

Model 7100-PLUS Controller *8/16 Channels*

- ⊙ 8/16 channel display modes accept inputs from many sensor types and signal ranges. Input types include 4-20mA and Modbus.
- ⊙ Ethernet with Modbus TCP server/client and web server for configuration and monitoring
- ⊙ RS-485 serial ports allow simultaneous Modbus Master/Slave operation. Two standard ports and two optional isolated ports.
- ⊙ Wireless Modbus and RC Systems' WaveNet wireless interfaces available
- ⊙ Three independent alarm levels per channel. "Relay Acknowledge" feature allows silencing of external audible devices during alarm conditions.
- ⊙ QVGA Color LCD displays monitored data as trends, bar graphs and engineering units. Readouts change colors to indicate alarms.
- ⊙ Five standard SPDT 5-amp alarm relays. HORN, FAULT and three programmable alarm relays
- ⊙ Options cards such as 4-20mA inputs, 4-20mA outputs, discrete and programmable alarm relays
- ⊙ Cal Mode offers push-button zero/span calibration for remote sensor applications
- ⊙ Authorization Mode allows locking of critical settings
- ⊙ Data Logger onto SD card allows recording of input values, and events for more than 10 years
- ⊙ Power supply options include both 150 and 600 Watt
- ⊙ Magnetic keypad standard for non-intrusive operation in potentially hazardous locations
- ⊙ Enclosures include wall mount NEMA 4X - Non-Metallic, 316 SS, XP and Rack/Panel Mount



The **Model 7100-PLUS** controller combines the reliability of our proven Model 7100 controller with the advanced upgrades of our Model 7200 64 channel controller in one low cost package. The Model 7100-PLUS provides simultaneous display and alarm functions for up to 16 input variables. 8 or 16 channel display modes, and I/O modules arranged in groups of 8 channels, allow economical configuration of systems. This easy-to-configure, user friendly controller is ideal for centralizing display and alarm functions in critical multipoint monitoring applications.



Panel/Rack Mount



Compact Fiberglass NEMA 4X Wall Mount



Aluminum NEMA 7 XP Wall Mount

Model 7100-PLUS Controller

Specifications

INPUT:

12 bit 4-20mA into 150 ohms input impedance; includes +power supply terminals for each channel for routing power to two or three wire transmitters

SERIAL PORTS:

Two standard RS485 ports. Two additional isolated ports optional.

ETHERNET PORT:

Modbus TCP Master/Slave port with web server (Gateway for Ethernet IP, Bacnet, and other protocols available)

ALARM RELAYS:

Five 5 amp 30VDC or 250VAC resistive Form C

ANALOG OUTPUTS (OPTIONAL):

16 bit 4-20mA output. Max load 800 ohms with nominal 24VDC power supply

ALARM RESET:

Two 10-60VDC Alarm Reset Input Terminals

DIGITAL OUTPUT:

400mA @ VDC

DISPLAY:

QVGA 320 x 240 pixel TFT graphic LCD with LED backlight

AMBIENT TEMPERATURE RANGE:

-13° to +140° F (-25° to +60° degrees C)

POWER SUPPLY:

10 – 30VDC (24VDC nominal)
12 Watts max required
10-0172 option = 150 Watt
10-0307 option = 600 Watt

APPROVALS:

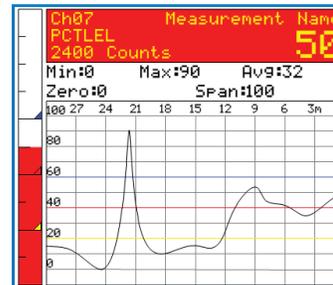
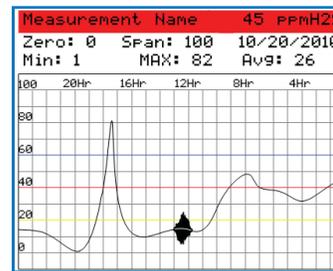
CE Approved
CSA C22.2 No 1010.1 and C22.2 No.152 for combustibles and ISA S82.02
CSA Class I Div 2 Grps A, B, C, D

Ordering Information

7100-Plus NEMA 4X Controller.....	820-0110-01
7100-Plus Stainless-Steel Controller (up to 3 options)	820-0110-02
7100-Plus Rack Mount Controller	820-0110-04
7100-Plus Controller with XP Enclosure (Class 1 Div 2 Approved) .	820-0110-03
24 VDC, 150 watt Power Supply, (standard)	299-0203-01
24 VDC, 600 watt Power Supply, (upgrade).....	299-0204-01
8 Channel, 4-20 mA Analog Input Board, recommended (1 or 2 for 4-20mA inputs)	299-0196-01
8 Channel, 4-20 mA Analog Output Board, optional.....	299-0193-01

Measurement	PPM H2S
Measurement	Measurement
Measurement	Measurement
Measurement	Measurement
% Oxygen	Measurement
Measurement	PPM CO
Measurement	Measurement
Measurement	Ch. 16 OFF

Ch16	2 PPMH2S
Ch17	54 PCTLEL
Ch18	18 PCTLEL
Ch19	6 PCTLEL
Ch20	4 PPMH2S
Ch21	67 PPMH2S
Ch22	28 PCTLEL
Ch23	13.6 %O2
Ch24	20.8 %O2
Ch25	Fault
Ch26	75 PSI
Ch27	17 PCTLEL
Ch28	38 PPMH2S
Ch29	8 PPMH2S
Ch30	15 PCTLEL
Ch31	2 PPMH2S



North Entrance	Control Room
A1 A2 A3 F	A1 A2 A3 F
Tank Farm	Main Process
A1 A2 A3 F	A1 A2 A3 F
West Gate	ZONE 7
A1 A2 A3 F	A1 A2 A3 F
Switchgear Room	ZONE 8
A1 A2 A3 F	A1 A2 A3 F

Main Data Display

Displays all active channels on the same screen. Channel configurations include 16, active channels. Cells indicate alarm status by color.

Bar Graph Display

Displays 16 channels at a time. Bar graphs change colors to indicate alarm status.

24-Hour Trend Display

Displays 1 channel at a time as most recent 24 hour trend. Top data fields include current reading, max - min - average readings over the 24 hours, range, channel ID and engineering units.

Combination Display

Displays 1 channel at a time as most recent 30-minute trend, bar graph and large engineering units. Top data fields include current reading, max - min - average readings for trouble shooting, range, channel ID, and engineering units. Readings change color and flash on alarms. Flashing color becomes steady after acknowledge.

Zone Display

Displays all eight possible active zones. Alarm cells change colors and name field flashes indicating alarms. Allows user direct access to screen that shows which channels belong to each zone.

