

PID Control - '9900 1/16 DIN'



H = 48, W = 48, D = 114

- Industry standard format with 48x48mm front fascia
- PID autotune on warm up or at set point
- Selectable inputs include 9 thermocouples and 2 or 3 wire PT100
- Dual output, extra heavy duty relays for alarms or heat/cool operation
- Bright clear green display configurable in 1.0/0.1 digit °C or °F
- 6 alarm modes with loop break alarm
- Zero and span adjustment for on site calibration
- Matching ¼" and ½" panel adaptors for retro fit replacement for larger units



- Operator lockout prevents unauthorised access

Supply voltage	Dual 115/230Vac ±15% 6VA
Outputs	SP1 relay 16A de-rated to 5A for continuous switching or optional SSR drive 10mA @ 5V dc SP2 relay 8A de-rated to 3A for continuous switching or optional SSR drive 10mA @ 5V dc
Power socket option	4-20mA 500Ω max
Temperature range	User selectable between -200 and 1800°C
Sensor types	Thermocouples: J,K,N,R,S,T,E,L,B and RTD/PT100 2 or 3 wire
Linear Input	0-20mV, 4-20mV
Calibrated accuracy	±0.25% sensor maximum ±1°C
Ambient conditions	0 to 50°C

PLC150X

Supply Voltage	Mftrs. List No.	Order Code	1+	5+	10+	25+
SP1-Relay and SP2-Relay Outputs						
230Vac	991.12C	737-276				
115Vac	991.11C	737-288				
SP1-SSR and SP2-Relay Outputs						
230Vac	992.12C	737-290				
115Vac	992.11C	737-306				
SP1-SSR and SP2-SSR Output						
230Vac	992.22C	737-331				
Panel Adaptors						
1/8 DIN	904.200	737-355				
1/4 DIN	904.400	737-367				

PID & Autotune and Data Logging Option 3300, 9300 & 9400 Series



H = 24, W = 48, D = 102 Type 1 H = 48, W = 48, D = 114 Type 2 H = 48, W = 48, D = 102 Type 3

- PID autotune automatically matches PID setting to the application
- Bright LED 4 digit display configurable to °C/°F and engineering units
- 2 colour display shows setpoint and process variable. 9400/9411 versions
- Ramp/Soak, for controlled warm up and timed temperature soak
- Selectable inputs, thermocouple, RTD/PT100 and linear process
- Dual output - 2 relay SSR/relay
- Heat/Cool operation.
- Zero and span adjustments for on site calibration
- Sleeve mounting for easy servicing and fitting communication board
- Positive feel buttons and helpful menus speed set-up
- Full CE compliance, IP66/NEMA4 fascia, UL/CSA approval



Supply voltage	110/240Vac ±10%, 50-60Hz 3VA
Outputs	Relay 2A & 1A @ 250Vac, SSR Drive 10mA@> 5V dc
Temperature range	User selectable between -200 and 1800°C
Sensor types	Thermocouples: B,E,J,K,L,N,R,S,T and RTD/PT100
Linear Input	0 to 50mV
Calibrated accuracy	±0.25% sensor maximum ±1°C
Ambient conditions	0 to 50°C

PLC180X

Type	Outputs	Mftrs. List No.	Order Code	1+	5+	10+	25+
1	Relay & SSR	3300	565-118				
1	Relay & Relay	3311	565-120				
2	Relay & SSR	9300	565-131				
2	Relay & Relay	9311	565-143				
3	Relay & SSR	9400	565-167				
3	Relay & Relay	9411	565-179				

Programmer/Profiler '9500'



- Accepts inputs from 9 thermocouples, 2/3 wire PT100 and linear inputs of 4-20mA and 0-5V
- Three outputs, 1 and 2 can be relay, SSD, 4-20mA or 0-5V (output 3 always relay)
- Full PID Autotune to set optimum control values
- Up to 31 programs (memory dependant)
- Segment types ramp, (with or without holdback) soak, step, loop and call
- Up to 2 program events on every segment
- User friendly programming, copy, paste, delete programs and segments
- Time intervals in hrs, mins, secs
- Display of program progress and memory usage
- Isolated RS232/RS485 communications option using Modbus RTU protocol
- IP66, NEMA4 fascia
- Zero and span adjustment for on-site calibration
- 5 Alarm configurations

Supply voltage	100-240 Vac 50-60 Hz
Outputs	SSR 5V dc, 4-20mA (500Ω min) 0-5V dc 10mA (500Ω min)
Sensor types	Thermocouples: B, E, J, K, L, N, R, S, T RTD-1/PT100 2 wire
Process inputs	0 to 50mV, 4-20mA
Ambient temperature	0-50°C
Calibrated accuracy	±0.25% sensor maximum ±1°C

PLC210

Input	Output	Order Code	1+	5+	10+	25+
Sensor	Rly/Rly/Rly	321-3640	510.00			
Sensor	SSD/Rly/Rly	321-3638	480.00			
Sensor	4-20/Rly/Rly	321-3699	585.00			
Sensor	4-20/SSD/Rly	321-3705	585.00			
4-20mA	Rly/Rly/Rly	321-3663	510.00			
4-20mA	SSD/Rly/Rly	321-3651	480.00			
4-20mA	4-20/Rly/Rly	321-3675	585.00			
0-5V	Rly/Rly/Rly	321-3687	585.00			

Chart Recorders & Data Logging Software Optional RS232/RS485 Comms Boards



The CALCOMMS[®] charting, logging and tuning software is robust, intuitive and easy to use. Installation is simple via a single 3½" floppy disk and can be operated by anyone with a PC or laptop who is familiar with Windows 95[®]/NT[®]. It is low-cost but provides the user with a powerful and highly flexible logging and 'real time' charting tool with the capability for providing hard copy QA records for ISO 9002 and other management purposes. Also the time saving benefit and convenience of remotely configuring and adjusting units, saving and retrieving setting to and from files and cloning settings to other instruments. It has the added advantage that controllers can be fitted without the communications option, which can be installed when the need arises. CALCOMMS[®] will connect to upto 128 CAL controllers. Communication uses the MODBUS[®] protocol via either a fully isolated RS232 or RS485 link.

- **Logging/Charting:** Real time datalogging and chart recording. Data can be exported as a text file and for use in spreadsheets etc.
- **Log-On Change feature:** Chart can be set to log 'out of limits' only therefore saving disk space
- **Real-time and Historical Mode with zoom facility:** Time scale can be set to show trends or zoom to show accuracy of control
- **Remote Setpoint Adjustment:** Setpoints can easily be programmed remotely avoiding repeated trips to machinery
- **Instrument Configuration** The full suite of programmed are available in software clearly set out with their appropriate Mnemonics
- **Settings Saved to File:** Individual instrument settings or complete applications can be saved to file
- **Instrument Cloning:** Instruments settings can be copied to a number of others on the bus
- **Selectable Scan Rate:** From 1 second to 1 day
- **Password Security:** Via the PC
- **Print Options:** Directly from chart recorder

PLC185

	Mftrs. List No.	Order Code	1+	5+	10+	25+
Software	1001GB307	565-180				
RS232 Comms Bd	3C0000207	565-192				
RS485 Comms Bd	3C0000407	565-209				