DYNISCO MODEL DPC535
Differential Pressure Controller

Description
The DPC535 differential pressure controller for the extrusion market offers the option of utilizing 350 Ohm strain gage transducers. It offers the ability to control the differential pressure and to display and alarm at independently settable upstream and downstream setpoints. Retransmission of the differential can be configured. Digital communications via a RS485 port is optional.

Features
- Plug-in output capabilities
- Latching alarm function
- Versatile alarm strategy
- RS485 option
- Highly visible 3 line vacuum flourescent display
- NEMA 4X rated
- On-board PID/self-tuning
- Illuminated keypad

Benefits
- Pressure signals to the operator or to the machine directly
- Shuts down an extruder at dangerous pressure levels
- Provides variety of interlocks and signals
- Communicates information to and from PCs
- Eliminates display "washouts"
- Useable in hostile environments
- Adaptable to a variety of applications
- Not dependent on ambient light level



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 DC current ranges: 4 to 20 mA, 0 to 20 mA
2 DC voltage ranges: 0 to 5 V, 1 to 5 V
5 DC millivolt ranges: 0 to 10 mV, 0 to 30 mV, 0 to 60 mV, 0 to 100 mV, -25 to 25 mV
350 Ohm strain gage with 10 Vdc power supply: DPC535-x-x-x-xK instruments only

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
350 Ohm strain gage with 10 Vdc power supply: DPC535-x-x-x-xK instruments only

Input impedance:
Current: 250 Ohms
Thermocouple: 10 megohms
Voltage: 1 megohms
RTD: 10 megohms

Sampling rate:
Input and output: 100 mSec
Display: 200 mSec

Outputs (DPC535-x-x-x-xK) dual strain gage input:
Main Control: Mechanical relay, SDPT, 5 A @ 120/240 Vac
Output 2: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 3: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 4: Analog mA (0 to 20, 4 to 20 selectable)

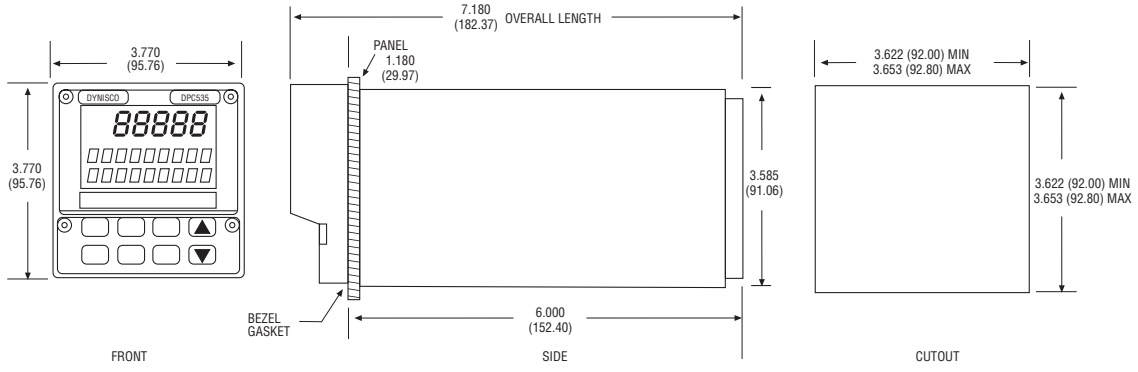
Outputs (DPC535-x-x-x-x) amplified transducer input:
Main Control: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 2: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 3: Mechanical relay, SPDT, 5 A @ 120/240 Vac
Output 4: Loop power supply, 24 Vdc (nominal) @ 40 mA
(See following page for optional plug-in 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		Input Type		Power
	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description	
DPC535	1	Relay	1	Relay	1	Relay	2 5	Analog mA 0-20, 4-20 selectable Loop power supply 24 Vdc	K	350 Ohm SG transducer	90 to 250 Vac

Ordering Example: DPC535 - 1 - 1 - 1 - 2K

- Differential pressure controller with 350 Ohm strain gage input, mechanical relay control output, two additional relay outputs and analog mA output operating from 90 to 250 Vac, 48 to 62 Hz

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

- Differential pressure controller utilizing amplified transducer input, mechanical relay control output, two additional relay outputs, 24 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

Delivery

Please call for specific delivery information.