Process Control / Monitoring Package

NEMA 4X CABINET NON-METALLIC AVAILABLE prominant BACK PANEL PROCESS CONTROLLER/ MONITOR ISOLATING BALL VALVE PVC PIPE AND FITTINGS IN-LINE DGMA SENSOR HOLDER MODULE SAMPLE LABCOCK

DESIGN SPECIFICATIONS

The controller/monitor shall provide an LCD display, calibration span and a 4-20 mA event output for chart recording process variables. Pulse train outputs for pacing up to two ProMinent metering pumps, and two changeover relay outputs, including an alarm relay, shall be provided. The controller/monitor is housed in a water-resistant, non-metallic NEMA 4X enclosure.

Sample Line Connections:	1/2" FNPT	
Water Temperature:	32°F to 140°F 0°C to 60°C	
Max. Water Pressure:	to 87 psig (6 bar)	
Allowable pH range:	Sensor dependent	
Power Supply:	110/220 VAC, Single Phase, 50/60 Hz	
Dimensions:	27" H x 21" W x 7" D (68 cm H x 53 cm W x 18 cm D)	
	27" H x 18" W x 7" D* (68 cm H x 46 cm W x 18 cm D)*	
Shipping Weight:	25 lbs. 11.3 kg approx.	

FEATURES

- Inexpensive monitoring and control of free and/or total chlorine, pH, redox potential (ORP), chlorine dioxide, dissolved ozone, conductivity, hydrogen peroxide or peracetic acid
- Compact design and sturdy construction offers convenient setup virtually anywhere.
- Constructed of "off-the-shelf" components for prompt parts replacement and easy servicing.
- High or low alarm function.
- External 4-20 mA output built-in.
- Water-resistant NEMA 4X cabinet available.
- Other monitoring and control output options available.



Unit Shown with NEMA 4X Cabinet

* Dimensions apply to Canadian customers only.

Reliable, Cost Effective Way to Control & Monitor Your Process

Technology that sets new standards... Worldwide!

PCN

Process Controller / Monitor - D1C A, D2C A

- Microprocessor-based technology.
- Large, clear, backlit display of measured and correcting values, status, error annunciation.
- Process-compatible sensor diagnostics monitoring ability.
- Control opposing functions with each unit (e.g. both acid and base to set pH).
- Menu-driven calibration, limit and control settings.

Maximum Temperature:

Мо

Modular In-Line Sensor Housing - DGM A				
Material:	PVC / Viton®		Maximum Pressure:	87 psig (6 bar) at 86°F (30°C)
Recommen	ded Sample Flow:	10.5 gph (40 L/h)		29 psig (2 bar) with flow sensor

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Limit values may be exceeded for adjustable time periods before relays change state.

Non-volatile memory retains all settings, includ-

ing calibration, when power is lost; with auto-

Access code prevents unauthorized setting

changes, yet allows calibration by operators.

matic restart when power is restored.

Component included	Model / Description
Monitor / Controller	D1C A W / D2C A
Measurement Sensor	CTE / CLE / pH / ORP
Modular In-line Sensor Housing	DGM A (max. 3 modules)
Sensor Cable	For Measurement Sensor

140°F (60°C)

Modular In-line Sensor Housing	DGM A (max. 3 modules)	
Sensor Cable	For Measurement Sensor	
Fitting Set	For DGM A housing	
Back Panel	Polyethylene, 27"H x 21"W x 7"D 27"H x 18"W x 7"D*	(68 cm H x 53 cm W x 18 cm D) (68 cm H x 46 cm W x 18 cm D)*
Enclosure Cabinet	Non-metallic, NEMA 4X, 30.51" H x 24.11" W x 12.75" D 29.5" H x 21" W x 12" D*	(77.5 cm H x 61.2 cm W x 32.4 cm D) (75 cm H x 53 cm W x 30 cm D)*
Valves	True Union Ball Type, 12" PVC Sample Labcock, PVC	
Fittings	Schedule 80 PVC	

* Dimensions apply to Canadian customers only.

ORDERING INFORMATION

PCM Assembly/Piping (without enclosure)	part # 7740724
PCM Assembly/Piping with enclosure	part # 7740725

PCM Series available for:

рН	Total Chlorine	Chlorine Dioxide	pH/pH (D2C)
Redox	Conductivity	Dissolved Ozone	pH/Redox (D2C)
Free Chlorine	Hydrogen Peroxide	Peracetic Acid	pH/Chlorine (D2C)

Please select Dulcometer Monitor/Controller(s) (D1C, D2C), sensor(s), signal cables(s) and sensor housing (DGMA/DLG) separately.

Notes: The PCM can house one or two Monitor/Controller(s). The PCM can hold a maximum of three DGM sensor housings.

Chlorine Process Control / Monitoring Package



FEATURES

- Inexpensive monitoring and control of free and/or total chlorine.
- Compact design and sturdy construction offers convenient setup virtually anywhere.
- Modular construction allowing easy servicing and parts replacement.
- High and low alarm function.
- PID control (output to chemical metering pump)
- Standard 4-20 mA output.
- Corrosion-resistant NEMA 4X cabinet available.
- Sample flow monitoring with low flow indication.
- pH compensation available.
- Feed forward control (from flow meter) available.

DESIGN SPECIFICATIONS

The controller/monitor shall provide the following: a backlit LCD display, programmable calibration to DPD value, isolated 4-20 mA output representation of chlorine concentration, pulse train output to chemical metering pump, programmable PID control, alarm relay, programmable high and low limit alarms with adjustable delay on, delay off time. The controller/monitor's enclosure is corrosion-resistant Nema 4X.

Sample Line Connections:	1/2" FNPT		
Water Temperature:	41°F to 113°F	5°C to 4	15°C
Maximum Water Pressure:	to 14.5 psig (1 b	oar)	
Flow rate:	8 gph (30 L/h) m	inimum reco	mmended in-line.
Allowable pH range:	Free chlorine : 5	.5 to 8	Total chlorine : 5.5 to 9.5
Power Supply:	110/220 VAC, SinglePhase, 50/60 Hz		
Dimensions:	27" H x 21" W x 27" H x 18" W x	7" D 7" D*	(68 cm H x 53 cm W x 18 cm D) (68 cm H x 46 cm W x 18 cm D)*
Shipping Weight:	25 lbs. 11.3	kg	approx.

* Dimensions apply to Canadian customers only.

Control Systems-3

Process Controller / Monitor - D1C A chlorine

- Microprocessor-based technology.
- Large, clear, backlit display of measured and correcting values, operating and error status.
- Process-compatible sensor diagnostics monitoring ability.
- Menu-driven calibration and controller configuration.
- Limit values may be exceeded for adjustable time periods before relays change state and reset.
- Non-volatile memory retains all settings, including calibration, when power is lost; with automatic restart when power is restored.
- Access code prevents unauthorized setting changes, yet allows calibration by operators.

Modular In-Line Probe Sensor Housing - DGM A

Material: PVC / Viton[®] Recommended Sample Flow: minimum 30 L/h, maximum 100 L/h

Component included	Model / Description	
Monitor / Controller	D1C A W	
Measurement Sensor	CTE / CLE	
Modular In-line Sensor Housing	DGM A (max. 3 modules)	
Sensor Cable	For Measurement Sensor	
Mounting Set	For DGM A housing	
Back Panel	Polyethylene, 27"H x 21"W x 7"D (68 cm H x 53 cm W x 18 cm D) 27"H x 18"W x 7"D* (68 cm H x 46 cm W x 18 cm D)*	
Enclosure Cabinet (optional)	Non-metallic, NEMA 4X, 30.51" H x 24.11" W x 12.75" D (77.5 cm H x 61.2 cm W x 32.4 cm D) 29.5"H x 21"W x 12"D* (75 cm H x 53 cm W x 30 cm D)*	
Valves	True Union Ball Type, 1/2" PVC Sample Labcock, PVC	
Fittings	Schedule 80 PVC	

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* Dimensions apply to Canadian customers only.

ORDERING INFORMATION



Control Systems-4

Dulcometer[®] PM-CL Pre-Assembled Monitoring Package for Chlorine

DMTa Series



FEATURES

- 2-wire, loop powered, 4-20 mA output.
- Accepts 16-30 VDC Loop Supply Monitor - Transmitter.
- Flash memory and LCD display.
- CAL key for easy calibration.
- Pre-wired, pre-assembled, easy start-up.
- Open or enclosed panel mount.

MEASUREMENT RANGES

- Free Chlorine to 5 ppm or 50 ppm.
- Total Chlorine to 10 ppm.

DESIGN SPECIFICATIONS

The process monitor transmitter shall provide the display of measured chlorine value, water temperature, and current mA output signal. Calibration shall be to DPD test values. The mA out shall be scalable to user preferences. The access code can be programmed to restrict access to calibration and settings menus.

Sample Line Connections:	Per ordering code 1/4" and 3/8" O.D.	
Water Temperature:	32°F to 113°F 0°C to 45°C	
Maximum Water Pressure:	up to 14.5 psi (1 bar)	
Flow rate:	8 gph (30 L/h) min. to 26 gph (100 L/h) max. 6 gph (60L/h) recommended.	
Allowable pH range:	Free chlorine: 5.5 - 8.0 and constant. Total chlorine: 5.5 - 8.0	
Power Supply:	16-30 VDC Required	
Dimensions:	15.3" H x 13.3" W x 3.1" D (39 cm H x 34 cm W x 8 cm D)	
Shipping Weight:	approx. 7 lbs. 0.2 kg	

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MATERIALS, FEATURES AND SPECIFICATIONS

Process Monitor Transducer - DMT chlorine

- Microprocessor-based technology.
- Large, clear, lit display of measured value, water temperature and output signal.
- Process-compatible sensor diagnostics monitoring ability.
- Menu-driven calibration configuration.
- Non-volatile memory retains all settings, including calibration, when power is lost.
- Access code prevents unauthorized setting changes, yet allows calibration by operators.

Material: PVC / Viton®

Modular In-Line Sensor Housing - DGMa

Recommended Sample Flow: minimum 30 L/h, maximum 100 L/h

Components included in package	Model / Description
Monitor / Controller	DMT - Chlorine
Measurement Sensor	CTE / CLE
Modular In-line Sensor Housing	DGMa
Sensor Cable	Universal Control Cable
Mounting Set	For DGMa housing
Type of mounting:	
Back Panel	Polyethylene
	15.3" H x 13.3" W x 3.1" D
	(39 cm H x 34 cm W x 8 cm D)
Enclosure Cabinet (optional)	Non-metallic, NEMA 4X
	30.51" H x 24.11" W x 12.75" D
	(77.5 cm H x 61.2 cm W x 32.4 cm D)
	22"H x 15"W x 8.5"D
	(56 cm H x 38 cm W x 22 cm D)
Valves	1/4" Sample Labcock, PVC
Fittings	Schedule 80 PVC

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ORDERING INFORMATION

