DYNISCO MODEL DPC535
Process Controller

Description
The DPC535 is a versatile self - tuning PID controller for the process and industrial markets. Typical applications include controlling pressure, temperature, level and flow. The user may select from current, voltage, thermocouple and RTD inputs. With the dual input and math capabilities, the instrument can control one variable while displaying a second. In addition it can control using redundant sensors, can add or subtract PVs or control to an average PV. Square root extraction and linearization of non - linear sensors is standard.

Features
- Four self - tune algorithms
- Single or dual control outputs
- Plug - in output capability
- Eight setpoint/PID sets
- Versatile alarm strategy
- NEMA 4X rated
- RS485 option
- Highly visible three line vacuum fluorescent display

Benefits
- Control many types of processes
- Heat/cool capability
- Flexibility in control schemes
- Easily adapts to many processes
- Provide variety of interlocks and signals
- Use in food and washdown applications
- Communicate information to and from PCs
- Eliminate display “washout”

Specifications

Performance Characteristics
Power supply: Universal 90 to 250 Vac, 48 to 62 Hz

Power consumption: 15 VA @ 120 Vac, 60 Hz (typical)

Electrical Characteristics
Primary input:
Selectable via jumper and keyboard:
22 thermocouple ranges: B, E, J, K, N, R, S, T, W, W5, Platinel II
6 RTD ranges: DIN, JIS or SAMA calibrations
2 current ranges: 4 to 20 mA, 0 to 20 mA
2 voltage ranges: 0 to 5 V, 1 to 5 V
5 millivolt ranges: 0 to 10 mV, 0 to 30 mV, 0 to 60 mV, 0 to 100 mV, -25 to 25 mV
Secondary input:
Selectable via jumper and keyboard:
22 thermocouple ranges: B, E, J, K, N, R, S, T, W, W5, Platinel II
6 RTD ranges: DIN, JIS or SAMA calibrations
2 current ranges: 4 to 20 mA, 0 to 20 mA
2 voltage ranges: 0 to 5 V, 1 to 5 V
5 millivolt ranges: 0 to 10 mV, 0 to 30 mV, 0 to 60 mV, 0 to 100 mV, -25 to 25 mV

Input impedance:
Current: 250 Ohms
Thermocouple: 10 megohms
Voltage: 1 megohm
RTD: 10 megohms
Sampling rate:
Input and output: 100 mSec
Display: 200 mSec
Output:
Main Control: Analog mA (0 to 20, 4 to 20 selectable)
Output 2: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 3: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 4: Loop power supply, 24 Vdc (nominal) @ 40 mA
(See following page for optional plug-in output modules)

Temperature Characteristics
Ambient temperature:
Operating: 32˚F to 122˚F (0˚C to 50˚C)
Storage: -40˚F to 158˚ F (-40˚C to 70˚C)

Humidity: 10 to 90% recondensing

Serial Communications (optional)
Serial interface: RS-485

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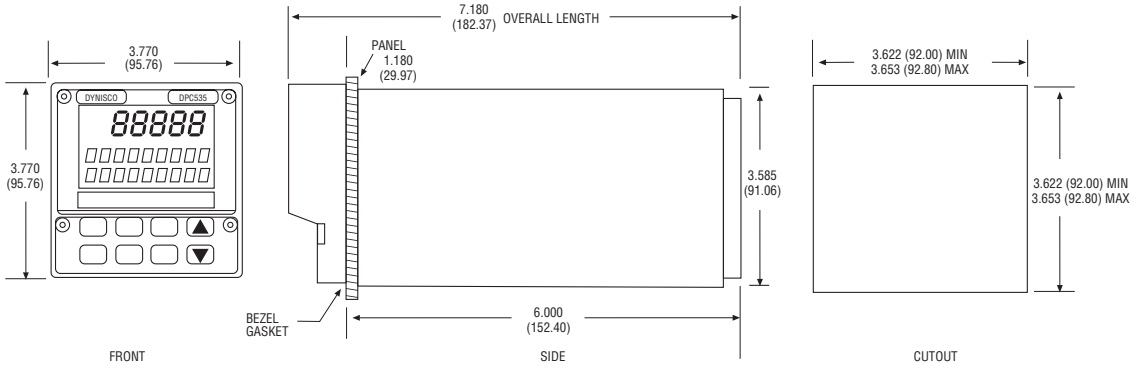

All dimensions are in inches (millimeters) unless otherwise specified

Ordering Guide

Model	Control Output		2nd Output		3rd Output		4th Output		Power
	Code	Description	Code	Description	Code	Description	Code	Description	
DPC535	2	Analog mA	1	Relay	1	Relay	5	Loop Power	90 to 250 Vac

Ordering Example: DPC535 - 2 - 1 - 1 - 5

- Process controller with 4 to 20 mA input, 4 to 20 mA control output, two relay outputs and 24 Vdc loop power supply, operating from 90 to 250 Vac, 48 to 62 Hz

Plug-in Modules (available separately)

Model	Description
DPC535-600	Mechanical relay 5A @120/240 Vac; 0.5A @ 24 Vac (output 4 only)
DPC535-601	Analog, mA
DPC535-602	Triac, 1A @ 120/240 Vac; 0.5A @ 24 Vac (output 4 only)
DPC535-603	SSR drive, “ON” voltage 1.7 Vdc; “OFF” voltage less than 0.5 Vdc
DPC535-604	Loop powered supply 24 Vdc (nominal) 40 mA
DPC535-705	RS-485