

CHEMICAL MONITORING SYSTEM



CL<sub>2</sub>

HYPO

FLUORIDE

W I Z A R D 4 0 0 0



POLYMER

SO<sub>2</sub>

**FORCE FLOW**  
FLOQUIP



POWERFUL

MULTI-FUNCTION DISPLAY

NET WEIGHT

CHEMICAL  
REMAINING  
IN TANK

DAILY USAGE

TOTAL CHEMICAL  
USED THE PREVIOUS  
DAY

AMOUNT USED

A RUNNING  
TOTAL OF  
CHEMICAL USED

FEED RATE

CURRENT CHEMICAL  
FEED RATE IN LBS.  
KGS. OR GALLONS

DAYS TIL EMPTY

DAYS UNTIL EMPTY  
AT CURRENT FEED  
RATE

TARE WEIGHT

TANK  
TARE  
WEIGHT

GROSS WEIGHT

TANK TARE WEIGHT  
PLUS CHEMICAL  
WEIGHT

PERCENT FULL

PERCENT OF TANK  
FULL



MULTI-  
VESSEL  
LEVEL  
MONITOR

CHEMICAL  
INVENTORY  
MANAGER

LEVEL  
AND  
BATCH  
CONTROLLER



INTRODUCING THE NEW WIZARD 4000+, AN EXTREMELY POWERFUL CHEMICAL INVENTORY MANAGEMENT SYSTEM FOR MONITORING CHLORINE AND OTHER CHEMICALS USED IN WATER TREATMENT. THE WIZARD 4000+ HELPS INSURE A SAFE PROCESS AND A SAFE PLANT BY PROVIDING ESSENTIAL INFORMATION SUCH AS CURRENT CHEMICAL FEED RATE, HOW MUCH CHEMICAL HAS BEEN FED, AND HOW MUCH CHEMICAL REMAINS. THE WIZARD 4000+ CAN BE USED WITH ANY OF OUR SCALES AND ULTRASONIC SENSORS, EASILY CONVERTS ANY EXISTING FORCE FLOW HYDRAULIC SCALE TO A DIGITAL MULTI-FUNCTION SYSTEM, AND CAN BE USED WITH MOST ELECTRONIC LOAD CELL BASED WEIGHING SYSTEMS.\*

## IT'S NOT JUST A SCALE, IT'S AN ENTIRE CHEMICAL INVENTORY MANAGEMENT SYSTEM

### MULTI-VESSEL INVENTORY MANAGER:

BECAUSE THE WIZARD 4000+ HAS FOUR SEPARATE CHANNELS, IT CAN BE USED TO SIMULTANEOUSLY MONITOR UP TO FOUR SEPARATE SCALES OR ULTRASONIC SENSORS. THIS MEANS THAT YOU CAN MONITOR EACH TANK (OR BANK OF TANKS) INDEPENDENTLY AS WELL AS GET THE COMBINED TOTALS FOR ALL THE TANKS. THE "DAILY USAGE" FUNCTION ALLOWS FOR EASY RECORD KEEPING AND A "DAYS UNTIL EMPTY" FEATURE MAKES IT SIMPLE TO ANTICIPATE TANK

### REFILLING OR CHANGE-OUT AND CHEMICAL REORDER POINTS. VOLUME MONITORING DEVICE

BY ENTERING THE SPECIFIC GRAVITY (DENSITY) OF THE CHEMICAL BEING MONITORED, THE USER CAN SWITCH THE DISPLAY BACK AND FORTH BETWEEN VOLUME AND WEIGHT. A VERY CONVENIENT FEATURE FOR PLANTS THAT PREFER TO MONITOR THEIR CHEMICAL IN GALLONS.

### LIQUID LEVEL / PUMP CONTROLLER

THE WIZARD PROVIDES UP TO FOUR SEPARATE SET POINTS, EACH TRIGGERING INTERNAL SOLID-

STATE RELAYS THAT CAN BE USED FOR LOW OR HIGH LEVEL ALARMS, AUTOMATING CHEMICAL TRANSFER OR BASIC CHEMICAL BATCHING.

### CHEMICAL FLOW METER

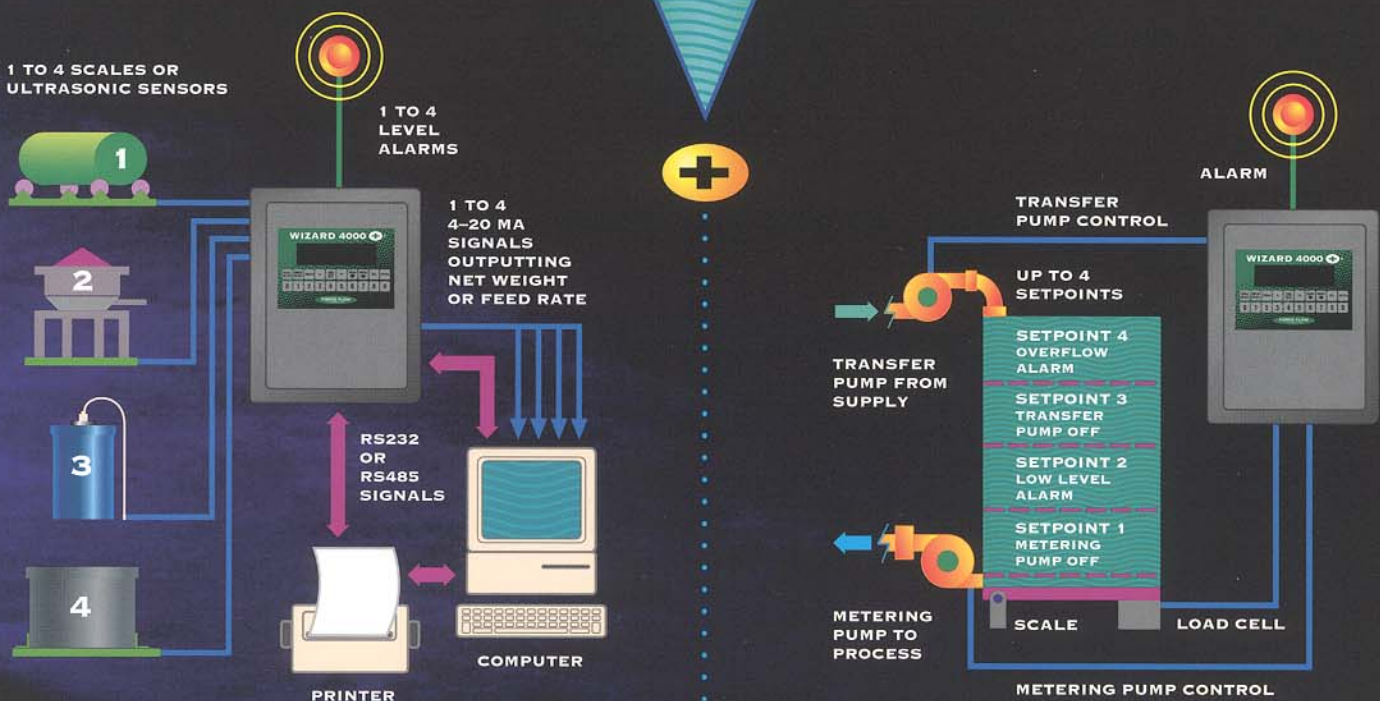
A RATE FUNCTION ALLOWS THE OPERATOR TO MONITOR CHEMICAL FEED RATES IN LBS., KGS., OR GALLONS PER HOUR OR DAY AND CAN BE TRANSMITTED VIA A 4-20MA OUTPUT SIGNAL. IN SOME CASES, THIS TRANSMITTING RATE FUNCTION CAN REPLACE ROTOMETERS AND CALIBRATION DEVICES FOR YOUR FEEDER OR METERING PUMP.

### DATALOGGER AND REPORT PRINTING

THE AMOUNT OF CHEMICAL USED FOR EACH OF THE PREVIOUS 10 DAYS IS STORED IN THE WIZARD'S MEMORY. THE DATA CAN BE RECALLED EASILY VIA THE MENU TO VERIFY THE AMOUNT OF CHEMICAL FED AND IS EXCELLENT FOR ASSISTING IN TROUBLESHOOTING PROBLEMS WITH A CHEMICAL FEED SYSTEM. A REPORT PRINTING FUNCTION ALLOWS THE NET WEIGHTS AND FEED RATES FOR EACH CHANNEL TO BE SENT HOURLY, DAILY OR ON DEMAND TO A REMOTE PRINTER VIA THE OPTIONAL RS232 OR RS485 PORT.

\* PLEASE CONSULT FACTORY FOR CUSTOM SOFTWARE OR SPECIAL APPLICATIONS.

## MULTI-VESSEL INVENTORY CONTROL WIZARD 4000+ LIQUID LEVEL & BATCH CONTROL





## TYPICAL SPECIFICATION FOR CHLORINE AND CHEM FEED SCALES

## CHLORINE SCALES ONLY

A QUANTITY OF \_\_\_\_\_ CHLORINE SCALES SHALL BE PROVIDED AND SHALL BE OF THE DIGITAL READOUT/ELECTRONIC LOAD CELL TYPE. SCALE FRAME SHALL BE EPOXY FINISHED AND SIZED TO ACCEPT \_\_\_\_\_ (1 TO 6) 2000 LB. CONTAINERS. SCALE SHALL HAVE HEAVY-DUTY BRONZE BUSHED BEARING TRUNNIONS INSTALLED FOR EACH CONTAINER TO ALLOW EASY CONTAINER ROTATION. SCALE SIZE SHALL BE WITHIN THE DIMENSIONS OF THE TANK(S) IT SUPPORTS.

## CHEM FEED SCALES ONLY

A QUANTITY OF \_\_\_\_\_ CHEMICAL SCALES OF \_\_\_\_\_ LBS. CAPACITY SHALL BE PROVIDED AND SHALL BE OF THE DIGITAL READOUT/ELECTRONIC LOAD CELL TYPE. SCALE PLATFORM SHALL HAVE A FUSION BONDED EPOXY POWDER COATED FINISH. PLATFORM SHALL BE SIZED TO ACCEPT A \_\_\_\_\_ INCH DIAMETER TANK. FOUR (4) ADJUSTABLE HOLD-DOWN CLIPS SHALL BE PROVIDED ON THE PLATFORM FOR TANK RESTRAINT.

SCALE SHALL BE OF THE SINGLE LOAD CELL DESIGN. WEIGHT SHALL BE TRANSFERRED VIA LEVER(S) TO A SINGLE, NTEP APPROVED LOAD CELL OF THE SHEAR BEAM, STRAIN GAUGE TYPE. FLEXIBLE CABLE SHALL CONNECT LOAD CELL TO INDICATOR TO ALLOW EASY REMOTE INSTALLATION OF THE READOUT. CABLE LENGTH SHALL BE \_\_\_\_\_ (20 FT. STANDARD).

INDICATOR SHALL CARRY CE MARKING AND SHALL BE HOUSED IN A NEMA 4X, UL APPROVED ENCLOSURE. INDICATOR SHALL INDEPENDENTLY MONITOR \_\_\_\_\_ (UP TO 4) SCALES. DIGITAL DISPLAY SHALL BE A 2 LINE, 16 CHARACTERS PER LINE, BACKLIT ALPHANUMERIC LCD TYPE. INDICATOR SHALL BE EQUIPPED WITH A 10-KEY NUMERIC PAD WITH TACTILE FEEDBACK FOR EASY INPUT OF TARE AND LEVEL ALARM VALUES.

ALL INDICATOR OPERATIONS SHALL BE MENU PROMPTED FOR EASE OF OPERATION. OPERATOR SHALL BE ABLE TO MONITOR CHEMICAL BY WEIGHT, VOLUME OR PERCENT FULL. AN AUTO LOAD FUNCTION SHALL AUTOMATICALLY COMPENSATE FOR TANK TARE WEIGHT DURING TANK CHANGE. EACH CHANNEL SHALL HAVE A USER SELECTABLE, TWO DIGIT SCALE ID NUMBER AND SHALL DISPLAY NET REMAINING, FEED RATE, DAILY USAGE, TOTAL AMOUNT USED, DAYS UNTIL EMPTY, GROSS WEIGHT, AND TARE WEIGHT. A DATA LOG FUNCTION SHALL STORE THE DAILY USAGE FOR EACH OF THE PREVIOUS 10 DAYS.

FULL SCALE ACCURACY SHALL BE BETTER THAN 1/4 OF 1%. SCALE SHALL BE \*MODEL NO. \_\_\_\_\_ AND DIGITAL DISPLAY SHALL BE WIZARD 4000 ELECTRONIC INDICATOR MANUFACTURED BY FORCE FLOW EQUIPMENT, 1150-D BURNETT AVE., CONCORD, CA 94520 USA OR EQUAL.

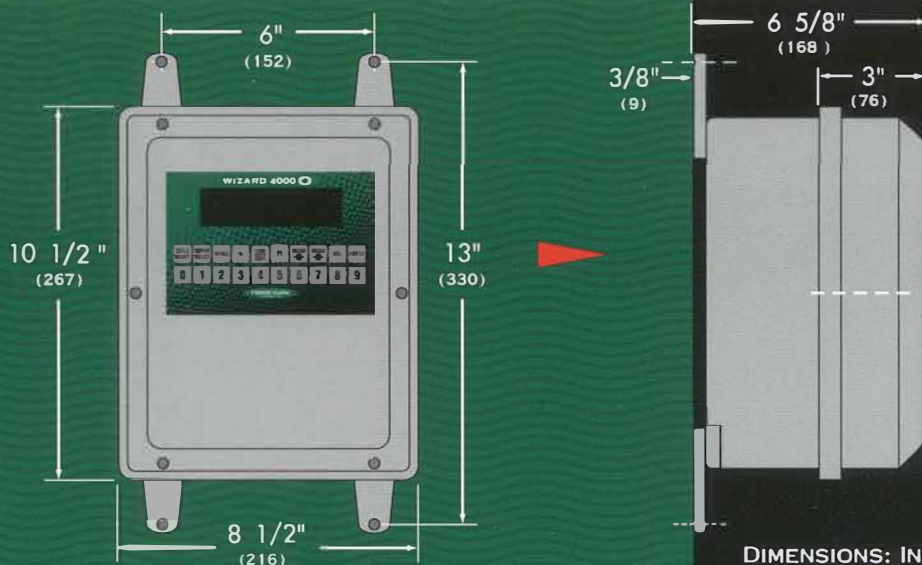
## OPTIONAL

EACH CHANNEL (SCALE) SHALL HAVE AN INDEPENDENT, ADJUSTABLE 4-20MA OUTPUT SIGNAL (NET WEIGHT OR FEED RATE).

EACH INDICATOR SHALL HAVE \_\_\_\_\_ (UP TO 4) ADJUSTABLE SET POINTS FOR ALARMS OR LIQUID LEVEL CONTROL.

A REPORT PRINTING FUNCTION SHALL SEND DATA WITH A TIME AND DATE STAMP VIA A RS232 OR RS485 PORT TO A REMOTE PRINTER.

\*PLEASE SEE INDIVIDUAL SCALE BULLETINS FOR MODEL NUMBERS AND DIMENSIONAL INFORMATION. ALL SPECIFICATIONS AND DRAWINGS ARE AVAILABLE IN ELECTRONIC FORMAT.



DIMENSIONS: INCHES (MILLIMETERS)

## SPECIFICATIONS

- CHANNELS:** 1 TO 4 INDEPENDENT WEIGHING CHANNELS WITH INDEPENDENT INPUT/OUTPUT CONTROLS.
- INPUTS:** 1 TO 4 ELECTRONIC LOAD CELLS ON EACH CHANNEL OR UP TO 4 ECHO-SCALE ULTRASONIC LEVEL SENSORS.
- INCREMENTS:** 1, 2, 5, 10, 20, 50.
- DISPLAY UNITS & RANGE:** LBS, KGS, AND GALLONS UP TO 99,999.
- RESOLUTION:** 1000, 2000, 3000, 4000, 5000, 6000, 8000, 12000.
- DISPLAY:** 2 LINES, 16 CHARACTERS PER LINE, ALPHANUMERIC LCD DISPLAY WITH BACKLIGHTING, .4" CHARACTERS.
- KEYBOARD:** 10 FUNCTION KEYS, 10 NUMERIC KEYS, WITH TACTILE FEEDBACK.
- OPERATING TEMPERATURE:** 32 TO 122 DEG. F (0-50 DEG. C).
- POWER:** 110, 220, OR 240 VAC, 50/60 HZ, 5 WATTS.
- CONNECTORS:** POWER AND INPUT/OUTPUTS - 1/2" NYLON CONDUIT CONNECTOR  
LOAD CELLS - 1/2" NYLON CORD CONNECTOR.
- ENCLOSURE:** NEMA 4X, UL LISTED STRUCTURAL FOAM MOLDED ENCLOSURE.
- PERFORMANCE:** OVERALL SYSTEM ACCURACY: 0.1 TO 0.25% F.S.  
NON-LINEARITY: <0.03% F.S. HYSTERESIS: <0.02% F.S. NON-REPEATABILITY: <0.01% F.S.  
THERMAL STABILITY: <0.002%/DEG. F, ZERO AND SPAN.

## OPTIONS

**4-20 MA OUTPUT SIGNALS:**  
1 TO 4 SEPARATE OUTPUT SIGNALS, NET WEIGHT OR FEED RATE, 1000 OHMS MAX PER OUTPUT.

**LEVEL ALARMS / SET POINTS:**  
A MAXIMUM OF 4 SET POINTS ON UP TO 4 CHANNELS (1 ON EACH CHANNEL OR 4 ON 1 CHANNEL). SOLID STATE OR DRY CONTACT RELAYS, N.O./N.C., LATCHING/NON-LATCHING, 5 AMPS MAX.

**COMMUNICATIONS:**  
RS232 SERIAL PORT OR RS485 SERIAL NETWORK PORT.

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