



## TEMPERATURE CONTROLS



DSL SERIES, DIGITAL COMBINATION CONTROLS						
CONTROL MODEL NUMBER	VOLTS	MAX. AMPS	REPL. RELAY P/N	REPL. TRANS. P/N	REPL. SENSOR P/N	SHIP WGT. Lbs./(kg)
C-DSL202	240	20	AHD-20-1	HDD50 2-4/1	RTD1000	16
C-DSL204	480	20	AHD-20-1	HDD50 2-4/1	RTD1000	(7.3)
C-DSL302	240	30	AHD-30-1	HDD50 2-4/1	RTD1000	16
C-DSL304	480	30	AHD-30-1	HDD50 2-4/1	RTD1000	(7.3)
C-DSL502	240	50	AHD-50-1	HDD50 2-4/1	RTD1000	17
C-DSL504	480	50	AHD-50-1	HDD50 2-4/1	RTD1000	(7.7)
C-DSL752	240	75	AHD-75-1	HD100 2-4/1	RTD1000	23
C-DSL754	480	75	AHD-75-1	HD100 2-4/1	RTD1000	(10.4)
C-DSL902	240	90	AHD-90-1	HD100 2-4/1	RTD1000	25
C-DSL904	480	90	AHD-90-1	HD100 2-4/1	RTD1000	(11.3)
C-DSL1202	240	120	AHD-120-1	HD100 2-4/1	RTD1000	27
C-DSL1204	480	120	AHD-120-1	HD100 2-4/1	RTD1000	(12.2)
C-DSL1502	240	150	AHD-150-1	HDD150 2-4/1	RTD1000	33
C-DSL1504	480	150	AHD-150-1	HDD150 2-4/1	RTD1000	(15)

Control consists of gasketed plastic enclosure, thermostat, contactor and transformer.

## DSL Series, Combination Control Features and Benefits

### IMPROVES PROCESS CONTROL:

- ◆ Easy to read .3" (7.6mm) dual LED displays. Two set points (heating and cooling). Provides precise control for consistent plating.

### TEMPERATURE SENSOR:

- ◆ Fluoropolymer (FEP) covered 10-foot (3m), 1000-ohm platinum RTD sensor included standard with the control. Provides extended service in corrosive liquids and can be lengthened with ordinary copper wire.

### CORROSION RESISTANT ENCLOSURE:

- ◆ NEMA 1, IP21, flame retardant and gasketed plastic enclosure with stainless steel hardware.

### CAPACITIES:

- ◆ Large switching capacities from 20 to 150 amps for up to 600 volts.
- ◆ Single pull, single-throw switch rated at 3 amps for cooling loads.
- ◆ Adjustable temperature range from -328°F(-200°C) to 4208°F(2320°C).
- ◆ ±.25% full span, single digit accuracy.
- ◆ 20°F(-7°C) to 140°F(60°C) ambient temperature range.
- ◆ Single or three phase.

### SPECIAL FEATURES:

- ◆ Auto tune PID, PID or On/Off control with Auto/Manual operation.

### CERTIFICATIONS: cULus

### SAFETY FEATURES:

- ◆ Pre-wired P1 terminal blocks.
- ◆ Non-volatile memory.
- ◆ Programmable high or low temperature alarm output.
- ◆ Sensor short and break protection.
- ◆ Programmable high set point limit.
- ◆ Security code restricted menu.

### OPTIONS AVAILABLE (consult factory):

- ◆ Scalable voltage and current inputs.
- ◆ 4-20 mA or 0-10VDC outputs for process recording.
- ◆ 4-20 mA or 15VDC control outputs.
- ◆ RS485 communication protocol.
- ◆ Three wire 100-ohm RTD sensors.
- ◆ Type J, K, T, and R thermocouples.
- ◆ Special sensors required for temperatures above 500°F(260°C).
- ◆ 25-foot (7.6m) and 50-foot (15.2m) sensors.
- ◆ P2, P3 or P8 thermal protection systems.
- ◆ Integrated liquid level control components.
- ◆ Front panel mounted digital timers.
- ◆ Pre-wired outlets for plug-in heaters (some sizes).
- ◆ Ground fault protection of equipment (GFPE) circuitry.
- ◆ NEMA 4/4X enclosure (with internal heater for outdoor use).

## DIMENSIONS

Dimensions	20-90 Amps	120-150 Amps
A - Overall height	16.04" (408mm)	18.04" (458mm)
B - Overall width	14.04" (357mm)	16.04" (408mm)
C - Enclosure Depth	9.28" (236mm)	9.28" (236mm)
D - Enclosure Height	15.27" (388mm)	17.27" (439mm)
E - Mounting hole centers	10.56" (268mm)	12.56" (319mm)
F - Overall Depth	10.28" (261mm)	10.28" (261mm)

\*Box dimensions may vary with options.

## DSL COMBINATION CONTROL ORDERING INFORMATION

Control Type	Series	Amperes	Voltage	Control Option	Standard Options
C - Combo	DSL	20 30 50 75 90 120 150	2 - 240 3 - 380 4 - 480 5 - 415 6 - 600 7 - 400 8 - 208 9 - 220 0 - 200	E = Easyplug MAR = Milliamp output recording RS = RS485 output VC = 15VDC control output NC VC-RS = 15VDC output/RS485 output VR = Voltage output recording	-R = RTD100 -J = J Type TC -K = K Type TC -L = Less sensor -H = High temp sensor -25 = 25 foot sensor -50 = 50 foot sensor -F = FEP sleeved sensor -P2 = thermal protector 2 circuitry -P3 = thermal protector 3 circuitry -P8 = thermal protector 8 circuitry -*LC** = conductive liquid level -*ESP** = capacitive liquid level -D = digital timer -G = ground fault protection -N = NEMA 4X -NH = NEMA 4X with heater

### ORDERING EXAMPLE:

C-DSL304-P2

DSL combination control, 30 amps, 480 volt, P2 thermal protection.

