## OWNER / MANUFACTURER AGREEENT

## SCHOOL BOARD OF PALM BEACH COUNTY, FLORIDA AND <br> AUTOMATED LOGIC CORPORATION

THIS AGREEMENT, entered into by the SCHOOL BOARD OF PALM BEACH COUNTY, FLORIDA, located at 3300 Forest Hill Boulevard, West Palm Beach, Florida 33406, hereinafter known as the "OWNER", and the AUTOMATED LOGIC CORPORATION, located at 1150 Roberts Boulevard, Kennesaw, Georgia 30144, hereinafter known as the "MANUFACTURER," on this $1^{\text {ST }}$ day of July 2006.

WHEREAS, the Owner is desirous of properly installing and operating a hardware and software system intended to reduce building energy consumption by controlling major energy using equipment in the Owner's buildings; and,

WHEREAS, the "Owner's Engineer," the Engineering Matrix, Inc. has recommended to the Owner that the Owner can benefit from awarding a sole source contract to the Manufacturer because of the unique considerations involved; and,

WHEREAS, the Manufacturer can make available the equipment recommended to the Owner at a reduced price and is desirous of supplying this unique equipment to the Owner for the Owner's projects; and,

WHEREAS, the Owner agrees to order and use the equipment of the Manufacturer at the Manufacturer's reduced price.

NOW, THEREFORE, in consideration of the Owner adopting a sole source agreement with the Manufacturer, and for other good and valuable considerations tendered and received, the Manufacturer agrees:

1. The Manufacturer shall present to the Owner an annual price list containing all items which can and will be delivered and supplied. The price list must contain all items manufactured by the Manufacturer as well as items that can be made available by the Manufacturer. The Manufacturer will advise the Engineer and make available any update on equipment, and such improvements should be compatible to existing systems. The Manufacturer will forward the fixed price list and a fixed multiplier that will offer reductions for equipment produced and/or distributed by the Manufacturer. This price list and multiplier will remain constant for One (1) Year from the date of receipt by the Owner.

The price list shall be submitted to the Owner for approval.
2. The Manufacturer warrants that the equipment purchased by the Owner from the Manufacturer will operate as intended and as advertised.
3. The Manufacturer also agrees to supply technical service support and to train and make available local expertise with ability to assist in the operation, repair, and installation of Manufacturer's equipment. The Manufacturer agrees to establish a Local Dealer within fifty
(50) continental miles of the Palm Beach County boundaries. The Manufacturer warrants that the Local Dealer will fulfill any and all obligations of the Manufacturer, as if the order were placed directly with the Manufacturer. However, the local dealer's obligations will not absolve the Manufacturer from his warranties to the Owner.

If a breach of this contract occurs, then the Owner reserves the right to bring an action against the Manufacturer as well as the Dealer. The purpose of the Local Dealer is to assist at close proximity both deliveries and technical assistance, as may be ordered and required.
4. The Manufacturer will provide to the Owner's designated personnel, training at a comparable level as available to the Manufacturer's dealers. This training will be purchased from the Manufacturer at the Owner's request. The cost of such training will be negotiated at the time of request.
5. The Manufacturer will notify the Owner and Engineer of newly released software versions as they become available, together with a price list cost for any newly released equipment. The Manufacturer must continue to stock and make available parts that may be needed for repairs for a period of ten (10) years after purchase.
6. It is understood by both parties that this agreement does not commit the Owner to purchase any minimum amount of equipment during the term of the Agreement. Purchase of Manufacturer's equipment by the Owner is subject to the availability of funds.
7. Failure by the Manufacturer to deliver the equipment within the time fixed in this Agreement will result in substantial injury to the Owner. As damages arising from such failure cannot be calculated with any degree of certainty, it is hereby agreed that if the equipment is not delivered within the time fixed, the Manufacturer shall pay to the Owner, as liquidated damages for such delay and not as a penalty, $\$ 75.00$ for each and every calendar day elapsing between the dated fixed for delivery and the date such delivery shall have been fully received for each purchase order issued. This provision for liquidated damages for delay shall in no manner affect the Owner's right to terminate the Agreement. The Owner's exercise of the right to terminate shall not release the Manufacturer from his obligation to pay liquidated damages.

It is further agreed that the Owner may deduct from any balance the liquidated damages stipulated herein or such portions as said balance will cover.
8. The Manufacturer accepts all responsibility for equipment until received and accepted by the Owner. Damages resulting from shipment and loading or unloading of purchased equipment are the responsibility of the Manufacturer.
9. Manufacturer warrants that the equipment delivered is free of defects and in good operating condition. The Manufacturer understands that an entire system could be held inoperative if any given part ordered by the Owner from the Manufacturer does not operate in accordance with the Manufacturer's warranty and/or as per need of the total system.
10. The Owner shall forward payment for the parts ordered as per the purchase order within sixty (60) days of receipt.
11. The Manufacturer must train and make available a minimum of three (3) local installers (within 50 continental miles of the Palm Beach County boundaries) who will be available during construction or retrofit installation. These installers must be pre-qualified by the Manufacturer as competent, fully trained by the Manufacturer, and familiar with both the operation and installation of the equipment purchased by the Owner.
12. From time to time, technical services may be purchased as needed for the Installation. Any such services will be arranged for by the Manufacturer at a reduced price. The quoted price will be subject to a reduction by a written multiplier applied to the annually submitted price list and will be quoted annually by the Manufacturer to the Owner. This multiplier for services will become part of this contract for the remainder of each year. At the discretion of the Owner, these technical services may be purchased from the Manufacturer. It shall be the responsibility of the Owner and the Owner's Engineer, the Manufacturer and the Manufacturer's installer to delineate responsibilities for the proper planning, purchase, delivery, installation, and servicing of the equipment. This understanding and agreement shall be recognized as part of this contract prior to execution and be incorporated by reference as part of this agreement.
(Refer to Attachment A - Scope of Work)
13. In the event that an installation program is initiated by the Owner and the Manufacturer fails to make available or supply needed equipment to complete the project, then liquidated damages as aforementioned shall remain in effect.

This contract also contains a Glossary and is noted as Attachment B.
The Manufacturer shall comply with all provisions required by federal, state, and local Laws and Regulations.

By:


Name:


SCHOOL BOARD OF PALM BEACH COUNTY, FLORIDA
By: $\qquad$ Date: $\qquad$

Attest::
Thomas E. Lynch, Board Chairman

Arthur C. Johnson, Ph.D., Superintendent


## Part 1

## SCOPE OF WORK

1.1 The Work shall consist of delivery of all ALC WebCTRL equipment currently offered by Manufacturer and all future software or equipment developed as product line enhancements. Further, the work shall include Technical Services support which encompasses software, configuration engineering, project engineering survey, application engineering, graphics construction, and systems start-up including final wiring terminations, point-to-point checkout, and project documentation required to effectively place the equipment in service. A detailed listing of Technical Services is contained in the Attachments.

The Work shall include the updating of the central and local system operator station software as future equipment items are purchased and added to the current systems. Future additions and expansions shall be engineered to be consistent with the current software version on the Owner's central site system. Copies of such system software revisions shall be sent to the Owner and to the Engineer.

It shall be the responsibility of the Manufacturer to notify the Owner and the Engineer of newly released software versions, the features of such versions, the hardware requirements, for upgrading, and the total cost required to implement the version system wide. All costs associated with such an upgrade are to be included in the modifications; including, but not limited to, hardware changes and operator manuals.

Current technical documentation materials for all newly purchased equipment shall be included as a part of the Work.

## Part 2

## AGREEMENT TIME COMMENCEMENT AND COMPLETION

2.1 The Term of this Agreement shall be five (5) years with the option to renew for an additional five year period.

Manufacturer to notify the Owner at least sixty (60) calendar days prior to end of the Term stating intent to renew Agreement with proposed changes, if any. Renewal notice shall include any terms or conditions that might require annual adjustments as stipulated elsewhere in this Agreement.

Notice of annual Agreement renewal or rejection shall be given to the Manufacturer at least ten (10) Owner work days prior to the expiration of the then current Term. Owner renewal notice to the Manufacturer shall include any terms or conditions or adjustments applicable to the upcoming Term.

## Part 3

## AGREEMENT SUM

3.1 In as much as the total amount of annually purchased equipment cannot be accurately accessed, the basis to be used for computing the Owner's purchase price of Manufacturer's equipment shall be a multiplier times the Manufacturer's Published Price List for each item on any given Purchase Order. This multiplier shall be termed the Equipment Multiplier. Any items not clearly identifiable on the Manufacturer's Published Price List shall be quoted as a separate line item and it shall solely be at the option of the Owner to accept or reject such costs. The Manufacturer will also provide Technical Services application support for complete control systems engineering as defined in Part 1 at a negotiated multiplier times the Manufacturer's Published Price List. This multiplier shall be termed the Technical Services Multiplier.
3.2 The Owner and the Manufacturer shall agree each contract renewal period in writing on an Equipment Multiplier to be applied to the Manufacturer's Published Price List. The agreed upon multiplier times the Manufacturer's published price list shall constitute the cost of each item delineated on the Purchase Order to the Manufacturer. (For example, an agreed upon Equipment Multiplier of 0.35 applied to an item listed for $\$ 1,000.00$ would cost the Owner \$350.00).
3.3 The Owner and the Manufacturer shall agree each contract renewal period, in writing, on a Technical Services Multiplier. This multiplier shall be applied in conjunction with the Equipment Multiplier to the Manufacturer's Published Price List when Technical Services support, as well as equipment is purchased.
3.4 The Owner and the Manufacturer shall agree each contract renewal, in writing, on a Construction Multiplier. This multiplier shall be applied in conjunction with the Equipment Multiplier to the Manufacturer's Published Price List when Construction support, as well as equipment is purchased. The Construction Multiplier shall be as follows:

Projects with a list price under $\$ 100,000-10 \%$ of list price Projects with al list price between $\$ 100,000$ and $\$ 200,000-9 \%$ of list price Projects with al list price between $\$ 200,000$ and $\$ 300,000-8 \%$ of list price Projects with al list price over $\$ 300,000-7 \%$ of list price

The combination of the three (3) agreed upon multipliers times the Manufacturer's Published Price List shall constitute the cost of each item delineated on the Purchase Order to the Manufacturer.
(For example, an agreed upon Equipment Multiplier of 0.61 , an agreed upon Technical Services Multiplier of 0.50 , and an agreed upon Construction Multiplier of .09 applied to an item listed for $\$ 1,000.00$ would cost the Owner $\$ 1,210.00$ )
3.4 The agreed upon multipliers and a copy of the Manufacturer's Published Price List at the time of Agreement renewal shall be a part of the Agreement renewal subrnitted for approval by the Owner. The Manufacturer's Published Price List shall be submitted to the District on a yearly basis.

## Part 4

## DIRECT OWNER PURCHASE MECHANISM

4.1 Direct Purchase of Manufacturer's equipment via Owner's Purchase Order shall require a written firm price quote with equipment itemized prior to issuance of Purchase Order.

List prices for each item, as well as the annual Equipment Multiplier~ if applicable, and the final item price shall be shown on the written quote.

The various items shall be added together and a total cost of equipment shown.
Also, a grand total is to be shown which includes an itemized listing of the equipment total, all shipping, handling, taxes, and other pertinent charges.

At the sole discretion of the Owner, a Purchase Order for such direct Purchases in the amount of the firm price quote shall be issued to the Manufacturer.
4.2 At the sole discretion of the Owner, Technical Services support may also be purchased at the time of equipment purchase. This requires a written and itemized firm price quote prior to issuance of Purchase Order. List prices for each item as well as the annual Equipment Multiplier, Techrical Services Multiplier and construction multiplier, if applicable, and the final item price shall be shown on the written quote. The various items shall be added together and an equipment total cost shown. Also, a grand total is to be shown which includes an itemized listing of the equipment total, all shipping, handling, taxes, and other pertinent changes.

At the sole discretion of the Owner, a Purchase Order for such Direct Purchases in the amount of the firm price quote shall be issued to the Manufacturer.
4.3 All equipment ordered shall be delivered by the Manufacturer within sixty (60) days from date of purchase order.

## Part 5

## WARRANTIES - DIRECT PURCHASE

5.1 Warranties of Manufacturer's equipment operation and defects shall be from one (1) year of date of equipment installation and operation which is purchased via Direct Purchase.

The Owner will notify the Manufacturer in writing within ten (10) days of placing equipment in service by stating the serial number, module, and purchase date or a hard copy print out of the "MODSTAT" screen.
5.2 Any warranty repairs shall be returned to the Owner within ten (10) days of receipt by Manufacturer.

5:3 The warranty is understood to mean the Manufacturer shall repair or replace any defective
components or equipment at no cost to the Owner for one (1) year from the time of installation.

The Manufacturer shall be responsible for return shipment of said material and equipment and the Owner shall be responsible for shipment to the Manufacturer's place of business.

## Part 6

## INSURANCE REQUIREMENTS

Proof of the following insurance will be furnished by the awarded bidders to the School District of Palm Beach County by Certificate of Insurance.

Original copies of Certificates of Insurance meeting the specific required provision specified within this contract/agreement shall be forwarded to the School District of Palm Beach County's Purchasing Department, ATTN: June L. Brack, Purchasing Agent, and approved prior to the start of any work or the possession of any school property. Renewal certificates must be forwarded to the same department prior to the policy renewal date.

Thirty days written notice must be provided to the School District of Palm Beach County via certified mail in the event of cancellation. The notice must be sent to the Purchasing Department.

The awarded bidders shall provide complete copies of any insurance policy for required coverage within seven days of the date of request by the Purchasing Department.

1. WORKERS' COMPENSATION: Bidder(s) must comply with FSS 440, Workers' Compensation and Employees' Liability Insurance with minimum statutory limits.
2. COMMERCIAL GENERAL LIABILITY: Awarded bidders shall procure and maintain, for the life of this contract/agreement, Commercial General Liability Insurance. This policy shall provide coverage for death, bodily injury, personal injury, products and completed operations liability and property damage that could arise directly or indirectly from the performance of this agreement. It must be an occurrence form policy. THE SCHOOL DISTRICT OF PALM BEACH COUNTY SHALL BE NAMED AS AN ADDITIONAL INSURED ON THE CERTIFICATE FOR COMMERCIAL GENERAL LIABILITY INSURANCE.

The minimum limits of coverage shall be $\$ 1,000,000$ per occurrence, Combined, Single Limit for Bodily Injury Liability and Property Damage Liability.
3. BUSINESS AUTOMOBILE LIABILITY: Awarded bidders shall procure and maintain, for the life of the contract/agreement, Business Automobile Liability Insurance. THE SCHOOL DISTRICT OF PALM BEACH COUNTY SHALL BE NAMED AS AN ADDITIONAL INSURED ON THE CERTIFICATE FOR BUSINESS AUTOMOBILE LIABILITY INSURANCE.

The minimum limits of coverage shall be $\$ 1,000,000$ per occurrence, Combined Single Limit for Bodily Injury Liability and Property Damage Liability. This coverage shall be an "Any Auto" form policy. The insurance must be an occurrence form policy.

In the event the contractor does not own any vehicles, we will accept hired and non-owned coverage in the amounts listed above. In addition, we will require an affidavit signed by the contractor indicating the following:
$\qquad$ (Company Name) does not own any vehicles. In the event we acquire any vehicles throughout the term of this contract/agreement, $\qquad$ (Company Name) agrees to purchase "Any Auto" coverage as of the date of acquisition.

## Part 7

## PURCHASE MECHANISM THROUGH Purchase Order for Construction Projects

### 6.1 ISSUANCE OF MANUFACTURER'S PROJECT EQUIPMENT LIST ON BID PROJECTS

The Manufacturer shall review the prints and specifications developed by the Architect/Engineer (A/E) of record on projects which include an Energy Management System (EMS)" within the project Scope of Work as the Contract Bid Documents are available for bid preparations.

The Manufacturer shall issue to the Owner, A/E of record, and all Manufacturers authorized Installing Contractors, a MANUFACTURER'S PROJECT EQUIPMENT LIST.

The Manufacturer is to itemize all necessary equipment that is required to complete the project as defined in the Contract Bid Documents and that is distinctly identifiable on the approved Manufacturer's Published Price List. No items are to be included on the MANUFACTURER'S PROJECT EQUIPMENT LIST unless the item appears on the approved Manufacturer's Published Price List. All other items required to complete such installation are the responsibility of the authorized installing Contractor and are not to be a part of the MANUFACTURER'S PROJECT EQUIPMENT LIST. The MANUFACTURER'S PROJECT EQUIPMENT LIST shall be accompanied by applicable engineering documents to include, but not be limited to, equipment layouts, sensor locations, installation details, and other documentation necessary for the Installing Contractor to bid the project.

The MANUFACTURER'S PROJECT EQUIPMENT LIST is to be distributed to the Owner, A/E of record, and all authorized Installing Contractors within ten (10) Owner working days after the last day of the bid advertisement or as otherwise approved, in writing, by the Owner.
6.2 The list price, the Owner's annually agreed upon multipliers, and the final cost of each item are to be included as a part of the MANUFACTURER'S PROJECT EQUIPMENT LIST. The grand total amount of the MANUFACTURER'S PROJECT EQUIPMENT LIST, shall be submitted as a purchase order request to the District from the local dealer.
6.3 The Owner shall not be obligated to reimburse the Manufacturer for efforts or materials supplied toward the bid of projects which fail to result in a separate contract.

This shall include, but not be limited to, projects canceled due to "funding out"; no bid and rebid projects.

## Part 8

## PROGRESS PAYMENTS

7.1 Progress payments for purchase of Manufacturer's equipment for Owner shall be made to the local dealer under the terms of the District's purchase order.

## Part 9

## FINAL PAYMENTS

8.1 Final payment shall be made per the purchase order.

## Part 10

## WARRANTS

9.1 Warranties of Manufacturer's equipment: The warranty is understood to mean the Manufacturer shall repair or replace any defective components or equipment at no cost to the Owner for one (1) year from the time of installation.

The Manufacturer shall be responsible for return shipment of said material and equipment and the Owner shall be responsible for shipment to the Manufacturer's place of business.

## Part 11

## mISCELLANEOUS PRÓVISIONS

### 10.1 REQUIREMENT FOR ESTABLISHMENT OF A LOCAL DEALER

Firm equipment quotations submitted by the Local Dealer for the purpose of issuing an Owner Purchase Order, shall have the same effect as a direct quote from the Manufacturer MANUFACTURER'S PROJECT EQUIPMENT LISTS distributed to authorized Contractors on bid type projects shall have the same effect as if issued by the Manufacturer.

The role of the Local Dealer shall include, but not be limited to, equipment supplier and those items listed in Part 1. The Local Dealer shall not be allowed to bid on bid type projects as the Installing Contractor of any equipment covered under this agreement on any Owner projects or projects for which the end user is the Owner as stipulated in this Agreement. The Local Dealer shall be required to maintain a minimum stock of items as enumerated in Part 13.

In the event the Manufacturer changes Local Dealers during the Term, the Manufacturer shall submit the name and credentials of the proposed Local Dealer for Owner approval.

Minimum requirements which must be met by any Local Dealer are:
*Manufacturer's equipment training certification
*Meet all Owner Contractor pre-qualification requirements
*Within fifty continental (50) miles of Palm Beach County boundaries

### 10.2 REQUIREMENT FOR THE ESTABLISHMENT OF LOCAL MANUFACTURER'S AUTHORIZED

## INSTALLING CONTRACTORS

Manufacturer herein guarantees that at all times there are a minimum of three (3) authorized Installing Contractors, two (2) of which must have operating offices within fifty continental (50) miles of Palm Beach County boundaries, which are qualified to install the Manufacturer's equipment. The Manufacturer shall submit the name and credentials of authorized Installing Contractors for Owner approval as a part of the sole source contract. Installing Contractors are subject to the pre-qualification policies and procedures established by the Owner. In the event the Manufacturer adds Installing Contractor during the Term, the Manufacturer shall submit the name and credentials of the proposed Installing contractor to the Owner for approval.

### 10.3 AGREEMENT INTERPRETATION

This agreement, and all of its terms and provisions, shall be construed in accordance with and governed by the laws of the state of Florida. If any suit is brought by either of the parties hereto against the other, such suit shall be maintained in Palm Beach County, Florida.

### 10.4 TERMINATION OF AGREEMENT

This agreement may be terminated by either party upon ten (10) Owner work days written notice that the other party failed substantially to perform in accordance with the terms and conditions of their agreement through no fault of the party initiating termination.

The party alleged to have substantially failed to meet the terms of this Agreement, shall have to rectify ten (10) work days Owner performance.

This Agreement may be terminated by the Owner upon thirty (30) calendar days written notice. All warranties and other conditions of this Agreement shall survive termination of Agreement.

### 10.5 PROHIBITION AGAINST CONTINGENT FEE

The Manufacturer warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for the Manufacturer, to solicit or secure this Agreement, and that he has not paid nor agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the

Manufacturer, any fee, commission, percentage, gift or any other consideration contingent upon or resulting from the award or making of this agreement (S287.055, Fla. Stat.). For a breach or violation of this provision, the Owner shall have the right to terminate the agreement without liability and, at its discretion, deduct from the contract price or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

### 10.6 ASSIGNMENT OF AGREEMENT

The Manufacturer shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties, or obligations without the prior written consent of the Owner, and of the surety on Contract bond, if any. Should the Manufacturer be allowed to assign any agreement awarded, any such assignment shall not operate to increase the cost nor to reduce the obligations owed to the Owner. The Owner will not enter into a separate agreement with the assignee.

### 10.7 FINANCIAL STATEMENT

This Agreement shall not become effective until the Manufacturer provides to the Owner and a separate copy to the Engineer the most current end of year financial statement certified by a Certified Public Accountant demonstrating that the Manufacturer has a net worth in excess of $\$ 1,000,000.00$.

The most recent, end of year, Financial Statement shall be submitted to the Owner as a part of the Annual Contract Renewal.

### 10.8 BANKRUPTCY BY MANUFACTURER

If the Manufacturer shall be adjudged bankrupt, or make a general assignment for the benefit of his creditors, or a receiver should be appointed on account of its insolvency, or a petition of bankruptcy should be filed against the Manufacturer and by thereof progress of the Work should be materially interrupted or delayed, then in that event the Owner may, without prejudice to any right or remedy, and after giving the Manufacturer five (5) calendar days notice in writing, terminate the Agreement with the Manufacturer and finish the work by whatever method the Owner may deem expedient. In such case the Manufacturer shall not be entitled to receive any payment until the work is wholly finished. If the cost of purchased equipment from the Manufacturer and subsequent debt due the Manufacturer shall exceed the expense of finishing the Work, such excess shall be paid to the Manufacturer. If the expense shall exceed monies due the Manufacturer, the Manufacturer shall pay the difference to the Owner.

FEDERALLY FUNDED PROJECTS
The Manufacturer shall comply with all provisions as stated in Part 12 for any projects which in part or in whole receive Federal funds for completion.

## Part 12

## DETAILED LISTING OF TECHNICAL SERVICES

### 11.1 INTRODUCTION

The successful completion of any EMS Project requires that a number of tasks be completed. The following outlines, the responsibility of the Techrical Services Representative.

Note: The term Technical Services Representative in this document refers to the Manufacturer's representative whom is responsible for providing Technical Services in support of installing and placing an EMS system in service.

### 11.2 PREPARATORY PHASE RESPONSIBILITIES

o The Technical Services Representative shall Review Proposals, Specifications, Prints, Estimate, Contract, etc..

- Collect all available data for the job:
- Area map
- site plan
- Construction documents, as necessary:
(for layout and wire run estimating,
for overall control strategy determination, and for detailed control design)
- Specifications
- Fire escape route maps--multiple copies (for field notes)
- Sequence of operation, as required
- Obtain a list of Owner requirements
- Safeties, interlocks, etc. which must be maintained
- Any special override capability
- General fail status for all equipment General setpoints, schedules, operating ranges


### 11.3 FIELD WORK PHASE RESPONSIBILITIES

The Technical Services Representative shall

- Meet with local representative (building manager, custodian, maintenance personnel, etc.) for general tour of site, establish access to locked areas, be introduced to occupants as required, etc.
- Locate all existing equipment, controls, etc.
- Identify existing zone boundaries. Determine if they can be used as is or if new zoning must be established.
o Select Function Blocks to provide the desired control for the zones. Coordinate with the Owner and/or Engineer, as needed.
- Locate, field check, and tag all field breaks.
- Identify (and mark on floor plans) mounting locations for all sensors, modules, control devices, etc.
- Mark preferred wire runs for all communication, signal, and power wiring on floor plans. Special considerations i. e., floor penetrations, fire wall penetrations, areas where special dust control measures will be required, etc. should be noted.


### 11.4 ENGINEERING RESPONSIBILITIES

The Technical Services Representative shall

- Combine function blocks based on how they fit into the modules and the physical location in relation to the zones. (Consider the economics of long wiring runs vs. localized mounting of modules, power supplies, etc.)
o Review selected control strategy with all parties who must approve BEFORE preparing the detailed engineering package.
- Prepare and submit to the Manufacturer detailed engineering package including
- Area map
- Site plan
- Zone maps
- Programming sheets
- Module cover sheets
- Material Order
- Prepare a complete bill of materials for the job.
- Prepare the installers package including
- Wire maps with wire runs (if used)
- Wire colors and marker numbers
- Sensor locations
- Module locations
- Field break index and maps (if used)
- Standard termination details (if used)
- Prepare start-up/check-out package
- Copy of complete installers package
- Notes on parameters
- Notes on schedules
- Notes on setpoints
- Owner's special requirements


### 11.5 RESPONSIBILITIES IN THE EVENT OF DESIGN CHANGES

The Technical Services Technician shall

- Get approvals as required, for design changes and interact with the Manufacturer to accomplish these changes.
- Contact the Manufacturer system support engineer as soon as a change is noted, to facilitate making the adjustment as early as possible in the process to minimize additional costs.


### 11.6 RESPONSIBILITIES UPON RECEIVING THE EQUIPMENT

The Technical Services Representative shall

- Check the order to make sure all items ordered were received.
- Separate the shipment into field equipment and central site equipment.
- Check central site equipment before taking to project site
- Load and check all variables
- Confirm that the graphics provided match what was defined in the engineering package


### 11.7 RESPONSIBILITIES REGARDING CENTRAL SITE EOUIPMENT

The Technical Services Representative shall

- Install equipment at the job site
- Check for proper operation
- Do a complete high and low format on the hard-disk
o Reinstall all system and User files
- Provide a mini-demo of the system to the Owner Representative


### 11.8 RESPONSIBILITIES REGARDING FIELD EOUIPMENT

The Technical Services Representative shall

- Supervise the mounting of modules in locations provided by the installer.
- Supervise all final field and power terminations
- Power up the modules and verify correct power operation Complete a point-topoint operational check
- Verify all LAN and phone communications
- Verify operation of all function blocks


### 11.9 RECORD DRAWING RESPONSIBILITIES

The responsibility of the Technical Services Representative is to see that the Owner gets three (3) complete sets of record drawings. This requires coordination with sales,
installation and check-out people. Any and all changes in the project design package shall be reflected in the Owner's record drawings before sign off and acceptance by the Owner.

### 11.10 SIGN OFF AND ACCEPTANCE RESPONSIBILITIES

Once the job is installed and checked by the Technical Services Representative, it will be necessary to prove to the Owner that project specifications have been met. The Technical Services Representative shall demonstrate proper operation of each module and function block to the Owner using the portable computer. The Owner will sign off on the acceptance form only after the complete system has been proven to the satisfaction of the Owner.

## Part 13

## SUPPLEMENTAL PROVISIONS FOR FEDERALLY FUNDED PROJECTS DAVIS-BACON WAGE DETERMINATION

### 12.1 GENERAL

A. This project is being implemented with a portion of the construction dollars being granted by the Federal Government. Therefore, the labor standards and clauses" as called out in Title 29 of the CFR, section 5.5 (a), are included herein by reference and will be applicable to the contract between the Owner and the Contractor.
B. This project has met the criteria for compliance with the Davis Bacon Wage requirements per the following:

1. The total cost of the grant project is for more than $\$ 5,000$, excluding costs for the energy audit, the technical assistance program and the engineering and design work and;
2. The individual construction contract is for greater than $\$ 2,000$.

All contracts over $\$ 2,000$ on projects over $\$ 5,000$ must comply with the Davis-Bacon Act, while those let on projects less than $\$ 5,000$ need not comply regardless of the contract amount.

### 12.2 MINIMUM WAGE

A. All mechanics and laborers employed or working shall be paid not less than the full amounts due at the time of payment computed at wage rates as per the wage determination decision of the Secretary of Labor. The most current wage determination for this county shall be used for the purposes of this Agreement.
B. The wage determination decision is to be posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers.
A. Payrolls and basic records relating to this project will be maintained during the course of the work and preserved for a period of three years thereafter. These records would be for all laborers and mechanics working at the site of the work and will contain the name and address of each such employee, their correct classification, rate of pay, daily and weekly number of hours worked, deductions, and actual wages paid. A sample Federal Form (WH-347 Payroll Form for Weekly "Statement of Compliance") for use in reporting this information is contained within these specifications as a part hereof. The information is a requirement under this contract and the Copeland regulations of the Secretary of Labor ( 29 CFR, Part 3 is incorporated herein by reference).
B. The Contractor will submit the completed information to the Owner or Engineer for inclusion in the required files. This report shall include the signature of the Contractor indicating compliance with the wage rate contained in this specification and that payroll records are correct and complete to the best of their knowledge.

### 12.4 SUBCONTRACTOR

A. The Contractor will be responsible for the submission of these same requirements by all subcontractors, to the Owner or Engineer, for inclusion in the required files.
B. The Contractor will insert in any subcontracts the clauses contained in 29 CFR 5.5 (a) (1) through (5) and (7), and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may. in turn be made.

### 12.5 COPELAND REGULATIONS "ANTI-KICKBACK ACT" (29 CFR, PART 3)

A. The contractor shall comply with the Copeland Regulations of the Secretary of Labor herein incorporated by reference.
B. Each Contractor, Subcontractor, or supplier shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of this facility, to give UI any part of the compensation to which he is otherwise entitled.

### 12.6 CONTRACT TERMINATION DEBARMENT

A. A breach of the clauses as outlined in 29 CFR 5.5 (a) may be grounds for termination of the contract, and for debarment as provided in 29 CFR 5.6.
B. Contractors who are currently on the Federal or state list of debarred contractors are not eligible to bid on this contract.

### 12.7 EOUAL EMPLOYMENT OPPORTUNITY

A. The Contractor and all subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, or age. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, color, sex, national origin, or age. Such action shall include, but not be limited to the following: employment, upgrading, demolition, or transfer, recruitment or recruitment advertisement, lay-off or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination.

The Contractor and all subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf; state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, national origin, or age.

This employment policy must comply with Executive Order 11246, entitled "Equal Employment Opportunity" AS AMENDED BY EXECUTIVE Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60).

### 12.8 THE CLEAN AIR ACT AND THE FEDERAL WATER POLLUTION CONTROL ACT

A. For projects of $\$ 100,000$ or more, the Contractor and all subcontractors shall agree to comply with applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970 ( 42 USC 1856 et seq.) and the Federal Water Pollution Control Act (33 USC 1251 et seq.) as amended. Violations shall be reported to the Governor's Energy Office and the Regional Office of the Environmental Protection Agency.

### 12.9 CERTIFICATE OF NONSEGREGATED FACILITIES

By entering into an agreement related to the services described in this Agreement, the MANUFACTURER certifies that it does no~ maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform services at any location under its control where segregated facilities are maintained. The MANUFACTURER further certifies that it will not maintain or provide for its employees any segregated facilities at any of its establishments and that it will not permit its employees to perform services at any location under its control where segregated facilities are maintained. The MANUFACTURER agrees that a breach of this certification is a violation of Paragraph 9, "Equal Opportunity Employer." As used herein, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and washrooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees on the basis of race, color, religion, age or national origin because of habit, local custom, or otherwise.

### 12.10 ACCESS TO RECORDS

With reference to projects utilizing NECPA mories only:
The MANUFACTURER is to retain project records for three (3) year after receipt of Final Payment and for three (3) years after any pending matters have been closed.

The MANUFACTURER agrees to allow duly authorized representatives of the OWNER, Governor's Energy Office, the Auditor General of the State of Florida, U. S. Department of Energy, or the Comptroller General of the United States access to any books, documents, papers and records of the MANUFACTURER which are directly pertinent to this Agreement for the purpose of making audits, excerpts, and examinations.

## Palm Beach County <br> U.S. Department of Labor

|  | $\begin{array}{ll} \hline \text { Basic } & \text { Hourly } \\ \text { Rates } \end{array}$ | Fringe Benefits |
| :---: | :---: | :---: |
| BRICKLAYERS AND BLOCKMASONS | 13.55 |  |
| CARPENTERS | 10.45 |  |
| CEMENT MASONS | 10.00 |  |
| DRYWALLS HANGERS | 10.56 |  |
| DRYWALL FINISHERS | 11.96 |  |
| ELECTRICIANS | 11.58 | 1.76 |
| ELEVATOR COINSTRUCTORS |  |  |
| MECHANICS | 15.99 | $3.58+$ A\&B |
| HELPERS | 11.19 | $3.58+A \& B$ |
| PROBATIONARY HELPERS | 7.95 |  |
| GLAZIERS | 9.61 |  |
| HEATING, VENTILATING AND |  |  |
| AIR CONDITIONING MECHANICS | 9.79 |  |
| IRONWORKERS | 14.60 |  |
| LABORERS | 6.65 |  |
| MASON TENDERS | 7.17 |  |
| PIPELAYERS | 8.74 |  |
| PLASTERER TENDERS | 8.67 |  |
| LATHERS | 11.00 |  |
| PAINTERS: |  |  |
| BRUSH | 10.53 | 1.55 |
| SPRAY | 11.03 | 1.55 |
| PLASTERERS | 13.51 |  |
| PLUMBERS AND PIPEFITTERS (EXCLUDING HEATING, VETINLATING, AND AIR CONDITIONING) | 11.20 | 2.15 |
| ROOFERS | 9.42 |  |
| SHEET METAL WORKERS (EXCLUDING HEATING, VENTILATING, AND AIR CONDITIONG) | 11.31 |  |
| SPRINKLER FITTERS | 10.95 | . 84 |
| SOFT FLOOR LAYERS | 15.00 |  |
| TILE SETTERS | 14.10 | 1.74 |
| WATERPROOFERS | 16.25 | 2.01 |
| TRUCK DRIVERS | 6.73 |  |
| WELDERS - RATE FOR CRAFT TO WHICH THE WELDING IS INCIDENTAL. POWER EQUIPMENT OPERATORS: |  |  |
| BACKHOE | 8.87 |  |
| BULLDOZER | 8.11 |  |
| CRANER | 11.64 |  |
| GRADER | 8.78 |  |
| LOADER | 8.25 |  |
| ROLLER / COMPACTOR | 6.50 |  |
| TRACTOR | 7.48 |  |
|  |  |  |

Unlisted classifications needed for work not included within the scope of the classifications listed may not be added after award only as provided in the labor standards contract clauses (29 CFR 5.5 (a) (1)

## DETAILED LISTING OF REQUIRED INVENTORY OF THE LOCAL DEALER

Gateway Communication Module (2)
MX8102NX Module (2)
MX040 Module (2)
MX400 Module (2)
ZN341v+ Module (2)
Zone Sensor (10)
Duct Sensor (6)
Outside Air Sensor (2)
Immersion Sensor (6)
Lightning Protector (6)

## Part 14

## TERMS AND CONDITIONS OF

FIVE (5) YEAR CONTRACT

MANUFACTURER:
ANNUAL EQUIPMENT MULTIPLIER:
TECHNICAL SERVICES MULTIPLIER:
CONSTRUCTION MULTIPLIER:
Project with list price
Under \$100K and <\$200K
Project with list price
Between $\$ 200 \mathrm{~K}$ and
$<\$ 300 \mathrm{~K}$. $8 \%$
Project with list price
<\$300K and higher

MANUFACTURER'S CURRENT PUBLISHED PRICE LIST (ATTACHED).
MANUFACTURER'S AUTHORIZED LOCAL DEALER FOR PALM BEACH COUNTY:
NAME: Wisch \& Jackson Company of Florida Inc.
ADDRESS: 725 N A1A UNIT D-105
JUPITER, FL 33477-9513
CONTACT: Robert Vlastos, President

## MANUFACTURER'S AUTHORIZED INSTALLING CONTRACTORS:

1. NAME: Arrow Electric Company

ADDRESS: 501 Palm Street, West Palm Beach, FL 33401
PHONE: (407) 659-3600
CONTACT: James Eason/Kevin Eason
STATE OF FLORIDA LICENSE NUMBER: ER-0009879
2. NAME: R.A.O. Electric Company

ADDRESS: 6670B White Drive, West Palm Beach, FL 33407
PHONE: (561) 848-4100
CONTACT: Richard Mirabilio/Joe Rao
STATE OF FLORIDA LICENSE NUMBER: EC-0000135
3. NAME: Godfrey Electric Company

ADDRESS: 1222 Omar Road, West Palm Beach, FL 33405
PHONE: (561) 833-3753
CONTACT: Albert G. Godfrey, Jr.
STATE OF FLORIDA LICENSE NUMBER: EC-0000619
4. NAME: Stratton Electric, Inc.

ADDRESS: 7546 Enterprise Drive, West Palm Beach, FL 33404
PHONE: (561) 848-1010
CONTACT: Ellis Baird
STATE OF FLORIDA LICENSE NUMBER: EC-13002778
5. NAME:

ADDRESS:
PHONE:
CONTACT:
STATE OF FLORIDA LICENSE NUMBER:

SUBMIT ADDITIONAL PAGES FOR ADDITIONAL CONTRACTORS, IF NECESSARY.

## Attachment B

## Glossary of Terms

Energy Manaqement System (EMS): A hardware and software system intended to reduce building energy consumption and/or demand by controlling major energy using equipment within the building.

Equipment Multiplier: The annually agreed upon factor applied to the equipment price as listed in the Manufacturer's Published Price List.

Installing Contractor or Authorized Installing Contractor: Contractors qualified by the Manufacturer and approved by the Owner to install the Manufacturer's equipment.

Local Dealer: The Manufacturer's local authorized factory representative.
Manufacturer's Project Equipment List: The equipment list prepared by the local dealer from Bid Documents including an EMS. This list is reviewed by the Owner and A/E of record for content. Installing Contractor's use the Project Equipment List to prepare a bid for installation of the project.

Manufacturer's Published Price List: The published retail price list supplied by the Manufacturer, renewed annually as a part of the Agreement.

Technical Services Multiplier: The annually agreed upon factor applied in conjunction with the Equipment Multiplier to the Manufacturer's Published Price List when purchasing Technical Services in addition to the equipment.

Technical Services Representative: The Manufacturer's representative responsible for providing Technical Services.

AUTOMATEDLOGIC
CORABRATVN
Price List
Effective July 1, 2005

## Table of Contents

Pricing ..... 3
WebCTRLo Software ..... 4
Graphic Programming Software (EIKONo) ..... 5
Communication Router Products ..... 6
I/O Hardware ..... 6-8
Third Party Interfaces ..... 9
Accessories and Cables ..... 9-10
Training Programs ..... 11
Previous Generation Hardware ..... 12
Temperature Sensors ..... 13
Humidity Sensors ..... 15
Peripheral Equipment ..... 15
Sensors ..... 15-18
Indication Switches ..... 18
Relays ..... 18
Enclosures ..... 19
Power Supplies ..... 19-20
Electronic Actuators \& Valves ..... 20-27
Variable Frequency Drives ..... 27-28
Electric Thermostats ..... 28
Panel Accessories ..... 28

## ALC System Pricing

The following pricing will be used for all orders placed after July 1, 2005.
Included in the price of each ALC Control Module are the services for applications engineering, programming, and graphics. To make sure you are receiving the most of these valuable services, please review the following.

It is the policy of Automated Logic Corporation to maintain a competitively designed product. Therefore, specifications of products included in this document may change without notice.

## Graphics Engineering

Graphics Development:
Fully detailed graphics are part of every system shipped by ALC. Standard graphic features include the following:

1. One aerial map or owner's logo.
2. One summary thermographic floor plan per LAN.
3. One thermographic floor plan for each building(s) floor(s).
4. One equipment schematic diagram per piece of HVAC equipment (or zone) being controlled.

Proper graphic detail can be ensured by making sure all orders include the following:

1. Detailed aerial map or color version of owner's logo.
2. Detailed floor plans with HVAC zones clearly marked.
3. Detailed specifications of HVAC equipment being controlled.
4. If all the database configuration was created by the dealer, a floppy disk containing all user files (including any custom Function Blocks that have been created) should accompany the order.

## Software Products

## WebCTRL Features:

Consult with your local ALC authorized Systems and Service Provider for server and client specifications.
There are two editions of WebCTRL Software: WebCTRL and WebCTRL-500
The table below highlights the features and options supported by each edition.

*Points include ALC I/O points; integrated $3^{\text {d }}$ party points; Display Object points

## WebCTRL Pricing:

List Price
WebCTRL (Part \# WC) ..... \$9,050
WebCTRL-500 (Part \# WC500) ..... \$ 1,930
Optional WebCTRL "Packages":
ADVREP Advanced Reporting ..... \$1,383
ADVSEC Advanced Security ..... \$2,075
ADVALM Advanced Alarming ..... \$1,375
ENTINT Enterprise Integration ..... \$3,450

## Graphic Programming Tools

Both WebCTRL and WebCTRL-500 include the graphic programming tools required to engineer a job (EIKON, Sitebuilder, and Viewbuilder). The WebCTRL graphic programming tools require MS Windows 2000 or XP.

Viewbuilder is used to assemble web pages. The graphic symbols to be assembled by Viewbuilder can be created in any graphic software program which generates .gif files. A variety of Graphic Software products which create .giff files can be purchased locally through computer stores. Automated Logic Corporation is not a reseller of "over the counter" software products.

## Hardware Products

Communication Router Products 24 month warranty
Product Description List Price
AAR Designed to expand or segment high speed ARCNET 156Kbps networks. ..... $\$ 415$
LGR25 High Performance BACnet Router with Gateway Provides various BACnet network routing capability; serves as BACnet Gateway for up to 25 third party points ..... \$2,275
LGR1000 High Performance BACnet Router with Gateway Provides various BACnet network routing capability; serves as BACnet Gateway for up to 1000 third party points ..... $\$ 5,615$
ME-LGR25 See page 7
ME-LGR200 ..... See page 7
Local Operator Interface ..... 24 month warranty
BACVIEW1 Local Operator Interface \& Display ( $2 \times 16$ LCD) ..... \$689
BACVIEW2 Local Operator Interface \& Display (4x40 LCD) ..... \$1,378
BACVIEW6 Local Operator Interface \& Display (4x40 LCD) ..... \$1,378
BVSX Bacview Extender (note: two units required for extension) ..... \$179
Single Equipment Control Modules 24 month warranty
SE6104 Control Module (6. DOs, 10 Uls, 4 AOs) ..... \$1,450
Multi-Purpose Module: Processor/Router/Gateway 24 month waranty
Product Description ..... List Price
ME-LGR25 Multi-Purpose Device with 25 point gateway ..... \$2,895
ME-LGR200 Multi-Purpose Device with 200 point gateway ..... \$6,235Supports up to six (6) point expanders; provides BACnet network routing; serves as BACnet gateway for25 or 200 third party points respectively.
Multi-Equipment Control Modules24 month warranty
Product Description ..... List Price
M0100 Control Module (10 Uls) ..... \$1,791
M01010PNX Control Module (10 Uls, 10 pneumatic outputs) non-expandable ..... \$4,685
M220NX Control Module (2 DOs, 2 Uls) non-expandable ..... \$868
M4106NX Control Module (4 DOs, 10 Uls, 6 AOs) non-expandable ..... \$2,756
M4106P Control Module (4 DOs, 10 Uls, 6 pneumatic outputs) ..... \$4,892
M4106 Control Module (4 DOs, $10 \mathrm{Uls}, 6$ AOs) ..... \$4,960
M880NX Control Module ( $8 \mathrm{DOs}, 8 \mathrm{Uls}$ ) Non-expandable ..... \$2,240
M8102NX Control Module (8 DOs, 10 Uls, 2 AOs) non-expandable ..... \$2,687
M8102 Control Module (8 DOs, 10 Uls, 2 AOs) ..... \$4,823
M16160 Control Module (16 DOs, 16 UIs) ..... \$3,720
M0320 Control Module ( 32 Uls ) ..... \$3,100
MECPU CPU Module (32-bit processor, 8MB memory supports 6 point expanders) ..... \$1,526
MX0160 Point Expander (16 Uls) ..... \$1,543
MX0320 Point Expander (32 Uls) ..... \$2,645
MX040 Point Expander (4 Uls) ..... \$427
MX080 Point Expander (8 Uls) ..... \$854
MX1600 Point Expander (16 DOs) ..... \$1,875
MX16160 Point Expander (16 DOs, 16 Uls) ..... \$3,307
MX400 Point Expander (4 DOs) ..... \$510
MX4106 Point Expander (4 DOs, 10 Uls, 6 AOs) ..... \$4,410
MX4106P Point Expander (4 DOs, 10 Uls, 6 pneumatic outputs) ..... \$4,410
MX440 Point Expander (4 DOs, 4 Uls) ..... \$930
MX800 - Point Expander (8 DOs) ..... \$1,025
MX8102 Point Expander (8 DOs, 10 Uls, 2 AOs) ..... \$4,065
MX880 Point Expander (8 DOs, 8 Uls) ..... \$1,853

| Product | Description List Price |
| :---: | :---: |
| ZN551 | Controller for heat pumps, fan coil units and other packaged HVAC applications <br> (5 DOs, 5 Uls, 1 AO) $\qquad$ |
| ZN253 | Controller for heat pumps, fan coil units and other packaged HVAC applications (2 DOs, 5 Uils, 3 AO's)........................................................................................ $\$ 530$ |
| ZN220 | Controller for terminal units and miscellaneous control points (i.e. lighting, exhaust fans and water heaters 2 DOs, 2 Uls). $\qquad$ |
| ZN341V+ | Controller for pressure independent VAV applications. Includes integral actuator and precision air flow sensor (3 DOs, 4 Uls, 1 AO's). $\qquad$ \$585 |
| ZN141V+ | Controller for pressure independent VAV applications. Includes integral actuator and precision air flow sensor (1 DOs, 4 Uls, 1 AO's). \$551 |

## Unitary Control Modules

| Product | Description List Price |
| :---: | :---: |
| UNI/32 | U-Line network interface (drives up to 32 controllers; supports legacy CMnet but does not support T-Cards) |
| UN//16 | U-Line network interface (drives up to 16 controllers; supports legacy <br> CMnet but does not support T-Cards) |
| U341v+ | Controller for pressure independent VAV applications. Includes integral actuator and precision air flow sensor. <br> (3 DOs, 4 Uls, 1 AO) $\qquad$ \$535 |
| U141v+ | Controller for pressure independent VAV applications. Includes integral actuator and precision air flow sensor. <br> ( 1 DO, 4 Uis, 1 AO) $\qquad$ |
| U341v | Controller for pressure independent VAV applications. Includes integral precision air flow sensor only. Requires external actuator. <br> (3 DOs, 4 Uls, 1 AO) $\qquad$ |
| U253 | Controller for unit ventilators and other packaged HVAC applications. <br> (2 DOs, 5 Uls, 3 AOs). $\qquad$ |
|  | U253 is compatible with USF/UDF optional air flow sensor for pressure independent VAV application. |
| U220 | Controller for exhaust fans, unit heaters and domestic water heaters (2DOs, 2Uls)...................................................................................................... $\$ 225$ |
| U551 | Controller for heat pumps, fan coil units and other packaged HVAC applications. (5DOs, 5 Uls, 1 AO) $\qquad$ |
|  | U551 is compatible with USF/UDF optional air flow sensor for pressure independent VAV applications. |
| UASF | Designed for use with the U341v+ dual duct applications. <br> Includes precision air flow sensor and integral actuator $\qquad$ \$262 |
| USF | U-line single air flow board, plugs directly into U253 or U551 controller.............. \$165 |
| UDF | U-line dual air flow board, plugs directly into U253 or U551 controller ................ $\$ 395$ |

Product Description List Price
Trane Trane BACnet BCU Interface ..... \$2,200
York York Chiller BACnet XL Communications Gateway Interface ..... \$2,200
York2 York Chiller YorkTalk XL Communications Gateway Interface ..... \$5,600
Carrier Carrier Chiller BACnet Interface ..... \$2,200
Carrier2 Carrier Chiller Dataport 1 Interface ..... \$5,600
McQuay McQuay Chiller BACdrop Interface ..... \$2,200
McQuay2 McQuay Chiller OPM Interface. ..... \$5,600
Ancillary ARCNET156 and EIA-485 Boards ..... 24 month warranty
Product Description List Price
DIAG485 Diagnostics Board for ARCNET 156Kbps over EIA-485, or regular EIA-485 (Includess two (2) terminator resistors) ..... \$130
REP485 Repeater Board for ARCNET 156Kbps over EIA-485, or regular EIA-485 ..... \$180
PROT485 Protection Board for ARCNET 156Kbps over EIA-485, for U-net, or for regular EIA-485 (PROT485 replaces NWPB for legacy CMnet protection) ..... $\$ 75$
TNPB T-net Protection Board ..... \$115
FIBER485 Fiber Optic Converter, cónverts ARCNET 156Kbps (EIA-485) to fiber ..... \$570
FIBER485T Fiber Optic Converter with " $T$ " off (daisy chain) for the EIA-485 ..... $\$ 690$
TERM485 Termination Resistor for ARCNET 156Kbps over EIA-485, or regular EIA-485 (25 pk) ..... \$55
APT \& Cable AssembliesAPTAPT mini-DIN connector module for EXEC 6.x and $5 . \mathrm{x}$ modules*(Includes 235019, 235020 235044, and 235027 cables listed below, 270006Transformer and S2-DB9 adapter)\$144
235019 Cable for APT, from APT to Exec $6 . x / 5 . x$ modules*, ( 8 pin mini-DIN to 8 pin mini-DIN) ..... \$10
235020 Cable for APT, from APT to computer EIA-232 port, (9 pin sub-D to 9 pin sub-D) ..... \$10
235021 Cable for APT, from 235019 to Exec 4.x modules*, (8 pin mini-DIN to 5 pin in-line) ..... \$10
235022 Cable for APT, from 235019 to LogiStat port, ( 8 pin mini-DIN to 4 pin in-line) .....  $\$ 10$
235027 PS2 power port cable ..... $\$ 9$
Cable for APT, from 235019 to 5 pin 'Rnet' connector on certain Exec. B modules with 'Rnet' ports ..... $\$ 25$
270006 Power Transformer for APT ( 5 VDC 300 mA ) ..... $\$ 20$
S2-DB9 Adapter for 'R-net' to 9 pin serial connection ..... \$48
GXEXP $24^{\prime \prime}$ Cable to extend MX Module (9 Pin Female to 9 Pin Female) ..... $\$ 49.50$
Null Modem, Modem \& BACview® Cable Assemblies 90 day waranty
235018 BACview extension ribbon cable, 3 feet ..... \$16
DC99 Null modem cable, ( 9 pin sub-D female to 9 pin sub-D female), connects computerEIA-232 to LGRM-E, LGE, LGL, LGC communication routers$\$ 49.50$
DC95 Null modem cable, ( 25 pin sub-D female to 9 pin sub-D female),connects EIA-232 to LGRM-E, LGE, LGL, LGC communication routers$\$ 49.50$

## Training Programs

Automated Logic offers three types of end user training:

- CD-based training (available through your local Systems and Service Provider)
- WCFT-1 Field Training 1
- WCFT-2 Field Training 2
- WCBT Operator Training
- In-house training (the student travels to Atlanta) and,
- On-site training (the instructor travels to the student's location).

Registration for in-house training is done through your local ALC Systems and Service Provider.
For on-site training, contact your local ALC Systems and Service Provider for a quote. (Note: each on-site training course is considered to be a custom course and prices will vary depending on instructor availability, time of year, etc.)

## Previous Generation Hardware

It is Automated Logic's policy to make previous generation hardware available for as long as the product can be built. The availability of this hardware is subject to change based on the availability of components from our suppliers, the product demand, the availability of direct product substitutions, and other like factors. SINCE THESE PRODUCTS ARE VERY LOW VOLUMES, TYPICAL SALES ORDER LEAD-TIME IS 10 TO 12 WEEKS. THESE PRODUCTS ARE FOR REPLACEMENT ONLY AND NOT TO BE USED IN NEW SYSTEMS.

## Communication Router Products

Product Description List Price
UNI/59 U-Line or T-Line network interface (drives up to 59 controllers; supports legacy CMnet) ..... \$4,960.80
LGE Compact Ethernet Router ARCNET 156Kbps BACnet communication, supports up to 98 controllers ..... \$2,070
LGRM-E High Performance Rack Mount Ethernet Router ARCNET 156Kbps BACnet communication, supports up to 98 controllers, standard $19^{\prime \prime}$ rack mount enclosure ..... \$4,135
Single Equipment Control Modules
S6104 Rooftop/AHU controller (6.DOs, 10 Uls, 4 AOs) ..... \$1,584.70

## Temperature Sensors

## All temperature sensors are manufactured for Automated Logic Corporation by Building Automation Products, Inc. (BAPI).

I. 10,000 OHM Thermistor @ 77F, +/-.36F Interchangeability 24 month warrantyProduct Description List PriceATR01 ALC 10k Space Temperature Sensor - Delta style cover\$13
ATR02 ALC LogiStat Base Model Room Sensor w/LogiPort - Delta style cover ..... \$20
ATR03 ALC LogiStat Room Sensor w/setpoint adjust, override pushbutton \& LogiPort ..... \$25
.ATR04 ALC LogiStat Flush Room Sensor - Stainless Steel Plate - w/hidden LogiPort. ..... \$25
ATR05 ALC 10k Space Temperature Sensor - Stainless Steel Flush Mount ..... \$13
ATR06 ALC Combo 10k Space Temp Sensor for use on "Rnet" ..... \$190
ATR07 RS Standard Space Temperature Sensor for use on "Rnet" ..... \$32
ATR08 RS Pro Space Temperature Sensor for use on "Rnet" w/o LCD - w/slide-pot set-point adj and override ..... $\$ 40$
ATR09 RS Pro Space Temperature Sensor for use on "Rnet" w/ LCD display, set-point adj and override ..... $\$ 60$
ATD01 ALC 10k Duct Temperature Sensor $-4^{\prime \prime}, 8^{\prime \prime}, 12^{\prime \prime}$ or $18^{\text {n }}$. ..... $\$ 17.70$
ATD02 ALC 10k Duct Temperature Sensor $\mathbf{2 4 "}^{\prime \prime}$ ..... \$34
ATD03 ALC 10k Duct Temperature Sensor 30" ..... \$34
ATD04 ALC 10k Duct Averaging Temperature Sensor 8' ..... \$81
ATD05 ALC 10k Duct Averaging Temperature Sensor 12' ..... \$86
ATD06 ALC 10k Duct Temperature Sensor 24' ..... $\$ 99$
ATIO1 ALC 10k Immersion Sensor $4^{\prime \prime}$ or $8^{\prime \prime}$ no well w/Weather Proof Box ..... $\$ 29$
ATIO2 ALC 10k Immersion Sensor 4" Including Brass Well ..... $\$ 50$
ATIO3 ALC 10k Immersion Sensor 8" Including Brass Well ..... $\$ 66$
AW01 ALC 4" Brass Thermowell ..... $\$ 25$
AW02 ALC 8" Brass Thermowell ..... $\$ 38.50$
ATO01 ALC 10k Outside Air Temperature Sensor. ..... $\$ 22$
ATRP01 ALC 10k Remote Probe 5' Plenum Lead Wire, SS Cup ..... \$16
II. Two Wire 4 to 20 mA , Temperature Transmitter with 1000 ohm RTD 12 month warranty
List Price
ATR06 ALC 2-Wire 4-20ma Space Sensor ..... \$63
ATD07 ALC 2-Wire 4-20ma Duct Temperature Sensor - $4^{\prime \prime}, 8^{\prime \prime}, 12^{\prime \prime}$ or $18^{\prime \prime}$ ..... $\$ 67$
ATD08 ALC 2-Wire 4-20ma Duct Averaging Sensor 12' $^{\prime}$. ..... \$172
ATI04 ALC 2-Wire 4-20ma Immersion Sensor $4^{\prime \prime}$ or $8^{\prime \prime}$ no well ..... \$75
ATOO2 ALC 2-Wire4-20ma Outside Air Sensor ..... \$85

Add $\$ 5.25$ to your net for Weatherproof Enclosure. Add (WP) to end of part number.
Add $\$ 7.90$ to your net for Ruggedized transmifter package. Add ( $R$ ) to end of part number.
Note: Space sensors on page 13 may also be ordered with Bi-Metal display for $\$ 9.45$ added to your net. The range of the display is 50 to 90 degrees $F$ with plus or minus 1 degree accuracy.

## Humidity Sensors

> All humidity sensors are manufactured for Automated Logic Corporation by Building Automation Products, Inc. (BAPI)
III. Two Wire 4 to 20mA, Humidity Transmitter, Impedance Type 24 month warranty
Product Description List Price
AHR01 ALC 2-Wire 4-20ma Room Humidity Sensor $+1-3 \%$ ..... \$195
AHRO2 ALC 2-Wire 0-5vdc Room Humidity Sensor $+/-3 \%$, 24vac/24vdc ..... \$195
AHD01 ALC 2-Wire 4-20ma Duct Mount Humidity Sensor +/-3\% ..... \$197
AHOO1 ALC 2-Wire 4-20ma Outside Air Humidity Sensor +/-3\% ..... \$230
Peripheral Equipment
Lightning Protection
Product Description List Price
1LTS Ditek Lightning surge protector -2 wire ..... \$45
2LTS Ditek Lightning surge protector -4 wire. ..... $\$ 55.50$
3LTS Ditek Lightning surge protector -6 wire. ..... $\$ 71$
4LTS Ditek Lightning surge protector -8 wire. ..... $\$ 82.25$
Modem

| Product | Description |
| :--- | :--- | :--- |
| 560BPS | US Robotics or equal 56,000 Baud Modem - compatible with LGC, LGE |
|  | $\cdots$ or LGRM-E...........................................................................................$~$ | 170

## Sensors

| Product | Description List Price |
| :---: | :---: |
| STPR | BAPI Pressure Transmitter........................................................................ $\$ 345$ |
| STAT | Static Pickup Tubes - Kele style A-301 ............................................................ $\$ 9$ |
| STPRVRS1 | ALTA Static Pressure Sensor 0-1,0-2.5, 0-5, 0-10'wc duct mount w/pitot tube..... $\$ 330$ |
| STPRVRS2 | ALTA Static Pressure Sensor 0-1,0-2.5, 0-5, 0-10'wc panel mount................... $\$ 319$ |
| TOA | PRE-CON Type II 10K Outside Air Sensor with 25' leads .................................. $\$ 65$ |
| TAVP12 | PRE-CON Type II 10K Averaging Sensor with 12' element.............................. $\$ 123$ |
| TAVP25 | PRE-CON Type II 10K Averaging Sensor with 25' element.............................. \$180 |

## Sensors continued

| Product | Description List Price |
| :---: | :---: |
| TIBR | PRE-CON Type II 10K Immersion Sensor with Brass Well \& weatherproof box ..... \$62 |
| TIN | PRE-CON Type II 10K Immersion Sensor with weatherproof box \& no well .......... $\$ 50$ |
| BRW | PRE-CON style Brass Well only....................................................................... \$19 |
| TISS | PRE-CON Type II Immersion Sensor with SS Well and weatherproof box ............ $\$ 93$ |
| THRW. 1 | PRE-CON Type II 10K Raw Thermistor, Ruggedized......................................... \$35 |
| TRS. 1 | PRE-CON Type II 10K Space Sensor w/Brkt., \& Type 302 Stainless Steel Plate... \$25 |
| TRSN | PRE-CON Type II 10K wall mount space sensor without hardware ...................... \$19 |
| GRDP | Plastic Guard Box by White-Rodgers ............................................................... \$30 |
| GRDL | LEXAN Guard Box by Uni-Gard Inc. ............................................................ \$49.50 |
| HUM3 | Vaisala HMD40U 3\% Duct Humidity Sensor or Equal ........................................ \$292 |
| HSS3 | Vaisala HMW40U 3\% Space Humidity Sensor or Equal.................................... \$282 |
| HCAP | Vaisala Intercap Replacement \#15778 ........................................................... $\$ 139$ |
| HM34F | Vaisala 2\% Humidity \& Temperature (deg. F) Portable Sensor........................... \$337 |
| PRTD | Pressure Transducer in weatherproof box 0-200psi ......................................... \$408 |
| DFPT | Differential Pressure Transducer (Wet/Wet) Various psi ranges ......................... \$916 |
| DFWT | Differential Pressure Transducer (Wet/Wet) Various "wc " ranges ...................... \$916 |
| DFPT-BVA | Differential Pressure Transducer (WetMet) Various psi ranges with Ball |
|  | Valve Assembly ...................................................................................... \$1,055 |
| DFWT-BVA | Differential Pressure Transducer (Wet/Wet) Various "wc" ranges with Ball |
|  | Valve Assembly ......................................................................................... \$1,055 |
| VIS-A | Veris Current Sensor with 4-20 mA output signal, 55 Amp Max. .......................... \$83 |
| VIS-A-SC-60 | Veris Current Sensor with 4-20 mA output signal, w/ split core, 60Amp Max....... \$106 |
| VIS-A-SC-300 | Veris Current Sensor with 4-20 mA output signal, w/ split core, 300 Amp Max..... \$173 |
| VIS-A-SC-800 | Veris Current Sensor with 4-20 mA output signal, w/ split core, 800 Amp Max..... \$270 |
| VIS-A-SC-K | Veris Current Sensor with 4-20 mA output signal, w/ split core, 2400 Amp Max... \$338 |
| VIS-KW-01 | Veris kW Transducer w/4-20ma output signal, 208/240v, 100 max amps, small splitcore ct. $\qquad$ \$780 |
| VIS-KW-02 | Veris kW Transducer w/4-20ma output signal, 208/240v, 300 max amps, small splitcore ct. $\qquad$ $\$ 807$ |
| VIS-KW-03 | Veris kW Transducer w/4-20ma output signal, 208/240v, 400 max amps, medium split-core ct. $\qquad$ \$825 |
| VIS-KW-04 | Veris kW Transducer w/4-20ma output signal, 208/240v, 800 max amps, medium split-core ct. $\qquad$ $\$ 849$ |
| VIS-KW-05 | Veris kW Transducer w/4-20ma output signal, 208/240v, 800 max amps, large split-core ct. $\qquad$ $\$ 872$ |


| Product | Description List Price |
| :---: | :---: |
| VIS-KW-06 | Veris kW Transducer w/4-20ma output signal, 208/240v, 1600 max amps, large split-core ct. $\qquad$ $\$ 896$ |
| VIS-KW-07 | Veris kW Transducer w/4-20ma output signal, 208/240v, 2400 max amps, large split-core ct. $\qquad$ $\$ 919$ |
| VIS-KW-08 | Veris kW Transducer w/4-20ma output signal, 480v, 100 max amps, small split-core ct. $\qquad$ $\$ 765$ |
| VIS-KW-09 | Veris kW Transducer w/4-20ma output signal, 480v, 300 max amps, small split-core ct. $\qquad$ $\$ 811$ |
| VIS-KW-10 | Veris kW Transducer w/4-20ma output signal, 480v, 400 max amps, small split-core ct. $\qquad$ $\$ 830$ |
| VIS-KW-11 | Veris kW Transducer w/4-20ma output signal, $480 \mathrm{v}, 8100$ max amps, small split-core ct. $\qquad$ $\$ 860$ |
| VIS-KW-12 | Veris kW Transducer w/4-20ma output signal, 480v, 100 max amps, small split-core ct. $\qquad$ $\$ 879$ |
| VIS-KW-13 | Veris kW Transducer w/4-20ma output signal, 480v, 1600 max amps, small split-core ct. $\qquad$ $\$ 905$ |
| VIS-KW-14 | Veris kW Transducer w/4-20ma output signal, 480v, 2400 max amps, small split-core ct. $\qquad$ $\$ 926$ |
| VIS-PW-01 | Veris Power Monitor w/modbus output, 208-480v, 100 max amps, small split-core ct. $\qquad$ \$1,025 |
| VIS-PW-01 | Veris Power Monitor w/modbus output, 208-480v, 100 max amps, small split-core ct. $\qquad$ \$1,025 |
| VIS-PW-01 | Veris Power Monitor w/modbus output, 208-480v, 100 max amps, small split-core ct. $\qquad$ \$1,025 |
| VIS-PW-01 | Veris Power Monitor w/modbus output, 208-480v, 100 max amps, small split-core ct. $\qquad$ \$1,025 |
| VIS-PW-02 | Veris Power Monitor w/modbus output, 208-480v, 300 max amps, small split-core ct. $\qquad$ \$1,050 |
| VIS-PW-03 | Veris Power Monitor w/modbus output, 208-480v, 400 max amps, medium split-core ct. $\qquad$ \$1,025 |
| VIS-PW-04 | Veris Power Monitor w/modbus output, 208-480v, 800 max amps, medium split-core ct. $\qquad$ \$1,025 |
| VIS-PW-05 | Veris Power Monitor w/modbus output, 208-480v, 800 max amps, large <br> split-core ct. $\qquad$ \$1,025 |
| VIS-PW-06 | Veris Power Monitor w/modbus output, 208-480v, 1600 max amps, large <br> split-core ct. $\qquad$ \$1,025 |

## Sensors continued

| Product | Description List Price |
| :---: | :---: |
| VIS-PW-07 | Veris Power Monitor w/modbus output, 208-480v, 2400 max amps, large split-core ct. $\qquad$ \$1,025 |
| VOLTMON | Voltage Monitor, 3 Phase up to 480V, 3 separate 4-20ma Outputs, w/dc power supply $\qquad$ $\$ 410$ |
| V.1-CO2-W | Vaisala Carbon-Dioxide Sensor - wall mount .................................................. $\$ 639$ |
| V.1-CO2-D | Vaisala Carbon-Dioxide Sensor - duct mount .................................................. \$685 |
| CO2W | ALTA Carbon-Dioxide Sensor - wall mount w/LCD readout ............................... $\$ 470$ |
| CO2D | ALTA Carbon-Dioxide Sensor - duct mount w/LCD readout............................... \$500 |
| Indication Switches |  |
| Product | Description List Price |
| VIS-1S | Veris Current Switch with split core, 2.5-135 amps............................................ \$76 |
| VIS-2S | Veris Current Switch with split core, for VSDs .................................................. $\$ 105$ |
| VIS-3S | Veris Current Switch with split core, 1.25-50 amps......................................... \$82.50 |
| VIS-4S | Veris Current Switch with split core, .5-200 amps............................................... \$84 |
| DPSW | Differential Pressure Switch (Air) .05-2"wc .................................................... \$40.25 |
| HSSW | High Static Switch (Air) .07-12"wc............................................................... \$40.25 |
| FLSW | Johnson F61KB-11 Liquid Flow Switch....................................................... $\$ 130.50$ |
| WD-1B | Water Detector Switch with LED for Drain Pan ................................................ \$160 |
| PLD01 | Phase Loss Detector, 480v 3-phase ............................................................... \$197 |

## Relays

| Product | Description List Price |
| :---: | :---: |
| 24AR | 24vac DPDT Relay w/ base , 10 Amp contacts, w/LED ....................................... \$13 |
| 120AR | 120vac DPDT Relay w/ base, 10 Amp contacts w/LED ..................................... \$15 |
| VISRLY | Veris Solid State Relay, Adjustable Current Switch 20A Max.............................. $\$ 98$ |
| CONT.S | Heavy Duty Contactor with 24VAC Coil, SPDT, 20 Amp Contacts at 600VAC .. \$28.25 |
| CONT.D | Heavy Duty Contactor KE9000 with 24VAC Coil, DPDT, 20 Amp Contacts at |
|  | 600VAC ........................................................................................................ \$37 |
| VRC-1 | Neptronic Single pole variable DC Relay (One setting) .................................... \$119 |
| VRC-2 | Neptronic Double pole variable DC Relay (Two settings) .................................. \$135 |
| RIB1 | Relay in a Box, 24vac Coil, DPDT 20amp Contacts ......................................... $\$ 35$ |
| RIB2 | Relay in a Box, 24vac Coil, SPDT 10amp Contacts ........................................... \$20 |
| RIB3 | Relay in a Box, 24vac Coil, DPDT 10amp Contacts ......................................... \$38 |
| EP01 | EP Valve, 24vac coil..................................................................................... \$35 |

## Enclosures

| Product | Description List Price |
| :---: | :---: |
| SC16124 | Kele screw cover box 16x12x4" ................................................................... $\$ 44$ |
| HC664 | Kele hinged cover box $6 \times 6 \times 4{ }^{\text {"...................................................................... } \$ 16}$ |
| HC886 | Kele hinged cover box $8 \times 8 \times 6^{\text {² }}$...................................................................... $\$ 28$ |
| HC1084 | Kele hinged cover box 10x8x4" .................................................................... $\$ 28$ |
| HC1284 | Kele hinged cover box $12 \times 8 \times 4^{\text {² }}$.................................................................... $\$ 32$ |
| HC12104 | Kele hinged cover box 12x10x4" .................................................................. $\$ 36$ |
| HC12124 | Kele hinged cover box $12 \times 12 \times 4$ "................................................................. $\$ 41$ |
| SMHOFF | Kele A-16N126 hinged cover enclosure 16x12x6" with perf. panel ................\$125.75 |
| HC18124 | Kele hinged cover box $18 \times 12 \times 4$ " with perf. panel ............................................ $\$ 72$ |
| SMCAB | Hoffman Small hinged cover cabinet w/perf panel and lock 20x16x6" ................ $\$ 128$ |
| MECAB | Hoffman Medium hinged cover cabinet w/perf panel and lock 24×24x6".............. \$215 |
| LGCAB | Hoffman Large hinged cover cabinet w/perf panel and lock 36x24x6" ................ \$266 |
| SMCABS | Siemens Small hinged cover cabinet w/perf panel 20x16x6" ............................ $\$ 128$ |
| MECABS | Hoffman Medium hinged cover cabinet w/perf panel $24 \times 24 \times 9^{\text {" }}$......................... \$215 |
| LGCABS | Hoffman Large hinged cover cabinet w/perf panel 36x24x9"............................ \$266 |
| WPMBX | Peninsular ERTB-664-6x6" Weatherproof Metal box...................................... $\$ 19$ |
| CLRBX | ALPS 15x10x3 Clear Enclosure................................................................... $\$ 42$ |
| WPENC | Kele A-16R126HCLO NEMA 3R Lift-Off hinged cover enclosure 16x12x6.......... \$1.15 |
|  | TE: Boxes and enclosures do not have lock or perf. panels unless noted. <br> Cabinets include both perforated panel and lock. <br> Any special sizes or stainless steel enclosures will have to be quoted. |

## Power Supplies with 24VAC Secondary Side

| Product | Description List Price |
| :---: | :---: |
| XFRL40 | Core Components LE1 12 40VA Double Hub/Foot Mount Transfọmer, <br> 120VAC Primary, (must mount in Box or Cabinet) No Circuit Breaker $\qquad$ \$13 |
| XFRL40S | Core Components LE112 40VA Single Hub/Foot Mount Transformer, <br> 120VAC Primary (must mount in Box or Cabinet) No Circuit Breaker $\qquad$ \$13 |
| XFRL50 | Core Components LE1175 50VA Double Hub/Foot Mount Transformer, <br> 120VAC Primary (must mount in Box or Cabinet) No Circuit Breaker $\qquad$ \$15 |
| XFRL50S | Core Components LE112 40VA Single Hub/Foot Mount Transformer, <br> Manual Reset, 120VAC Primary (must mount in Box or Cabinet) $\qquad$ \$21 |
| XFRL75 | Core Components LE118 75VA Double Hub/Foot Mount Transformer, <br> Manual Reset, 120VAC Primary (must mount in Box or Cabinet) $\qquad$ $\$ 28.50$ |

## Power Supplies with 24VAC Secondary Side continued

Product Description List Price
XFRL75S Core Components LE1501 75VA Single Hub/Foot Mount Transformer, Manual Reset, Multi Primary: 120/208/240/480 VAC (must mount in Box or Cabinet) .. \$27.50
XFRL100 Core Components LE120 100VA Double Hub/Foot Mount Transformer, Manual Reset, 120VAC Primary (must mount in Box or Cabinet) ..... \$30
XFRL150 Core Components LE124 150VA Single Hub Transformer, Manual Reset ..... $\$ 43$
XFRL100S Core Components LE170 100VA Hub/Foot Mount Transformer, Manual Reset, Multi Primary: 120/240/277/480 VAC (must mount in Box or Cabinet) ..... $\$ 29.50$
XFRK170 . Dongan 170VA Hub/Foot Mount Transformer, 120VAC Primary ..... \$63
Electronic Actuators \& Valves

## Belimo:

Product Description $\quad$ List Price
BA05 . Belimo Actuator 24 V, On-Off, Floating, 35 in-ib. ..... $\$ 85.80$
BA06 Belimo Actuator 24 V , Modulating, 35 in- lb ..... $\$ 125.50$
BA06M Belimo Actuator 24 V, MFT, Multi-Function, 35 in-lb ..... $\$ 172.00$
BA07 Belimo Actuator 24 V , On-Off, 35 in-lb, w/Terminals, Floating ..... $\$ 75.70$
BA08 Belimo Actuator 120 V, 60 in-lb On-Off, Spring Return ..... $\$ 183.00$
BA09 . Belimo Actuator 120 V, 60 in-lb, 2 Aux Sw, 5 Deg Fix, On-Off, Spring Return ..... $\$ 223.00$
BA10 Belimo Actuator $24 \mathrm{~V}, 60 \mathrm{in}-\mathrm{lb}$, On-Off, Spring Return ..... $\$ 154.50$
BA11 Belimo Actuator 24 V, 60 in-lb, 2 Aux Sw, 5 deg fix, On-Off, Spring Return ..... $\$ 257.00$
BA12 Belimo Actuator $24 \mathrm{~V}, 60 \mathrm{in}-\mathrm{lb}, 2-10 \mathrm{vdc}, 4-20 \mathrm{ma}$ Modulating, Spring Return ..... \$21.2.00
BA13 Belimo Actuator $24 \mathrm{~V}, 70$ in-lb 3' Cable Rev Sw, On-Off, Floating ..... $\$ 97.50$
BA14 Belimo Actuator 24 V, 70 in-lb, Rev Sw, 2-10,4-20 Modulating ..... $\$ 145.00$
BA15 Belimo Actuator 24 V, 88 in-lb, 2-Pos/Float, Fast Run, Aux Sw ..... $\$ 188.76$
BA16 Belimo Actuator 120 V, 133 in-lb, On-Off, Spring Return ..... $\$ 245.00$
BA17 Belimo Actuator 120 V, 133 in-lb, 2 Aux Sw, Spring Return. ..... $\$ 291.50$
BÄ18 Belimo Actuator 24 V, 133 in-lb, 24 vdc , On-Off, Spring Return ..... $\$ 214.50$
BA19 Belimo Actuator 24 V, 133 in-lb, On-Off, 2 Aux Sw, Spring Return ..... $\$ 300.00$
BA20 Belimo Actuator 24 V, 133 in-lb, 2-10 vdc, 4-20 ma, 2-10V Fbk, Spring Return ..... \$271.50
BA21 Belimo Actuator 24 V, 133 in-lb, On-Off, Fast, 2 Aux Sw, Rev. ..... $\$ 228.50$
BA22 Belimo Actuator $24 \mathrm{~V}, 160 \mathrm{in}-\mathrm{lb}$, On-Off/Tristate ..... $\$ 143.00$
BA23 Belimo Actuator 24 V, 160 in-lb, On-Off/Tristate, 2 Aux Sw ..... $\$ 179.50$
BA24 Belimo Actuator 24 V, 160 in-lb, 2-10 VDC, 4-20 ma, 2-10V Fbk ..... $\$ 206.00$
BA25 Belimo Actuator 24 V, 266 in-lb, On-Off/Tristate, Rev Switch ..... $\$ 200.00$

## Electronic Actuators \& Valves continued

Product Description List Price
BA26 Belimo Actuator $24 \mathrm{~V}, 266 \mathrm{in}-\mathrm{lb}, \mathbf{2 - 1 0} \mathrm{vdc}, 4-20 \mathrm{ma} 10 \mathrm{vdc}$, Phasecut Fbk, Aux Sw ..... $\$ 271.00$
BA27 Belimo Actuator 24 V, 266 in-lb, 4-7 vdc, 2-10 vdc feedback ..... \$308.50
BACC01 Auxiliary Switch 1 SPDT for BA13 \& BA14 ..... \$36.60
BACC02 Auxiliary Switch 2 SPDT for BA13 \& BA14 ..... $\$ 48.60$
BACC03 Angle of Rotation Limiter for BA25 \& BA26 ..... \$6.90
BACC04 Universal Mounting Bracket Vertical ..... $\$ 33.75$
BACC05 Universal Mounting Bracket Horizontal ..... \$33.75
BACC06 Multi Act Bracket, 2 Act to One Shaft. ..... \$33.20
BACC07 Compact Universal Mounting Bracket Vertical for BA21-BA26 ..... $\$ 24.60$
BACC08 Compact Universal Mounting Bracket Horizontal for BA21-BA26 ..... \$24.60
BACC09 Universal Mounting Bracket for BA13 \& BA14 ..... $\$ 12.60$
BACC10 Crankarm Adapter Kit for BA22, BA23 \& BA24 ..... 29.20
BACC11 Damper Clip ..... \$15.60
BACC12 Damper Clip ..... $\$ 15.60$
BACC13 Crankarm Adaptor Kit, Non-Direct Mourting ..... $\$ 33.75$
BACC14 Actuator Operator Handle ..... \$13.75
BACC15 Jack Shaft Adaptor- 1" OD, $3 / 4$ ID Hollow Shafts ..... $\$ 79.00$
BACC16 Jack Shaft Adaptor-1.05" OD, 27/32 ID Hollow Shafts ..... $\$ 79.00$
BACC17 Jack Shaft Adaptor- 1-5/16 OD, 1-3/32 ID Hollow Shaft ..... $\$ 93.80$
BACC18 1/2" Dia. Shaft Extension for BA05, BA06 \& BA07 ..... $\$ 27.50$
BACC1 3/8" Dia. Shaft Extension for BA05, BA06 \& BA07 ..... \$23.50
BACC20 Crank Arm Adaptor Kit, Non-Direct Mounting ..... \$29.20
BACC21 Crankarm Adaptor Kit, Non-Direct Mounting BA15 \& BA21 ..... $\$ 32.00$
BACC22 Motor Weather Shield BA15, BA21, BA25 \& BA26 ..... $\$ 51.50$
BACC23 Motor Weather Shield Base Mounting Plate ..... \$10.30
BACC24 3/8" Push Rod 3 Ft ..... \$12.00
BACC25 5/16" Push Rod, 3 Ft ..... $\$ 8.00$
BACC26 Shaft Extension for BA22, BA23 \& BA24 ..... \$17.75
BACC27 Universal Shaft Extension ..... \$19.50
BACC29 Standard Clamp for BA22, BA23 \& BA24 ..... $\$ 8.00$
BACC30 Jackshaft Clamp for BA22, BA23 \& BA24 ..... $\$ 8.00$
BACC31 Hex Clamp for BA22, BA23 \& BA24 ..... $\$ 8.00$
BACC32 Ball Joint, 3/8" ..... $\$ 6.90$
BACC33 Ball Joint, 5/16" ..... $\$ 4.60$

## Electronic Actuators \& Valves continued

Product Description List Price
BACC34 Ball Joint, 5/16", 90 Deg ..... $\$ 6.90$
BACC35 Universal Crank Arm ..... \$5.20
BACC36 Auxiliary Switch 1XSPDT for BA21, BA22, BA23 \& BA24 ..... $\$ 36.60$
BACC37 Auxiliary Switch 2XSPDT for BA21, BA22, BA23 \& BA24 ..... $\$ 55.00$
BACC38 Auxiliary Switch 1XSPDT for BA25, BA26, \& BA27 ..... \$36.60
BACC39 Auxiliary Switch 2XSPDT for BA25, BA26, \& BA27 ..... $\$ 48.60$
BVG201 Belimo $1 / 2 \mathrm{Z}$ 2-way Globe Valve ( $\mathrm{Cv}=.4$ ), Modulating Motor ..... $\$ 344.00$
BVG202 Belimo $1 / 2$ " 2 -way Globe Valve ( $\mathrm{C}=1.3$ ), Modulating Motor ..... $\$ 344.00$
BVG203 Belimo $1 / 2 / 2$-way Globe Valve ( $\mathrm{Cv}=2.2$ ), Modulating Motor ..... $\$ 344.00$
BVG204 Belimo $1 / 2^{\prime \prime} 2$-way Globe Valve ( $\mathrm{C} v=4.4$ ), Modulating Motor ..... $\$ 344.00$
BVG205 Belimo 3/4" 2-way Globe Valve ( $\mathrm{Cv}=5.5$ ), Modulating Motor ..... $\$ 344.00$
BVG206 Belimo $3 / 4$ n 2-way Globe Valve ( $\mathrm{Cv}=7.5$ ), Modulating Motor ..... $\$ 344.00$
BVG207 Belimo 1" 2-way Globe Valve ( $\mathrm{Cv}=10$ ), Modulating Motor ..... \$372.00
BVG208 Belimo 1" 2 -way Globe Valve (Cv=14), Modulating Motor ..... \$372.00
BVG209 Belimo 11/4" 2-way Globe Valve (Cv=20), Modulating Motor. ..... $\$ 400.00$
BVG210 Belimo 11/2" 2-way Globe Valve ( $\mathrm{Cv}=28$ ), Modulating Motor ..... $\$ 457.00$
BVG211 Belimo 2" 2-way Globe Valve ( $\mathrm{Cv}=40$ ), Modulating Motor. ..... $\$ 515.00$
BVG212 Belimo 2½" 2-way Globe Valve (Cv=65), Modulating Motor ..... \$1,275.00
BVG213 Belimo 3" 2-way Globe Valve ( $\mathrm{Cv}=90$ ), Modulating Motor ..... \$1,333.00
BVG214 Belimo 4" 2-way Globe Valve ( $\mathrm{Cv}=170$ ), Modulating Motor ..... \$1,550.00
BVG215 Belimo 5" 2-way Globe Valve ( $\mathrm{Cv}=263$ ), Modulating Motor ..... \$2,160.00
BVG216 Belimo 6" 2-way Globe Valve (Cv=344), Modulating Motor ..... \$2,385.00
BVG301 Belimo $1 / 2^{n} 3$-way Globe Valve ( $\mathrm{Cv}=2.2$ ), Modulating Motor ..... $\$ 360.00$
BVG302 Belimo $1 / 2^{n} 3$-way Globe Valve ( $\mathrm{Cv}=4.4$ ), Modulating Motor ..... $\$ 360.00$
BVG303 Belimo $3 / /^{n} 3$-way Globe Valve ( $\mathrm{Cv}=7.5$ ), Modulating Motor ..... $\$ 360.00$
BVG304 Belimo 1" 3-way Globe Valve (Cv=14), Modulating Motor ..... $\$ 384.00$
BVG305 Belimo 11/4" 3 -way Globe Valve ( $\mathrm{Cv}=20$ ), Modulating Motor. ..... $\$ 418.00$
BVG306 Belimo 11/2" 3 -way Globe Valve ( $\mathrm{Cv}=28$ ), Modulating Motor. ..... $\$ 544.00$
BVG307 Belimo 2" 3-way Globe Valve ( $\mathrm{Cv}=40$ ), Modulating Motor. ..... $\$ 600.00$
BVG308 Belimo 2½" 3-way Globe Valve (Cv=68), Modulating Motor ..... \$1,705.00
BVG309 Belimo 3" 3-way Globe Valve (Cv=91), Modulating Motor. ..... \$1,560.00
BVG310 Belimo 4" 3-way Globe Valve ( $\mathrm{Cv}=190$ ), Modulating Motor ..... \$2,497.00
BVG311 Belimo 5" 3-way Globe Valve ( $\mathrm{Cv}=280$ ), Modulating Motor ..... \$3,676.00
BVG312 Belimo 6" 3-way Globe Valve (Cv=340), Modulating Motor ..... $\$ 4,230.00$

## Electronic Actuators \& Valves continued

| Product | Description List Price |
| :---: | :---: |
| BVB201 | . Belimo 1/2²-way Characterized Ball Valve (Cv=.8), Modulating Motor................. \$169.00 |
| BVB202 | Belimo 1/2" 2-way Characterized Ball Yalve (Cv=1.2), Modulating Motor............... \$169.00 |
| BVB203 | Belimo 1/2" 2-way Characterized Ball Valve (Cv=1.9), Modulating Motor................ \$169.00 |
| BVB204 | Belimo 1/2" 2-way Characterized Ball Valve (Cv=3.0), Modulating Motor................ \$169.00 |
| BVB205 | Belimo 1/2" 2-way Characterized Ball Valve (Cv=4.7), Modulating Motor................ \$169.00 |
| BVB206 | Belimo 1/2" 2-way Characterized Ball Valve (Cv=7.4), Modulating Motor................ \$169.00 |
| BVB207 | Belimo 3/4" 2-way Characterized Ball Valve (Cv=4.7), Modulating Motor................ \$185.00 |
| BVB208 | Belimo 3/4" 2-way Characterized Ball Valve (Cv=7.4), Modulating Motor................ \$185.00 |
| BVB209 | Belimo 3/4" 2-way Characterized Ball Valve (Cv=10), Modulating Motor................. \$185.00 |
| BVB210 | Belimo 1" 2-way Characterized Ball Valve (Cv=7.4), Modulating Motor................. \$197.00 |
| BVB211 | Belimo 1" 2-way Characterized Ball Valve (Cv=10), Modulating Motor.................. \$197.00 |
| BVB212 | Belimo 1" 2-way Characterized Ball Valve (Cv=19), Modulating Motor.................. \$197.00 |
| BVB213 | Belimo 1" 2-way Characterized Ball Valve ( $\mathrm{Cv}=30$ ), Modulating Motor................. \$195.00 |
| BVB214 | Belimo 11/4. 2-way Characterized Ball Valve (Cv=10), Modulating Motor............... \$212.00 |
| BVB216 | Belimo 11/4 2-way Characterized Ball Valve (Cv=25), Modulating Motor............... \$256.00 |
| BVB217 | Belimo 1112n 2-way Characterized Ball Valve (Cv=19), Modulating Motor............... \$256.00 |
| BVB218 | Belimo 1112n 2-way Characterized Ball Valve (Cv=29), Modulating Motor............... \$256.00 |
| BVB219 | Belimo 2" 2-way Characterized Ball Valve (Cv=29), Modulating Motor.................. \$305.00 |
| BVB220 | Belimo 2" 2-way Characterized Ball Valve (Cv=46), Modulating Motor................. \$305.00 |
| BVB221 | Belimo ½ 2-way Full Flow Ball Valve (Cv=10), Modulating Motor........................ \$168.00 |
| BVB222 | Belimo 3/4" 2-way Full Flow Ball Valve (Cv=24), Modulating Motor........................ \$180.00 |
| BVB223 | Belimo 11/4" 2-way Full Flow Ball Valve (Cv=19), Modulating Motor...................... \$197:00 |
| BVB224 | Belimo 11/4. 2-way Full Flow Ball Valve (Cv=37), Modulating Motor...................... \$252.00 |
| BVB225 | Belimo 1½ 2-way Full Flow Ball Valve (Cv=37), Modulating Motor...................... \$252.00 |
| BVB226 | Belimo 2" 2-way Full Flow Ball Valve (Cv=57), Modulating Motor......................... \$295.00 |
| BVB227 | Belimo Pressure Independent Characterized Valve 1/2", 2-way 2 gpm, Multifunction |
|  | Motor ............................................................................................................ \$293.00 |
| BVB228 | Belimo Pressure Independent Characterized Valve 1/2', 2-way 3 gpm , Multifunction |
|  | Motor ............................................................................................................ \$293.00 |
| BVB229 | Belimo Pressure Independent Characterized Valve 1/2", 2-way 4 gpm, Multifunction |
|  | Motor ......................................................................................................... $\$ 293.00$ |
| BVB230 | Belimo Pressure Independent Characterized Valve 1/2", 2-way 5 gpm, Multifunction |
|  | Motor $\qquad$ $\$ 293.00$ |
| BVB231 | Belimo Pressure Independent Characterized Valve 3/4", 2-way 6 gpm, Multifunction |
|  | Motor .......................................................................................................... \$305.00 |
| BVB232 | Belimo Pressure Independent Characterized Valve 3/4", 2-way 7 gpm , Multifunction |
|  | Motor ........................................................................................................ \$305.00 |

## Electronic Actuators \& Valves continued

Product Description List PriceBVB233 Belimo Pressure Independent Characterized Valve $3 / 4^{\prime \prime}$, 2-way 8 gpm , MultifunctionMotor$\$ 305.00$
BVB234 Belimo Pressure Independent Characterized Valve 3/4", 2-way 9 gpm, Multifunction Motor ..... $\$ 305.00$
BVB235 Belimo Pressure Independent Characterized Valve 3/4", 2-way 10 gpm, Multifunction Motor ..... $\$ 305.00$
BVB236 Belimo Pressure Independent Characterized Valve 1", 2-way 12 gpm, Multifunction Motor ..... \$353
BVB237 Belimo Pressure Independent Characterized Valve 1", 2-way 14 gpm, Multifunction Motor ..... \$353
BVB238 Belimo Pressure Independent Characterized Valve 1", 2-way 16 gpm ; Multifunction Motor ..... \$353
BVB239 Belimo Pressure Independent Characterized Valve 1", 2-way 18 gpm, Multifunction Motor ..... $\$ 353$
BVB240 Belimo Pressure Independent Characterized Valve 1-1/4", 2-way 18 gpm , Multifunction Motor ..... \$396
BVB241 Belimo Pressure Independent Characterized Valve 1-1/4", 2-way 20 gpm , Multifunction Motor ..... $\$ 396$
BVB242 Belimo Pressure Independent Characterized Valve 1-1/4", 2-way 22 gpm, Multifunction Motor ..... \$396
BVB243 Belimo Pressure Independent Characterized Valve 1-1/4", 2-way 24 gpm , Multifunction Motor ..... \$396
BVB244 Belimo Pressure Independent Characterized Valve 1-1/4", 2-way 26 gpm , Multifunction Motor ..... \$396
BVB245 Belimo Pressure Independent Characterized Valve 1-1/2", 2-way 26 gpm, Multifunction Motor ..... $\$ 420$
BVB246 Belimo Pressure Independent Characterized Valve 1-1/2", 2-way 28 gpm , Multifunction Motor ..... $\$ 420$
BVB247. Belimo Pressure Independent Characterized Valve 1-1/2", 2-way 30 gpm , Multifunction Motor ..... $\$ 420$
BVB248 Belimo Pressure Independent Characterized Valve 1-1/2", 2-way 33 gpm , Multifunction Motor ..... $\$ 420$
BVB301 Belimo $1 / 2^{n} 3$-way Characterized Ball Valve ( $\mathrm{Cv}=.8$ ), Modulating Motor ..... \$191
BVB302 Belimo $1 / 2^{n} 3$-way Characterized Ball Valve ( $\mathrm{Cv}=1.2$ ), Modulating Motor ..... \$191
BVB303 Belimo $1 / 2^{n} 3$-way Characterized Ball Valve ( $\mathrm{Cv}=1.9$ ), Modulating Motor ..... \$191
BVB304 Belimo $1 / 2^{n} 3$-way Characterized Ball Valve ( $\mathrm{Cv}=3.0$ ), Modulating Motor ..... \$191
BVB305 Belimo 1/2" 3-way Characterized Ball Valve ( $\mathrm{Cv}=4.7$ ), Modulating Motor ..... \$191

## Electronic Actuators \& Valves continued

Product Description ..... List Price
BVB307 Belimo $3 / /^{n} 3$-way Characterized Ball Valve (Cv=4.7), Modulating Motor ..... \$205
BVB308 Belimo 3/4 ${ }^{\text {n }} 3$-way Characterized Ball Valve ( $\mathrm{Cv}=7.4$ ), Modulating Motor ..... \$205
BVB310 Belimo 1" 3-way Characterized Ball Valve ( $\mathrm{Cv}=7.4$ ), Modulating Motor. ..... \$265
BVB311 Belimo 1" 3-way Characterized Ball Valve ( $\mathrm{Cv}=10$ ), Modulating Motor. ..... \$204
BVB314 Belimo 1114" 3-way Characterized Ball Valve ( $\mathrm{Cv}=10$ ), Modulating Motor ..... \$266
BVB316 Belimo 111/43-way Characterized Ball Valve ( $\mathrm{Cv}=25$ ), Modulating Motor .....  $\$ 337$
BVB317 Belimo 11⁄2 3-way Characterized Ball Valve (Cv=19), Modulating Motor. ..... \$427
BVB318 Belimo 112" 3-way Characterized Ball Valve (Cv=29), Modulating Motor. ..... \$337
BVB319 Belimo 2" 3-way Characterized Ball Valve ( $\mathrm{Cv}=29$ ), Modulating Motor. ..... $\$ 422$
BVB320 Belimo 2" 3-way Characterized Ball Valve ( $\mathrm{Cv}=46$ ), Modulating Motor ..... \$422
BVB321 Belimo $3 /{ }^{3}$ 3-way Full Flow Ball Valve ( $\mathrm{Cv}=24$ ), Modulating Motor. ..... \$197
BFVB201 Belimo 2" 2-way Butterfly Valve, Modulating Motor, 50psi close-off ..... \$270
BFVB202 Belimo 2" 2-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$280
BFVB203 Belimo 2-1/2" 2-way Butterfly Valve, Modulating Motor, 50psi close-off ..... \$283
BFVB204 Belimo 2-1/2" 2-way Butterfly Valve, Modulating Motor, 200psi close-off ..... \$286
BFVB205 Belimo $3^{n} 2$-way Butterfly Valve, Modulating Motor, 50 psi close-off. ..... \$288
BFVB206 Belimo $3^{\text {n }} 2$-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$396
BFVB207 Belimo $4^{n}$ 2-way Butterfly Valve, Modulating Motor, 50psi close-off. ..... \$375
BFVB208 Belimo 4" 2-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$1,050
BFVB209 Belimo 5" 2-way Butterfly Valve, Modulating Motor, 50psi close-off ..... \$418
BFVB210 Belimo 5n 2-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$1,126
BFVB211 Belimo 6" 2-way Butterfly Valve, Modulating Motor, 50psi close-off ..... \$1,422
BFVB212 Belimo $6^{n} 2$-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$1,430
BFVB213 Belimo $8^{n}$ 2-way Butterfly Valve, Modulating Motor, 50psi close-off ..... \$1,500
BFVB214 Belimo 8" 2-way Butterfly Valve, Modulating Motor, 200psi close-off ..... \$2,077
BFVB215 Belimo 10" 2-way Butterfly Valve, Modulating Motor, 50psi close-off. .....  1,912
BFVB216 Belimo 10" 2-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$2,550
BFVB217 Belimo 12" 2-way Butterlly Valve, Modulating Motor, 50 psi close-off ..... \$2,742
BFVB218 Belimo 12" 2-way Butterfly Valve, Modulating Motor, 200psi close-off. ..... \$3,086
BFVB301 Belimo 2" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off. ..... \$556
BFVB302 Belimo 2" 3 -way Butterfly Valve Assembly, Modulating Motor, 200psi close-off. ..... \$1,625
BFVB303 Belimo 2-1/2" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off. ..... \$627
BFVB304 Belimo 2-1/2" 3 -way Butterfly Valve Assembly, Modulating Motor, 200psi close-off. \$1,675
BFVB305 Belimo 3" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off ..... $\$ 696$
BFVB306 Belimo 3" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off. ..... \$1,692
BFVB307 Belimo 4" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off ..... \$1,045

## Electronic Actuators \& Valves continued

| Product | Description List Price |
| :---: | :---: |
| BFVB308 | Belimo 4" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off....... \$2,075 |
| BFVB309 | Belimo 5" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off......... $\$ 1,157$ |
| BFVB310 | Belimo 5" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off....... \$2,175 |
| BFVB311 | Belimo 6" 3 -way Butterfly Valve Assembly, Modulating Motor, 50psi close-off......... \$1,203 |
| BFVB312 | Belimo 6" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off....... \$2,508 |
| BFVB313 | Belimo 8" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off........ \$2,857 |
| BFVB314 | Belimo 8" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off....... \$3,152 |
| BFVB315 | Belimo 10" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off....... \$3,438 |
| BFVB316 | Belimo 10" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off..... \$4,237 |
| BFVB317 | Belimo 12" 3-way Butterfly Valve Assembly, Modulating Motor, 50psi close-off....... $\$ 4,750$ |
| BFVB318 | Belimo 12" 3-way Butterfly Valve Assembly, Modulating Motor, 200psi close-off..... $\$ 5,230$ |
| Neptronic: |  |
| Product | Description List Price |
| BBT24 | Neptronic Brushless Motor: Electronic Damper Actr. for area up to 6 sf, 50 in-lb. torque, for floating motor control (eg., VAV box actuator) $\qquad$ $\$ 120$ |
| BBM24 | Neptronic Brushless Motor: Electronic̣ Damper Actr. for area up to 6 sf, 50 in-lb. torque, for modulating control (zero \& span adjust., reversible) $\qquad$ \$140 |
| TBM4000N | Neptronic Brushless Motor: Electronic Damper Actuator for area up to 35 sf, 180 in - lb . torque, for modulating control $\qquad$ \$288 |
| DAEL3 | Neptronic BBT1000 Electronic Damper Actuator for area up to 6 sf, <br> $50 \mathrm{in}-\mathrm{lb}$. torque, for 2 position control. $\qquad$ \$105 |
| DAEL4 | Neptronic TBT3000 Electronic Damper Actuator for area up to 35 sf , <br> $180 \mathrm{in}-\mathrm{lb}$. torque, for either 2 position or floating motor control $\qquad$ \$163 |
| DAEL5.1 | Neptronic BBT1021 Electronic Damper Actuator for area up to 6 sf, <br> 50 in-lb. torque, for 2 position control, with mech. auxiliary switches $\qquad$ \$142 |
| DAEL7.1 | Neptronic TBT3021 Electronic Damper Actuator for area up to 35 sf, 180 in-lb. torque, for 2 position control, with mech. auxiliary switches $\qquad$ \$197 |
| RBM6000N | Neptronic Brushless Motor: Electronic Damper Actuator for area up to 75 sf., $360 \mathrm{in}-\mathrm{lb}$. torque, for modulating control $\qquad$ \$335 |
| AQM24-05-S | Neptronic Aqualine Actuator 24vac.................................................................. $\$ 193.60$ |
| BVPK-1 | Packing Kits for Ball Valve Models: 712, 713, 773, 702 \& 703 contains 2 " $O$ " Rings \& Gland Nut. $\qquad$ \$10 |
| BVPK-2 | Packing Kits for Ball Valve Models: 714, 715, 774, 704 \& 705 contains 2 " O " Rings \& Gland Nut. |

Neptronic Continued:
Product Description List Price
BVPK-3 706, 707 \& 708 ..... \$20
WBVPK Seat \& Seal Kit Part \#885493 for Watts Ball Valve B6780-M1 2" ..... \$53
Variable Frequency Drives
VFDSAF01 Saftronics VFD 5hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$2,620
VFDSAF02 Saftronics VFD 5hp, 480v, EMI/RFI Filter, EMS communication ..... \$3,596
VFDSAF03 Saftronics EMI/RFI Filter for 5hp Drive ..... $\$ 456$
VFDSAF04 . Saftronics VFD 7.5hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$2,824
VFDSAF05 Saftronics VFD 7.5hp, 480v, EMI/RFI Filter, EMS communication ..... \$3,820
VFDSAF06 Saftronics EMI/RFI Filter for 7.5hp Drive ..... $\$ 476$
VFDSAF07 Saftronics VFD 10hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$2,824
VFDSAF08 Saftronics VFD 10hp, 480v, EMI/RFI Filter, EMS communication ..... \$3,820
VFDSAF09 Saftronics EMI/RFI Filter for 10hp Drive ..... \$476
VFDSAF10 Saftronics VFD 15hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$3,474
VFDSAF11 Saftronics VFD 15hp, 480v, EMI/RFI Filter, EMS communication ..... \$4,514
VFDSAF12 Saftronics EMI/RFI Filter for 15hp Drive ..... \$520
VFDSAF13 Saftronics VFD 20hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$3,844
VFDSAF14 Saftronics VFD 20hp, 480v, EMI/RFI Filter, EMS communication ..... \$4,980
VFDSAF15 Saftronics EMI/RFI Filter for 20hp Drive ..... \$616
VFDSAF16 Saftronics VFD 25hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$4,554
VFDSAF17 Saftronics VFD 25hp, 480v, EMI/RFI Filter, EMS communication ..... \$5,810
VFDSAF18 Saftronics EMI/RFI Filter for 25hp Drive .....  7736
VFDSAF19 Saftronics VFD 30hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$4,828
VFDSAF20 Saftronics VFD 30hp, 480v, EMI/RFI Filter, EMS communication ..... \$6,084
VFDSAF21 Saftronics EMI/RFI Filter for 30hp Drive ..... \$736
VFDSAF22 Saftronics VFD 40hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$6,618
VFDSAF23 Saftronics VFD 40hp, 480v, EMI/RFI Filter, EMS communication ..... \$8,036
VFDSAF24 Saftronics EMI/RFI Filter for 40hp Drive ..... \$898
VFDSAF25 Saftronics VFD 50hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$7,386
VFDSAF26 Saftronics VFD 50 hp , 480 v , EMI/RFI Filter, EMS communication ..... \$8,828
VFDSAF27 Saftronics EMI/RFI Filter for 50hp Drive ..... $\$ 922$
VFDSAF28 Saftronics VFD 60hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$8,574
VFDSAF29 Saftronics VFD 60hp, 480v, EMI/RFI Filter, EMS communication ..... \$10,016
VFDSAF30 Saftronics EMI/RFI Filter for 60hp Drive ..... $\$ 922$

## Variable Frequency Drives continued

Product Description List Price
VFDSAF31 Saftronics VFD 75hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$10,430
VFDSAF32 Saftronics VFD 75hp, 480v, EMI/RFI Filter, EMS communication ..... \$12,296
VFDSAF33 Saftronics EMI/RFI Filter for 75hp Drive ..... \$1,346
VFDSAF34 Saftronics VFD 100hp, 480v, w/o EMI/RFI Filter, w/o EMS communication ..... \$12,668
VFDSAF35 Saftronics VFD 100hp, 480v, EMI/RFI Filter, EMS communication ..... \$15,062
VFDSAF36 Saftronics EMI/RFI Filter for 100hp Drive ..... \$1,874
VFDSAF37 Saftronics VFD 125hp, 480v, w/o EMi/RFI Filter, w/o EMS communication ..... \$14,790
VFDSAF38 Saftronics VFD 125hp, 480v, EMI/RFI Filter, EMS communication ..... \$17,154
VFDSAF39 Saftronics EMI/RFI Filter for 125hp Drive ..... \$1,844
VFDSAFA01 Saftronics EMS Communications Board ..... \$520
Electric Thermostats
Product Description List Price
ELTH White-Rodgers 152-9 Line Voltage T'stat. for Heating ..... \$138
ELTC White-Rodgers 151-6 Line Voltage T'stat. for Cooling ..... \$138
Panel Accessories
Product Description List Price ..... CTI
Trane Conventional Thermostat Interface Board for Trane A/C Units ..... \$182
TBS 1/4" Modular Term'I Blocks (Qty=10), End Stops (Qty=2), End Caps (Qty=1), and Rail ( $6^{\text { }}$ ) ..... \$18
FBS Fuse Block Assembly: Fuse block with 1.6 Amp fuse (Qty=1), Separator (Qty=1), Terminal Block (Qty=1), End Stops (Qty=2), End Cap (Qty=1), and rail ( $6^{\text {" }}$ ) ..... \$15
KEYSW Keyed Switch ..... \$70
TLO Momentary Push-button - Allied Electronics 757-2309 ..... \$6
TMR12HR 12 Hour Twist Timer 120v INTERMATIC ..... \$40
WPSW Momentary Toggle Switch with Boot - Atlantic Electronics 35-3055 with 12-B ..... \$15
LBL Panel Door Label-Bakelite Black w/white core .....  $\$ 3$
LIT Alarm Light Lamp - Allied Electronics 679-7091 .....  $\$$
LITFL Flat Alarm Light - Atlantic Electronics 981-604X-95WRNP. .....  $\$ 9$
ALRM Mallory Alarm Klaxon SC628AN 24VAC - Allied Electronics 854-6503 ..... \$90


1150 Roberts Boulevard
Kennesaw, GA 30144-3618

770/429-3000
770/429-3001 Fax
www.automatedlogic.com

