CD600Plus

Digital Controller Multi-Loop

The CD600Plus is a powerful stand-alone single station process controller. It is capable of simultaneously controlling up to 4 loops with up to 8 PIDs and sophisticated strategies consisting of more than 120 function blocks.

It has a powerful multiple I/O channel hardware platform. In a single station, this high-end controller replaces as many as 8 traditional controllers, numerous signal conditioning modules, and wiring. The high reliability of the CD600 has earned a great reputation from a wide range of high-end users. Thousands of these units are spread all over the world, in all industrial segments, from the simplest to the most complex control loop.

Designed, developed and manufactured by Smar, with years of proven field experience reflected in this powerful and reliable instrument. It is characterized by its simplicity and application versatility.

Programming the control strategy is accomplished by interconnecting up to 120 pre-programmed blocks. Also, by selecting one of the many complete preprogrammed control configurations strategies available.

The CD600 Plus can be configured through CONF600 Plus, because it presents a user-friendly graphic interface. It has characteristics that make it the most advanced and potent multi-loop controller of the market.

The CD600 Plus can be used as single module or as part of a system. A single unit is, for example, capable of controlling a complete boiler including 3-element level control, cross limit combustion control and draft control. It substitutes controllers of a mesh, controllers of mesh dual / cascade, reason control, bias control, manual stations, setpoint programmers, boat-load controllers, visualization stations and others panel instruments and conditioning of sign.

- Up to four independent control loops with up to eight PID functions.
- 8 analog inputs, 8 analog outputs, 8 discrete inputs and 8 discrete outputs.
- 72x144mm DIN panel with analog and digital indication in an 8-digit alphanumeric display for PV, SP and MV.
- Built-in 24Vdc 200 mA power supply for up to 8 field devices.
- More than 120 function blocks are available for user programming.
- Detachable terminal blocks, for easy maintenance.
- Easy data transfer between operator workstations and control systems through OPC.
- Built in isolated EIA-485 serial communication port.
- Adjustment of control options through the front panel.
- Depth of 27.2 cm (10.7 in).
- Work with ENET-710 for CDBUS/ TCP communication.

Some Characteristics:

Power Supply	24 Vdc, 85 - 264 Vac 47 - 65 Hz. Maximum consumption: 18 VA (ac) / 12 W (dc).
Loops Controlled	Simple or complex loops with up to 8 PIDs.
Analog Inputs	1 to 5 Vdc or 0 to 5 Vdc, with input impedance of 1 MΩ 4 to 20 mAdc or 0 to 20 mAdc, with 250 Ω shunt resistors (removable). Conversion accuracy: ± 0.010 V.
Digital Inputs	Open contact: 50 kΩ minimum or 3 to 24 Vdc or Closed contact: 200 Ω maximum or 0 to 1.7 Vdc maximum. 2 inputs may be used for frequency, from 0 Hz to 10 kHz.
Analog Outputs	4 - 4 to 20 mAdc or 0 to 20 mAdc, with maximum load of 750 Ω Resolution: ± 0.050 mA. 4 - 1 to 5 Vdc or 0 to 5 Vdc, with minimum load of 1500 Ω Resolution: ± 0.015 V.
Digital Outputs	Transistor open collector, 45 Vdc, 400 mA maximum on resistive load.
Auxiliary Power Supply	24 Vdc, 200 mA maximum for up to 8 field transmitters.
Front Panel Indication and Control	101-element LED bargraphs for Setpoint and Process Variable indication. 41-element LED bargraph for Output indication. 8-digit, general purpose alphanumeric display. LEDs for alarm, status and loop monitoring. Function keys.
Processing Cycle Time	Adjustable (100 - 250 ms).
Serial Communication Port	EIA-485 (isolated) TCP/IP using ENET-710 OPC Server available (TagList600)
Configuration Definition	Software function blocks (programming) or pre-programmed control configurations.
Configuration Entry	Via computer. Configuration software: Conf600Plus
Installation Conditions	Ambient: 0 to 60o C, 5 to 90% RH.
Dimensions	2.834 x 5.669 x 10.724 (inches) / 72 x 144 x 272.4 (mm) DIN 43700.
Weight	1.6 kg
Ingress Protection	IP 20