



PROCESS CONTROL INSTRUMENTATION

List Price Schedule

Effective 06/01/08



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Agriculture
Chemical Processing
Fuels & Energy
Sanitary
Water

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***DUE TO CONTINUOUS IMPROVEMENT OF OUR PRODUCTS, WE RESERVE THE RIGHT
TO UPDATE THE INFORMATION CONTAINED IN THIS CATALOG WITHOUT NOTICE.***

IMPORTANT INFORMATION

WHEN PLACING AN ORDER

- 1) Fax, mail or telephone orders directly to the Customer Service Department:

Pulsafeeder Incorporated—A Unit of IDEX Corporation
Standard Product Operations Main Office & Manufacturing Facility
27101 Airport Road, Punta Gorda, Florida, USA 33982-2462 E-Mail: pulsaspo.cs@idexcorp.com
Telephone: 800-333-6677 or 941-575-3800 Fax: 800-456-4085 or 941-575-4085
www.pulsatron.com

- 2) Please have the following information available when placing an order:

Account Name	Special Tags or Marks (if needed)
Billing Zip Code	Item(s) Being Ordered
Purchase Order Number	Quantity of Each Item
Ship To Address	

- 3) Orders are immediately entered into the computer upon receipt. Our ability to change in house orders is limited. Please be certain your orders are complete when placed.
- 4) For assistance or to order a "special" pump model not available in the price schedule, please contact our Technical Support Department.
- 5) Orders are assigned standard lead times based on the size of the order and the time required to manufacture the particular products. Requests to expedite orders may be routed through our Customer Service Department.
- 6) Repairs and returns are coordinated through our Customer Service Department. All orders returned must have factory authorization and are subject to a 25% restocking charge.
- 7) Other Locations:

PULSAFEEDER (Knight UK Limited)

15 Brunel Centre Newton Road
Crawley, West Sussex, England, RH10 9YU
Tel: +44 80022102210
Fax: +44 80044104410

Latin America (Office Only)

Hegel 153-602, Colonia Polanco,
11560 Mexico, D.F., Mexico
Tel: 52-555-255-1357
Fax: 52-555-255-1356

Far East (Office Only)

Room 3403, South Tower, Hong Kong Plaza
No 283 Huai Hai Zhong Road
Shanghai 200021, China
Tel: 86-2163906367
Fax: 86-2163863338

IDEX India Private Ltd.

202 Matharu Arcade
32, Subhash Road, Vile Parie (East),
Mumbai-400 057, India
Tel: 91-22-66976631
Fax: 91-22-66976633

- Prices are subject to change without notice and are effective when order is accepted and acknowledged at point of shipment.
- When ordering, specify your P.O. number, model number, quantity, price, shipping and/or billing address and order date.
- **Standard terms are NET 30 days from date of invoice for approved accounts on open account.**
- **WE ACCEPT VISA AND MASTERCARD.**
- **TWO PERCENT DISCOUNT AVAILABLE FOR PAYMENT WITHIN 10 DAYS OF INVOICE DATE FOR ACCOUNTS THAT ARE CURRENT.**
- **PAYMENT BY CREDIT CARD WILL NOT RECEIVE AN ADDITIONAL DISCOUNT.**
- All prices are F.O.B. Punta Gorda, FL or factory warehouse location.
- Custom product sales are final.
- Charges for export documentation apply.
- Expediting fees may apply.
- Fees for changes to or cancellation of orders may apply.
- **Minimum factory order of \$50.**
- Possession of price schedule does not guarantee right to purchase direct from factory.

VISION SERIES

The Vision Series line of process control instrumentation has been designed to handle a multitude of applications and is modular and expandable. The innovative use of USB technology makes these units customizable. Soft keys allow for easy programming and flexibility.

In a few simple steps, you can create a custom control package for your application:

- 1) Start by selecting a UV or LV controller from the guide (page 6).
- 2) Select the desired IntelliSense packages (page 7).
- 3) If ordering an LV unit and more than three USB inputs/outputs are required, select a USB Hub (page 9).
- 4) If ordering an LV unit and more than four relays are required, select a Relay Expansion Box (page 8).
- 5) Choose a flow assembly with or without a panel mount (page 8) or a custom panel system (page 11).
- 6) Accessorize! Make your calibration high tech. . .check out the IntelliScan handheld on page 9.

Model UV

The Vision Series Model UV is a single system process control instrument. Included as standard are two IntelliSense connections allowing for the use of one Multipurpose IntelliSense input/output and one general sensor IntelliSense input (conductivity, toroidal, pH or ORP); four selectable relays; one alarm relay; three taggable timers; one flow switch input; and one input suitable for use with dry contact or hall effect water meters.

Model LV

The Vision Series Model LV is a dual system process control instrument. As standard, it comes with three IntelliSense connections (allowing for the use of three general sensor inputs, two general sensor inputs and one multipurpose input/output or one general sensor input and two multipurpose inputs/outputs), four selectable relays, one alarm relay, six taggable timers, two flow switch inputs, and two inputs suitable for use with dry contact or hall effect water meters.

The LV's capability can be maximized to allow it to handle up to two Multipurpose IntelliSense inputs/outputs and any combination of up to four conductivity, toroidal, pH or ORP (general sensors) IntelliSense inputs through the use of a USB Hub (page 8) and up to eight selectable relays through the use of a Relay Expansion Box (page 6).

Note: Ion specific probes require the use of a multipurpose IntelliSense. When using an ion specific probe, the package counts as both a general sensor IntelliSense input and a multipurpose IntelliSense input.

Vision One Step Model

Model Number	Conductivity	pH control	ORP control	Inhibitor	Biocides	Programmable timers	Water Meter Input	Flow Switch	Panel Mounted	Ethernet	List Price
CUVCXXX-XX-XXXXX	1	0	0	1	2	0	1	NO	NO	NO	\$ 1,330
CUVCXXX-F1-XXXXX	1	0	0	1	2	0	1	YES	YES	NO	\$ 1,501
CUVXXOX-F1-XXXXX	0	0	1	**0	**0	3	1	YES	NO	NO	\$ 1,495
CUVCXXX-P1-XXXXX	1	0	0	1	2	0	1	YES	YES	NO	\$ 1,615
CLVCXXX-XX-XXXXX	1	0	0	1	2	0	2	NO	NO	NO	\$ 1,889
CLVCPXX-XX-XXXXX	1	1	0	1	1	0	2	NO	NO	NO	\$ 2,472
CLVXPOX-XX-XXXXX	0	1	1	0	0	2	2	NO	NO	NO	\$ 2,467
CLVCXOX-XX-XXXXX	1	0	1	1	1	0	2	NO	NO	NO	\$ 2,472
CLVCXXX-P1-XXXXX	1	0	0	1	2	0	2	YES	YES	NO	\$ 2,174
CLVCPXX-P2-XXXXX	1	1	0	1	1	0	2	YES	YES	NO	\$ 2,767
CLVXPOX-P2-XXXXX	0	1	1	1	1	0	2	YES	YES	NO	\$ 2,762
CLVCXOX-P2-XXXXX	1	0	1	1	1	0	2	YES	YES	NO	\$ 2,767
CLVCXXX-P1-EXXXX	1	0	0	1	2	0	2	YES	YES	YES	\$ 2,910
CLVCPXX-P3-XXXXX	1	1	1	1	0	0	2	YES	YES	NO	\$ 3,359
CLVCPXX-P3-EXXXX	1	1	1	1	0	0	2	YES	YES	YES	\$ 4,095
CLVCPOR-PC-XXXXX	1	1	1	1	2	3	2	YES	YES	NO	\$ 5,394
Boiler Blowdown controllers											
BUVBXXX-XX-XXXXX	1	0	0	1	0	2	1	NO	NO	NO	\$ 1,540
BLVBBXX-XX-XXXXX	2	0	0	2	0	0	2	NO	NO	NO	\$ 2,898
BUVBXXX-XX-XPXXX	1	0	0	1	0	2	1	NO	NO	NO	\$ 1,540

** Programmable timers may be set as pulse, percent, percent post bleed, limit, or 28 Day biocide.

VISION SERIES

Vision One Step Descriptions

Item	Model No.	Item Description
Cooling Tower Control Packages	CUVCXXX-XX-XXXXX Includes one of each: UVP1SXXX ISPCSTD-U015-XXX	Vision Series UV with Conductivity Intellisense package (15' USB cable). Bleed, inhibitor feed, and dual biocides output relays. Includes an alarm output relay, and water meter inputs as standard. UV, PREWIRE, NO PANEL COND. HAT, PROBE, 15 FT. USB
	CUVCXXX-F1-XXXXX Includes one of each: UVP1SXXX ISPCSTD-U003-XXX FA1T-XL	Vision Series UV with Conductivity Intellisense package (3' USB cable). Bleed, inhibitor feed, and dual biocide output relays. Includes an alarm output relay, and water meter input, and flow assembly. UV, PREWIRE COND. HAT, PROBE, 3 FT. USB FLOW ASS'Y, 1-TEE, NO PANEL
	CUVXXOX-F1-XXXXX Includes one of each: UVP1SXXX ISPOSTD-U003-XXX FA1T-XL	Vision Series UV with an ORP Intellisense package (3' USB cable). ORP Control, and three programmable timer output relays. Includes an alarm output relay, and water meter input, and flow assembly. UV, PREWIRE ORP. HAT, PROBE, 3 FT. USB FLOW ASS'Y, 1-TEE, NO PANEL
	CUVCXXX-P1-XXXXX Includes one of each: UVP1PXXX ISPCSTD-P003-XXX FA1T-PL	Panel Mounted Vision Series UV with Conductivity Intellisense package (3' USB cable). Bleed, inhibitor feed, and dual biocide output relays. Includes an alarm output relay, and water meter input, and a mounted flow assembly UV, PREWIRE, W/PANEL COND. HAT, PROBE, 3 FT. USB FLOW ASS'Y, 1-TEE, W/PANEL
	CLVCXXX-XX-XXXXX Includes one of each: LVP1SXXX ISPCSTD-U015-XXX	Vision Series LV with Conductivity Intellisense package (15' USB cable). Bleed, inhibitor feed, and dual biocide output relays. Includes an alarm output relay, and two water meter inputs as standard. LV, PREWIRE, NO PANEL COND. HAT, PROBE, 15 FT. USB
	CLVCPXX-XX-XXXXX Includes one of each: LVP1SXXX ISPCSTD-U015-XXX ISPPSTD-U015-XXX	Vision Series LV with Conductivity and pH Intellisense package (15' USB cable). Bleed, pH Acid feed, inhibitor feed, and single biocide output relays. Includes an alarm output relay, and two water meter inputs as standard. LV, PREWIRE, NO PANEL COND. HAT, PROBE, 15 FT. USB pH HAT, PROBE, 15 FT. USB
	CLVXPOX-XX-XXXXX Includes one of each: LVP1SXXX ISPPSTD-U015-XXX ISPOSTD-U015-XXX	Vision Series LV with pH and ORP Intellisense packages (15' USB cable). pH Acid feed, ORP Control, and two programmable timer output relays. Includes an alarm output relay, and two water meter inputs. LV, PREWIRE, NO PANEL pH HAT, PROBE, 15 FT. USB ORP HAT, PROBE, 15 FT. USB
	CLVCXOX-XX-XXXXX Includes one of each: LVP1SXXX ISPCSTD-U015-XXX ISPOSTD-U015-XXX	Vision Series LV with Conductivity and ORP Intellisense packages (15' USB cable). Bleed, ORP Control, inhibitor feed, and single biocide output relays. Includes an alarm output relay, and two water meter inputs as standard. LV, PREWIRE, NO PANEL COND. HAT, PROBE, 15 FT. USB ORP HAT, PROBE, 15 FT. USB
	CLVCXXX-P1-XXXXX Includes one of each: LVP1PXXX ISPCSTD-P003-XXX FA1T-PL	Panel mounted Vision Series LV with Conductivity Intellisense package (3' USB cable). Bleed, inhibitor feed, and dual biocide output relays. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. LV PREWIRE, W/PANEL COND. HAT, PROBE, 3 FT. USB FLOW ASS'Y, 1-TEE, W/PANEL
	CLVCPXX-P2-XXXXX Includes one of each: LVP1PXXX ISPCSTD-P003-XXX ISPPSTD-P003-XXX FA2T-PL	Panel mounted Vision Series LV with Conductivity and pH Intellisense packages (3' USB cable). Bleed, pH Acid Feed, inhibitor feed, and single biocide output relays. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. LV, PREWIRE, W/PANEL COND. HAT, PROBE, 3 FT. USB pH HAT, PROBE, 3 FT. USB FLOW ASS'Y, 2-TEE, W/PANEL
	CLVXPOX-P2-XXXXX Includes one of each: LVP1PXXX ISPPSTD-P003-XXX ISPOSTD-P003-XXX FA2T-PL	Panel mounted Vision Series LV with pH and ORP Intellisense packages (3' USB cable). pH Acid Feed, ORP Control, inhibitor feed, and two programmable timer output relays. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. LV, PREWIRE, W/PANEL pH HAT, PROBE, 3 FT. USB ORP HAT, PROBE, 3 FT. USB FLOW ASS'Y, 2-TEE, W/PANEL
	CLVCXOX-P2-XXXXX Includes one of each: LVP1PXXX ISPOSTD-P003-XXX ISPCSTD-P003-XXX FA2T-PL	Panel mounted Vision Series LV with Conductivity and ORP Intellisense packages (3' USB cable). Bleed, ORP Control, inhibitor feed, and single biocide output relays. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. LV, PREWIRE, W/PANEL ORP HAT, PROBE, 3 FT. USB COND. HAT, PROBE, 3 FT. USB FLOW ASS'Y, 2-TEE, W/PANEL

VISION SERIES

Vision One Step Descriptions		
Item	Model No.	Item Description
Cooling Tower Control Packages	CLVCXXX-P1-EXXX Includes one of each LVP3PXXX ISPCSTD-P003-XXX FA1T-PL	Panel Mounted Vision Series LV with Conductivity Intellisense package (3' USB cable). Bleed, inhibitor feed, and dual biocide output relays. Includes an alarm output relay, two water meter inputs, and a mounted flow assembly. Includes Ethernet communications LV, PREWIRE, W/PANEL COND. HAT, PROBE, 3 FT. USB FLOW ASSY, 2-TEE, W/PANEL
	CLVCPOX-P3-XXXX Includes one of each: LVP1PXXX ISPPSTD-P003-XXX ISPOSTD-P003-XXX ISPCSTD-P003-XXX FA3T-PL	Panel mounted Vision Series LV with Conductivity, pH and ORP Intellisense packages (3' USB cable). Bleed, pH Acid Feed, ORP Control and inhibitor feed output relays. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. LV, PREWIRE, W/PANEL pH HAT, PROBE, 3 FT. USB ORP HAT, PROBE, 3 FT. USB COND. HAT, PROBE, 3 FT. USB FLOW ASSY, 3-TEE, W/PANEL
	CLVCPOX-P3-EXXX Includes one of each: LVP3PXXX ISPPSTD-P003-XXX ISPOSTD-P003-XXX ISPCSTD-P003-XXX FA3T-PL	Panel mounted Vision Series LV with Conductivity, pH and ORP Intellisense packages (3' USB cable). Bleed output relay, pH Acid Feed, ORP Control and an inhibitor feed. Includes an alarm output relay, and two water meter inputs as standard and a mounted flow assembly. Includes Ethernet communications. LV, PREWIRE, W/PANEL pH HAT, PROBE, 3 FT. USB ORP HAT, PROBE, 3 FT. USB COND. HAT, PROBE, 3 FT. USB FLOW ASSY, 3-TEE, W/PANEL
	CLVCPOS-PC-EXXX Includes one of each: LVP3PXXX ISPCSTD-P003-XXX ISPPSTD-P003-XXX ISPOSTD-P003-XXX RB-PU003P-XXX UH115-03P-XXX PMS-PE3XXX-COXX	Panel mounted Vision Series LV with Conductivity, pH and ORP Intellisense packages (3' USB cable). Bleed output relay, pH Acid Feed, ORP Control, an inhibitor feed timer, dual biocide program and three programmable timers. Includes an alarm output relay, and two water meter inputs as std and a mounted flow assembly. Includes Ethernet communications. LV, PREWIRE, W/PANEL COND. HAT, PROBE, 3 FT. USB pH HAT, PROBE, 3 FT. USB ORP HAT, PROBE, 3 FT. USB Relay Expansion box USB expansion hub Panel mount assembly
	BUVBXXX-XX-XXXX Includes one of each: UVC1SXXX ISPCCBS-R050-XXX	Vision Series UV Single boiler Blowdown controller, with a Conductivity Intellisense package (50' RS-422 cable). Boiler Blowdown, inhibitor feed, and two programmable timer outputs are included. System also Includes an alarm output relay, and a water meter input as standard. Unit has conduit connections for wiring the input and output power. UV, CONDUIT BOILER HAT, PROBE, 50 FT. RS422
Boiler Control Packages	BLVBBXX-XX-XXXX Includes one of each: LVC1SXXX (2) ISPCCBS-R050-	Vision Series LV Dual boiler blowdown controller, with two Conductivity Intellisense pkgs (two 50' RS-422 cables). Boiler Blowdown 1, Boiler Blowdown 2, and two inhibitor feed timer outputs are included. System also Includes an alarm output relay, and two water meter inputs as std. Unit has conduit connections for wiring the input and output power. LV, CONDUIT BOILER HAT, PROBE, 50 FT. RS422
	BUVBXXX-XX-XPXXX Includes one of each: UVC1SXXX ISPCCBS-R050-XXX	Vision Series UV Single boiler Blowdown controller, with a Conductivity Intellisense package (50' RS-422 cable). Boiler Blowdown, inhibitor feed, and two programmable timer outputs are included. System also Includes an alarm output relay, and a water meter input as standard. Unit has conduit connections for wiring the input and output power. UV, CONDUIT BOILER HAT, PROBE, 50 FT. RS422
	To be noted on order that this unit is to have the RS422 cables terminated at the factory.	

VISION Series Selection Guide				
MODELS Position 1 & 2	\$ 742 \$1,302	UV = UniVision LV = LiquiVision	--	XXX
RELAY & POWER WIRING Position 3	N/C N/C	P = Prewire (115V only) C = Conduit (required for CE)	-	
COMMUNICATIONS Position 4	N/C \$ 736 \$ 736	1 = No Communications 2 = Modem 3 = Ethernet	-	
PANEL DESIGNATOR Position 5	N/C N/C	S = Standard (No Panel) P = Unit to be factory mounted on panel	-	
SUFFIX CODE Position 6, 7 & 8	N/C	XXX = Suffix Code	-	

VISION SERIES

IntelliSense/Sensor Package

By converting an analog sensor input to a digital signal, the IntelliSense provides auto sensor recognition, eliminates drifting potential and allows travel of up to 1,000 feet (multipurpose IntelliSense has a max of 15'). Each of the 5 available sensory heads are color coded and measure a multitude of variables. Because the Vision Series is completely modular, the controller discount will be applied when purchasing an IntelliSense/Sensor Package.

NOTE: The multipurpose IntelliSense can only be used with a USB connection and consists of four functions (a contact input and output, and a 4-20 mA input and output), which can all be used simultaneously and independently.

A crimping tool is required when using the RS422 connection on the IntelliSense (page 10).

INTELLISENSE/SENSOR PACKAGE Selection Guide				ISP					XXX
PRODUCT DESIGNATOR Position 1, 2 & 3	N/C	ISP = IntelliSense Package							
INTELLISENSE TYPE Position 4	\$ 566 \$ 561 \$ 561 \$ 549	C = Conductivity (light gray) P = pH (blue) O = ORP (red) M = Multipurpose (MPIO) (orange)							
SENSOR TYPE Position 5, 6 & 7	N/C \$ 114 N/C \$ 143 \$ 213 \$ 177 \$ 213 \$ 963 \$ 963	XXX = No probe (for MPIO only) CBS = Conductivity - Boiler System (boilers cannot use STD/SUB) STD = Standard (DIN connector) (for conductivity, toroidal, pH & ORP) SUB = Submersible with 10' cable (for conductivity, toroidal, pH & ORP) (see suffix code selection below to order a submersible mounting kit) S30 = Submersible with 30' cable (for conductivity, pH & ORP) FLT = Flat tip pH probe [for use in tee (not included) or sub apps w/10' cable] F30 = Flat tip pH probe [for use in tee (not included) or sub apps w/30' cable] CL2 = Chlorine Dioxide, 0-2 PPM (for use with MPIO) C10 = Chlorine Dioxide, 0-2 PPM (for use with MPIO)							
CONNECTION TYPE Position 8	N/C N/C \$ 103	P = USB (use this option for panel systems) U = USB R = RS422 (not available on MPIO or Toroidal)							
CABLE LENGTH (IN FEET) Position 9, 10 & 11	N/C \$ 21 \$ 21 \$ 15 \$ 31 \$ 74 \$ 148 \$ 294	XXX = No Cable 003 = 3 feet (USB only) (use this option for panel systems) 015 = 15 feet (USB only) 050 = 50 feet (RS422 only) 100 = 100 feet (RS422 only) 250 = 250 feet (RS422 only) 500 = 500 feet (RS422 only) 999 = 999 feet (RS422 only)							
SUFFIX CODES: Position 12, 13 & 14	N/C \$ 86 \$ 114 \$ 153	XXX = Suffix Code 036 = Submersible mounting kit - 36" PVC 060 = Submersible mounting kit - 60" PVC 120 = Submersible mounting kit - 120" PVC							

Replacement Sensors

SENSOR Selection Guide			
SENSOR DESIGNATOR Position 1	\$ 163.30 \$ 228.60 \$ 228.60 N/C	C = Conductivity P = pH O = ORP M = Other	
SENSOR TYPE Position 2, 3, & 4	\$ 179.70 N/C \$ 54.50 \$ 136.10 \$ 54.50 \$ 136.10 \$ 925.20 \$ 925.20	CBS = Conductivity - Boiler System (boilers cannot use STD/SUB) STD = Standard (DIN connector) (for conductivity, toroidal, pH & ORP) SUB = Submersible with 10' cable (for conductivity, toroidal, pH & ORP) S30 = Submersible with 30' cable (for conductivity, pH & ORP) FLT = Flat tip pH probe [for use in tee (not included) or sub apps w/10' cable] F30 = Flat tip pH probe [for use in tee (not included) or sub apps w/30' cable] CL2 = Chlorine Dioxide, 0-2 PPM (for use with MPIO) C10 = Chlorine Dioxide, 0-10 PPM (for use with MPIO)	

VISION SERIES

Flow Assembly

The flow assembly features 3/4" PVC plumbing with a flow switch and sample valve. When ordering the flow assembly you can specify if you would like it mounted on a panel with the process control instrument. Customized panel systems on page 9 have a flow assembly option, so it is not necessary to order a separate flow assembly. Because the Vision Series is completely modular, the controller discount will be applied when purchasing a flow assembly.

FLOW ASSEMBLY Selection Guide				FA	---	---
PRODUCT DESIGNATOR Position 1 & 2	N/C	FA = Flow Assembly				
SENSOR TEES Position 3 & 4	\$ 159 \$ 171 \$ 181 \$ 191 \$ 204 \$ 159 \$ 171 \$ 191	0T = No Sensor Tees 1T = One Sensor Tee 2T = Two Sensor Tees 3T = Three Sensor Tees 4T = Four Sensor Tees AT = One Toroidal Tee BT = One Toroidal Tee, One Sensor Tee CT = One Toroidal Tee, Two Sensor Tees				
PANEL DESIGNATOR Position 5	N/C N/C \$ 114 \$ 114	XL = Standard (no panel) - Left Flow XR = Standard (no panel) - Right Flow PL = Factory mounted on panel w/ process control instrument - Left Flow PR = Factory mounted on panel w/ process control instrument - Right Flow Panel material is polyethylene				

Relay Expansion Box

The Relay Expansion Box can be used to add four additional relays to a Vision Series Model LV. A maximum of one Relay Expansion Box can be used with the LV and will require the use of one USB input. Because the Vision Series is completely modular, the controller discount will be applied when purchasing a Relay Expansion Box.

RELAY EXPANSION BOX Selection Guide				RB	-	-	---	---	---	XXX
PRODUCT DESIGNATOR Position 1 & 2	\$ 369	RB = Relay Box								
RELAY & POWER WIRING Position 3	N/C N/C	P = Prewire (115V only) C = Conduit (required for CE)								
CABLE TYPE Position 4	N/C \$ 103	U = USB R = RS422								
CABLE LENGTH (IN FEET) Position 5, 6 & 7	N/C \$ 21 \$ 21 \$ 15 \$ 31 \$ 74 \$ 148 \$ 294	XXX No Cable 003 = 3 feet (USB only) (use this option for panel systems) 015 = 15 feet (USB only) 050 = 50 feet (RS422 only) 100 = 100 feet (RS422 only) 250 = 250 feet (RS422 only) 500 = 500 feet (RS422 only) 999 = 999 feet (RS422 only)								
PANEL DESIGNATOR Position 8	N/C N/C	S Standard (not for use on a custom panel system) P = To be factory mounted on custom panel system								
SUFFIX CODE Position 9, 10 & 11	N/C	XXX = Suffix Code								

VISION SERIES

USB Expansion Hub

The USB Expansion Hub can be used with the Vision Series Model LV to maximize the number of USB inputs/outputs. The USB Expansion Hub is required if more than three USB inputs/outputs are to be used with a LV. A maximum of one USB Expansion Hub can be used with the LV. Because the Vision Series is completely modular, the controller discount will be applied when purchasing a USB Expansion Hub.

USB HUB Series Selection Guide				UH	---	---	-	XXX
PRODUCT DESIGNATOR Position 1 & 2	\$ 435	UH = USB Hub						
VOLTAGE Position 3, 4 & 5	N/C \$ 23	115 = 115V 230 = 230V						
CABLE (for connection to controller) Position 6 & 7	N/C \$ 21 \$ 21	XX = No Cable 03 = 3' USB Cable (use this option for panel systems) 15 = 15' USB Cable						
PANEL DESIGNATOR Position 8	N/C N/C	S = Standard (not for use on a custom panel system) P = To be factory mounted on custom panel system						
SUFFIX CODE Position 9, 10 & 11	N/C	XXX = Suffix Code						

IntelliScan

The IntelliScan is a handheld device that revolutionizes the calibration process by eliminating the need for manual data entry. It has an infrared port that allows calibration data to be transmitted to the IntelliSense from the IntelliScan. The IntelliScan comes with its own convenient carrying case and belt-clip attachment.

INTELLISCAN Selection Guide				ISCN	--	XXX
PRODUCT DESIGNATOR Position 1 & 2	\$ 628.80	ISCN = IntelliScan				
INTELLISENSE TYPE Position 3	N/C \$ 17.20 \$ 188.60 \$ 206.90	XX = No Sensor CD = Conductivity PO = pH/ORP CB = Combo (one conductivity sensor and one pH/ORP sensor)				
SUFFIX CODE Position 4	N/C	XXX = Suffix Code				

IntelliScan Replacement Sensors

ISCN-CD	Conductivity Sensor	\$130.60
ISCN-PO	pH/ORP Sensor	\$241.70

VISION SERIES

IntelliSense

By converting an analog sensor input to a digital signal, the IntelliSense provides auto sensor recognition, eliminates drifting potential and allows travel of up to 1,000 feet (multipurpose IntelliSense has a max of 15'). Each of the 5 available sensory heads are color coded and measure a multitude of variables.

INTELLISENSE Selection Guide			IS	-	-	-	XXX
PRODUCT DESIGNATOR Position 1 & 2	N/C	IS = IntelliSense					
INTELLISENSE TYPE Position 3	\$ 399.00 \$ 325.90 \$ 325.90 \$ 440.10	C = Conductivity (light gray) P = pH (blue) O = ORP (red) M = Multipurpose (MPIO) (orange)					
CONNECTION TYPE Position 4	N/C \$ 102.80	U = USB R = RS422 (not available on MPIO or Toroidal)					
SUFFIX CODE Position 5	N/C	XXX = Suffix Code					

Miscellaneous Accessories

12-000-90 Crimping Tool \$33.70

Boards/Communications

Part No.	Description	Applicable Model	Price
CB01-1020	I/O Board	UV	\$ 309.50
CB01-1021	I/OI Board with communications (requires modem or Ethernet module)	UV	\$ 358.80
CB01-1010	I/O Board	LV	\$ 373.40
CB01-1022	I/O Board with communications (requires modem or Ethernet module)	LV	\$ 422.60
CB01-1026	Modem Module	UV/LV	\$ 403.90
CB01-1025	Ethernet Module	UV/LV	\$ 403.90
CB01-1015	Power Supply Board	UV/LV	\$ 95.40
LE01-3000	Front Panel Assembly	UV	\$ 392.40
LE01-2000	Front Panel Assembly	LV	\$ 605.40

Cables

Part No.	Description	Applicable Model	Price
U003	USB Cable - 3'	UV/LV	\$ 20.80
U015	USB Cable - 15'	UV/LV	\$ 20.80
R050	RS422 - 50'	UV/LV	\$ 15.30
R100	RS422 - 100'	UV/LV	\$ 29.40
R250	RS422 - 250'	UV/LV	\$ 74.00
R500	RS422 - 500'	UV/LV	\$ 146.90
R999	RS422 - 999'	UV/LV	\$ 293.90

Miscellaneous Parts

Part No.	Description	Applicable Model	Price
HA01-1002	IntelliSense Adapter	IntelliSense	\$ 112.20
DA01-1000	USB to RS422 Adapter	UV/LV	\$ 101.00
05-053-18	5 Amp Fuse	UV/LV	\$ 4.50
SMK036	Submersible Mounting Kit - 36	IntelliSense	\$ 84.90
SMK060	Submersible Mounting Kit - 60	IntelliSense	\$ 113.20
SMK120	Submersible Mounting Kit - 120	IntelliSense	\$ 152.40

VISION SERIES

Custom Panel Systems

These custom panels can be used to create a complete chemical injection system for use in numerous applications. Systems with a flow assembly feature 3/4" PVC plumbing with a flow switch, sample valve, isolation valves and a strainer. Panel systems will receive the controller discount.

CUSTOM PANEL SYSTEM Selection Guide			PMS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PRODUCT DESIGNATOR	\$ 567	PMS = Panel Mount System																	
PANEL MATERIAL	N/C	PE = Polyethylene no other options available at this time																	
FLOW ASSEMBLY WITH FLOW SWITCH	N/C \$ 159 \$ 171 \$ 181 \$ 191 \$ 204 \$ 171 \$ 181 \$ 191	X 0 1 2 3 4 A B C	= No Flow Assembly = No Sensor Tee = One Sensor Tee = Two Sensor Tees = Three Sensor Tees = Four Sensor Tees = One Toroidal Tee = One Toroidal Tee, One Sensor Tee = One Toroidal Tee, Two Sensor Tees																
INJECTION TEES	N/C N/C N/C N/C \$ 17 \$ 36 \$ 52	X 1 2 3 4 5 6	= No Injection Tee = One Injection Tee = Two Injection Tees = Three Injection Tees = Four Injection Tees = Five Injection Tees = Six Injection Tees																
PUMP MOUNTING HARDWARE (pumps must be ordered separately)	N/C N/C N/C N/C \$ 51 \$ 103 \$ 154	X 1 2 3 4 5 6	No Pumps = One Pump = Two Pumps = Three Pumps = Four Pumps = Five Pumps = Six Pumps																
FLOW METER	N/C \$ 221	X M	= No Flow Meter = Flow Meter																
COUPON STATION (coupons are not included)	N/C \$ 227 \$ 284 \$ 340 \$ 397	C0 C1 C2 C3 C4	= No Corrosion Coupon Station = 1 Corrosion Coupon Station = 2 Corrosion Coupon Stations = 3 Corrosion Coupon Stations = 4 Corrosion Coupon Stations																
MOUNTING RAILS	N/C \$ 86	X R	= No Mounting Rails = Mounting Rails																
BACK FLOW CHECK VALVE	N/C \$ 64	X V	= No Check Valve = 3/4" Back Flow Check Valve																
RECEPTACLE BOX	N/C \$ 114 \$ 227	X 1 2	= No Receptacle Box = One Receptacle Box = Two Receptacle Boxes																
JUNCTION BOX (Conduit Only)	N/C \$ 46 \$ 93 \$ 137 \$ 183	X 1 2 3 4	= No Junction Box = One Junction Box = Two Junction Boxes = Three Junction Boxes = Four Junction Boxes																
MULTIPURPOSE INTELLISENSE	N/C N/C N/C	X 1 2	= None To be mounted on panel = One Multipurpose IntelliSense To be mounted on panel (must be ordered separately) = Two Multipurpose IntelliSenses To be mounted on panel (must be ordered separately)																
USB HUB	N/C N/C	X 1	= None To be mounted on panel = One USB Hub To be mounted on panel (must be ordered separately)																
RELAY EXPANSION BOX	N/C N/C	X 1	= None To be mounted on panel = One Relay Expansion Box To be mounted on panel (must be ordered separately)																

PULSATROL MC9000 SERIES

The PULSAtrol® 9000 Series cooling tower controllers represent a significant improvement in the PULSAtrol product line. We have simplified the configurations to bring you the most popular features as standard without compromising the flexibility to select the product you need to meet your specific requirement. All controllers come standard with a complete flow assembly mounted to a polypropylene backboard. All the installer needs to do is mount the assembly to the wall and connect the power and water.

MC9200 Series

In addition to the mounted flow assembly, all MC9200 Series include as standard, a pre-wired selectable timer, alarm output relay, dry contact alarm output and water meter totalizer. Options include up to two 28-day biocide timers, single or dual 4-20 mA outputs, communications and agency approvals.

MC9200 Series Selection Guide			MC92						
MODELS: Position 5 & 6	\$1,720 \$1,840 \$2,255	10 = Conductivity control 20 = pH control 30 = Conductivity and pH control							
RELAY & POWER WIRING Position 7	N/C N/C	X = Prewire (Standard) (Not available with CE Approval) A = Conduit only (required for CE Approval)							
TIMER 1 Position 8	N/C \$ 102 \$ 119	X = None A = Single 28 day biocide timer B = Dual 28 day biocide timer (not available on MC9230)							
ANALOG I/O Position 9	N/C \$ 178 \$ 296	X = None A = Single isolated 4-20mA output B = Dual 4-20mA outputs							
COMMUNICATIONS Position 10	N/C \$ 593 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software							
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = "CE" Approval							
PANEL ASSEMBLY Position 12	N/C \$ 713 \$ 771 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 15. X = Standard Panel with flow assembly A = Conductivity panel, prewire B = Conductivity, pH panel, prewire C = Conductivity panel, conduit (must select conduit option in position 7 of model string) D = Conductivity, pH panel, conduit (must select conduit option in position 7 of model string)							

A completed model number should look like "MC9210XXXXXX"

NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

Series MC9000 Optional Sensors and Flow Assemblies

All controllers can be configured with high pressure flow assemblies and non-standard sensor configurations. Contact your sales representative or Technical Support with your specifications to arrange a quote.

PULSATROL MC9000 SERIES

MC9300 Series

In addition to the mounted flow assembly, all MC9300 Series include as standard, four tagable timers two water meter totalizers user configured as dry contact or hall effect, dry contact alarm relay and alarm output relay. Options include two 4-20 mA outputs, conduit connection for power and relays, communications, language and agency approvals.

MC9300 Series Selection Guide			MC93						
MODELS: Position 5	\$2,076 \$3,322 \$3,322	1 = Conductivity control 2 = Conductivity and ORP control 3 = Conductivity and pH control							
ANALOG I/O Position 6	N/C \$ 575	0 = None 1 = Dual 4-20mA Outputs							
RELAY & POWER WIRING Position 7	N/C N/C	X = Prewire (Standard) (Not available with CE Approval) A = Conduit only (required for CE Approval)							
pH SETTINGS Position 8	N/C N/C N/C	X = Not applicable (for non pH systems) A = Single set point (uses 1 relay selectable for high pH or low pH) B = Dual set point (uses 2 relays, one for high pH and one for low pH)							
LANGUAGE Position 9	N/C N/C N/C N/C	X = English (Standard) A = Spanish B = German C = French							
COMMUNICATIONS Position 10	N/C \$ 594 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software							
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = CE™ Approval							
PANEL ASSEMBLY Position 12	N/C \$ 713 \$ 771 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 15. X = Standard Panel with flow assembly A = Conductivity panel, prewire B = Conductivity, pH panel / or Conductivity, ORP panel, prewire C = Conductivity panel, conduit (must select conduit option in position 7 of model string) D = Conductivity, pH panel / or Conductivity, ORP panel, conduit (must select conduit option in position 7 of model string)							

A completed model number should look like "MC9310XXXXXX"

NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

Series MC9000 Optional Sensors and Flow Assemblies

All controllers can be configured with high pressure flow assemblies and non-standard sensor configurations. Contact your sales representative or Technical Support with your specifications to arrange a quote.

PULSATROL MC9000 SERIES

MC9500 Series

In addition to the mounted flow assembly, all 9500 Series include as standard, four tagable timers, two water meter totalizers user configured as dry contact or hall effect, four drum level inputs, dry contact alarm relay and alarm output relay. Options include up to four 4-20 mA inputs and outputs, conduit connection for power and relays, communications, language and agency approvals.

MC9500 Series Selection Guide			MC95_						
MODELS: Position 5	\$2,315 \$3,559 \$3,559 \$3,914 \$4,272 \$2,847 \$2,847	1 = Conductivity control 2 = Conductivity and ORP 3 = Conductivity and pH control 4 = Conductivity, make-up conductivity and pH control 5 = Conductivity (with make-up), pH and ORP 6 = Dual Conductivity for use on open loop (tower) and closed loop (chiller) 7 = Dual Conductivity for use on dual cooling tower systems		-	-	-	-	-	-
4-20mA INPUTS/OUTPUTS Position 6	N/C \$ 575 \$1,152 \$ 575 \$1,152 \$1,720 \$1,152 \$1,720 \$2,301	0 = 0 Inputs, 0 Outputs 1 = 0 Inputs, 2 Outputs 2 = 0 Inputs, 4 Outputs 3 = 2 Inputs, 0 Outputs 4 = 2 Inputs, 2 Outputs 5 = 2 Inputs, 4 Outputs 6 = 4 Inputs, 0 Outputs 7 = 4 Inputs, 2 Outputs 8 = 4 Inputs, 4 Outputs							
RELAY & POWER WIRING Position 7	N/C N/C	X = Prewire (Standard) (Not available with CE Approval) A = Conduit only (required for CE Approval)							
pH SETTINGS Position 8	N/C N/C N/C	X = Not applicable (for non pH systems) A = Single set point (uses 1 relay selectable for high pH or low pH) B = Dual set point (uses 2 relays, one for high pH and one for low pH)							
LANGUAGE Position 9	N/C N/C N/C N/C	X = English (Standard) A = Spanish B = German C = French							
COMMUNICATIONS Position 10	N/C \$ 593 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software							
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = CE [™] Approval							
PANEL ASSEMBLY Position 12	N/C \$ 713 \$ 771 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 15. X = Standard Panel with flow assembly A = Conductivity panel, prewire B = Conductivity, pH panel / or Conductivity, ORP panel, prewire C = Conductivity panel, conduit (must select conduit option in position 7 of model string) D = Conductivity, pH panel / or Conductivity, ORP panel, conduit (must select conduit option in position 7 of model string)							

A completed model should look like "MC9510XXXXX"

NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

Series MC9000 Optional Sensors and Flow Assemblies

All controllers can be configured with high pressure flow assemblies and non-standard sensor configurations. Contact your sales representative or Technical Support with your specifications to arrange a quote.

OPTIONAL PANEL ASSEMBLIES

Series MC9000 Optional Panel Assemblies

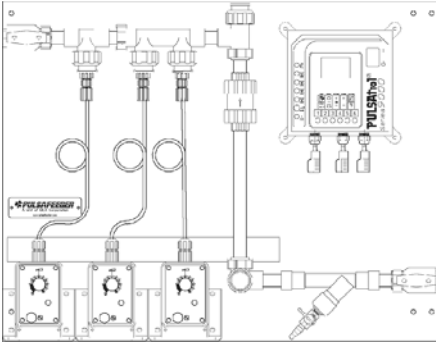
All MC9000 Systems come standard with a flow assembly and sensor tee mounted to a sturdy polypropylene panel. Optional configurations of the panel can be selected to create a complete chemical injection system. These systems are designed to simplify installation and reduce problems caused by a poor installation.

Each panel includes 3/4" plumbing with the following features:

- Quick disconnect sensor mounting tees
- Chemical injection points
- Ball valves on the inlet and outlet
- Back flow check valve
- Flow strainer
- Mounting brackets for chemical metering pumps

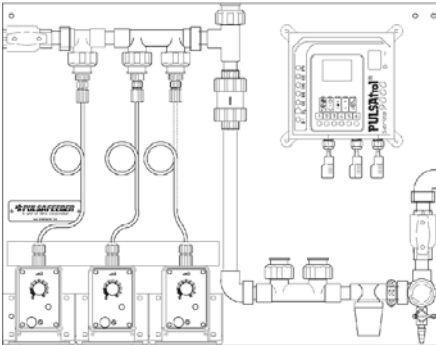
Select from one of the following configurations and insert the option code into digit #12 when configuring your controller.

Note: Pumps must be ordered separately. If ordering PULSAtron Pumps in conjunction with a panel, use suffix code PFB in place of the XXX in the last three digits and the pumps will be installed on the panel during assembly. If you already have a suffix code, then order your standard suffix code followed by PF. For example, if your suffix code is G15, then you would order G15PF when ordering in conjunction with a panel.



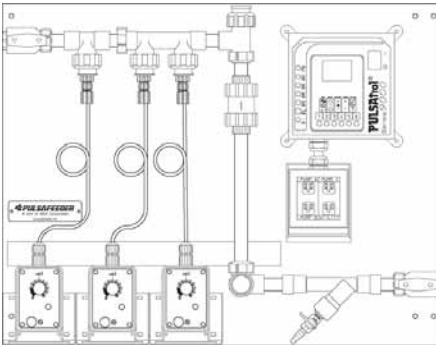
Conductivity Panel - Prewire

Enter Option "A" in position 12 of the PULSAtron 9000 Model String. Panel features 'quick-disconnect' sensor tee; three injectors for inhibitor and biocides; and mounting brackets for three pumps.



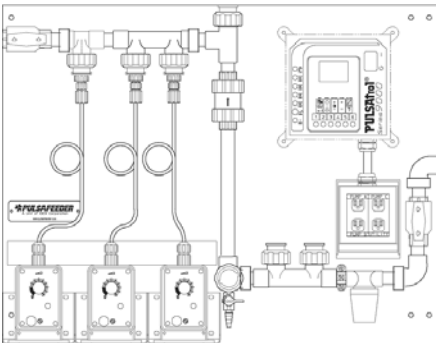
Conductivity, pH, ORP Panel - Prewire*

Enter Option "B" in position 12 of the PULSAtron 9000 Model String. Panel features 'quick-disconnect' sensor tees for all parameters; three injectors for inhibitor and biocides; and mounting brackets for three pumps.



Conductivity Panel - Conduit

Enter Option "C" in position 12 of the PULSAtron 9000 Model String. This option also requires option 'A' in position 7 for conduit. Panel features 'quick-disconnect' sensor tee; three injectors for inhibitor and biocides; and mounting hardware for three pumps. Pump and bleed relays are wired into a watertight outlet box with a splash guard cover.



Conductivity, pH, ORP Panel - Conduit*

Enter Option "D" in position 12 of the PULSAtron 9000 Model String. This option also requires option 'A' in position 7 for conduit. Panel features 'quick-disconnect' sensor tees for all parameters; three injectors for inhibitor and biocides; and mounting hardware for three pumps. Pump and bleed relays are wired into a watertight outlet box with a splash guard cover.

***NOTE:** The sensor tee is capped on systems that do not require it. 15

MC9000 SENSORS

Series MC9000 Replacement Sensors

List	Item No.	Application	Note:
\$141.10	04-600-92-1	Conductivity	MC9000 Series replacement sensor. Stainless steel electrodes, 12" cable terminated with DIN plug.
\$141.10	04-600-92-2	Conductivity or Make-up	MC9000 Series replacement sensor. Stainless steel electrodes, 120" cable terminated with DIN plug.
\$169.90	04-600-93-1	Conductivity	MC9000 Series replacement sensor. CE approved, Stainless steel electrodes, 12" cable terminated with DIN plug.
\$169.90	04-600-93-2	Conductivity or Make-up	MC9000 Series replacement sensor. CE approved, Stainless steel electrodes, 120" cable terminated with DIN plug.
\$258.50	04-000-00	pH	MC9000 replacement sensor. Epoxy body, dual junction, 42mm extension with 3 ft. cable.
\$258.50	04-000-01	pH	MC9000 replacement sensor. Epoxy body, dual junction, 42mm extension with 10 ft. cable.
\$334.90	04-000-10	ORP	MC9000 replacement sensor. Epoxy body, platinum band, single junction, 42mm extension with 3 ft. cable.
\$345.20	04-000-11	ORP	MC9000 replacement sensor. Epoxy body, platinum band, single junction, 42mm extension with 10 ft. cable.
\$ 30.50	04-300-92	Flow	Flow switch, 3/4" with 18" cable terminated with DIN plug.
\$ 30.50	04-300-94	Flow	Flow switch, 3/4" with 120" cable terminated with DIN plug.
\$ 55.30	04-300-93	Flow	Flow switch, CE approved, 3/4" with 18" cable terminated with DIN plug.
\$ 55.30	04-300-95	Flow	Flow switch, CE approved, 3/4" with 120" cable terminated with DIN plug.

MC9500 ACCESSORIES

Single Point Level Wands

16-171-81-2	Adjustable to 26" with 3 ft. cable	\$ 86.40
16-171-81-1	Adjustable to 42" with 3 ft. cable	\$ 86.40
16-171-81-4	Adjustable to 60" with 3 ft. cable	\$ 86.40

pH/ORP CONTROL

MCT Series Selection Guide

MODELS:			MCT1__
Position 5 & 6	\$1,492	20	= MCT1__ (pH) control with high/low alarm indicator and limit timer
	\$1,624	30	= MCT1__ (ORP) control with high/low alarm indicator and limit timer

AVAILABLE OPTIONS			
Position 7 thru 16 as needed	N/C	A	= Conduit (Required for 220V, "PI"s and "FW"s)
	\$ 220	B	= Mounted flow assembly (not required on prefab's)
	\$ 923	B2	= High pressure flow assy for pH, 250 psi Max.
	\$ 923	B4	= High pressure flow assy for orp, 250 psi Max.
	\$ 246	C	= Selectable timer: %, limit, pulse, % post blow down
	\$ 39	D	= Alarm output relay (limit one per unit)
	\$ 206	E	= 28 day single biocide w/ bleed lockout & pre-bleed
	\$ 39	K	= Alarm dry contact
	\$ 289	M3	= 4-20 mA isolated proportional programmable output
	N/C	R	= ETL Approval
	\$ 82	R1	= CE Mark (option A required)
	N/C	W ⁽¹⁾	= Private Label

Notes: (1) First time private label customers need to contact the factory or sales representative for information.

MicroVision SERIES

MicroVision Series

The MicroVision controller series features innovative Toroidal sensor technology. Toroidal sensors are not susceptible to fouling and eliminate the need for routine cleaning and calibration.

The MicroVision is designed specifically for cooling tower applications. The MicroVision is a microprocessor-based conductivity controller with selectable timer and dual biocide control.

The MicroVision controller comes standard with selectable timer, Dry contact/Hall Effect water meter input, dual biocide with pre-bleed, lockout, inhibitor interface, and four programmable start times per biocide, 4-20mA output, dry contact alarm output and 3 drum level inputs.

The base unit comes with the controller, toroidal sensor with signal cable, and a power cord. Optional features such as a sensor mounting tee, pre-wired pigtails on the relays, and a pre-wired flow switch are available to make installation quick and easy. A 15' signal cable is standard, up to 100' optional, on models without a flowswitch, and a 3' cable is standard on models with a flowswitch.

MicroVision Selection Guide				MVS	-	-	-	-
PRODUCT DESIGNATOR Position 1, 2 & 3	\$1,176	MVS	= MicroVision Toroidal Conductivity Cooling Tower Controller					
VOLTAGE Position 4	N/C	1	= 115 volt					
	N/C	2	= 230 volt (no prewired power cord or relays available)					
POWER WIRING Position 5	N/C	X	= Conduit connections (required for 230 VAC)					
	\$ 31	P	= Prewired power cord and pigtails					
PANELS Position 6	N/C	X	= No Panel and No Flow assembly					
	\$ 102	F	= Flow assembly, No Panel					
	\$ 219	A	= Standard Panel & Flow Assembly					
	\$ 529	B	= Panel & Flow Assy, 1 Pump Mount, strainer, sensor tee, inj tee & rails					
	\$ 631	C	= Panel & Flow Assy, 2 Pump Mount, strainer, sensor tee, 2 inj tees & rails					
	\$ 733	D	= Panel & Flow Assy, 3 Pump Mount, strainer, sensor tee, 3 inj tees & rails					
SUFFIX CODE Position 7, 8 & 9	N/C	XXX	= Suffix Code					
	\$ 61	750	= 3/4" Back Flow Check Valve					
	\$ 51	PC025	= 25 Feet (7.6m)					
	\$ 51	PC050	= 50 Feet (15.2m)					
	\$ 51	PC075	= 75 Feet (22.8m)					
	\$ 51	PC100	= 100 Feet (30.4m)					

MicroTrac Series

04-000-21	Toroidal sensor	\$ 213.30
16-100-01	Flow switch	\$ 106.90
16-100-33	Sensor Tee	\$ 107.60

DCS900 SERIES

DCS900 Series

The DCS900 was designed specifically to control conductivity and feed inhibitor in cooling tower systems. With three timer modes and optional water meter input, the DCS900 offers the best value in a stand-alone control system. Sensor and flow switch are connected to the controller via DIN plug type connectors -eliminating the need to remove the front cover for wiring.

Each system comes standard with a flow switch, 4-electrode stainless steel sensor, bleed relay and control relay for controlling a chemical feed pump. The DCS902 includes a water meter totalizer that is user configurable as a dry contact or Hall Effect.

The mounted flow option provides a rugged polypropylene back board onto which the flow / sensor assemblies and controller are mounted.

DCS900 Series Selection Guide				DCS90_	-	-	X
MODELS	\$ 825	1	= No water meter input, % T, % Post and Limit Timer				
	\$ 890	2	= Water Meter Input (includes 3 ft. cable), Pulse Timer, % T, % Post and Limit Timer				
ELECTRICAL	N/C	X	= 115 VAC 50/60 Hz, ETL Approval				
	N/C	A	= 230 VAC 50/60 Hz, CE Approvals (Conduit Required)				
FLOW	N/C	X	= Flow switch and tee with 8.5' cable (Standard)				
	\$ 178	A	= Mounted Flow Assembly, Pre-wire (see note 1)				
	\$ 178	B	= Mounted Flow Assembly, Conduit (see note 2)				
SENSOR	N/C	X	= Stainless Steel Sensor (Standard)				
	\$ 119	A	= Carbon Graphite Sensor				

1. Controller and flow assembly mounted onto a polypropylene back board. Flow switch and sensor cords cut to an appropriate length.
2. Controller and flow assembly mounted onto a polypropylene back board. Flow switch and sensor cords cut to appropriate length. Power and relay outputs accessible to the electrical contractor through a junction box mounted onto the back board.

Series DCS900 Replacement Sensors			
List	Item No.	Description	
\$105.70	04-600-34	DCS900 replacement sensor. Stainless steel, 18" cable terminated with DIN plug.	
\$258.50	04-600-38	DCS900 replacement sensor. Carbon Graphite, 18" cable terminated with DIN plug.	
\$105.70	04-600-32	DCS900 replacement sensor. Stainless steel, 7 ft. cable terminated with DIN plug.	
\$258.50	04-600-36	DCS900 replacement sensor. Carbon Graphite, 7 ft. cable terminated with DIN plug.	

ACT SERIES

ACT Series Selection Guide				ACT102	-	-	-	-	-
MODEL:	\$ 754	ACT102	= Analog Meter Conductivity Controller Selectable						
Position 1 thru 6			Dual Scale 0-2500 and 0-5000 µs/cm						
AVAILABLE OPTIONS Position 7 thru 12 as needed	N/C	A	= Conduit						
	\$ 200	B	= Flow assembly						
	\$ 115	C	= Lockout timer						
	N/C	P	= 220v, 50/60 Hz service (option "A" required)						
	N/C	V	= Agency Approval US/Canada						
	\$ 58	V1 ⁽¹⁾	= Agency Approval ""CE""						
	N/C	W ⁽²⁾	= Private Label						
A completed model should look like "ACT102BC"									

Notes: (1) Option "A" (conduit) and option "P" (220V) required.

(2) First time private label customers need to contact the factory or sales representative for information.

ACT Replacement Sensor

PANEL SYSTEMS

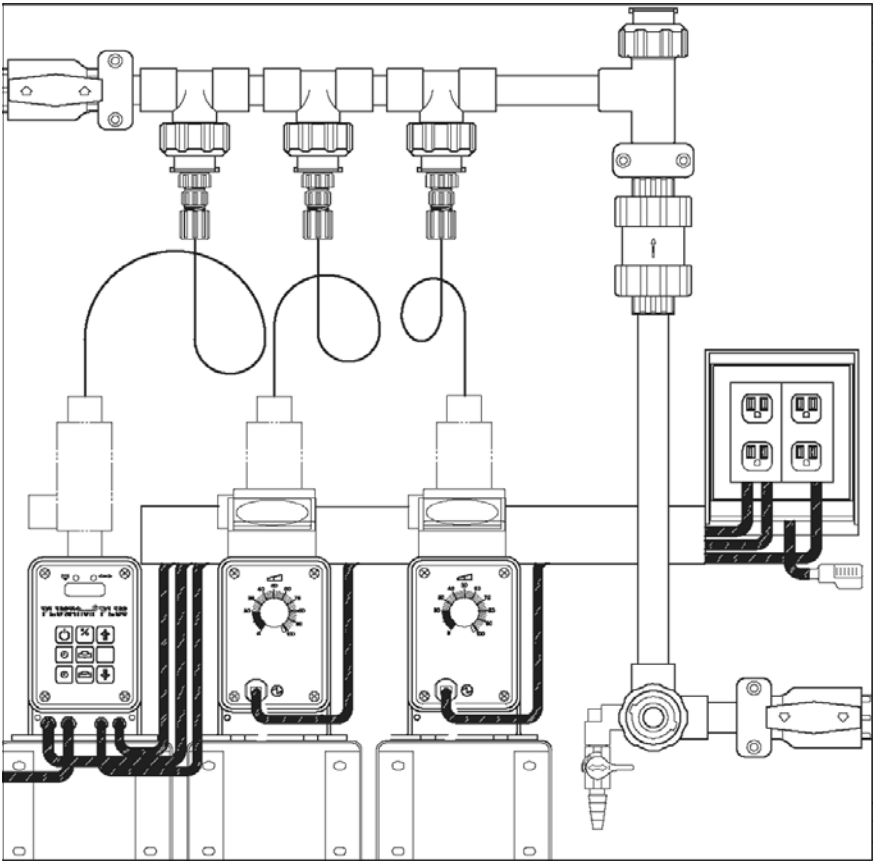
CTS Panel

The PULSAtron Plus Cooling Tower Control System allows you to create a low cost Cooling Tower Control System based on the PULSAtron Plus. The PULSAtron Plus is a simple Feed & Bleed Conductivity Controller built into a metering pump. It is available with up to four flow/pressure ratings.

The PULSAtron Series T7 is a timer pump with a built in 7-day timer. Program the timer with up to 8 on/off cycles per day. Each timed event can be set to run any day of the week on a 7-day cycle.

The CTS panel comes standard with the following features:

- Series CW Conductivity Control Pump
- Series T7 Timer Pump (second timer pump optional)
- 3 pump shelf brackets
- Flow Switch
- Backflow Check Valve
- Sensor tee with sample valve
- Watertight electrical outlet box with splashguard cover
- Ball valves on inlet and outlet
- Mounting rails



Ordering Information:

To order, build your model number by selecting one item from each of the categories below.

PULSATRON PLUS PANEL SYSTEM Selection Guide					CTS	-	-	-	XXX
VOLTAGE	\$2,076	2	= 115 volt, 50/60 Hz						
PUMP A "PULSATRON +"	N/C	2	= 6 GPD/.95 LPH @ 150 PSI/10 BAR, Cond. control pump w/ water meter inputs						
	N/C	3	= 12 GPD/1.9 LPH @ 150 PSI/10 BAR, Cond. control pump w/ water meter inputs						
	N/C	4	= 24 GPD/3.8 LPH @ 100 PSI/7 BAR, Cond. control pump w/ water meter inputs						
	N/C	6	= 30 GPD/4.7 LPH @ 100 PSI/7BAR, Cond. control pump w/ water meter inputs						
PUMP B "SERIES T7"	N/C	2	= 12 GPD/1.9 LPH @ 100 PSI/7 BAR, Timer pump for biocide control						
	N/C	3	= 24 GPD/3.8 LPH @ 100 PSI/7 BAR, Timer pump for biocide control						
	N/C	4	= 30 GPD/4.7 LPH @ 100 PSI/7 BAR, Timer pump for biocide control						
PUMP C "SERIES T7""	N/C	0	= None						
	\$ 477	2	= 12 GPD/1.9 LPH @ 100 PSI/7 BAR, Timer pump for biocide control						
	\$ 477	3	= 24 GPD/3.8 LPH @ 100 PSI/7 BAR, Timer pump for biocide control						
	\$ 477	4	= 30 GPD/4.7 LPH @ 100 PSI/7 BAR, Timer pump for bio						
SUFFIX CODE	N/C	XXX	= Standard						

PULSATROL MB9000 SERIES

The PULSAtrol® MB9000 Series boiler controllers represent a significant improvement in the PULSAtrol product line. We have simplified the configurations to bring you the most popular features as standard without compromising the flexibility to select the product you need to meet your specific requirement.

MB9200 Series

All MB9200 Series include as standard, two selectable timers, alarm output relay, dry contact alarm output, water meter totalizer, stainless steel sensor and mounting hardware for each boiler. Options include single or dual 4-20 mA outputs, communications and agency approvals.

MB9200 Series Selection Guide			MB92_ _	_	_	_	_	_
MODELS: Position 5 & 6	\$1,778 \$2,455	10 = Conductivity control 20 = Dual Conductivity control includes 2 water meter totalizers						
4-20 mA OUTPUTS Position 7	N/C \$ 178 \$ 296	X = None A = Single isolated 4-20mA output B = Dual 4-20mA outputs						
RELAYS & POWER WIRING Position 8	N/C	X = Conduit (Standard)						
N/A Position 9	N/C	X = No Options Available						
COMMUNICATIONS Position 10	N/C \$ 593 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software						
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = "CE" Approval						
PANEL ASSEMBLY Position 12	N/C \$ 415 \$ 653 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 24. X = None (Standard) A = Panel with junction boxes for power, relays and valves B = Panel with junction boxes for power, sensors & valves, receptical box for pump relays, two pump brackets C = Panel with junction boxes for power, sensors & valves, receptical box for pump relays, three pump brackets D = Panel with junction boxes for power, sensors & valves, receptical box for pump relays, four pump brackets						

A completed model number should look like "MB9210XXXXXX"

NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

PULSATROL MB9000 SERIES

MB9300 Series

All MB9300 Series include as standard, four selectable timers, alarm output relay, dry contact alarm output, two water meter totalizers and temperature compensated stainless steel sensors. Options include two 4-20 mA outputs, communications, language and agency approvals

MB9300 Series Selection Guide			MB93_	-	-	-	-	-	-	-
MODELS: Position 5	\$2,269 \$2,944	1 = Conductivity control 2 = Dual Conductivity control								
ANALOG I/O Position 6	N/C \$ 575	0 = None 1 = Dual 4-20mA Outputs								
RELAY & POWER WIRING Position 7	N/C	X = Conduit (Standard)								
N/A Position 8	N/C	X = No Options Available								
LANGUAGE Position 9	N/C N/C N/C N/C	X = English (Standard) A = Spanish B = German C = French								
COMMUNICATIONS Position 10	N/C \$ 593 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software								
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = CE™ Approval								
PANEL ASSEMBLY Position 12	N/C \$ 415 \$ 653 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 24. X = Standard Panel with flow assembly A = Conductivity panel, prewire B = Conductivity, pH panel, prewire C = Conductivity panel, conduit (must select conduit option in position 7 of model string) D = Conductivity, pH panel, conduit (must select conduit option in position 7 of model string)								

A complete model number should look like "MB9310XXXXXX"

NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

PULSATROL MB9000 SERIES

MB9600 Series

All MB9600 Series include as standard, three or four selectable timers, two water meter totalizers user configured as dry contact or hall effect, four single point drum level inputs, dry contact alarm relay, alarm output relay and temperature compensated stainless steel sensors. Options include up to four 4-20 mA inputs and outputs, communications, language and agency approvals.

MB9600 Series Selection Guide			MB96_	-	-	-	-	-	-
MODELS: Position 5	\$2,593 \$3,267 \$3,944 \$3,327	1 = Conductivity control 2 = Dual Conductivity control 3 = Triple Conductivity control includes only 3 timers 4 = Conductivity Condensate / pH control							
4-20mA INPUTS/OUTPUTS Position 6	N/C \$ 575 \$1,152 \$ 575 \$1,152 \$1,720 \$1,152 \$1,720 \$2,301	0 = 0 Inputs, 0 Outputs 1 = 0 Inputs, 2 Outputs 2 = 0 Inputs, 4 Outputs 3 = 2 Inputs, 0 Outputs 4 = 2 Inputs, 2 Outputs 5 = 2 Inputs, 4 Outputs 6 = 4 Inputs, 0 Outputs 7 = 4 Inputs, 2 Outputs 8 = 4 Inputs, 4 Outputs							
RELAY & POWER WIRING Position 7	N/C	X = Conduit (Standard)							
pH SENSOR TYPE Position 8	N/C N/C N/C N/C N/C	X = Not applicable (for non pH systems) A = pH, Hi-Pressure B = pH, Hi-Pressure, preamplifier with power supply, ext. cable required (pg. 25) C = Selfcleaning pH D = Selfcleaning pH, preamplifier with power supply, ext. cable required (pg. 25)							
LANGUAGE Position 9	N/C N/C N/C N/C	X = English (Standard) A = Spanish B = German C = French							
COMMUNICATIONS Position 10	N/C \$ 593 \$ 771	X = None A = Serial line communications, includes software B = Communications with modem and software							
AGENCY APPROVAL Position 11	N/C N/C N/C	X = None A = ETL Approval (conduit on inlet power) B = CE Approval							
PANEL ASSEMBLY Position 12	N/C \$ 415 \$ 653 \$ 713 \$ 771	FOR DETAILS ON OPTIONAL PANEL CONFIGURATIONS, SEE PAGE 24. X = Standard Panel with flow assembly A = Conductivity panel, prewire B = Conductivity, pH panel, prewire C = Conductivity panel, conduit (must select conduit option in position 7 of model string) D = Conductivity, pH panel, conduit (must select conduit option in position 7 of model string)							

A completed model number should look like "MB96110XXXXX"

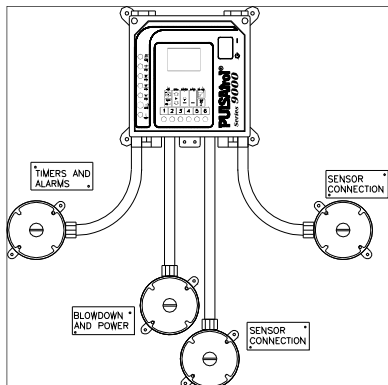
NOTE: Cables for water meters, 4-20mA I/O and alarms must be ordered separately. See page 27.

OPTIONAL PANEL ASSEMBLIES

Series MB9000 Optional Panel Assemblies

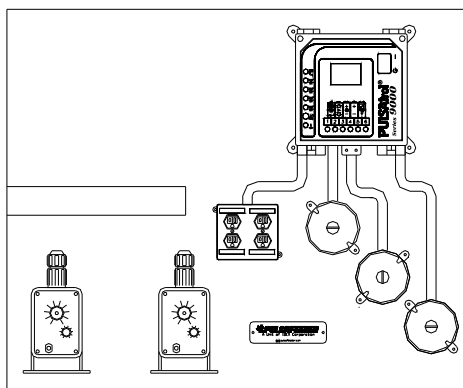
All MB9000 Systems have the following panel mounted options available. **Note: Pumps must be ordered separately.** If ordering PULSAtron Pumps in conjunction with a panel, use suffix code PFB in place of the XXX in the last three digits and the pumps will be installed on the panel during assembly. If you already have a suffix code, then order your standard suffix code followed by PF. For example, if your suffix code is G15, then you would order G15PF when ordering in conjunction with a panel.

Select from one of the following configurations and insert the option code into digit #12 when configuring your controller.



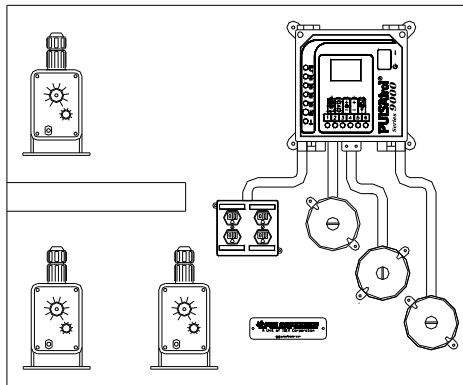
Panel with Junction Boxes

Enter Option "A" in position 12 of the PULSAtron 9000 Model String. Panel features junction for timers, alarms, blowdown, power and sensor connections. The number of junction boxes may vary depending on the controller model.



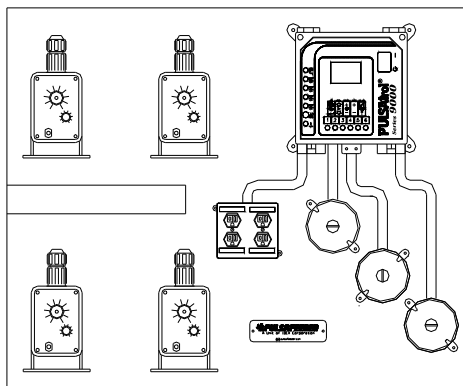
Panel with Junction Boxes and Mounting Hardware for Two Pumps

Enter Option "B" in position 12 of the PULSAtron 9000 Model String. Panel features junction for timers, alarms, blowdown, power and sensor connections and mounting hardware for two pumps. The number of junction boxes may vary depending on the controller model.



Panel with Junction Boxes and Mounting Hardware for Three Pumps

Enter Option "C" in position 12 of the PULSAtron 9000 Model String. Panel features junction for timers, alarms, blowdown, power and sensor connections and mounting hardware for three pumps. The number of junction boxes may vary depending on the controller model.



Panel with Junction Boxes and Mounting Hardware for Four Pumps

Enter Option "D" in position 12 of the PULSAtron 9000 Model String. Panel features junction for timers, alarms, blowdown, power and sensor connections and mounting hardware for four pumps. The number of junction boxes may vary depending on the controller model.

MB9000 SENSORS

Series MB9000 Replacement Sensors			
List Price	Item No.	Application	Note:
\$ 371.10	04-750-18	Conductivity	MB9000 Series replacement sensor. Stainless steel electrodes.
\$ 541.20	04-048-00	pH	MB9000 Series replacement sensor. Stainless steel body, 10' cable.
\$ 345.40	04-400-50	pH, Self Cleaning	MB9000 Series replacement sensor. Kynar body, 3' cable.

MB9600 ACCESSORIES

Single Point Level Wands

16-171-81-2	Adjustable to 26" with 3 ft. cable	\$86.40
16-171-81-1	Adjustable to 42" with 3 ft. cable	\$86.40
16-171-81-4	Adjustable to 60" with 3 ft. cable	\$86.40

PULSATROL MBC100 SERIES

MBC Series Selection Guide			MBC110
MODEL: Position 1 thru 6	\$1,375	MBC110 = Conductivity control with selectable sample mode (continuous or timed), single line display, S.S. sensor	
AVAILABLE OPTIONS Position 7 thru 12 as needed	\$ 246 \$ 39 \$ 39 \$ 295 N/C \$ 84 N/C	C = Selectable timer: %, limit, pulse, % post blow down D = Alarm output relay K = Alarm dry contact M3 = 4-20 mA isolated proportional programmable output R = Agency approval - US/Canada (conduit on inlet power) R1 = CE Mark approved W ⁽¹⁾ = Private Label	

A completed model should look like "MBC110CDR1"

Notes: (1) First time private label customers need to contact the factory or sales representative for information.

MBC Replacement Sensor

04-750-13-1	Conductivity; In-Line type Max. Press. 250psi, Max Temp. 400°F w/ Temp. Comp.	\$ 363.70
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ABC SERIES

ABC Series Selection Guide			ABC102
MODEL: Position 1 thru 6	\$ 898	ABC102 = Analog Meter Conductivity Controller Selectable Dual Scale 0-500, 0-100, 0-200, 0-500, 0-10,000 and 0-20,000 µs/cm	
AVAILABLE OPTIONS Position 7 thru 10 as needed	N/C N/C N/C \$ 58 N/C	P5 = Standard Unit P6 = 220v, 50 Hz service P6 = 220v, 60 Hz service V = Agency Approval US/Canada V1 ⁽¹⁾ = Agency Approval "CE" W ⁽²⁾ = Private Label	

Notes: (1) Option "P5" (220V) is required.

(2) First time private label customers need to contact the factory or sales representative for information.

ABC Replacement Sensors

04-750-14-1	Conductivity (ABC50) only	\$ 295.50
	In-Line type Max. Press. 250 psi, Max Temp. 400°F	
04-750-13-1	Conductivity (ABC101/102) only	\$ 363.70
	In-Line type Max. Press. 250 psi, Max Temp. 400°F w/Temp. Comp.	

CABLES

Some cables for the PULSAtrol 9000 and DCS 900 are ordered separately to provide you the opportunity to buy only the cables required for your application and cut to your specified length. Some cables, e.g. sensor and communications cables are included.

Cables that come **standard** with the product are as follows:

Sensor cables. All sensor cables are cut to the length required for installation into the provided flow assembly. If you order a dual system, the sensor that comes with the second flow assembly will be cut to 10 ft or 3 meters.

Flow Switch cables. All flow switch cables are cut to length required for installation into the provided flow assembly. If you order a dual system, the sensor that comes with the second flow assembly will be cut to 10 ft or 3 meters.

Communications cables. When you order the communications option, you will receive a 10 foot (3 meter) cable with a DIN connection on one end for plugging into the controller and a standard RJ-45 connection on the other end. If your communications option includes the modem, you will also receive an RJ-45 to RJ-11 adapter for connecting into a standard telephone jack.

Optional cables that must be ordered separately are as follows:

Levels – All four drum level inputs are available from a single DIN on the controller. When you order a cable for levels, one end is terminated with the mating DIN for connecting to the controller. The cable is 8-conductor twisted pair. The other end of the cable is terminated with 4 dual-pin Molex connectors, one set for each of the four drum levels.

Water Meters – All water meters inputs are available from a single DIN on the controller. When you order a cable for water meters, one end is terminated with the mating DIN for connecting to the controller. The cable is 8-conductor twisted pair. The other end of the cable has no terminals. Color-coded stripped leads are available for wiring to your specific water meter.

Analog (4-20mA) Inputs – All 4-20 mA inputs are available from a single DIN on the controller. When you order a cable for 4-20mA inputs, one end is terminated with the mating DIN for connecting to the controller. The cable is 8-conductor twisted pair. The other end of the cable has no terminals. Color-coded stripped leads are available for wiring to your analog output device.

Analog (4-20mA) Outputs – All 4-20 mA outputs are available from a single DIN on the controller. When you order a cable for 4-20mA outputs, one end is terminated with the mating DIN for connecting to the controller. The cable is 8-conductor twisted pair. The other end of the cable has no terminals. Color-coded stripped leads are available for wiring to your analog output device.

Dry-contact Alarm – All dry contact alarm outputs are available from a single DIN on the controller. When you order cable for dry contact alarms, one end is terminated with the mating DIN for connecting to the controller. The cable is 8-conductor twisted pair. The other end of the cable has no terminals. Color-coded stripped leads are available for wiring to your alarm input.

Extension cables for sensors – as stated, all sensors come with standard length cables. If you need to extend the length of cable for your sensor, you can order an extension cable up to the maximum distance allowed for proper operation. The cable will come with a DIN plug on one end and a DIN receptacle on the other.

Extension cables for the flow switch – as stated, all flow switch sensors come with standard length cables. If you need to extend the length of cable for your flow switch, you can order an extension cable up to the maximum distance allowed for proper operation. The cable will come with a DIN plug on one end and a DIN receptacle on the other.

Extension cables for single point drum levels – drum level wands come with 3 ft of cable terminated with a two-pin Molex receptacle that mates to one of the four drum level outputs on the level cable coming from the controller. If you need to extend the length of a single point drum level, you can order an extension cable up to the maximum distance allowed for proper operation. The cable will come with a 2-pin Molex receptacle on one end and a 2-pin Molex plug on the other.

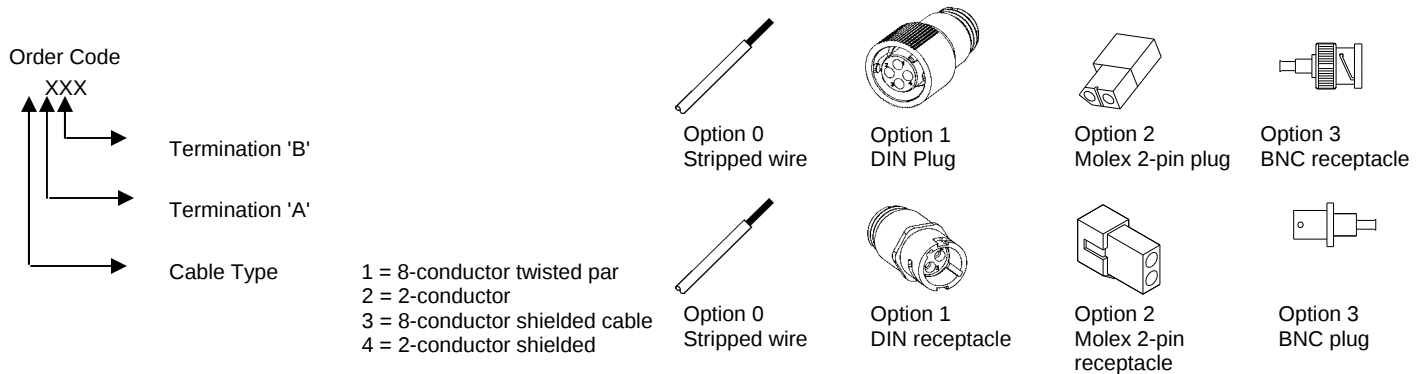
CABLES

Controller Cables

Use the selection guide below to configure an accessory cable to the length necessary for your application. Please refer to the information at the bottom of the table for maximum lengths.

CONTROLLER CABLE Selection Guide				CBL_ _ _	_ _ _	XXX
CABLE TYPE	\$32.40 \$20.60 \$35.20 \$35.20 \$35.20 \$45.70 \$23.50	121 = Multi-port drum level, 4 drum levels 101 = Water Meters, Analog Input, Analog Output, Dry Contact Alarms 211 = Extension Cable for Flow Switch 111 = Extension Cable for Conductivity Sensor 311 = Extension Cable for Conductivity Sensor 433 = Extension Cable for pH/ORP 222 = Extension Cable for single point drum levels				
AGENCY APPROVAL	N/C \$17.70	X = No agency approval required A = CE Approval (required for use with CE approved options)				
CABLE LENGTH	N/C \$1.60 / ft. after 3 ft.	003 = 3 ft. standard minimum length XXX = Desired length in feet up to maximum allowed by application (see below)				
Cable Application Level Wands Flow Switch Series 9000 Conductivity Sensor DCS 900 Conductivity Sensor Level Wands - multiple wands (4) in one cable 4-20mA Signals Dry Contact Water Meters Hall Effect (paddle wheel) water meters pH/ORP - for distances greater than 30 ft/9.2m, you must use a preamp.				1 ft = 0.30 m 1m = 3.28 ft	Maximum 500 ft / 152.5 m 500 ft / 152.5 m 200 ft / 61 m 35 ft / 10.5 m 500 ft / 152.5 m 500 ft / 152.5 m 500 ft / 152.5 m 1000 ft / 305 m	

The following diagrams indicate the type of terminals on the cable based on the three digit order code.



pH Preamp Options (Extension Cable Required)

04-046-16	Preamp with power supply only	\$ 362.90
04-046-18	Preamp with battery pack only	\$ 238.20
04-046-20	Replacement battery for preamp	\$ 26.30
45-000-25-1	Preamp with power supply and flow assembly plug	\$ 376.00
45-000-25-2	Preamp with battery pack and flow assembly plug	\$ 250.60

PREFABRICATED SYSTEMS

Prefabricated Systems

If a standard panel system does not fit your requirements, Pulsafeeder can fabricate a system tailored to your application. Some of the systems we have developed include:

- Boiler Panels that include a boiler controller, metering pumps and water tight conduit boxes mounted to a polypropylene or stainless panel.
- Fully Enclosed system with pumps, controller and all electrical mounted into a Nema 4X enclosure for installations in extreme conditions.
- Floor or Wall mounted drum rack systems.
- High Pressure Flow Assemblies.
- Corrosion Monitoring systems that combine the features of a standard panel system with a coupon rack.

For details on any of these systems contact your sales representative or the Pulsafeeder Technical Support team with your specifications to arrange a quote.

PULSATROL 400 SERIES

MPT Programmable Timer

All MPT400 Series include as standard, alarm output relay, dry contact alarm output, three water meter totalizers, standard flow assembly and 4 single point drum level inputs. Options include one to five timers, communications and agency approvals

MPT400 Series Selection Guide				MPT4_ _	_	_	_	_	_
MODELS: Position 5 & 6	\$1,896	10	= One Timer						
	\$1,920	20	= Two Timers						
	\$1,944	30	= Three Timers						
	\$1,968	40	= Four Timers						
	\$1,992	50	= Five Timers						
CONDUIT / PREWIRE FLOW ASSEMBLY Position 7	N/C	A	= Conduit without flow assembly						
	N/C	B	= Conduit with flow assembly						
	N/C	C	= Prewire without flow assembly (115V only) (Not available with "CE")						
	N/C	D	= Prewire w/ flow assembly (115V only) (Not avail w/ "CE") (Std)						
POSITION 8	N/C	X	= No Options Available						
POSITION 9	N/C	X	= No Options Available						
COMMUNICATIONS Position 10	N/C	X	= No communications (Standard)						
	\$ 593	A	= Communications, no modem with software						
	\$ 771	B	= Communications with internal modem and software						
AGENCY / PRIVATE LABEL Position 11	N/C	X	= No agency approvals (Standard)						
	N/C	A	= No agency approvals private label						
	N/C	B	= Agency approval - US/Canada (Conduit on inlet power)						
	N/C	C	= Agency approval - US/Canada with private label (Conduit on inlet power)						
	\$ 82	D	= CE approval (Conduit only, not applicable with pH preamp)						
	\$ 82	E	= CE approval with private label (Conduit only, not applicable with pH preamp)						
LANGUAGE CODE Position 12	N/C	** LEAVE BLANK FOR ENGLISH **							
	N/C	Z000S = Spanish (Spanish with English as alternate language)							

A completed model number should look like "MPT410DXXXX"

PULSATROL SERIES

MPT Programmable Timer

MPT Series Selection Guide				MPT_ _ _	Available Inputs/Outputs			
MODEL: Position 1 thru 6	\$ 973	210	= 28 day biocide timer with 24 hour bleed lockout		2	1	2	1
	\$1,017	220	= 28 day dual biocide timer with 24 hour bleed lockout		2	1	1	1
	\$1,083	250	= Dual selectable: %, limit, pulse, % post blow down			1	2	1
	\$1,480	320	= 28 day dual biocide timer with 24 hour bleed lockout		3	1	3	1
	\$1,441	350	= Triple selectable: %, limit, pulse, % post blow down			1	3	1
AVAILABLE OPTIONS Position 7 thru 12 as needed	N/C	A	= Conduit (Required for 220V, "PI"s and "FW"s)		Digital In	Dry Contac	Relay Out	Serial Comm
	\$ 220	B	= Mounted flow assembly					
	\$ 246	C ⁽⁴⁾	= Selectable timer: %, limit, pulse, % post blow down	1			1	
	\$ 39	D ⁽⁵⁾	= Alarm output relay (available on MPT2_ _ series only)			1		
	\$ 115	H ⁽³⁾	= 28 day program biocide timer				1	
	\$ 39	K	= Alarm dry contact					
	\$ 600	L1	= Serial line communication, with PULSAworks software					1
	\$ 778	L2	= Serial line communication & modem, with PULSAworks software					
	N/C	L3 ⁽²⁾	= Alarm call out (requires a modem)					
	\$ (152)	L4 ⁽²⁾	= No serial line communication software					
	N/C	R	= Agency approval - US/Canada (conduit on inlet power)					
	\$ 84	R1	= CE Mark (option A required)					
	N/C	W ⁽¹⁾	= Private Label					

A completed model should look like "MPT220BD"

When ordering a controller for a prefabricated system, preface the Model Number with a "P" (i.e. PMPT210). Option "A" required on "PI" & "FW".

Notes: (1) First time private label customers need to contact factory or sales representative for information.

(2) Only available with option "L1" or "L2"

(3) Not available on MPT150 or MPT210.

(4) Not available on MPT250.

(5) Not available on MPT120.

ANALOG MINI SERIES

Analog Timers

Model No.

DBT1 Dual Biocide Timer \$ 466.00

Includes two fully programmable 7 day / 6 event timers and one additional programmable timer for bleed lock-out of the solenoid during biocide feed with adjustable on/off times.
Nema 4X enclosure. 115 VAC

MP1 Mini Pulse Timer \$ 316.00

Water meter actuated. Enclosure: Molded fiberglass, prewired to include power cord, duplex AC receptacle & 8' water meter hook-up (0-9 min. scale std.).

LO1 Lockout Timer \$ 316.00

Add timer output to an existing controller. Fiberglass, prewired encl. 0-90 min. scale.

MPC1 Percentage Timer \$ 305.00

%/recycle timer in fiberglass prewired encl. Adjustable % on-time; fixed 9 min. scale.

MPC2 Percentage Timer \$ 316.00

Percentage/recycle timer in fiberglass prewired enclosure. Adjustable on-time and off-time. Standard scales 0-9 minute on-time, 0-9 minute off-time.

Available options for models MP1, LO1, MPC1 and MPC2:

Optional time scales

A2 0-18 seconds

A4 0-18 minutes

A5 0-90 seconds

A6 0-180 seconds

A7 0-90 minutes

Push button setting, single timer. Select scale below. (Not for LO1, MPC1 or MPC2) \$ 83.00

FA 0-9.9 minutes

FB 0-99 seconds

MP2G Dual Mini Pulse Timer \$ 375.00

Dual water meter actuated. Push button setting (0-9.9 min. scales std.).

Available options for Model MP2G:

A1 0 to 9.9 minutes, 0-99 seconds N/C

A2 0 to 99 seconds, 0 to 99 seconds N/C

S Sequential operation N/C

ACCESSORIES

DIGITAL GLYCOL FEEDER Selection Guide			DGF							
CLOSED LOOPS Position 4	\$2,339 \$3,132	1 = Single Loop 2 = Dual Loop								
CONDUIT / PREWIRE Position 5	N/C N/C	A = Conduit B = Prewire								
AUDIBLE ALARM Position 6	N/C \$ 36	A = without Audible Alarm B = with Audible Alarm								
ALARM OUTPUT OPTION Position 7	N/C \$ 24 \$ 42 \$ 36 \$ 55 \$ 48	X = None A = Dry Contact, Single B = Dry Contact, Dual C = AC Output, Single D = AC Output, Dual E = Dry Contact, Single & AC Output, Single								
PRESSURE SWITCH OPTION Position 8	N/C N/C N/C	A = Standard pressure switch, 30 to 50 psi (adjustable to 80 psi) B = Low pressure switch, 5 to 10 psi (adjustable to 35 psi) C = One standard and one low pressure switch (DGF2 only)								
PUMP AND VOLTAGE RATING Position 9	N/C N/C \$ 471 \$ 715	A = 115VAC no pump B = 230VAC no pump (must be conduit) C = 115VAC 60Hz 1.50GPM @ 100psi E = 115VAC 60Hz 3.75GPM @ 100 psi								
AGENCY APPROVAL Position 10	N/C N/C	X = None A = ETL Approval								
PANEL ASSEMBLY Position 11	N/C N/C	A = Unassembled (for UPS shipping) B = Assembled (must ship via freight)								

ACCESSORIES

Digital Glycol Feeder for Closed Loop Systems Replacement Pumps

Part No.		
18-600-35	115V 60Hz 1.50GPM @ 100PSI	\$ 816.10
18-600-42	115V 60Hz 3.75GPM @ 100PSI	\$ 937.30

Replacement Wand

16-171-81-9	Wand, level, adjustable up to 34	\$ 87.20
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Cables

16-171-81-3	Cable, extension, 10' with connectors	\$ 18.80
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Replacement Fuse

05-052-18	Fuse, 16A, 250V, 5X20MM	\$ 4.00
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Replacement Relay

10-006-01	Relay, 5V, 12A, PCB Type	\$ 19.60
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Pressure Switches

12-140-00	Standard pressure switch 30 - 50psi (adjustable to 80 psi)	\$ 183.50
12-140-01	Low pressure switch to 5 - 10psi (adjustable to 35 psi)	\$ 94.20

Pressure Gauge

12-130-01	Standard pressure gauge 0-100psi, liquid filled	\$ 91.60
12-130-03	Low pressure gauge 0-30psi, liquid filled	\$ 82.40

ACCESSORIES

Flow Controllers

Model No.		
FC2000	Flow Controller Standard flow controller has 3/4 PVC threaded connections with 3/4" PVC slip adaptors to use if needed. 1 GPM minimum flow required for activation	\$ 345.30
FC2000C	Flow Controller Standard flow controller w/ 1 PVC slip connectors; 1 GPM min. flow required for activation.	\$ 406.90
Available options for FC2000 & FC2000C:		
Receptacle functions (Standard--both on with flow)		
1	Both on with no flow	N/C
2	One on with flow, other on no flow	N/C
3	One on with flow, other service	N/C
4	One on with no flow, other service	N/C

Replacement Flow Assemblies

16-977-79	3/4 (FC2000)	\$ 130.00
16-977-71	1 (FC2000C)	\$ 154.90

Corrosion Coupon Racks

Standard system includes: PVC coupon holder, nylon screw and nut, PVC inlet ball valve, schedule 80 3/4 " PVC piping, and is mounted on unpainted plywood. System does not include coupons (see page 36).

Model No.		
CCR1	1 station	\$ 161.90
CCR2	2 stations	\$ 176.10
CCR3	3 stations	\$ 186.30
CCR4	4 stations	\$ 200.50
CCR5	5 stations	\$ 243.30
CCR6	6 stations	\$ 252.50

Available optional Piping:

1" PVC piping		3/4" CPVC piping		1" CPVC piping		3/4" black iron piping	
CCR1A	\$ 228.00	CCR1B	\$ 233.10	CCR1C	\$ 308.50	CCR1D	\$ 240.70
CCR2A	\$ 252.50	CCR2B	\$ 288.10	CCR2C	\$ 363.90	CCR2D	\$ 308.50
CCR3A	\$ 277.90	CCR3B	\$ 344.10	CCR3C	\$ 419.50	CCR3D	\$ 363.90
CCR4A	\$ 302.30	CCR4B	\$ 399.10	CCR4C	\$ 487.40	CCR4D	\$ 487.40
CCR5A	\$ 346.10	CCR5B	\$ 458.10	CCR5C	\$ 555.10	CCR5D	\$ 524.50
CCR6A	\$ 389.90	CCR6B	\$ 516.10	CCR6C	\$ 678.50	CCR6D	\$ 555.10

Available options:

X1	Quick release coupon holders (PVC only)	\$15.90/station
X4	3/4 hot/cold water flow meter	\$ 182.10
X6	1 cold water flow meter	\$ 308.50
X7	PVC outlet ball valve std, 3/4 blk iron units use 3/4" brass gate valve 250 psi	\$ 31.40
X8A	Y Strainer for 3/4 PVC	\$ 49.40
X8B	Y Strainer for 1 PVC or CPVC	\$ 49.40
X8C	Y Strainer for 3/4 CPVC or black iron	\$ 49.40
X9	Clear PVC pipe sections	\$17.30/station
U1	Mounting strut - Black Iron only (no panel)	\$ 33.90
F3	Flow control valve 3 GPM (3/4" only)	\$ 59.20
F5	Flow control valve 5 GPM (3/4" only)	\$ 59.20

NOTE: Options X4 and X6 for max. 150 psi (10.4 bar) @ 130°F (54°C).

Coupon Rack Replacement Parts

Part No.		
16-756-51-1	Quick Release coupon holder with hardware	\$ 52.50
16-756-50	PVC and CPVC holder with hardware	\$ 49.40
16-756-42	Steel on black iron holder with hardware	\$ 55.60
33-022-16	3/4 hot/cold water flow meter	\$ 233.70

ACCESSORIES

Corrosion Deposit Monitor

Model No.

Self contained systems for monitoring corrosion and deposition characteristics of cooling water systems.

DPM14		\$ 1,790.10
DPM24	(230 VAC wiring)	\$ 2,161.00

Coupons for Corrosion Coupon Racks & Corrosion Deposit Monitors Part No.

Part No.

03-220-10	Mild Steel	\$ 14.90
03-220-00	Copper	\$ 19.60
03-220-60	303 Stainless Ste	\$ 111.10
03-220-70	304 Stainless Steel	\$ 26.20
03-220-20	316 Stainless Steel	\$ 18.50
03-220-50	Nickel	\$ 24.90
03-221-30	Brass	\$ 58.80
03-221-40	Bronze	\$ 24.00
03-221-50	Aluminum	\$ 18.50

Corrosion Deposit Monitor Replacement Parts

03-008-00	Small Neoprene O-rings (2 required)	\$ 1.30	ea.
03-210-06	Compression fittings for end blocks (2 per block)	\$ 9.50	ea.
03-013-00	Large Neoprene O-rings (2 required)	\$ 2.70	ea.
05-047-50	Sight glass (1 required)	\$ 41.30	
05-052-00	15 amp fuse (1 required)	\$ 2.70	
05-051-00	Fuse holder for 05-052-00	\$ 4.10	
05-047-20	Heater cartridge (1 required)	\$ 183.40	
05-047-30	Left exchanger end block (1 required)	\$ 125.00	
05-047-40	Right exchanger end block (1 required)	\$ 125.00	
05-047-35	Center exchanger block (1 required)	\$ 125.00	

Specimen Tubes for Corrosion Deposit Monitor

03-223-00	Mild Steel	\$ 152.40
03-223-10	Copper	\$ 152.40
03-223-30	304 Stainless Steel	\$ 130.60
03-223-40	316 Stainless Steel	\$ 152.40
03-223-50	Nickel	Call Factory for Pricing
03-223-60	Brass	\$ 196.00

Corporation Stops

J61135	3/4" corporation stop - PVC 120 psi	\$ 200.70
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Surge Protector

10-014-03	AC Power and Telecom surge/spike protector (115V)	\$ 25.20
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Sample Coolers

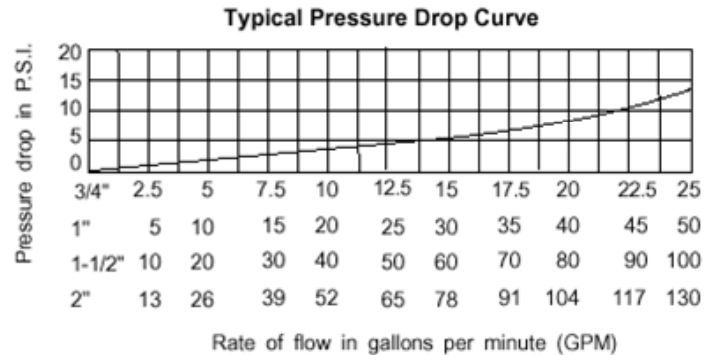
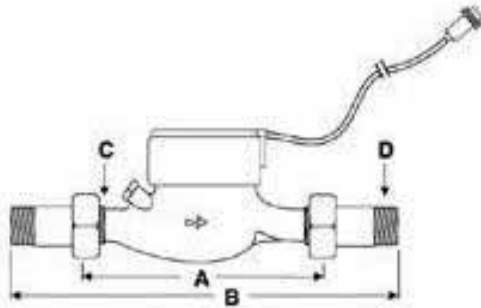
12-066-00	Sample Cooler	\$ 777.40
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ACCESSORIES

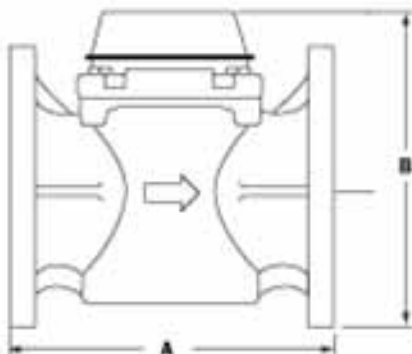
CONTACTING WATER METERS - COLD WATER								
	List Price	Code	Rating	Reference	MTR			
Select Water Meter Size	\$ 282.00	2 =	.75" NPT	.22 - 22 GPM				
	\$ 375.60	3 =	1" NPT	.44 - 52 GPM				
	\$ 681.00	4 =	1.5" NPT	.88 - 88 GPM				
	\$ 855.10	5 =	2" NPT	2 - 132 GPM				
	\$ 2,094.00	6 =	3" Flanged	440 GPM				
	\$ 2,599.00	7 =	4" Flanged	660 GPM				
	\$ 4,646.20	8 =	6" Flanged	1650 GPM				
Code	Rating	Gallons Per Contact (GPC)						
		3/4"	1"	1.5"	2"	3"	4"	6"
01 =	0.1 GPC	X	X					
02 =	0.25 GPC	X	X					
03 =	0.5 GPC	X	X					
04 =	1 GPC	X	X	X	X			
06 =	5 GPC	X	X	X	X			
07 =	10 GPC	X	X	X	X			
09 =	50 GPC	X	X	X	X			
10 =	100 GPC	X	X	X	X	X	X	X
13 =	1,000 GPC					X	X	X
3/4" - 2" Meters have male NPT Bronze Bodies, rated for 150 PSI max, 105 F max.								
3", 4" & 6" Meters have Epoxy Coated Ductile Iron Flanged Bodies, rated for 200 PSI max, 105 F max.								

**3/4" - 2" Meters have male NPT Bronze Bodies
150 PSI max, 105 F max.**

Size	A	B	C (IPS)	D (NPT)
3/4"	7.50	12.62	1	3/4
1"	10.25	15.62	1 1/4	1
1.5"	11.75	17.62	2	1 1/2
2"	11.75	17.62	2 1/2	2



**3", 4" & 6" Meters have Epoxy Coated Ductile Iron Flanged Bodies
200 PSI max, 105 F max.**



Size	A	B	Flanges
3"	8.86	10.87	150# ANSI
4"	9.84	11.26	
6"	11.81	13.60	

ACCESSORIES

Solenoid Valves

SVC Series

Part No.

Zero psi differential, 105 psi max. 115 VAC, brass bodies, buna seals, NC, 176°F, 2 way

SVC-0.50-115-ODP	\$ 187.30
SVC-0.75-115-ODP	\$ 204.60

1.5 psi differential, 150 psi max. 115 psi max. 115 VAC, brass bodies, buna seals, NC, 176°F, 2 way

SVC-0.50-115	\$ 163.80
SVC-0.75-115	\$ 181.10

3 psi differential, 225 psi max. 115 psi max. 115 VAC, brass bodies, buna seals, NC, 176°F, 2 way

SVC-1.00-115	\$ 338.60
SVC-1.50-115	\$ 553.90
SVC-2.00-115	\$ 796.50

EC Series - Motorized Valves

Part No.

Motorized Valves for Cooling Tower Applications

Low differential pressure applications. Brass bodies.

12-045-00	1/2" NPT (25 psi maximum)	\$ 163.90
12-054-10	3/4" NPT (25 psi maximum)	\$ 163.70
12-057-00	1" NPT (15 psi maximum)	\$ 181.70

Dynamatic Series - Motorized Valves

Motorized Valves for Cooling Tower Applications.

Brass valve, full port, with electric actuator.

12-054-14	1/2" NPT	\$ 782.60
12-054-13	3/4" NPT	\$ 782.60
12-054-12	1" NPT	\$ 782.60
12-054-11	2" NPT	\$1,690.40

Bleed-off Piping Assembly

Includes SVC solenoid valve, steel Y-strainer, and brass shutoff valve.

16-900-18	3/4"	\$ 329.30
16-900-12	1"	\$ 577.20
16-900-13	1 1/2"	\$ 962.90
16-900-14	2"	\$1,570.50
16-900-18-1	16-900-18 less solenoid valve	\$ 107.70
16-900-12-1	16-900-12 less solenoid valve	\$ 107.70
16-900-13-1	16-900-13 less solenoid valve	\$ 310.60
16-900-14-1	16-900-14 less solenoid valve	\$ 413.40

Sample Stream Parts

26-034-48-1	Complete sample stream assembly. Includes: flow switch, PVC shutoff valve (input side), bowl strainer, sample valve, PVC shutoff valve (output side)	\$ 453.10
26-034-48-2	Same as above less flow switch	\$ 298.40
03-034-00	3/4" Tee TXTXT, PVC	\$ 29.30
03-174-00	Reducer Bushing, 3/4S x 1/2T, PVC	\$ 8.00
03-048-11	3/4" Tee TXTXT, CPVC	\$ 18.80
12-068-00	1" Steel Y-strainer	\$ 77.20
12-071-00	3/4" Steel Y-strainer	\$ 70.50
12-069-00	3/4" Clear PVC Y-strainer	\$ 200.70
12-070-00	Replacement mesh for 12-069-00	\$ 5.30
12-072-11	1" PVC shutoff valve	\$ 109.10
12-079-00	1" Brass shutoff valve	\$ 33.10
12-072-00	3/4" PVC ball valve	\$ 69.80
16-810-00	2 stage injection manifold	\$ 98.50
16-810-03	3 stage injection manifold	\$ 98.50
16-810-04	4 stage injection manifold	\$ 133.10
16-810-08	5 stage injection manifold	\$ 180.90
04-300-08	Sample valve assembly	\$ 25.90

ACCESSORIES

Valve Packages (For Use with Times Sample Systems)

Part No. 16-896-00	Up to 100 psi Package includes 1/2" solenoid valve (12-048-00) and 1" orifice union with 4 orifice plates (12-012-00 and 12-013-50).	\$ 622.00
16-896-04	Up to 300 psi Package includes 1/2" motorized ball valve with heavy duty 90 degree actuator (16-892-00) and 1/2" flow throttling valve (12-046-01).	\$ 1,788.90
16-896-08	Up to 450 psi Package includes 1/2" motorized ball valve with 360 degree actuator (16-892-02) and 1" orifice union with 4 orifice plates (12-012-00 and 12-013-50).	\$ 1,048.70

Valve Packages (For Use with Continuous Sample Systems)

16-896-02	Up to 100 psi Package includes 3/4" solenoid valve (12-056-00) and two 1" orifice unions with 4 orifice plates each (12-012-00 and 12-013-50).	\$ 918.70
16-896-06	Up to 300 psi Package includes 3/4 motorized ball valve with 90 degree actuator (16-892-01), 3/4 flow throttling valve (12-055-01), and 1/2" flow throttling valve (12-046-01).	\$2,461.30
16-896-10	Up to 425 psi Package includes 3/4" motorized ball valve with 360 degree actuator (16-892-04) and two 1" orifice unions with 4 orifice plates each (12-012-00 and 12-013-50).	\$ 1,289.30

Available option: -2	230 VAC service Note: \$65.40 adder is only for models 16-896-04, -06, -08 and -10.	\$ 71.90
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NOTE:	Materials of construction: Solenoid Valves are bronze body with stainless steel pilot and valves; Motorized Ball Valves are carbon steel body with 316 stainless steel ball and stem; Throttling Valves are carbon steel body and valve; and Orifice Unions are carbon steel union with stainless steel plates.
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Diverter Valves

12-053-01	3/4" motorized 3-way valve	\$ 1,819.80
12-052-02	1" motorized 3-way valve	\$ 2,096.80
16-896-16*	1-1/2" motorized 3-way valve	\$ 2,714.20
16-896-18*	2" motorized 3-way valve	\$ 3,605.00

*Consult factory for lead time.

Solenoid Valves - SVB Series

0 psi differential, 100 psi, 115 VAC, brass bodies, PTFE, NC, 2 way		
12-048-00	1/2"	\$ 519.70
12-056-00	3/4"	\$ 714.10

ACCESSORIES

Motorized Ball Valves

Part No.		
16-892-00	1/2" motorized ball valve (10-75 Worchester Actuator)	\$ 1,252.30
16-892-01	3/4" motorized ball valve (10-75 Worchester Actuator)	\$ 1,314.80
16-892-02	1/2" motorized ball valve (10-36 Worchester Actuator)	\$ 925.40
16-892-04	3/4" motorized ball valve (10-36 Worchester Actuator)	\$ 974.70
16-892-16	1/2" high steam rated motorized ball valve (10-36 Worchester Actuator)	\$ 2,041.90
16-892-18	3/4" high steam rated motorized ball valve (12-75 Worchester Actuator)	\$ 2,270.00

Available option:

-2	230 VAC service	\$ 194.90
12-040-00	Worchester 10-75 actuator only	\$ 802.00
12-040-10	Worchester 10-36 actuator only	\$ 554.10

Motorized Ball Valve Parts

12-043-00	Worchester 1/2" steam rated ball valve only	\$ 314.00
12-051-00	Worchester 3/4" steam rated ball valve only	\$ 382.50
12-041-00	Mounting kit for 12-043-00 & 12-040-00	\$ 112.90
12-041-10	Mounting kit for 12-043-00 & 12-040-10	\$ 112.90
12-049-00	Mounting kit for 12-051-00 & 12-040-00	\$ 112.90
12-049-10	Mounting kit for 12-051-00 & 12-040-10	\$ 112.90
05-006-20	Limit switch for 10-36 actuator	\$ 31.80

Flow Control Valves

12-075-01	3/8" valve (300 psi maximum)	\$ 523.60
12-046-01	1/2" valve (300 psi maximum)	\$ 723.80
12-055-01	3/4" valve (300 psi maximum)	\$ 832.80
12-012-00-1	1" orifice union with set of (4) orifice plates	\$ 277.90
12-013-50	Set of four orifice plates	\$ 119.00

ACCESSORIES

Hand Held Conductivity Testers

Model No.		
HJ6BC	0-100, 0-1000, 0-10,000 $\mu\text{S}/\text{cm}$	\$ 260.40
HJ7B	0-50, 0-500, 0-5,000 $\mu\text{S}/\text{cm}$	\$ 260.40

Calibration Solutions

Part No.

Conductivity Solutions (500 ml bottles)

20-016-24	500 conductivity (6 pack)	\$ 104.40
20-016-26	2000 conductivity (6 pack)	\$ 104.40
20-016-28	5000 conductivity (6 pack)	\$ 104.40
20-016-00	500 conductivity (1 bottle)	\$ 19.90
20-016-02	2000 conductivity (1 bottle)	\$ 19.90
20-016-04	5000 conductivity (1 bottle)	\$ 19.90

pH Kit Solutions

20-016-36	pH 4 buffer solution - 4 oz	\$ 13.40
20-016-37	pH 4 buffer solution - 32 oz	\$ 32.90
20-016-38	pH 7 buffer solution - 4 oz	\$ 13.40
20-016-39	pH 7 buffer solution - 32 oz	\$ 32.90
20-016-40	pH 10 buffer solution - 4 oz	\$ 13.40
20-016-41	pH 10 buffer solution - 32 oz	\$ 32.90

ORP Kit Solutions

20-016-42	ORP 100 mV buffer solution - 4 oz	\$ 19.00
20-016-43	ORP 100 mV buffer solution - 32 oz	\$ 84.90
20-016-44	ORP 465 mV buffer solution - 4 oz	\$ 19.00
20-016-45	ORP 465 mV buffer solution - 32 oz	\$ 84.90

PARTS

ACT / ABC Parts (101/102 only)

Part No.		
08-986-05	Power supply board assembly, ETL/CE	\$ 285.70

ACT Parts (101/102 onl)

08-986-06	Limit timer board assembly	\$ 112.20
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ACT Motherboard Panel Assemblies, Complete

15-920-08	Panel assembly ACT102BC	\$ 593.00
15-920-08-1	"CE" Panel assembly ACT102ABCPV1	\$ 593.00
15-920-12	Panel assembly ACT102B	\$ 569.00
15-920-12-1	"CE" Panel assembly ACT102ABPV1	\$ 569.00
15-920-20	Panel assembly ACT102	\$ 552.80
15-920-20-1	"CE" Panel assembly ACT102APV1	\$ 552.80

ABC Mother Board Panel Assemblies, Complete

15-920-28	Panel assembly ABC102	\$ 692.20
15-920-28-1	"CE" Panel assembly ABC102P5V1	\$ 692.20

ACT Flow Assemblies, Complete

16-596-20	Flow assembly, with flow switch conductivity (no sensor)	\$ 226.70
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ACT Flow Assembly Components

03-093-00	Male adaptor, 3/4"	\$ 20.30
03-096-62-E	Elbow tee, 3/4"	\$ 13.70
04-300-08	Sample valve assembly	\$ 25.90
03-096-56-E	Tee, sensor	\$ 16.60
03-096-52-E	Tee, flow, clear	\$ 19.90
03-005-05	O-ring, 1 1/2" ID, 1 3/4" OD, 1/16" Thk (tee)	\$ 3.00
03-005-04-2	O-ring, 15/16" ID, 1 1/8" OD, 3/32" Thk (sensor/ sensor holder)	\$ 2.50
06-008-00-E	Coupling Nut	\$ 6.90
03-096-71-E	Pipe Nipple, 3/4" x 3.00 long	\$ 13.70
04-300-90-1	Flow Switch	\$ 28.70
04-300-91	"CE" flow switch	\$ 53.20

PARTS

Daughter Cards

Part No.	Description	Applicable Series	Price
08-985-05	Conductivity card	100	\$ 455.80
08-985-50	Isolated pH card	100	\$ 463.60
08-600-43	Serial line comm. card w/o 2400 baud modem	200/300/9200	\$ 423.90
08-600-45	Serial line comm. card w/ 2400 baud modem	200/300/9200	\$ 675.30
08-600-06	Dual conductivity card	All Series except 100	\$ 344.70
08-600-16	Single conductivity card	All Series except 100	\$ 207.20
08-600-08	Dual pH/ORP card	All Series except 100	\$ 483.10
08-600-18	Single pH card	All Series except 100	\$ 407.20
08-600-23	Dual conductivity card for boilers and hi-pressure	All Series except 100	\$ 529.90
08-600-21	Single conductivity card for boilers and hi-pressure	All Series except 100	\$ 457.70
08-600-12	Dual 4-20mA output card	All Series except 100	\$ 615.40
08-600-13	Single 4-20mA output card	200/300/9200	\$ 495.90
08-600-10-1	Dual 4-20mA input card	9600/9500	\$ 278.80
08-600-19	Single ORP card	9300/9500/9600	\$ 407.20
08-600-48	Serial line comm. card w/o 14.4K baud modem	9300/9500/9601	\$ 423.90
08-600-49	Serial line comm. card w/ 14.4K baud modem	9300/9500/9602	\$ 884.50

Mother Boards

08-985-00-E	Mother board, 100 Series	100	\$ 391.70
12-042-73	Kit, 100 Series mother board w/ battery	100	\$ 391.70
12-042-74	Kit, 100 Series mother board w/ M1 option	100	\$ 487.90
12-042-75	Kit, 100 Series mother board w/ M2, M3 option	100	\$ 487.90
08-600-14-2	Mother board with 2 line display	200/9200	\$ 687.90
08-600-50	Mother board for 2 line display	200/9200	\$ 606.00
08-600-15-2	Mother board with 8 line display	300/9300/9500/9600	\$ 838.10
08-600-52	Mother board for 8 line display	300/9300/9500/9601	\$ 757.90

Power Supply / Relay Boards

12-042-76	Power supply/relay board w/ K option	100	\$ 369.80
08-985-60	Power supply/relay board w/o connectors	100	\$ 379.60
08-600-04-1	Relay board w/o dry contact option, 200 Series	200	\$ 376.40
08-600-04-2	Relay board w/o dry contact option, 200 Series	200/9200	\$ 417.30
08-600-05-1	Relay board w/o dry contact option, 200 Series	300	\$ 392.20
08-600-03-3	Relay board w/o dry contact option, 200 Series	All Series except 100	\$ 299.80
08-600-47-2	Relay board w/o dry contact option, 200 Series	All Series except 100	\$ 392.20
08-600-65-3	Relay board w/o dry contact option, 200 Series	400/9300/9500/9600	\$ 462.30

Kits, Power Supply / Relay Boards

12-042-71	Kit, Power supply/relay board complete	100	\$ 392.20
12-042-77	Kit, Relay board complete	200/9200	\$ 429.70
12-042-72	Kit, power supply board w/ cables to relay board	200/300/9200	\$ 312.40
12-042-78	Kit, Relay board complete	300	\$ 449.80
12-042-79	Kit, CE" power supply board complete	All Series except 100	\$ 405.20
12-042-83	Kit, Relay board complete	9300/9500/9600	\$ 499.90

Relays

10-001-08-E	Relay, AC/IO, module, plug-in/screw mounting	200/300/9200	\$ 47.00
10-001-12	Relay, SPDT, 10A, 12VDC coil, mech., plug-in	All Series except 100	\$ 41.20

PARTS

Kits, Fuse / Spare Parts

Part No.	Description	Applicable Series	Price
12-042-61	Kit, fuse, 1A, 250V, rectangular (pkg. of 5)	100	\$ 23.70
12-450-01	Kit, fuses (1A, 125V and 5A, 125V) and jumpers	100	\$ 23.70
12-450-04	Kit, fuses (5A 250V slo-blo) and jumpers	100	\$ 23.70
12-042-62	Kit, fuse, 5A, 125V, rectangular (pkg. of 5)	200/300/9200	\$ 23.70
12-042-62-1	Kit, fuse, 5A, 250V, round (pkg. of 5)	200/300/9200	\$ 23.70
12-450-00	Kit, fuses (1A, 250V and 5A, 250V) and jumpers	200/300/9200	\$ 23.70
12-450-02	Kit, fuses, (1/4A, 250V and 5A, 125V) and jumpers	300/9300/9500/9600	\$ 23.70
12-042-62-2	Kit, fuse, 5A, 250V, slo-blo, round (pkg. of 5)	All Series except 100	\$ 23.70
12-042-85	Kit, fuse, 1A, 250V, slo-blo, glass (pkg. of 5)	All Series except 100	\$ 23.70
12-450-03	Kit, fuses (1A & 5A, 250V, slo-blo) and jumpers	All Series except 100	\$ 23.70
12-450-05	Kit, CE" fuses (1.6A & 5A, 250V slo-blo) and jumpers	All Series except 100	\$ 23.70
12-450-06	Kit, fuse, 63mA, 250V, slo-blo (pkg. of 4)	9300/9500/9600	\$ 31.50

Complete Flow Assemblies

Standard Flow Assemblies

16-596-00	Flow assembly, with flow switch (no sensor)	\$ 219.80
16-596-02	Flow assembly, with flow switch for pH or ORP (no sensor)	\$ 231.30
16-596-04	Flow assembly, with flow switch for pH/ORP (no sensors)	\$ 245.40
16-596-08	Flow assembly, with flow switch for pH/ORP/Cond (no sensors)	\$ 260.80
16-596-12	Flow assembly, with flow switch for pH/Cond or ORP/Cond (no sensors)	\$ 245.40
16-596-22	Flow assembly, with flow switch for conductivity (no sensor)	\$ 231.30

Hi-Pressure Flow Assemblies

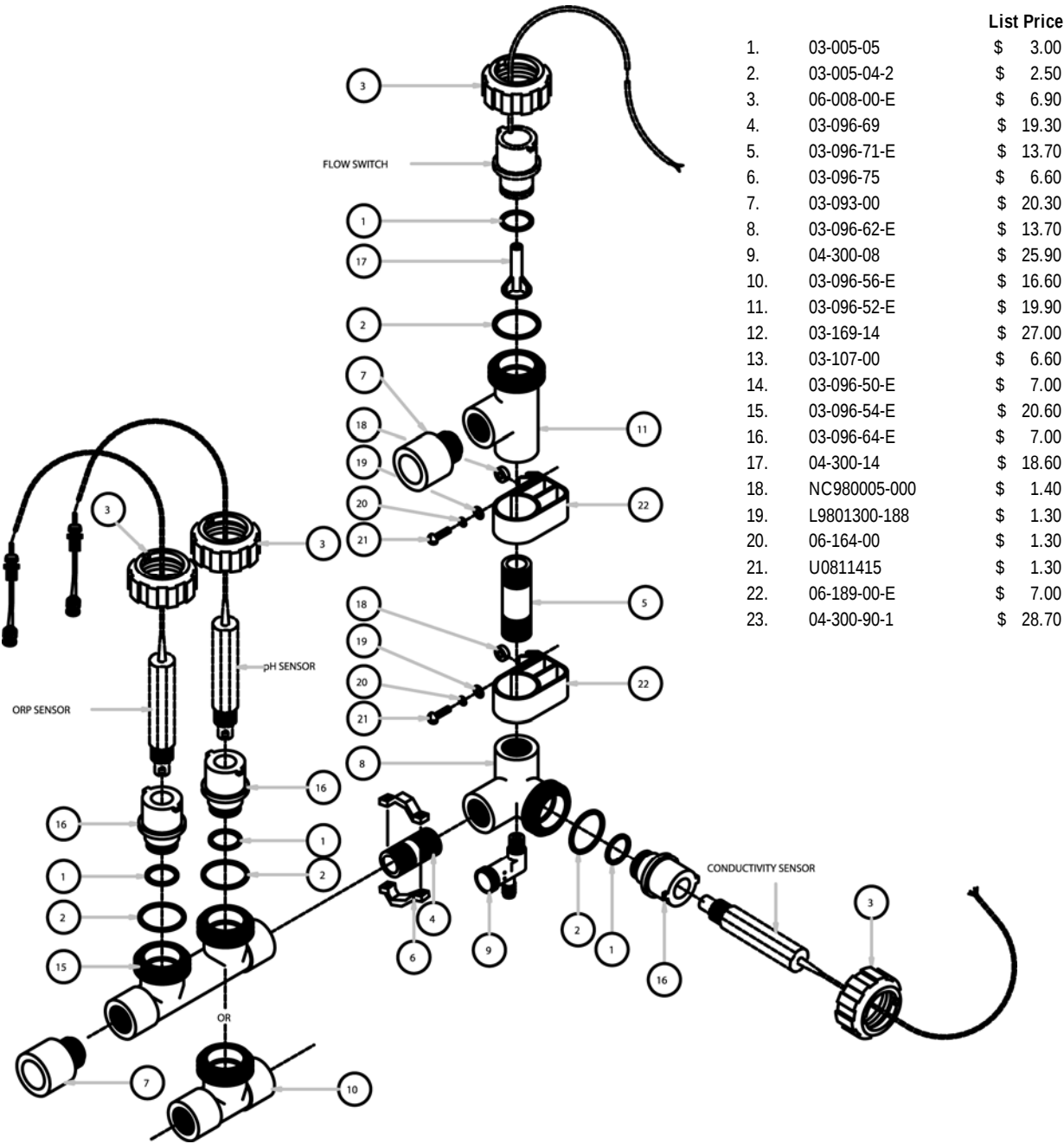
16-596-24	Flow assembly, w/o flow switch for conductivity (no sensor) "B1"	\$ 178.50
16-596-26	Flow assembly, w/o flow switch for pH (no sensor) "B2"	\$ 178.50
16-596-28	Flow assembly, w/o flow switch for pH/Cond or ORP/Cond (no sensors) "B3"	\$ 204.20
16-596-30	Flow assembly, w/o flow switch for ORP (no sensor) "B4"	\$ 178.50
16-596-32	Flow assembly, w/o flow switch for pH/ORP (no sensors) "B6"	\$ 204.20
16-596-34	Flow assembly, w/o flow switch for pH/ORP/Cond (no sensors) "B7"	\$ 255.50

"CE" Flow Assemblies (R1)

16-596-01	Flow assembly, with flow switch (no sensor)	\$ 227.30
16-596-03	Flow assembly, with flow switch for pH or ORP (no sensors)	\$ 239.00
16-596-05	Flow assembly, with flow switch for pH/ORP (no sensors)	\$ 252.90
16-596-09	Flow assembly, with flow switch for pH/ORP/Cond (no sensors)	\$ 268.40
16-596-13	Flow assembly, with flow switch for pH/Cond or ORP/Cond (no sensors)	\$ 249.40
16-596-23-1	Flow assembly, with flow switch for conductivity (no sensor)	\$ 239.00

PARTS

Flow Assembly Diagram

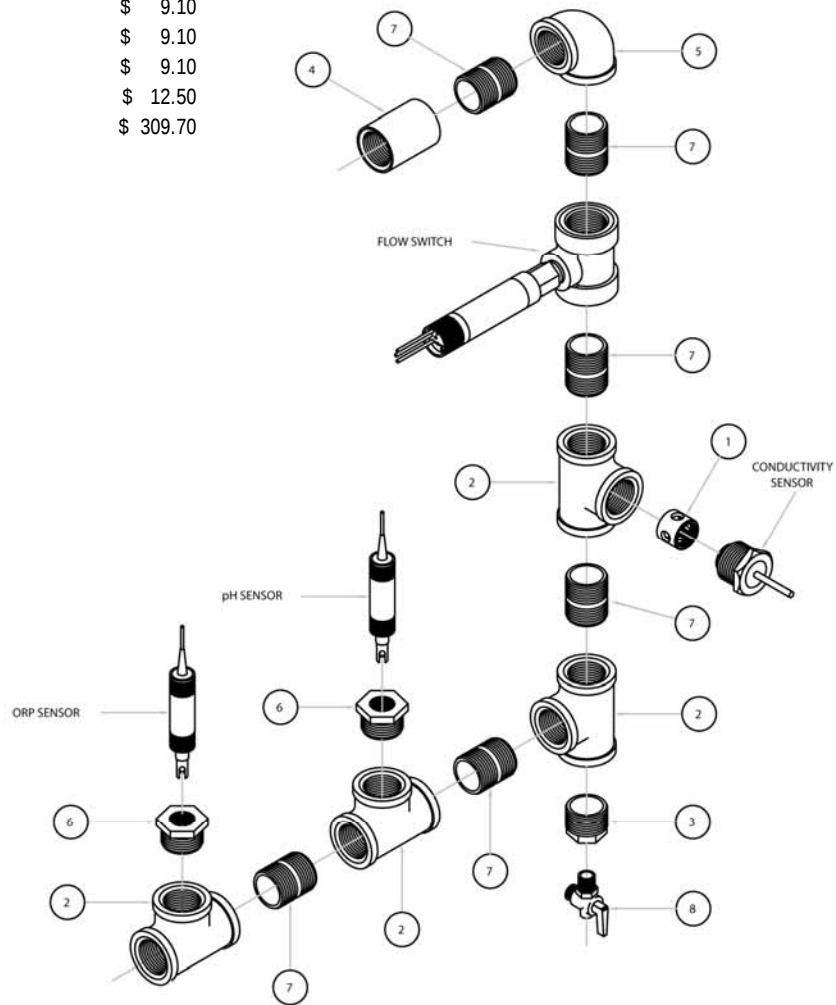


Drawing #1

PARTS

Hi-Pressure Flow Assembly Diagram

		List Price
1.	03-068-00	\$ 15.50
2.	03-135-13	\$ 19.10
3.	03-135-14	\$ 9.10
4.	03-135-15	\$ 9.10
5.	03-135-16	\$ 9.10
6.	03-135-17	\$ 9.10
7.	03-135-18	\$ 9.10
8.	03-176-00	\$ 12.50
9.	12-600-90	\$ 309.70



Drawing #2

Policies and Procedures

1. Manufacturer's Equipment Warranty

- a. Pulsafeeder warrants all pumps and controllers of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24 months from date of shipment from the factory. The manufacturer's liability is limited to repair or replacement of any failed equipment or part which is proven defective in material or workmanship upon manufacturer's examination. This warranty does not include removal or installation costs and in no event shall the manufacturer's liability exceed the selling price of such equipment or part.
- b. The manufacturer disclaims all liability for damage to its products through improper installation, maintenance, use or attempts to operate such products beyond their functional capacity, intentionally or otherwise, or any other unauthorized repair. The manufacturer is not responsible for consequential or other damages, injuries or expense incurred through the use of its products.
- c. The above warranty is in lieu of any other warranty, whether expressed or implied. The manufacturer makes no warranty of fitness or merchantability. No agent of ours is authorized to provide any warranty other than the above.

2. Pulsafeeder's Parts and Accessory Warranty

- a. Pulsafeeder, Inc. warrants parts and accessories provided to be free of defects in material or workmanship. Unless otherwise noted below, liability under this policy extends for 90 days from date of shipment from the factory when sold as service parts. (Replaceable elastomeric parts are expendable and are not covered by any warranty either expressed or implied.)
- b. This policy is extended to a full 12 months from the date of installation or 18 months from shipment from the factory whichever comes first on the following accessories;
Intelliscan
Digital Glycol Feeders
Analog Timers
Water Meters
Flow Controllers
- c. MicroTrac and MicroVision toroidal probes are warranted for 24 months from date of shipment from the factory when purchased in conjunction with the controller.
All other electrodes/probes and sensors are considered maintenance items and such are warranted for six (6) months from the date of shipment when purchased in conjunction with the controller.
Any electrodes/probes and sensors purchased as spare parts are warranted for 90 days from date of shipment.
- d. The manufacturer's liability is limited to repair or replacement of any failed equipment or part which is proven defective in material or workmanship upon manufacturer's examination. This warranty does not include removal or installation costs and in no event shall the manufacturer's liability exceed the selling price of such equipment or part.
- e. The manufacturer disclaims all liability for damages to its products through improper installation, maintenance, use or attempts to operate such products beyond their functional capacity, intentionally or otherwise, or any unauthorized repair. The manufacturer is not responsible for consequential or other damages, injuries or expense incurred through the use of its products.
- f. The above warranty is in lieu of any other warranty, whether expressed or implied. The manufacturer makes no warranty of fitness or merchantability. No agent of ours is authorized to provide any warranty other than the above.

3. Process for All Returned Goods

- a. Please contact our Customer Service Department to request a RMA (Return Material Authorization) number prior to returning any goods. The following information will be required:
Billing and ship-to address
Model number and serial number
Contact name and phone number
Reason for return
Purchase order (where applicable)
A packing slip will be provided to the shipper and MUST accompany the product being returned. Packages received without our proper packing list will be refused by the receiver.
- b. All material must be returned freight prepaid.
- c. All material must be properly packaged to prevent damage in shipment.
- d. All products MUST be wiped and flushed clean of any and all chemicals, solvents or buffers and be warranted to be safe for handling. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
- e. RMA for returning product for credit is effective for 90 days from the date of issue. After 90 days if the product has not been returned to Pulsafeeder the RMA number will be cancelled, and a new request must be made by the customer to continue with the return procedure.

4. Non-Warranty Return Procedure

- a. If you are experiencing a concern with your Pulsafeeder product, first consult the distributor, dealer or Regional Sales Manager or the operation and maintenance manual for assistance. If service of your non-warranty unit is necessary, you must request a return material authorization. A RMA form will be issued and must be used as the packing list attached to the outside of the box. Please send the unit freight prepaid with the RMA number visibly displayed on the outside of the carton. All products MUST be wiped and flushed clean of any and all chemicals, solvents or buffers and be warranted to be safe for handling. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
- b. The charges listed in the following table will apply.

Product	Repair Cost
Pumps and Pump Accessories – within 5 years of sale date	Current List Price x .50 x Part Discount Multiplier
Controllers and Controller Accessories within 5 years of sale date	Current List Price x .50 x Part Discount Multiplier
Any item older than 5 years from date of sale	With purchase order, \$50 bench fee to evaluate. The \$50 bench fee may be applied towards repair cost of unit or towards a new controller

- c. Extended warranty on repair goods will be offered only when the repairs were made by the factory on non-warranty units.
 - i. Microprocessor Controls – 1 year from date of shipment
 - ii. Electronic Controls – 6 months from date of shipment (excluding electronic parts)
 - iii. Standard metering pumps – 3 months from date of shipment

5. Credit for Return of New, Unused Equipment

- a. No equipment will be accepted beyond six months after date of shipment from factory for credit.
- b. Only new, unused and undamaged standard equipment will be accepted for return to stock.
- c. All credits are based on evaluation and acceptance of material as new and unused by Pulsafeeder. You will be requested to acknowledge the condition of the product being returned on our packing list. Any product received that is deemed to be unsafe for handling or without this acknowledgement will be refused by our receiver.
- d. A restocking fee of 25% will apply to returned goods. When a PO is provided for a replacement item at the time of the return request the restocking fee will be 15%. Note: any product mounted on a panel or skid will be charged a 50% re-stocking fee.
- e. A request for a Returned Material Authorization (RMA) number must be made prior to returning product to Pulsafeeder.
- f. All equipment shall be returned with the RMA Packing List form attached to the outside of the box.
- g. If any chemical, solvent or buffer has been introduced into the product it must be wiped and flushed clean of any and all substances prior to returning to Pulsafeeder.
- h. All material shall be returned freight prepaid.
- i. Private label products or Engineered Panel Mount Systems are not returnable.

6. Pricing Errors

- a. Pulsafeeder does their very best to avoid errors in billing. You will receive a confirmation of your order within 24 hours of order entry. If upon review the customer feels there is a discrepancy, they should contact Pulsafeeder Customer Service as soon as possible to resolve.
- b. Should an invoice be received that the customer believes to have incorrect pricing, they should notify Pulsafeeder Customer Service to investigate.

7. Missing Items

- a. If a product is received by the customer with an item missing the customer must notify Pulsafeeder Customer Service within 7 days of receipt of the product by the end user. A replacement item will be sent at no charge as quickly as possible.
- b. If a shipment is received by the customer with a line item missing they must notify Pulsafeeder Customer Service within 7 days of receipt of the product by the end user. If the customer had been billed for that item, a credit will be issued against the original Sales Order and a new Sales Order will be created for the replacement product.

8. Damaged Items

- a. Should the customer receive an order that was damaged in transit, the customer must notify the carrier directly to initiate a claim on the day of delivery.
- b. Should the customer receive a product with damaged components due to improper packaging they should notify Pulsafeeder Customer Service within 7 days of receipt of product by end user. A replacement item will be sent at no charge as quickly as possible.

9. Technical Support Services Available

- a. Pulsafeeder's Technical Sales Support team is available *to provide all your sales and support needs. The principle mission of this group is to sell and support our customer base in a timely and effective manner. This includes the ability to provide in-field service training, assistance in start-up of our products and perform field repair of goods when required.*
- b. Scope
Pulsafeeder, Inc. factory Field Service Technicians are available throughout the World for field services on all Pulsafeeder products. Services include:
 - i. Maintenance Training Seminars, including Classroom slide presentations and or Hands-on Training. The seminar will take approximately four to five hours, and if time permits minor repair and or adjustments may be made to the customer's pumps, controllers or accessories.
 - ii. Pre-start up inspections and start up testing/calibration of pumps, controllers and accessories.
 - iii. Field repairs of pumps controllers and accessories
 - iv. Diagnosing and recommending solutions to systems problems.

Fee Schedule	Service Rate ⁽¹⁾
Field Repairs and Start-ups	
Normal 8 hour day	\$98.00/hour
Overtime (in excess of 8 hrs, each day)	\$148.00/hour
Sundays, National Holiday	\$195.00/hour
Travel time to job site and return	\$87.00/hour
Travel expenses (air fare, hotel, car and meals)	Chargeable to customer at cost
Minimum charge	4 hours labor, plus travel time and expenses
End User Training Seminars	
Normal work day	\$750.00/day plus expenses (air fare, car rental, hotel and meals at cost)
Sundays, National Holiday	\$1495.00/day plus expenses (air fare, car rental, hotel and meals at cost)

⁽¹⁾ All rates listed in this section are actual hourly and daily rates, not reference rates.

TERMS & CONDITIONS

- 1 . AGREEMENT. The contract of sale resulting from Seller's documentation together with these terms and conditions ("Contract") constitutes the entire agreement between the parties hereto, except as modified in writing signed by both the Seller and Purchaser. The Seller is Pulsafeeder, Inc. and the Purchaser is identified in the Contract. Any terms in a purchase order, irrespective of their materiality, which are either different from or additional to Seller's conditions of sale, are objected to and are excluded unless the Seller expressly agrees in writing to such terms. Execution of such forms by Seller to accommodate Purchaser's procurement or accounting procedures or to evidence agreed up on change orders shall not be construed as assent to Purchaser's terms. Acceptance of the goods shipped shall constitute assent to Seller's conditions of sale. This Contract shall be binding up on Purchaser and Seller, and on their successors and assigns.
- 2 . PROPOSAL OR QUOTATION. A proposal shall not become binding up on Seller until it has been executed and returned by Purchaser. An oral quotation shall not be considered an offer: only a written confirmation thereof incorporating Seller's terms and conditions shall constitute an offer.
- 3 . CREDIT. Credit terms of payment must have the approval of Seller's Credit Department and must be specified in writing on Seller's invoice or in the Contract. If Purchaser's credit is found by Seller to be unsatisfactory . Seller may rescind or terminate this Contract. If at any time during the term of this Contract Purchaser's financial responsibility becomes impaired or unsatisfactory to Seller, Seller reserves the right to stop shipment on notification to Purchaser, project owner and surety with a demand for payment in advance or at time of delivery for future deliveries or to require other security satisfactory to Seller and in the absence thereof, to cancel the unfilled portion of the Contract. Seller will notify Purchaser promptly of its decision to stop shipments and give an advance notice to the extent this is possible. In the absence of credit terms, sales are for cash.
- 4 . PAYMENT. Specific terms of payment for this order shall be set forth on the reverse side of this Contract or identified and appended hereto. Purchaser agrees to make payment at Seller's location specified in this Contract in lawful money of the United States. Purchaser further agrees to make all payments when due to Seller in accordance with the agreed terms of payment in this Contract without reference to Purchaser's agreement with or payments by the owner and with no right of retention.
- 5 . INTEREST AND COSTS. Purchaser agrees to pay interest at 1.5% per month (to the extent permitted by law) on all delinquent balances if and when assessed by Seller, and any attorney's fees or court costs arising out of and made necessary in collection of its obligation to Seller created by this Contract.
- 6 . TAXES. Any federal, state or local tax assessment, fee, duty or charge hereafter imposed on or measured by the products purchased hereunder shall be for Purchaser's account unless Purchaser furnishes Seller an acceptable exemption certificate from such tax, fee, duty or charge prior to shipment.
- 7 . FORCE MAJEURE. Seller shall make delivery in accordance with the terms of this Contract or within a reasonable time in the absence of any commitment, but Seller shall not be liable for delays or defaults in delivery caused by floods, fires, storms, or other acts of God, by war or act of public enemy (or civil disturbance), strikes, lock outs, shortages of labor or raw materials and supplies (including fuel) or production facilities, transportation service or equipment shortages or failures, action of any governmental authority or other conditions beyond Seller's reasonable control.
- 8 . CANCELLATION. If Purchaser desires to cancel or change any portion of this Contract, he must make such request in writing to Seller. Seller may, in its sole discretion, accept or reject any such request. If accepted, the Purchaser nonetheless must take delivery and make payment to Seller for all material manufactured and in process of manufacture at time of notice, and all special materials ordered at time of notice and for which Seller must take delivery , unless otherwise agreed by Seller in writing. All such materials must be removed from Seller's premises within 30 days after payment and payment will due at time of notice. Seller also reserves the right to make a cancellation charge in the event of cancellation by the Purchaser of an order placed in Seller's shipping schedule and acknowledged by Seller.
- 9 . INSPECTION AND TESTING . Seller's standard specifications and tests apply to all orders. All charges for inspections or tests not regularly furnished are for Purchaser's account and subject to prior negotiation. All inspections shall be conducted at Seller's plant, and failure of Purchaser to avail himself of inspection privileges shall be deemed a waiver of such privileges.
- 10 . PRICES. Prices are subject to change without notice. Orders based on published prices and accepted for scheduled shipment will be invoiced at Seller's applicable price in effect on the scheduled date of shipment, unless otherwise specifically noted on the order acknowledgment. All prices will be in accordance with applicable government regulations. Orders specifying palletizing or special packaging will involve special charges.
- 11 . DELAYS. All orders are accepted subject to Seller's ability to make delivery at the time and in the quantities specified, and Seller shall not be liable for damages for failure to make partial or complete shipment or for any delay in making shipments. Purchaser shall be liable for any added expenses incurred by Seller because of Purchaser's delay in furnishing requested information to Seller, delay resulting from order changes by Purchaser, or delay in unloading shipments at delivery point.
- 12 . SHIPMENT. Seller will select method of shipment and routing when transportation charges are for account of Seller. When shipping instructions are specified by the Purchaser, all costs will be for the account of the Purchaser. The foregoing includes, but is not limited to, carriers charges for notification prior to delivery, demurrage, delay in unloading, diversion, or reconsignment.
- 13 . TITLE. Title to products transfers up on delivery to Purchaser at the F.O.B. point of delivery which will be clearly set forth in the shipment terms of this Contract. On receipt of title, Purchaser is then responsible for proper protection of product, placement, compliance with all regulations and ordinances, and will indemnify Seller against all claims for personal injuries or property damage arising from the storage, use or handling of such products.
- 14 . IN TRANSIT CLAIMS. Claims for damage or shortage in transit must be made against the carrier by the owner of the shipment according to the F.O.B. terms of the Contract. Purchaser has the responsibility to inspect shipments before or during unloading to identify any such damage or shortage and see that appropriate notation is made on the delivery tickets or an inspection report furnished by the local agent of the carrier in order to support a claim.
- 15 . CLAIMS. Notice of Claims against Seller hereunder for any reason, must be made to Seller in writing promptly after discovery and within any applicable warranty period. Failure to give such notice to Seller shall constitute a waiver by Purchaser of any right later to assert such a claim.
- 16 . RETURNS. Returned goods shall be accepted for credit only if in salable condition and only with evidence of Seller's prior written consent. Seller will assess charges for freight both ways and any costs necessary to restore such goods to the regular plant inventory . The amount of credit given will depend further up on the degree of salability of products accepted in opinion of Seller.
- 17 . PATENTS. Seller agrees to defend, and to protect Purchaser against loss or damage arising out of any legal action for patent infringement in connection with the manufacture of its products sold to Purchaser, provided Seller is notified promptly of any such action with complete information and is given an opportunity to defend.
- 18 . WARRANTY : LIMITATION OF LIABILITY . Seller warrants title to each individual product sold under this Contract and further warrants for a period of eighteen (18) months from ship date or one (1) year from date of installation, whichever comes first, but only to the extent and limit of the purchase price paid for such individual product, that such product conforms to the specifications set forth in the Contract and is free from defects in material and workmanship under normal service and use for which it was designed. Seller's sole obligation and Purchaser's exclusive remedy under this warranty shall be limited to one of the following, as selected by Seller: delivering to Purchaser a replacement for any product or part thereof determined by Seller to be defective, repairing such product or part, or refunding the purchase price (or an equitable portion thereof) paid for such product or part by Purchaser. SELLER MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY, AND NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED SHALL EXIST IN CONNECTION WITH SELLER'S PRODUCTS OR ANY SALE OR USE THEREOF. Purchaser must notify Seller promptly and within the warranty period of any claim under this warranty. Seller's warranty extends only to the first purchaser of a product from Seller or Seller's authorized distributor. All goods not manufactured by Seller are warranted only to the extent of the warranties of the original manufacturer. Seller disclaims any liability arising from tort, including strict liability , and Seller further disclaims any liability (whether arising under this or any other provision of this Contract or otherwise) for any costs (including costs of removal or replacement), liabilities, lost profits, loss of good will or any other general, special, incidental or consequential damages incurred by Purchaser in connection with this Contract or any product purchased there under.
- 19 . LAW . This order shall be governed by and shall be construed by the law of the State of New York .
- 20 . GOVERNMENTAL REGULATIONS. Seller warrants that no code, law, regulation or ordinance of the United States, a state or any other governmental authority or agency or any applicable Executive Order has been violated in the manufacture or sale of the items covered by this Agreement and warrants that the equipment, supplies, and/or articles covered thereby conform with all such requirements.
- 21 . NUCLEAR FINANCIAL PROTECTION. Purchaser agrees to procure and maintain, as available to it, nuclear energy liability insurance, in a form of policy approved by the Nuclear Regulatory Commission, and protection, as available, against liability for nuclear incidents not covered by such insurance through an indemnity agreement, as provided in Section 170 of the Atomic Energy Act of 1954, as amended, or any succeeding comparable statutory provision, and the regulations thereunder. Such financial protection shall be effective prior to the time any equipment purchased from us is used or installed at or in connection with any nuclear facility and shall cover us as an insured party . To the extent that such financial protection is not suitable to Purchaser. Purchaser agrees to use its best efforts to cause such financial protection to be obtained by eligible parties. We will cooperate with Purchaser and representatives of the nuclear energy insurance syndicates in complying with all underwriting requirements and with those insurance recommendations which may be mutually agreed up on. Notwithstanding any representations or warranties made by us elsewhere in these conditions of sale, we shall not be responsible for any bodily injury or property damage liability or any other public liability for any nuclear incidents, whether or not in respect of or arising in connection with use or installation of our equipment at any nuclear facility or in connection with any such facility . Purchaser hereby assumes any liability which might otherwise be imposed up on us and agrees to indemnify us and hold harmless from any such liability and costs or expenses in connection therewith.

