

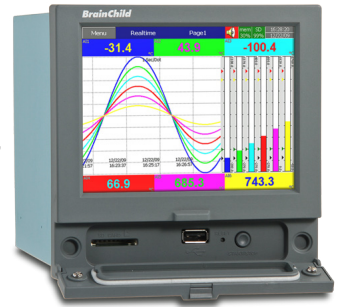
PR Paperless Recorders

The PR series of paperless chart recorders offer a solution for most budgets and applications with outstanding specifications and features, at very competitive prices. The PR family includes:

- **PR10** Low-Cost, ideal for replacing 6-dotting chart recorders and 1, 2, 3 pen recorders, or where a low-cost solution is required. Available with 3 or 6-channel inputs, with a 4.3" TFT wide touch screen. The 'baby' of the family, but still very powerful!
- **PR20** Most Popular Model. Supports up to 24-channel inputs, medium sized with 5.6" TFT wide touch screen. Mid-range unit which is suitable for most applications.
- **PR30** The 'Daddy', the high-end of the range. Supports up to 48-channel inputs, large 12.1" TFT wide touch screen which offers a big clear display. If you need to monitor a lot of channels and need a big display this is the one for you.

All of the instruments are easy to program using either the front touch screen or the free software provided. As your application evolves the input, output and communication modules can be easily changed by simply unplugging / plugging in the back of the recorder. Handwritten messages can be written on the front touch screen, which can be very handy for the users. Other features include:




- Fast sampling rates (100msec)
- SD card slot (16GB and 32GB SD card options)
- Short instrument depth: 171mm
- Multilingual – 20 languages
- Free basic software supplied. Extensive software also available
- Ethernet and USB port as standard, RS-232/422/485 available options
- Analogue, Digital Input and Output options, Relay Output options
- Clock and Timer (countdown, repeat countdown, daily, weekly or monthly)
- Web Server allows access to real-time trends, data, events and alarms whilst connected to the internet. Email functions are also available in communication standard firmware
- Password protection can be activated to safeguard the data and settings
- Auto-Output will send data automatically to a printer to print reports at specified times



Rear View (PR20 Model)



Replacement modules also available

| Technical Details | | | |
|--------------------------------------|--|--|--|
| Model | PR10  | PR20  | PR30  |
| Description | Low-cost. Ideal for replacing 6-dotting chart recorders and 1,2,3 pen recorders. | Most popular model. Medium sized and powerful. Supports up to 24 channels. | High-end model. Ideal for sophisticated applications (e.g. power industry). |
| Channels | 3, 6 | 3, 6, 12, 18, 24 | 6, 12, 18, 24, 30, 36, 42, 48 |
| Universal Inputs | Thermocouples: K, J, T, N, E, R, S, B, L, U, P, W5, W3, LR, A1, A2, A3, M RTD: Pt50, Pt100, Pt200, Pt500, Pt1000 ($\alpha=0.00385$), Pt50, Pt100 ($\alpha=0.00391$), JPt50, JPt100, JPt200, JPt500, JPt1000 ($\alpha=0.003916$), Cu10 ($\alpha=0.00427$), Cu50, Cu100 ($\alpha=0.00426, 0.00428$), Ni100, Ni200, Ni500, Ni1000 ($\alpha=0.00617$), mA, V, mV | | |
| Sampling Rate | 100 msec/dot, default setting 1 sec/dot | | |
| Display | 4.3" TFT 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 hours | 30,000 hours | 60,000 hours |
| Backlight | LED | | |
| Screen Saver, Email | Yes | | |
| CPU | ARM Cortex-A8, 1GHz | | |
| Internal Flash Memory / RAM | 256 MB / 256 MB | | |
| Ethernet (Network) | Modbus TCP/IP | | |
| RS-232/422/485 | Optional RS-232 or RS-422/485 Modbus RTU | | |
| SD Card Slot, USB Hosts | 1 x SD Card Slot (front), 1 x USB (front), 1 x USB (rear) | | |
| Pulse Input | Optional Digital Input (DI) card offering either logic or high frequency pulse counter | | |
| START/STOP Key | Starts/stops recording or turns off display (doesn't turn off recorder to allow quick start later) | | |
| Calibration Correction | On-site calibration possible, Offset and Gain for correction | | |
| Multi-language | 20 languages including English, Brazil Portuguese, Chinese (simplified, traditional), Czech, Danish, Dutch, French, German, Greek, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Swedish, Thai, Turkish + other languages possible | | |
| Software (PC) | Free basic software with configuration and "Historical Viewer". Optional "Data Acquisition Studio" software allows real-time monitoring | | |
| Power Supply | 90-250VAC or 11-36VDC | | |
| Outer Dimensions (W x H x L) | 144mm x 144mm x 189mm | 144mm x 144mm x 189mm | 288mm x 288mm x 189mm |
| Mounting Depth | 171mm | 171mm | 171mm |
| DIN Panel Cutout (W x H) | 137mm x 137mm | 137mm x 137mm | 281mm x 281mm |
| Protection | IP65 Front, IP20 Rear | | |
| Operating/Storage Temperature | Operating Temperature: 0°C to +50°C, Storage Temperature: -30°C to +70°C | | |
| Safety Standards Available | CE, cULus, RoHS | | |



PR Paperless Recorders PR20 Example (contact sales for other models)

| 1 | Analog Inputs | Other Inputs and Outputs † | Code |
|------------------------|------------------|----------------------------|----------|
| | | | |
| PR20 | 3 Analog Inputs | None | PR2003-0 |
| | | 3 relays + 3 DI | PR2003-6 |
| | | 3 relays + 3 DI + 6 AO | PR2003-C |
| | 6 Analog Inputs | 6 relays | PR2006-1 |
| | | 6 DI | PR2006-3 |
| | | 6 AO | PR2006-5 |
| | | 3 relays + 3 DI | PR2006-6 |
| | | 6 relays + 6 DI | PR2006-7 |
| | | 6 relays + 6 AO | PR2006-A |
| | | 6 DI + 6 AO | PR2006-B |
| | 12 Analog Inputs | 6 relays + 6 DI + 6 AO | PR2006-D |
| | | None | PR2012-0 |
| 6 relays | | PR2012-1 | |
| 12 relays | | PR2012-2 | |
| 6 DI | | PR2012-3 | |
| 12 DI | | PR2012-4 | |
| 6 AO | | PR2012-5 | |
| 3 relays + 3 DI | | PR2012-6 | |
| 6 relays + 6 DI | | PR2012-7 | |
| 9 relays + 3 DI | | PR2012-8 | |
| 3 relays + 9 DI | | PR2012-9 | |
| 6 relays + 6 AO | | PR2012-A | |
| 6 DI + 6 AO | | PR2012-B | |
| 3 relays + 3 DI + 6 AO | PR2012-C | | |
| 18 Analog Inputs | None | PR2018-0 | |
| | 6 relays | PR2018-1 | |
| | 6 DI | PR2018-3 | |
| | 6 AO | PR2018-5 | |
| | 3 relays + 3 DI | PR2018-6 | |
| 24 Analog Inputs | None | PR2024-0 | |

† Note: DI = Digital Inputs, AO = Analog Retransmission Output

| | | |
|---------------------------------------|---|------|
| 2 | Power | Code |
| | 90-250 VAC, 50/60 Hz | A |
| | 11-36 VDC | D |
| 3 | Communication | Code |
| | Standard Ethernet | 0 |
| | Ethernet + RS232 | 1 |
| | Ethernet + RS-422/485 | 2 |
| 4 | Firmware | Code |
| | Standard version | 0 |
| | Plus version 1 with extra mathematics, external channels, batch & FDA 21 CFR part 11 | 1 |
| | Plus version 2 with custom edited display, and editing software Panel Studio to be supplied | 2 |
| | Plus version 3 including Plus version 1+2 above | 3 |
| 5 | PC Software | Code |
| | Free basic software: "Historical Viewer" + "Configuration" | 1 |
| | Extensive software: "Data Acquisition Studio" ("RealTime Viewer") + "Historical Viewer" + "Configuration" | 2 |
| 6 | Mounting Type, Power Cord and Switch | Code |
| | Panel mount, no power cord, no power switch | 0 |
| | Panel mount, no power cord, power switch | 1 |
| | Portable, UL & CSA power cord, power switch | 2 |
| | Portable, VDE power cord, power switch | 3 |
| | Portable, SAA power cord, power switch | 4 |
| | Portable, BS power cord, power switch | 5 |
| Portable, GB power cord, power switch | 6 | |
| 7 | Special Options | Code |
| | None | 00 |
| | 16 GB SD Card | S1 |
| | 32 GB SD Card | S2 |

Order Code (example)

1 2 3 4 5 6 7
PR2003-6 A 0 1 1 0 S2

