VR18 PAPERLESS RECORDER
HIGH RESOLUTION 6.4” SCREEN WITH 18 CHANNELS AND PLUG & PLAY I/O
The VR18 is the newest, most advanced paperless recorder available. It is ideal for monitoring, recording, and evaluating processes in a variety of applications.

The VR18 is a modular paperless recorder that allows for up to 18 analog inputs and/or a mix of analog and digital I/O cards. Other features include: high-resolution color display (640 x 480 pixels), infrared detector for prolonged display life, plug & play I/O card, shallow unit depth, and user-friendly interface. The low-voltage and bench-top kit options also make the VR18 ideal for portable applications.

Multiple display formats and easy-to-access keys make monitoring and setup extremely easy. Data can be stored in flash ROM, on a compact flash card, or on a PC via RS232/422/485 or Ethernet options. The VR18 has UL, CSA, and CE approvals.

- 6.4” Color TFT LCD with 640x480 pixels resolution
- Up to 18 isolated input channels
- 6 Slot Plug & Play Supported I/O Cards
- High Flexibility
- Infrared Detector to extend display life
- User configurable I/O card;
- Various Display Formats
  Vertical trend, Horizontal trend, Bar Graph, Numerical or mixed
- Data Log interval configurable with Instant, Average, Minimum or Maximum Values
- Optional Configurable Alarms, Messages
- Optional Transmitter Power Supply Module; 24VDC/30mA - six non-isolated channels
- Standard Math Module including Boolean logic, totalize, count, timer, etc. Includes formatted reports for daily, weekly & monthly totalize & count values
- Portable/Bench-Top Assembly Kit
- Agency Approvals – CE, UL component recognition & CSA

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http://www.futuredesigncontrols.com

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Office: 888.751.5444 / Fax: 888.307.8014
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GENERAL SPECIFICATIONS
POWER: 90-250VAC 47-63Hz, 20-28VAC 47-63Hz, 11-18 or 18-36 VDC: all 60VA 30W maximum
DISPLAY: 6.4" TFT LCD, 640X480 pixel resolution, 256colors
MEMORY: Storage Memory on board: 8MB. CF Card: 512MB standard; optional 1 & 2 GB.
OPERATING TEMPERATURE: 5°C to 50°C
HUMIDITY: 20 to 80% RH (non-condensing)
DIMENSIONS (W x H x D): 166 x 144 x 174mm [6.53” x 5.67” x 6.85”] Panel Mount DIN cutout dimensions: 138 x 138mm

ANALOG INPUT CARD (AI181, AI182, AI183) [consult manual for special range Negative/Positive VDC input modules]
RESOLUTION: 18 bits
MAXIMUM RATING: -2 VDC minimum, 12 VDC maximum
SAMPLE RATE: 5 times/second
TEMPERATURE EFFECT: ±1.5 µV/°C for all inputs except mA input ±3.0 µV/°C for mA input
RESISTANCE EFFECT: 3-wire RTD: 2.6°C/ohm of resistance difference of two leads
INPUT TYPED: J, K, T, E, B, R, S, N, L, PT100 (DIN), PT100 (JIS), mV, mA, 0~1V, 0~5V, 1~5V, 0~10V

ANALOG OUTPUT CARD (3-Channels: AO183I for mA or AO183V for VDC output)
RESOLUTION: 15 bits
LINEARITY: ±0.005% of Span
ACCURACY: ±0.05% of Span ±0.0025% /˚C
TEMPERATURE EFFECT: ±0.0025% of Span /˚C
OUTPUT REGULATION: 0.01% for full load change
OUTPUT SETTING TIME: 0.1 second (stable to 99.9%)
LOAD RESISTANCE: 0-500 ohms (current), 10K ohms minimum (voltage)

DIGITAL INPUT CARD (DI181)
CHANNELS: 6 per card
LOGIC LOW: -30V minimum, 0.8V maximum.
LOGIC HIGH: 2V minimum, 30V maximum.
EXTERNAL PULL-DOWN: 1K Ohm maximum resistance
EXTERNAL PULL-UP: 1.5Mohm minimum resistance

DIGITAL OUTPUT CARD (DO181)
CHANNELS: 6 per card
CONTACT FORM: N.O. (form A).
RELAY RATING: 5A/240 VAC, life cycles 200,000 for resistive load

STANDARD ETHERNET
CHANNELS: 6 per card
PROTOCOL: Mod Bus TCP/IP, 10 Base T
PORTS: AUI (Attachment Unit Interface)/RJ-5

Notes:
VR18 has 6 expansion slots for analog & digital I/O and Transmitter Power Supply modules
Observer I software reads data from VR18 CF Card; Observer II reads data from CF Card or via communication and offers additional features. For more information refer to Instruction Manual or http://www.futuredesigncontrols.com
Each card takes one of the 6 available slots. [Communication option RS232/422/485 does not utilize an expansion slot.]
Universal & Special Range Analog Input Cards are available as one, two or three inputs.
Special Range Analog Input Cards with Negative/Positive mV, VDC & mA spans are available [no t/c or RTD inputs]
Analog Output Cards are available with three outputs.
Transmitter Power Supply Card has 6 non-isolated 24VDC/30mA outputs
Digital Input & Output Cards: Each card has 6 inputs or relay outputs.