





PR Series



Paperless Recorders & Process Controllers

Outstanding Specifications & Features

				P PUTANCOSSON	
	PR10	PR20		PR30	
Product Description	low-cost 4.3" touch screen recorder supports 1, 2, 3 or 6 universal analog inputs	intermediate 5.6" touch screen up to 24	high-resolution analog inputs	large 12.1" high-resolution touch screen recorder supports up to 48 universal analog inputs	
Input numbers	3, 6 channels	3, 6, 12, 18, 24 channels		6, 12, 18, 24, 30, 36, 42, 48 channels	
True universal inputs			JPt50, JPt100, JPt200 Ni1000 (α =0.00617	200, JPt500, JPt1000 (α =0.003916) 617) mA, V, mV	
Scan Rate / Data Log Interval	analog inputs scanned every 100ms / Data log interval configurable, 100ms, 1, 2, 5, 10, 2		0, 30 seconds, 1 or 2 minutes.		
Math, External channels, Batch Data Log, Custom display, FDA, CFR21 part 11	Math functions, including Counters & Totalizers, are standard with other listed functions in Plus Version Firmware				
Display	4.3" TFT wide touch screen	5.6" TFT touch screen		12.1" TFT touch screen	
Resolution	480 x 272	640 x 480		1024 x 768	
MTFB backlight at 25°C	30,000 hrs	30,000 hrs		60,000 hrs	
Backlight	LED				
Screen saver, Email	Yes				
CPU Speed	ARM Cortex-A8, 1Ghz				
Internal Flash memory	256 MB				
RAM	256 MB				
Ethernet	Modbus TCP/IP				
RS-232/422/485	optional RS-232 or RS-422/485 Modbus RTU				
SD card slot / USB ports / Printer Output Pulse input	1 SD Card Slot / 2 USB ports one front with 2nd back / Printer output via USB ports or LAN				
	optional DI card offering either logic or high frequence			N/A	
Process control START / STOP key	PID ramp & dwell	PID ramp & dwell		N/A	
Calibration	to start / stop data logging and to turn display only off (not the recorder) field calibration may be accomplished for all analog input types as well as offering Offset and Gain adjustments				
Campranon	7				
Multilingual				ed, traditional), French, German, Spanish, Swedish, se, Czech, Greek and other languages negotiable	
PC software Historical Viewer+ Configuration	Standard – on PC view, print, export (.csv) all data and other files and to create/edi		to create/edit unit co	/edit unit configuration files	
Extensive software Data Acquisition Studio	optional, same as Historical Viewer but supports real-time remote		monitoring of multiple PR units, data logging at PC and more		
Power supply	90-250VAC or 11-36VDC				
Outer dimensions (W x H x L)	144mm x 144mm x189mm / 5.67" x 5.67" x 7.44"	144 x144 x189	5.67"x5.67"x7.44"	288mm x 288mm x 189mm / 11.4" x 11.4" x 7.44"	
Mounting depth	171mm / 6.74"	171mm / 6.74"		171mm / 6.74"	
DIN Panel cutout (W x H)	137mm x 137mm / 5.4" x 5.4"	137mm x 137mm	5.4" x 5.4"	281mm x 281mm / 11.06" x 11.06"	
Protection	IP65 front, IP20 rear				
Operating temperature	0°C to 50°C				
Storage temperature	-30°C to 70°C				
Agency Approvals	UL, cUL, CE, RoHS	UL, cUL, CE, RoHS		RoHS	

Overview

The PR Series paperless recorders offer outstanding specifications and features.

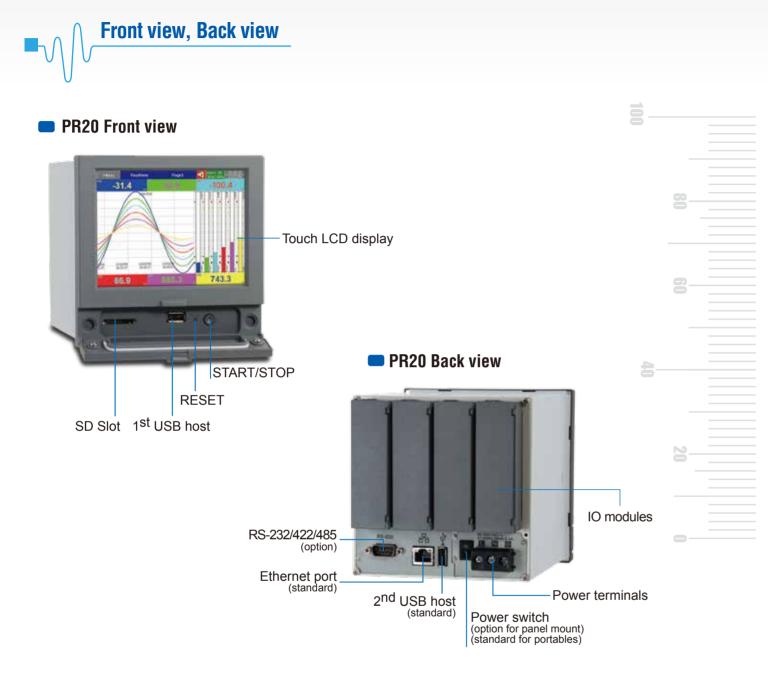
The PR Series includes the low-cost 4.3" PR10, intermediate 5.6" PR20 and the high-end 12.1" PR30 each offering a host of standard and optional features. These features include easy to use touch screen interface, 100msec sampling rate, monitor external channels (via TCP/IP or serial modbus), normal & high frequency pulse inputs, batch recording, write free-hand messages directly on the display, supports field calibration, multilevel security, customizable display, Web Server, email, 20-languages, TCP/IP, SD slot, two USB ports and can meet the requirements for CFR21 part 11, AMS2750E*, JCAHO, typical HACCP protocols and other standards.

* PR Series T/C input types J, K, T, N, U, L, P and RTD meet AMS2750E accuracy requirements

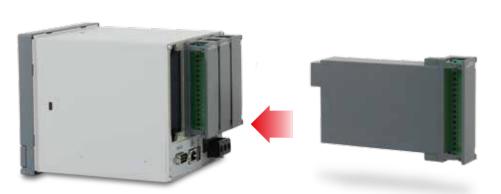


PID Process Control Function for PR10 & PR20 provides a combination process controller with profiling as well as powerful paperless recorder functions.

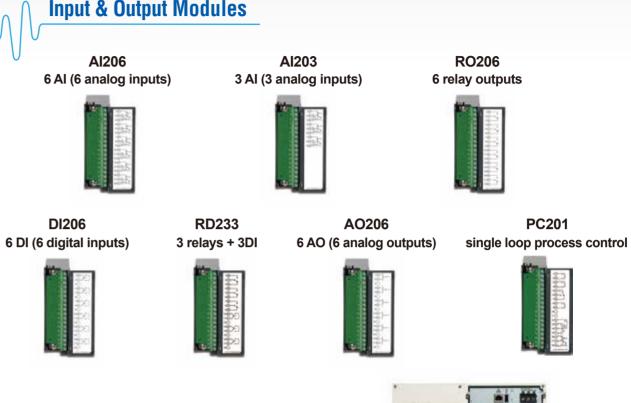
Modular Hardware Design



10 modules allow for easy for expansion



Input & Output Modules





(4 Slots, up to 6 AI)

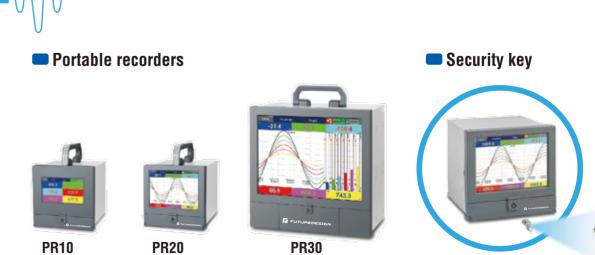






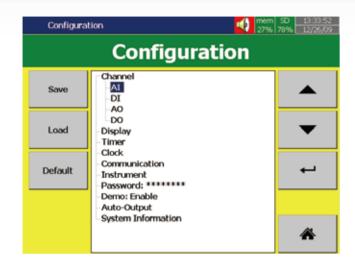
(4 Slots, up to 24 Al) (16 Slots, up to 48 AI)

Portable recorders and the front access door Security key

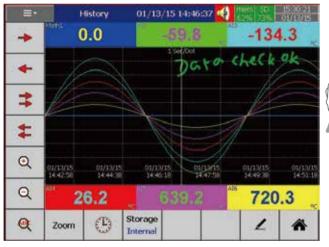


Ease of Use and Multiple Features

Configuration Menu provides easy navigation & selection









Circular display (PR30 only)

PR30 offers Circular Chart view allowing easy replacement for 1 to multiple legacy circular chart recorders while providing secure electronic data files. This chart view is configurable for a variety of time formats from 30 minutes to 4-weeks.



Standard version of Firmware

Al: Analog input offers configurable log interval: 100ms, 1, 2, 5, 10, 20, 30 Sec, 1, 2 Min/Dot.

DI: Digital input configurable as normal Logic or high frequency Pulse.

AO: Analog Retransmission Output, mA or VDC.

DO: Digital output/relay output can be enabled. Each DO card has 6 relays.

Display: Configurable display speed: 100ms, 1, 2, 5, 10, 20, 30 Sec/Dot, or 1, 2, 10, 30 Min/Page, 1, 2, 4, 8, 12 Hour/Page, or 1 Day/Page.

Timer: Timer functions include Countdown, Repeat Countdown, Daily, Weekly or Monthly base as well as defining a variety of jobs.

Clock: Configurable Date Style (MM/dd/yy or dd/MM/yy), Daylight Savings as well as Time Synchronize via LAN.

Communication: As standard Web Server and email functions are available via LAN. Alarms/events are configurable to have emails sent upon their activation.

Instrument: Adjustable display brightness, Screen Saver time as well as other settings.

Security: The Normal Security supports one password. With the optional CFR21 High Security system supports up to 30-users, 9 security levels, password aging, operator audit trail and auto logout.

Demo: Enable or disable the demonstration mode.

Printer Auto-output: An automatic output of Historical data, Report data or other preselected data may be sent to a selected printer.

System information: Provides Firmware version number, Internal & External memory status, IP address and IO card status of each Slot.

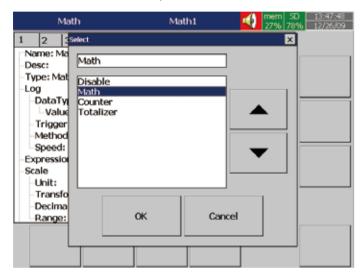
Field Calibration: Analog channels may be easily field calibrated.

Additional Functions

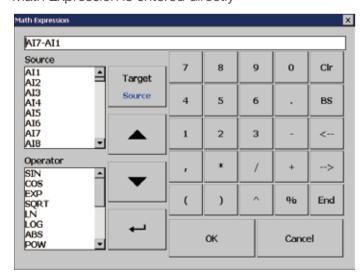


Standard Firmware version includes Mathematics, Counters & Totalizer

Math: It includes Math, Counter & Totalizer.



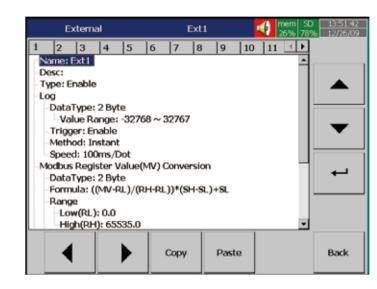
Math Expression is entered directly



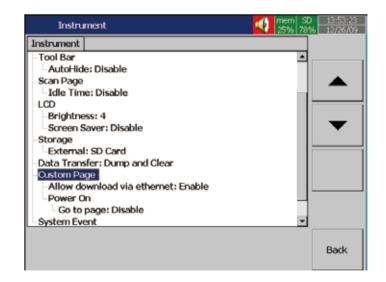


Plus versions of Firmware offer additional features: External Channels, Custom Display, Batch, High Frequency Pulse input and FDA CFR21 part 11.

External Channels: In addition to the Al & Dl inputs the PR recorders may accept additional inputs through serial or Ethernet TCP communication referenced as External Channels. The PR10, PR20 & PR30 may accept up to 24, 48 & 96 External Channels respectively.



Custom Edited Display: The Plus Version firmware 2 & 3 includes PC software Panel Studio allowing users to create/edit custom display views that can include animation and then download to PR recorders.



Batch: Data Log files may be created by Batch allowing a custom batch and lot number name for the file, typically desired for food, pharmaceutical processing as well as other applications.

FDA, CFR21 part 11: The CFR21 part 11 feature meets the requirements for U.S. Food and Drug administration.

Functions in PC Software

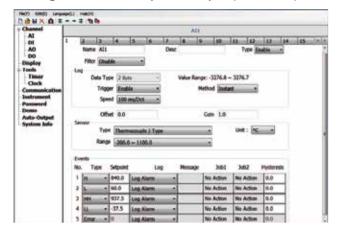


Standard PC Software

The standard software consists of two parts, Configuration and Historical Viewer.

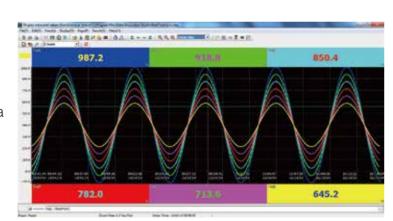
I. Configuration

The PC Software allows an easy method to create, edit and save recorder configuration. Configuration files may be easily imported/exported to PR recorder.



II. Historical Viewer

Display, print and export (.csv) historical data, chart trends, alarms and events. Search data by time, time period, tag, alarm, events and operator remarks.

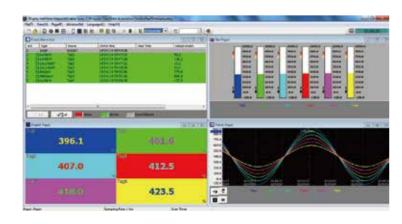


Exte

Extensive software Data Acquisition Studio

III. RealTime Viewer

In addition to the Configuration & Historical Viewer, the Data Acquisition Studio software includes RealTime Viewer to provide real-time monitoring of multiple PR recorders via serial or Ethernet TCP as well as offering additional features.



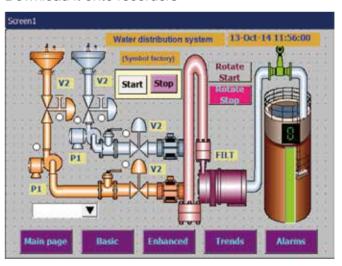
IV. Panel Studio

With Plus version 2 or 3 Firmware, Panel Studio PC software is provided to allow the creation/editing of custom display views that may include animation. When completed on a PC the custom views are downloaded to the recorder. The custom display views are in addition to the standard views.

Edit it on PC



Download it onto recorders

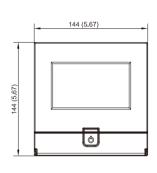


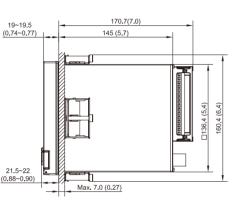


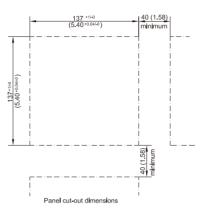
Installation

Dimensions in mm (in.)

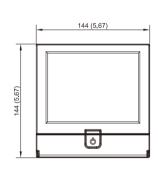
PR10

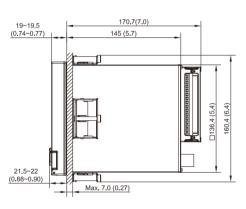


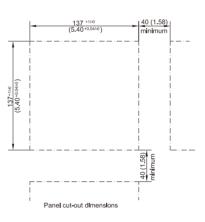




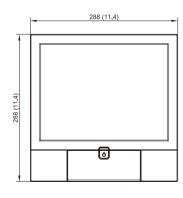
PR20

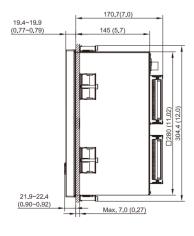


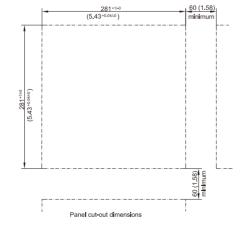




PR30

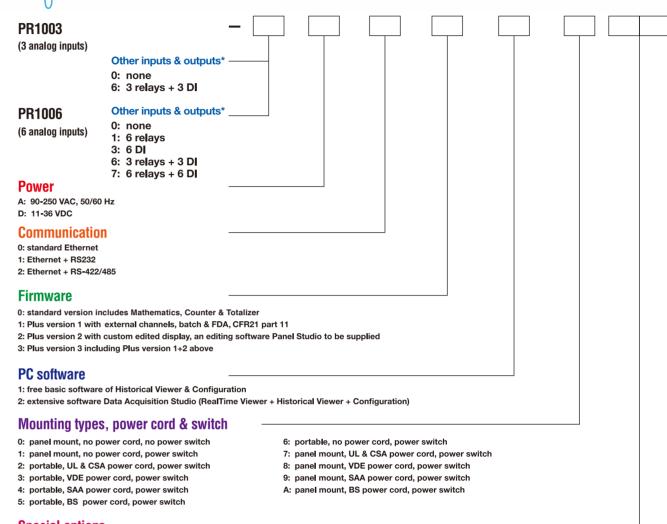






Ordering Code

PR10 Ordering Code



Special options

00: none 10: Process control card

S1: 16G SD card 11: Process control card + 16G SD card S2: 32G SD card 12: Process control card + 32G SD card

*Notes: DI - digital inputs

Process control card ordering code needs to be chosen after Special options 10, 11, 12 been selected When Process control card is specified PR10 is not UL, cUL

Output 1 0: None

- 1: Relay 2A/240VAC
- 2: Pulse voltage to drive SSR, 5V/30mA
- 3: Isolated 4-20mA/0-20mA (OM95-3)
- 4: Isolated 1-5V/0-5V (OM95-4) 5: Isolated 0-10V (OM95-5)
- 6: Triac output 1A/240VAC,SSR
- C: Pulse voltage to drive SSR, 14V/40mA (OM94-7)
- 0: None

Output 2

- 1: Relay 2A/240VAC
- 2: Pulse voltage to drive SSR, 5V/30mA
- 3: Isolated 4-20mA/0-20mA (OM95-3)
- 4: Isolated 1-5V/0-5V (OM95-4)
- 5: Isolated 0-10V (OM95-5)
- 6: Triac output 1A/240VAC,SSR
- 7: Isolated 20VDC/25mA power supply (DC94-1)

Alarm 2

1: Form A relay 2A/240VAC

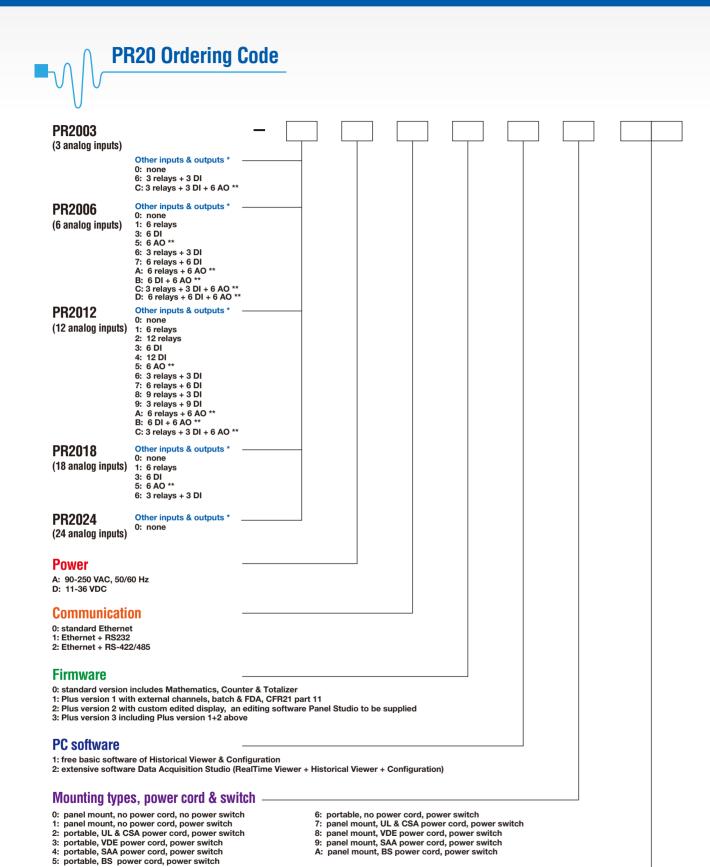
0: None

Alarm 1

1: Form C relay 2A/240VAC

- 8: Isolated 12VDC/40mA power supply (DC94-2)
- 9: Isolated 5VDC/80mA power supply (DC94-3)
- C: Pulse voltage to drive SSR, 14V/40mA (OM94-7)

Order Matrix



Special options

00: none S1: 16G SD card 10: Process control card 11: Process control card + 16G SD card

S2: 32G SD card

12: Process control card + 32G SD card

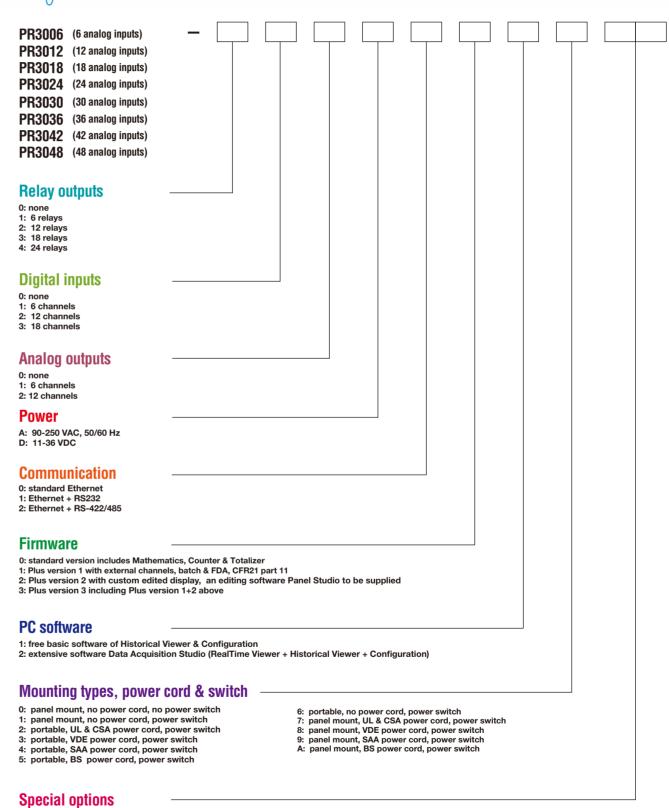
*Notes: DI - digital inputs, AO - analog retransmission output

Process control card ordering code needs to be chosen after Special options 10, 11, 12 been selected, please refer to page 13

When Process control card is specified PR20 is not UL, cUL

** Process control card cannot be chosen together with PR2003, PR2006, PR2012, PR2018 order codes 5, A, B, C, D nor with PR2024 (24 analog inputs)

PR30 Ordering Code



15

S1: 16G SD card

S2: 32G SD card