

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.



- 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

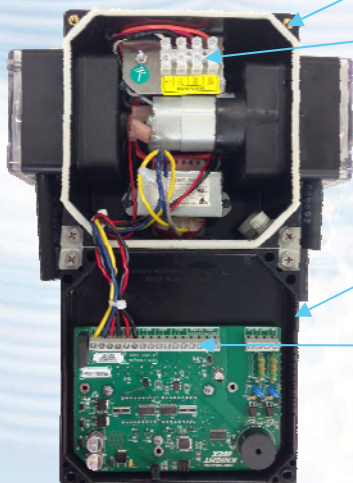
Mode	UMP Digital			
	Probe		Probeless	
Dishmachine Type	Door	Conveyor	Door	Conveyor
Digital	●	●	●	●
Rinse Speed	0-100%	0-100%	0-100%	0-100%
Rinse Limit	0-30s		0-30s	
Rinse Delay	0-14s		0-14s	
Initial Charge			0-150s	0-128s
Recharge			0-30s	0-10s
Recharge After n Racks			1-20	1-20
Concentration	0-100k	0-100k		
Auto Concentration				
Alarm Delay	0-512s	0-512s		
Password	●	●	●	●
Language	●	●	●	●
Reset Rack Count	●	●	●	●
Reset Initial Charge Count	●	●	●	●
Low Level Alarm for det. / rinse	●	●	●	●
Concentration Alarm	●	●		
Prime Function	Output 1+2	Output 1+2	Output 1+2	Output 1+2
Mute Function	●	●	●	●
Rack Count	●	●	●	●
Delime Mode	●	●	●	●

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

Internal Components



Compact, water resistant case design

Simplified power inputs
(120, 208, or 240 VAC 50/60 Hz)

Proven standard Knight pump/tubes/
motors/face plates

Fold down front pump panel for ease of
service

Inputs for inductive probe or conductive
probe, alarm, and low level sensor

2 year warranty on circuit boards

	UMP 2 Product
Size	W 22 cm x H 19 cm x D 13 cm
Power	120, 208, 240 VAC, 50/60 Hz
Rinse Flow Rate	3-45 ml/min
Detergent Flow Rates	230 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.

- 500 mm probe length,
- Suitable for 10L, 25L containers



UMP Analog



The UMP Analog offers a long history of reliability and durability. The UMP Analog provides the options of probe or probeless detergent control thorough microprocessor design. With the capability of controlling up to two products, and the choice of liquid or dry detergent, most warewash application can be accommodated.

- 2 product unit
- Analog controls with potentiometer settings
- Versatile to warewash needs
 - Probe or Probeless
 - Conductive Probe only
 - Liquid or dry detergent
- Door and conveyor dishwashers
- Proven history of reliability and durability
- Alarm volume control

UMP Classic Programming Features

Mode	UMP Classic			
	Probe		Probeless	
Dishmachine Type	Door	Conveyor	Door	Conveyor
Digital				
Analog	●	●	●	●
Rinse Speed	0-100%	0-100%	0-100%	0-100%
Sanitizer Speed (Only available for 3 product UMP)				
Rinse Limit	0-30s		0-30s	
Rinse Delay	0-14s		0-14s	
Initial Charge			0-60s	0-128s
Recharge			0-10s	0-10s
Recharge After n Racks				
Concentration	0-100k	0-100k		
Auto Concentration				
Alarm Delay	0-512s	0-512s		
Password				
Language				
Reset Rack Count				
Reset Initial Charge Count				
Low Level Alarm for det. / rinse				
Concentration Alarm	●	●		
Prime Function	Output 1+2	Output 1+2	Output 1+2	Output 1+2
Mute Function				
Rack Count				
Delime Mode				

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 3-45 ml/min rinse pump, 230 ml/min detergent pump, brass solenoid, or plastic solenoid.

Model	Part Number	Description
UMP Digital-200L	7162910-E7	UMP Digital with liquid detergent and rinse system w/ KP-500 peristaltic pump
UMP Digital-200D	7162915-E7	UMP Digital with dry detergent system w/ brass solenoid

UMP Analog

Model	Part Number	Description
UMP CL-200L	7162810-E7	UMP Analog with liquid detergent and rinse system w/ KP-500 peristaltic pump
UMP CL-200D	7162815-E7	UMP Analog with dry detergent system w/ brass solenoid

UMP Accessories

1600709	Inductive Probe with 7.6 m cable length (20mS)
7110225	50 cm Low Level Alarm probe with sensor and suction tube, suitable for 10L containers
7110126	Float Switch 18, w/o bell, with 7.6 m of cable, 46 cm probe with float sensor
7110127	Float Switch 8.8, w/o bell, with 3 m of cable, 23 cm probe with float sensor
7035270	PowerBowl Ultra w/ brass vacuum breaker, w/ accessory kit
7035275	PowerBowl Ultra w/ plastic vacuum breaker, w/ accessory kit

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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