

# UMP DIGITAL

with Inductive Probe capability

The UMP Digital is a state of the art warewash chemical feed and control system for commercial dishwashing machines that has a well proven history of durability and reliability. This next generation of UMP Digital offers Inductive Probe capability, allowing the UMP Digital to operate in probe mode with increased reliability and accuracy without issues due to hard water or corrosive chemicals. You can dramatically reduce service time and offer accurate control for bottom line cost savings.



Conductive Probe



Inductive Probe



- Easy to program digital menu with precise and accurate digital settings
- Numeric variable speed, rinse limit, rinse delay, and alarm delay
- Durable compact case design for two and three products
- Probeless or Probe mode
- Conductive probe or optional inductive probe
- Proven, long life pump motors and squeeze tubes
- Option of plastic or brass solenoids for dry detergent
- Multi-lingual menu: English, Spanish, French, German, Dutch, or Italian

**KNIGHT**

**IDEX**  
FLUID & METERING

KITCHEN SYSTEMS

## UMP Digital

The UMP Digital is built to save you money, while offering a complete array of easy to use features and options to fit every commercial dishmachine. With comprehensive set of programming features and multiple options for probes, solenoids, and warewash dispenser configurations, the UMP Digital is equipped to handle your warewash needs, whether it is probe or probeless, door or conveyor, dry or liquid detergent, and hi-temp or low temperature dishmachines. The digital programming menus and push button calibration offer quick set-up for chemical, timer, and other controlled functions and features. The intuitive user interface and the large, glowing digital text allows for simple and fast programming. The UMP Digital is designed to reduce service time and offer accurate control for bottom line cost savings.

### Programming Features

Mode	UMP Digital			
	Probe Mode		Probeless Mode	
Dishmachine Type	Door	Conveyor	Door	Conveyor
Rinse Speed	0 -100%	0 -100%	0 -100%	0 -100%
Sanitizer Speed	0 -100%	0 -100%	0 -100%	0 -100%
Rinse Limit	0 - 30s		0 - 30s	
Rinse Delay	0 - 14s		0 - 14s	
Initial Charge			0 - 150s	0 - 128s
Recharge			0 - 30s	0 - 20s
Recharge After N Racks			1 - 20	1 - 20
Concentration	0 - 199K	0 - 199K		
Alarm Delay	0 - 512s	0 - 512s	0 - 512s	0 - 512s
Password	4 Digit	4 Digit	4 Digit	4 Digit
Languages	•	•	•	•
Reset Rack Count	•	•	•	•
Low Level Alarm	•	•	•	•
Concentration Alarm	•	•		
Rack Time		0-30s		0-30s
Initial Charge Repeat			•	•
Water Change Count	0-999	0-999	0-999	0-999
Detergent Pulse %	10-90%	10-90%		
Detergent Pulse Rate	3-15	3-15		
Conductive Probe	•	•		
Inductive Probe	•	•		
Rack Count	•	•	•	•
Delime Mode (Descale)	•	•	•	•
Initial Charge Count			•	•
Reset Initial Charge Count			•	•

### What's New

The UMP Digital has made some programming additions to make it easier for the installer to accurately dial into the correct setting and achieve optimal titration and concentration. These new additions and factory default settings are designed to reduce the chance of over dispensing chemical and consistently keep proper chemical concentrations.

- The addition of inductive probe capability allows the opportunity at accounts that have tough conditions to achieve consistent and accurate readings
  - Inductive or conductive probe menu option
- Liquid and dry detergent units will have different factory default settings to give the installer a good general pre-set starting point
  - **Liquid detergent dispensers**—Pulse per cent 85 and detergent pulse rate 3
  - **Dry detergent dispensers**—Pulse percent 50 and detergent pulse rate 5
- Increased detergent concentration range making it easier to dial into the correct titration/concentration
  - Detergent concentration select range from 0-199
- Shorter burst of chemical to reduce opportunity for over shooting desired titration/concentration
  - Detergent on time in pulse mode from 3 seconds to 1 second

### Specifications



UMP Digital 200D  
2 Product



UMP Digital 300L  
3 Product

	UMP 2 Product	UMP 3 Product
Size	W 8.75" x H 7.5"x D 5" (W 22 cm x H 19 cm x D 13 cm)	W 9" x H 8" x D 5" (W 23 cm x H 20 cm x D 13 cm)
Power	120, 208, 240 VAC, 50/60 Hz	120, 208, 240 VAC, 50/60 Hz
Rinse Flow Rate	.1 oz/min - 1.5 oz/min (3-45 ml/min)	.1 oz/min - 1.5 oz/min (3-45 ml/min)
Detergent Flow Rates	8 oz/min (230 ml/min)	8 oz/min (230 ml/min)
Sanitizer Flow Rates		.2 oz/min - 3.0 oz/min (6-90 ml/min)



## Inductive Probe



*Inductive Probe*



*Conductive Probe*

Inductive Probes read chemical concentration levels by casting a magnetic field from two charged coils that is encapsulated in PVC. This allows Inductive Probes to provide consistently accurate and reliable chemical concentration without the worries of failure or undue service calls due to hard water scaling or galvanic corrosion. Inductive Probes also have a built in temperature sensor that allows the probe to always have consistent conductivity readings even if the wash tank temperature fluctuates, ensuring there is no over or under-feeding of chemical.

### Inductive Probe Advantages

- Accurate detergent concentration readings
- Built in temperature compensation for accurate and consistent conductivity readings
- Unaffected by soiled water conditions
- Unaffected by hard water scaling
- No worries of corrosion
- Does not need to be cleaned
- Less maintenance and servicing

### Conditions where an Inductive Probe is recommended

- Extreme hard water conditions
- Inconsistent temperature in the wash tank
- Heavily soiled conditions
- Heavily oiled or greasy conditions
- Kitchens where the wash tank is not drained as often as they should

## Solenoid options for Dry Detergent



*Plastic Solenoid*



*Brass Solenoid*

Knight offers either a plastic or brass solenoid to work with dry detergents. The new rugged and economical plastic solenoid is resistant to chemical corrosion and offers toolless screen filter servicing.

## Power Bowl Ultra

The Power Bowl Ultra can be used in conjunction with the UMP Digital to dispense dry detergents. The Power Bowl Ultra feature a screen center spray jet that evenly and efficiently dissolves solid chemicals to minimize product waste and provide more efficient chemical consumption. This bowl feeder is well suited for warewash applications where reliability and cost efficiency is a must.

### Power Bowl Features

- Integral anti-clog screen
- Efficient spray nozzle design
- Rugged plastic design
- Reliable, safe water inlet valve
- Plastic or brass vacuum breaker



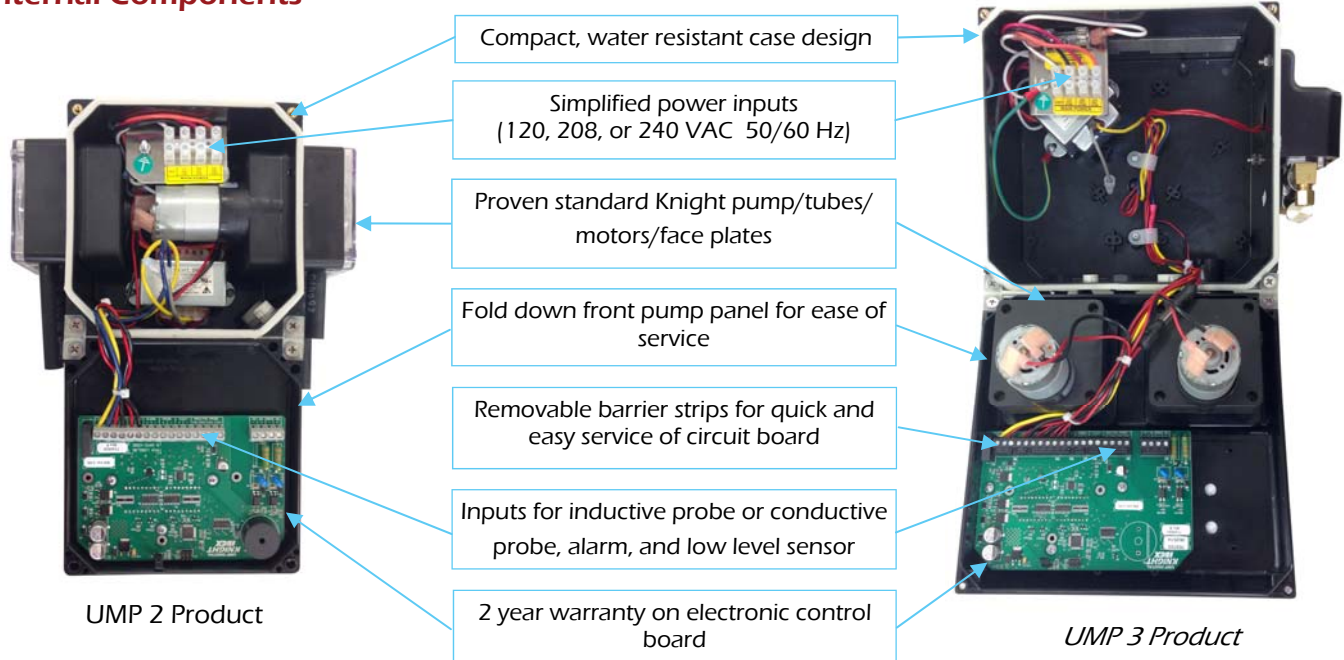
## Low Level Sensor Probe

In a cost sensitive kitchen environment, the economically priced low level sensor probe allows you to alert the kitchen when the chemical product is running low, ensuring that a consistent supply of chemical is dispensed to the dishmachine. This is extremely helpful with sanitizers to avoid violations of health codes or when you operate with liquid products in probeless mode. The professional and clean probe acts as both a sensor and a suction probe, reducing the number items you have to install into the chemical container.

- 20" (500 mm) probe length,
- Suitable for 5 gal, 10L, 25L containers



## Internal Components



UMP 2 Product

UMP 3 Product

## ORDERING INFORMATION

### UMP Digital

**Notes:** UMP Digital includes water resistant plastic case with transformer (120, 208, 240 VAC, 50/60 Hz) and accessory kit (conductive probe, check valve, bulkhead ell, jumper, poly suction line, and pick-up tube). Option of .1-1.5 oz/min (3-45 ml/min) rinse pump, 8 oz/min (230 ml/min) detergent pump, .2-3.0 oz/min (6-90 ml/min) sanitizer pump, brass solenoid, or plastic solenoid.

Model	Part Number	Description
UMP Digital-100L	7162900-07	UMP Digital with liquid detergent system w/ KP-500 peristaltic pump
UMP Digital-100D	7162905-07	UMP Digital with dry detergent system w/ <b>brass solenoid</b>
UMP Digital-100D	7162905-P	UMP Digital with dry detergent system w/ <b>plastic solenoid</b>
UMP Digital-200L	7162910-07	UMP Digital with liquid detergent and rinse system w/ KP-500 peristaltic pump
UMP Digital-200D	7162915-07	UMP Digital with dry detergent system w/ <b>brass solenoid</b>
UMP Digital-200D	7162915-P	UMP Digital with dry detergent system w/ <b>plastic solenoid</b>
UMP Digital-200L	7162300-07	UMP Digital with liquid detergent and rinse system w/ KP-500 peristaltic pump in larger 3 pump cabinet with capability to add on sanitizer pump
UMP Digital-200D	7162305-07	UMP Digital with dry detergent and liquid rinse system w/ <b>brass solenoid</b> in larger 3 pump cabinet with capability to add on sanitizer pump
UMP Digital-200D	7162305-P	UMP Digital with dry detergent and liquid rinse system w/ <b>plastic solenoid</b> in larger 3 pump cabinet with capability to add on sanitizer pump
UMP Digital-300L	7162310-07	UMP Digital with liquid detergent, rinse, and sanitize system w/ KP-500 peristaltic pump
UMP Digital-300D	7162315-07	UMP Digital with dry detergent, liquid rinse and sanitize system w/ <b>brass solenoid</b>
UMP Digital-300D	7162315-P	UMP Digital with dry detergent, liquid rinse and sanitize system w/ <b>plastic solenoid</b>
<b>UMP Accessories</b>		
	1600709	Inductive Probe with 25' cable length (20mS)
	7110225	20" Low Level Alarm probe with sensor and suction tube, suitable for 1 gal, 5 gal, 10L, or 25L containers

#### KNIGHT LIMITED WARRANTY

Knights controls and pump systems are warranted against defects in material and workmanship for a period of ONE YEAR. All Electronic Control Boards have a TWO YEAR warranty. Warranty applies only to the replacement or repair of such parts when returned to the factory with a KRA number, freight prepaid and found to be defective upon factory inspection. Rubber and synthetic rubber parts such as "O" rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. Warranty does not cover liability resulting from performance of this equipment nor the labor to replace this equipment. Product abuse or misuse voids warranty. Knight products are not for use in potentially explosive environments. Any use of our equipment in such an environment is at the risk of the user. Knight does not accept any liability in such circumstances.

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