



# CONTROLGUARD FCS

A Concentration Control and Pump System  
Engineered Specifically for Chemical Feed Applications

Whether feeding caustic, acid or other conductive liquids to a process, this capable controller does it with ease and accuracy. Compared with other concentration controllers, the ControlGuard FCS is a breeze to program and maintain. Its optional secondary pump and pump controls make it well suited for two point / two chemical injection applications such as eggwash, bottle wash, can wash, and other industrial spray wash applications. ControlGuard FCS can be operated as a probe based dispenser or feed chemicals based, repeat cycle times or discreet signal inputs from PLCs, motor contactors or manual push button.



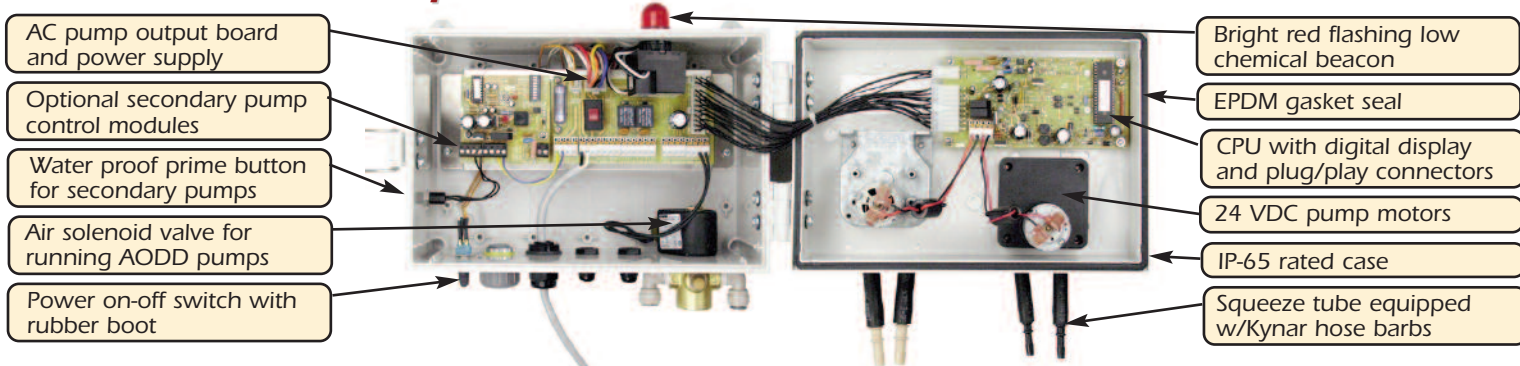
INDUSTRIAL SYSTEMS

- Program/Control chemicals in millisiemens, percent concentration (total wash solution) or Knight Units "KUs".
- Temperature display of wash solution (°F or °C)
- Conductivity or "Repeat Interval" chemical feed modes
- Water tight molded plastic case with latch
- Menu driven digital programming
- Password protected menus
- Conductive or inductive probes (inductive probe never needs cleaning)
- Optional secondary pump controller
- Operates peristaltic, electric or air operated pumps
- Optional low supply beacon
- Temperature compensating inductive probe holds chemical concentrations constant at any temperature

**KNIGHT**

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## ControlGuard FCS Components



## A Variety of Configurations and Applications

**Applications:** Single chemical concentration control and peristaltic pump system for controlling one chemical  
**Pump #1** KP-8120 BDCX  
 18oz/min (532 ml/min) w/  
 T-50E EPDM squeeze tube w/  
 3/8" barb connector fittings  
 \* Conductivity sensor optional

**Applications:** Two chemical concentration control for caustic and sanitizer with variable speed control for setting sanitizer flow rate.  
**Pump #1** KP-8120 BDCX  
 45oz/min (1350 ml/min) w/  
 T-66E squeeze tube w/ 3/8"  
 barb connector fittings  
**Pump #2** KP-5100DCX  
 18oz/min (532 ml/min) w/  
 T-50E EPDM squeeze tube w/  
 1/4" barb connector fittings  
 \* Conductivity sensor optional

**Applications:** Controller only can operate CleanGuard electric diaphragm or FlowGuard air operated pumps. Air solenoid valve ordered as part of controller. Electric diaphragm pump powered by internal AC output

**Applications:** Temperature compensating inductive probe holds chemical concentrations constant at any temperature. Inductive probes never need to be cleaned.  
 P-120 Probe - conductive sensor with stainless steel tips

## ORDERING INFORMATION

### ControlGuard FCS System

CONTROLGUARD FCS		
Part Number	Model	Description
7165051	CG-FCS	Conductivity Controller Base System (Please specify 110 VAC or 230 VAC)
Control Guard Configurable Options		
1600698	N/A	Inductive Probe w/ 25ft. (7.6m) cable and 1/2" NPT thread
7005195	P-120s	Conductive Probe w/ Cell Constant 1.0
7224520	KP-8120BDCX	Peristaltic 800 Pump Assy (Pump 1) (DC pump) w/ w/ T-66E Squeeze Tube (45 oz/min) (1350 ml/min)
7224519	KP-5200DCX	Peristaltic 500 Pump Assy (Pump 2) (DC pump) w/ T-50E Squeeze Tube (18 oz/min) (532 ml/min)
0200503	N/A	Strobe, Control Guard FCS
1900775	N/A	Pump Trigger Switch [for #2 pump: KP 5100 0-100oz/min (250 ml/min)]
7164045		3/8" Air Solenoid Valve, 24 VDC
7140583	KTM-550	Limit Timer to control secondary pump run time w/signal or manual activation (DC Pumps)
7142326	KTM-600	Limit Timer to control secondary pump run time w/signal or manual activation (AC Pumps)
7142218	MT-300	Event Timer w/ 20 Events/Day, One pump output (DC Pumps)
7142228-2	MT-400	Event Timer w/ 20 Events/Day, One pump output (AC pumps)
7140586	CT-550	Repeat Cycle Timer (0-12 min On/ 0-63 Min Off) (DC Pumps)
7141600	CT-600	Repeat Cycle Timer (0-12 min On/ 0-63 Min Off) (AC Pumps)

## SPECIFICATIONS

**Case dimensions:**  
 W 13.25" x H 10.5" x D 7.5"  
 34 cm x 27 cm x 19 cm

**Case ratings:**  
 IP-65 (Complete protection from dust and water jets)

**Case material:**  
 ABS

**Voltagess:**  
 115 or 230 VAC

**Conductivity Range:**  
 Conductive: 50 mS (max)  
 Inductive: 200 mS (max)

**Alarm Delay:**  
 0-512 seconds

### 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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**KNIGHT**  
 A unit of **IBEX** Corporation

**Knights Headquarters**  
 Toll Free (800)854-3764  
 Tel (949) 595-4800  
 Fax (949)595-4801  
 www.knightequip.com

**Knights Canada**  
 Tel (905)542-2333  
 Fax (905)542-1536

**Knights Europe**  
 Tel +44(1293)615.570  
 Fax +44(1293)615.585

**Knights Australia**  
 Tel +61(2)9725.2588  
 Fax +61(2)9725.2025

**Knights N. Asia**  
 Tel +82(2)3481.6683  
 Fax +82(2)3482.5742

**Knights S. Asia**  
 Tel +65.9170.0984  
 Fax +65.6489.6723