

Recorders

Circular Chart, Strip Chart and Paperless

Honeywell's line of recorders are engineered to offer customers maximum performance for minimum investment. All our recorders feature Honeywell quality, assured by a rock-solid warranty program and a customer support second to none. Honeywell offers a variety of recorders to apply to your process for accurate measurement and control.

Circular Chart recorders, in general, are preferred for batch processes. The circular chart record displays the entire batch operation over a specific unit of time, from one hour to 31 days. An additional advantage of the circular chart record is easy filing and copying for reference. Compared to the strip chart record, the circular chart has a shorter calibrated chart width.

Strip Chart recorders are most commonly chosen for continuous processes where the chart record allows the operator to quickly detect out-of-tolerance deviations over a long-term trend. The long length of the strip chart allows recorders to run unattended for long periods without the necessity for chart replacement.

Paperless recorders provide new methods of monitoring various processes and recording the data electronically. This allows for local viewing of the process data and easy analysis of the data using a personal computer and various software tools.

Typical Applications

Honeywell recorders are reliable, accurate and require very little maintenance. They are in daily use by thousands of plants on a variety of processes and processing equipment.

- Oil refineries
- Chemical plants
- Pharmaceutical manufacturing
- Foundries
- Auto plants
- Heat treat furnaces
- Environmental chambers
- Research and test facilities
- Pipeline stations
- Food processing plants
- Boiler houses

- Steel mills
- Glass plants
- Water and waste treatment
- Aerospace installations

Description

Circular Chart

DR 4500 TRULINE

The only circular chart recorder that "prints its own chart".

The **DR 4500 Truline Circular Chart Recorder** is a one to four-channel, microprocessor-based, 12-inch circular chart recorder. Its "one-pen" stylus printhead produces up to four analog traces and prints alphanumeric chart data on a blank heat-sensitive chart. All four traces share the *same time line* reference which the Truline prints. This eliminates the error caused by pen alignment offsets in conventional multiple pen designs. Since the Truline prints the chart and generates the analog traces at the same time, there is no error due to variations in chart size caused by changes in temperature and humidity.

The Truline recorder is easily configured to meet a variety of application requirements — from metals to food processing. The Truline recorder also alternately displays process variable values for all channels in the selected engineering units.

Models with up to four input channels accept inputs from any one of a variety of sensors or transmitters within the configurable range limits. Also, models are available with one or two independent digital controllers to generate controlled output signals to operate valves, dampers, heating elements, etc. for process control.

Available with both FM and UL Approvals.

Special versions offered are the "R" Model which adds Fo calculation capabilities, the "W" version which adds flow calculation capabilities — the HTST (High Temperature — Short Time) for dairy applications and the "AP" Pasteurization flow model.

Overview

DR 4500 CLASSIC

The **DR 4500 Classic Series Circular Chart Recorder** is available as a one or two-pen recorder only model, or a model with one digital controller. All models are designed for use in industrial application and they are user configurable, since microprocessor control replaces conventional electro-mechanical recording techniques in the DR 4500 recorder. Inputs from any one of a variety of sensors or transmitters within the configurable limits can be accepted. Besides recording analog traces, the DR 4500 includes clear bright alphanumeric displays, indicators, deviation bargraphs, and keypad for visual and tactile interaction. The case is designed for flush or surface mounting.

DR 4300

The **DR 4300 General Purpose 10" Circular Chart Recorder** uses a microprocessor to generate pen drawn analog traces on pre-printed charts. It is user configurable, which allows it to be adapted to a wide range of applications, such as environmental chambers, food processing equipment, machines, furnaces, ovens, packaging equipment, plus types of machines. The DR 4300 can be purchased with optional display, control capability, communications, and totalization capability.

Both one and two pen models accept inputs from any one of a variety of sensors and transmitters within the configurable range limits. One or two integral digital controllers allow the recorder/controller to operate valves, dampers, heating elements, etc., for process control.

The DR 4300 is the replacement for the DR 4200 GP/EV Recorder.

TVCP CIRCUITREND

The Circuitrend recorder, the world's first paperless circular chart recorder gives you flexible general purpose electronic data recording in the most popular style recorder. This recorder accepts 2, 4, 6 or 8 inputs and the data is displayed on a 10.4" color LCD screen and is stored on 3.5" disk, in secure encrypted format.

Strip Charts

DPR 250

The DPR 250 Digital Process

Recorder is a multichannel, micro-processor-based strip chart recorder. It records up to 32 analog inputs, math results, or communications inputs on a 250mm (10-inch) wide chart. It uses six color printing to produce clear, concise chart records that can be tailored to your particular process recording needs. A VFD display provides an easy to read display that can show up to four Process Variables at once.

The DPR 250 is capable of accepting up to 64 analog inputs of voltage, current, or resistance type signals. Along with the input capability, the DPR 250 recorder has such advance features as universal communications, digital I/O, PC configuration, archiving software package, and advance math functions that support such calculations as energy consumption, totalization, Fo sterilization, averages, plus many more.

DPR 180

The **DPR 180** is a multichannel micro-processor-based strip chart recorder which can record up to 24 analog and up to 20 digital traces on a 180mm chart. With six color printing the recorder can produce clear, concise chart records tailored to your process recording needs. The DPR 180 recorder has the capability to meet the current needs of process recording with advanced features, such as universal communications PCMCIA data storage, digital I/O, PC configuration, and archiving software package as well as a full function math package.

DPR 100A/B/C/D

The **DPR 100** is a microprocessor-based 100mm (4-inch) strip chart recorder with high functionality and low price for general purpose applications. This recorder has been designed to satisfy our customers worldwide with quality, ruggedness, flexibility, ease of use and an outstanding price/performance ratio as the major requirements which guided its design.

The DPR 100 is available as a 1 to 3 pen continuous recorder or a 1 to 6 channel digital pen multipoint recorder. With a large view roll or fan-fold chart, the recorder documents date, time, range, engineering units, chart speed, a two digit identification number, alarm set points and events.

The **DPR 100C/D Recorder** utilizes a large 12 digit display and full configurability through the front key panel. Advanced Math Functions, Communications, Alarms and Digital Inputs

make this a high functionality recorder that meets the needs for general purpose applications.

The **DPR 100A/B Recorder** is a lower cost alternative to the DPR 100C/D. The product configuration, stored in nonvolatile memory, is printed on the chart and configured by means of printed prompting or by a Honeywell PC interface.

The DPR 100 has been designed for applications in the metal, glass, ceramics and utilities, as well as the fast growing environmental, health and sanitation, and food processing markets.

PAPERLESS RECORDERS

EZtrend TVEZ

Honeywell's eZtrend recorder provides cost effective electronic data recording in a compact DIN size recorder. The recorder accepts up to 6 universal analog inputs and stores data on an integral, removable storage media. The data is displayed on five inch color LCD with wide viewing angles. The operator interface provides easy access to the recorder menus for quick set up and replaying of the data. Data is stored under pen configurations, in secure files and since the data is directly related to a pen there is no need to remember files names and file structures. An Ethernet connection is provided standard to allow direct connection of the recorder to a LAN or the Internet.

Teletrend TVTE

The Teletrend recorder is cost effective 100mm style paperless with all the advantages of electronic data storage and a color display. The Teletrend uses a 5.5" diagonal display and accepts 2, 4, 6, or 8 universal inputs. Data is stored on 3.5" disk in secure encrypted format.

Minitrend TVMI

Honeywell's Minitrend V5 recorder provides flexible, general-purpose electronic data recording in a DIN standard 144mm format recorder. The recorder accepts up to 16 universal analog inputs and stores data on an integral, removable storage media. The customer has a number of storage media options available, including a dual storage capability. The data is displayed on a 5.5" color active matrix LCD that provides wide viewing angles along with bright easy to read displays. The operator interface provides easy access to the recorder menus for quick

set up and replaying of the data. Data is stored under pen configurations, in secure files and since the data is directly related to a pen there is no need to remember file names and file structures.

Multitrend Plus TVMP

The Multitrend Plus V5 Video Recorder is our largest (180mm) and the best electronic data recording on the market today. The recorder accepts up to 32 universal analog inputs and stores data on an integral, removable storage media. The customer has a number of storage media options available, including a dual storage capability. The data is displayed on a 12.1" color active matrix LCD that provides wide viewing angles along with bright easy to read displays. The operator interface provides easy access to the recorder menus for quick set up and replaying of the data. Data is stored under pen configurations, in secure files and since the data is directly related to a pen there is no need to remember file names and file structures.

Multitrend TVMU

The Multitrend recorder displays the data on a large 10.4" color active matrix LCD. The recorder can accept 6 or 8 standard or universal inputs and can store data on a removable storage media. Like all the other recorders, Honeywell recorders are easy to set up and configure.

VRX180 Paperless Recorder

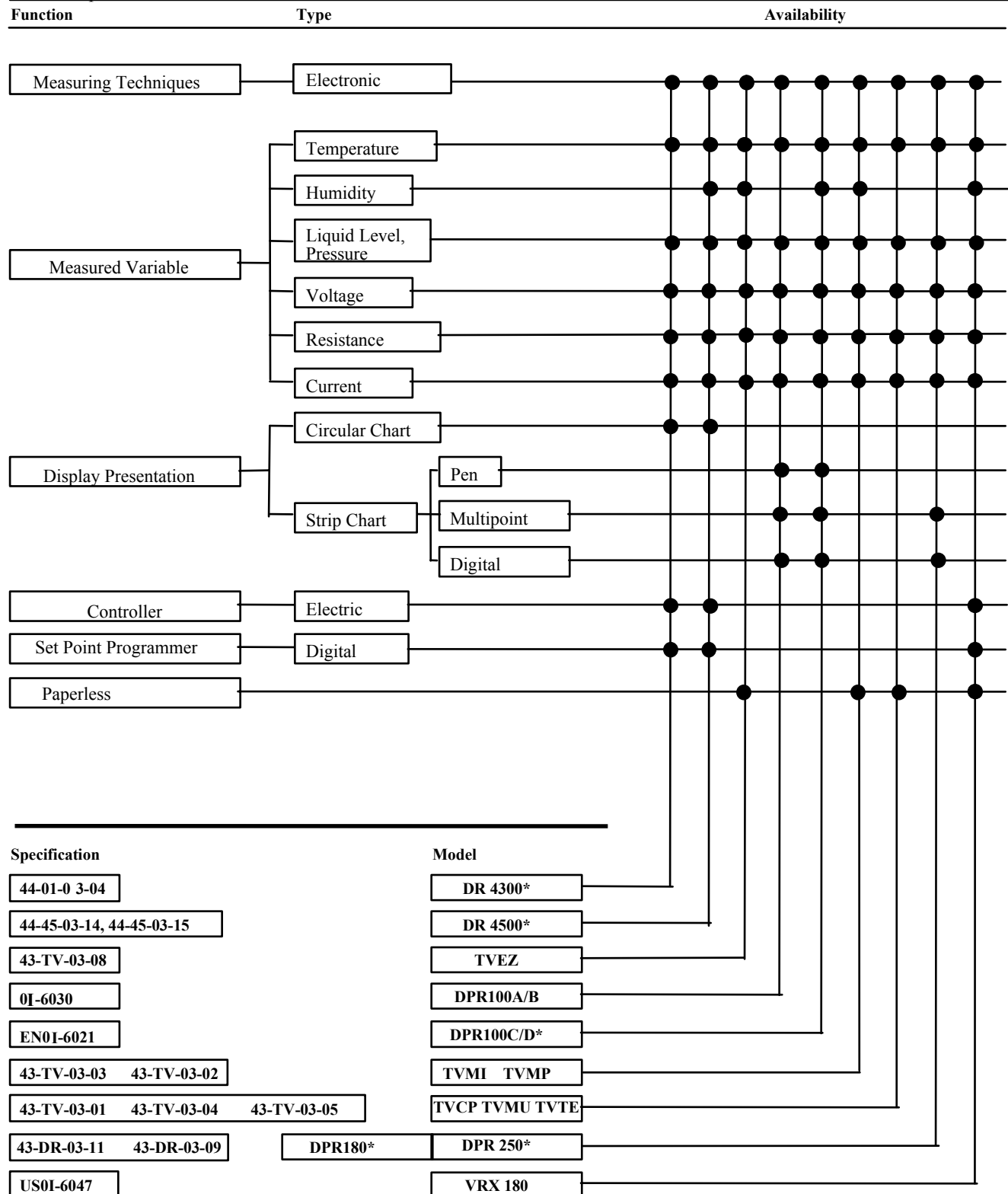
The VRX180 is a multifunction paperless recorder that can perform control, program profile execution and compute advanced math calculations. By integrating several functions in a single device, the VRX180 offers exceptional value of ownership. The VRX180 accepts up to 48 inputs, 36 Discrete I/O and has a 10.4" LCD color display.

This instrument offers unique versatility and has a large capacity data storage media. The front door has 12 panel key pad that control all the functions of the instrument including configuration. It's rugged construction and modular design makes the VRX180 adaptable to nearly any industrial application.

Even in the toughest applications or environments, you'll find that Honeywell recorders work!

Decision Tree

Decide on combination of functions and types. Dots mark availability column. Follow availability column to model and specifications.



*Include digital displays

SUMMARY SPECIFICATION (See Figure 1)

Model Numbers	Type	Calibration Accuracy % Span	Span Step Response Time Seconds Min/Max	Operating Power		Ambient Temperature Limits F/ C		Approximate Weight Min/Max	
				Volts	Hertz	Min.	Max.	Lb.	Kg
DR 4300	Circ. Chart	Typ. 0.35	7.0	100-230	50/60	32/0	131/56	12	5
DR 4500	Circ. Chart	0.1	6.0	120/240	50/60	32/0	131/56	13	6
DPR100A/B	Strip Chart	0.25	-	120/220/240 24/48V	50/80	32/0	122/50	13	6
DPR100C/D	Strip Chart	0.1							
DPR180	Strip Chart	0.05	14	100-230 Vac	50/60	32/0	122/50	38	18
DPR 250	Strip Chart	0.05	2.0	100-230 Vac	50/60	32/0	122/50	48	22
TVEZ	Paperless	0.15	-	90-250 Vac 24 VDC	50/60	32/0	122/50	5.5	2.5
TVTE	Paperless	0.05	-	90-250 Vac	50/60	32/0	122/50	7.7	3.5
TVMI	Paperless	0.05	-	90-250 Vac 24 VDC	50/60	32/0	122/50	7.7	3.5
TVMU	Paperless	0.05	-	90-250 Vac	50/60	32/0	122/50	11	5
TVMP	Paperless	0.05	-	90-250 Vac 24 VDC	50/60	32/0	122/50	22	10
TVCP	Paperless	0.05	-	90-250 Vac	50/60	32/0	122/50	11	5
VRX180	Paperless	Typ 0.1%	-	85-250 Vac	50/60	41/5	104/40	30	14

