by torquing a tapered thread into the mating fitting. The FT29XX introduces zero dead volume to the fixturing and resists the accumulation of residue that can clog traditional pressure ports. The sensing element is machined from a single piece of steel, making the FT29XX insensitive to shock and vibration. This unit is suited for metering and dispensing operations, for the application of sealants and paints, or anywhere a flush diaphragm unit is desired. The FT29XX has an operating temperature range of -65 degrees to 250 degrees F. This compact sensor weighs about eight ounces and delivers a static full-scale accuracy of ± 0.25 percent (BFSL). Each unit is shipped with a 19-point calibration record, traceable to NIST. The FT29XX integrates with a standard "bayonet"-style electrical



connector. Options include alternative electrical terminations and NPTM pressure fittings.

For more information:

Stellar Technology Inc.
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Amherst, New York 14288
Phone: (716) 250-1900
www.stellartech.com

AS-Interface Power Conditioner

DESIGNED FOR EASY MOUNTING

Pepperl + Fuchs recently introduced the VAN-KE2-2PE Two Network AS-Interface Power Conditioner. The VAN-KE2-2PE is the industry's first panel-mount, AS-Interface power conditioner to enable two AS-Interface networks to be operated from a single DC power supply. This power conditioner delivers up to four amps output power per network connection, and is suitable for double master use without the need for data uncoupling.

"Mounting the previous design was often cumbersome, as the AS-Interface connections were located in the base of the G4 housing. This new power conditioner features a KE2 housing that is DIN rail mountable with easy-to-use and color-coded removable terminals for simplified mounting and operation," says Helge Hornis, manager, intelligent



systems group.

Power conditioners are often used in factory or process automation applications where AC power is not available. In such applications, 30 VDC is run to the junction box and connected to the power conditioner, and with the

VAN-KE2-2PE, up to two network segments can be connected there. The ability to make two AS-Interface connections is a powerful option for users because it enables them to power a dual network gateway, both segments before and after a repeater or both

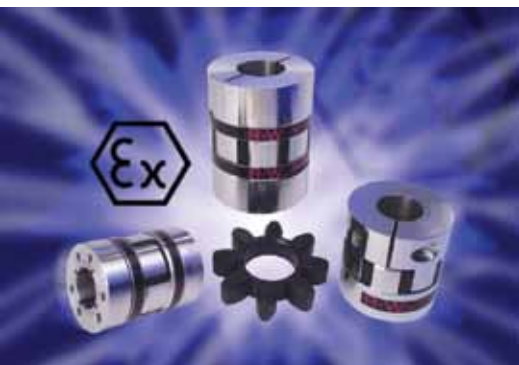
segments after a set of two repeaters. The input voltage is flexible, and the LEDs on the power conditioner's housing light up to provide voltage indication when voltage drops below 28 V and 26 V, respectively.

For more information:

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www.pepperl-fuchs.com

R + W

OFFERS EXPLOSION-PROOF COUPLINGS



Flexible couplings are a highly critical component when it comes to explosive atmospheres found in automotive paint and cleaning stations, chemical plants, powder mixing areas and numerous other environments. A lack of radially flexible elements in shaft linkage can result in high radial loads being placed on shaft bearings, eventually leading to heat generation and bearing failure, making flexible shaft couplings essential to machine drive design. Even more critical is that the potential for generation of sparks must be eliminated. For use in explosive environments, R+W has

developed a full range of ATEX certified "explosion proof" couplings in accordance with the European directives, ATEX 95 and ATEX 137. These special couplings are precision machined with a thermally and chemically stable, wear resistant, polyurethane insert press fit between the two for zero backlash. A smooth fit between the insert and the hubs helps the insert to compensate for lateral, angular and axial shaft misalignment. The insert is impregnated with graphite, giving it electrically conductive properties, thereby eliminating the potential for any charges arcing from one hub to the other. Official serialized markings including the part number are required by the directive and are clearly visible on each unit.

These precision couplings are available in a variety of mounting configurations, and can include torque overload protection. There are nine total sizes ranging from torque ratings of 2–2,150 Nm (17 to 19,000 in-lbs). Both English and metric bore diameters are available in a range from 3–80 mm (1/8 to 3.125 in) with or without keyways.

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www.rw-america.com

Onvio

ADDS TO REDUCER PRODUCT LINE

Onvio LLC, a U.S. manufacturer of high-precision gearboxes, "zero backlash" cycloidal reducers, and timing belt pulleys/sprockets, announced the newest addition to its family of precision gearbox products. Proprietary gear technology provides efficiency as well as exceptionally smooth and quiet operation, according



to the company's press release. They are designed for demanding applications in packaging, conveying, food processing, printing/converting, machine tool and industrial automation.

The new SL, RL, and FL right-angle gearbox family consists of a 1:1 spiral bevel input module and a precision planetary output stage to develop ratios from 3:1 up to 100:1. Available in four frame sizes with output torque ranging from 6 Nm up to 100 Nm and backlash as low as 12 arc minutes. They are easily mounted to any NEMA or Metric/IEC servo or stepper motor.

Customers can include Onvio's PL flange to integrate the reducer body "within the output timing pulley," resulting in a compact planetary product when machine space is at a premium.

For more information:

Onvio LLC
20 Northwestern Drive
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Phone: (603) 685-0404
www.onviolc.com

Nord Gearmotors

HELP TRACK THE SUN

Nord DriveSystems motors have been selected to position and hold solar panels on photovoltaic plants in Northern Germany. Energy efficiency was a deciding factor as the solar panels track and follow the sun over the course of a day. Intelligent tracking technology from Solarpark Rodenäs GmbH increases the efficiency of photovoltaic plants and requires robust gearmotors in order to position and securely hold solar modules against strong winds. Commonly available drive units use conventional brakes and require heaters to prevent them from freezing. These are cost- and maintenance-intensive components that also increase the energy consumption of the system. The gearmotors from Nord fulfill the requirements for weather-resistant, energy-efficient components.

The tracking control data for sunrise and sunset is calculated on a daily basis. At sunrise, the solar panels turn to the east in order to track the sun over the course of the day. Every 15 minutes, Nord's gearmotors are activated by an impulse from the central control unit to track the sun for four degrees and then switch off again. Due to the tracking, the solar collectors achieve a 25 to 30 percent greater efficiency compared to fixed collectors.

The gear units from the modular Flexbloc series that combine two worm gear units hold the panels in position without additional brakes. They position the panels precisely and firmly against winds which often exceed 60 mph. More than 700 geared motors



are doubly protected from the harsh North Sea climate by the corrosion-resistant, one-piece aluminum housing and special paint. A high quality synthetic lubricant ensures reliability even at sub-zero temperatures and minimizes maintenance, according to the company's press release.

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