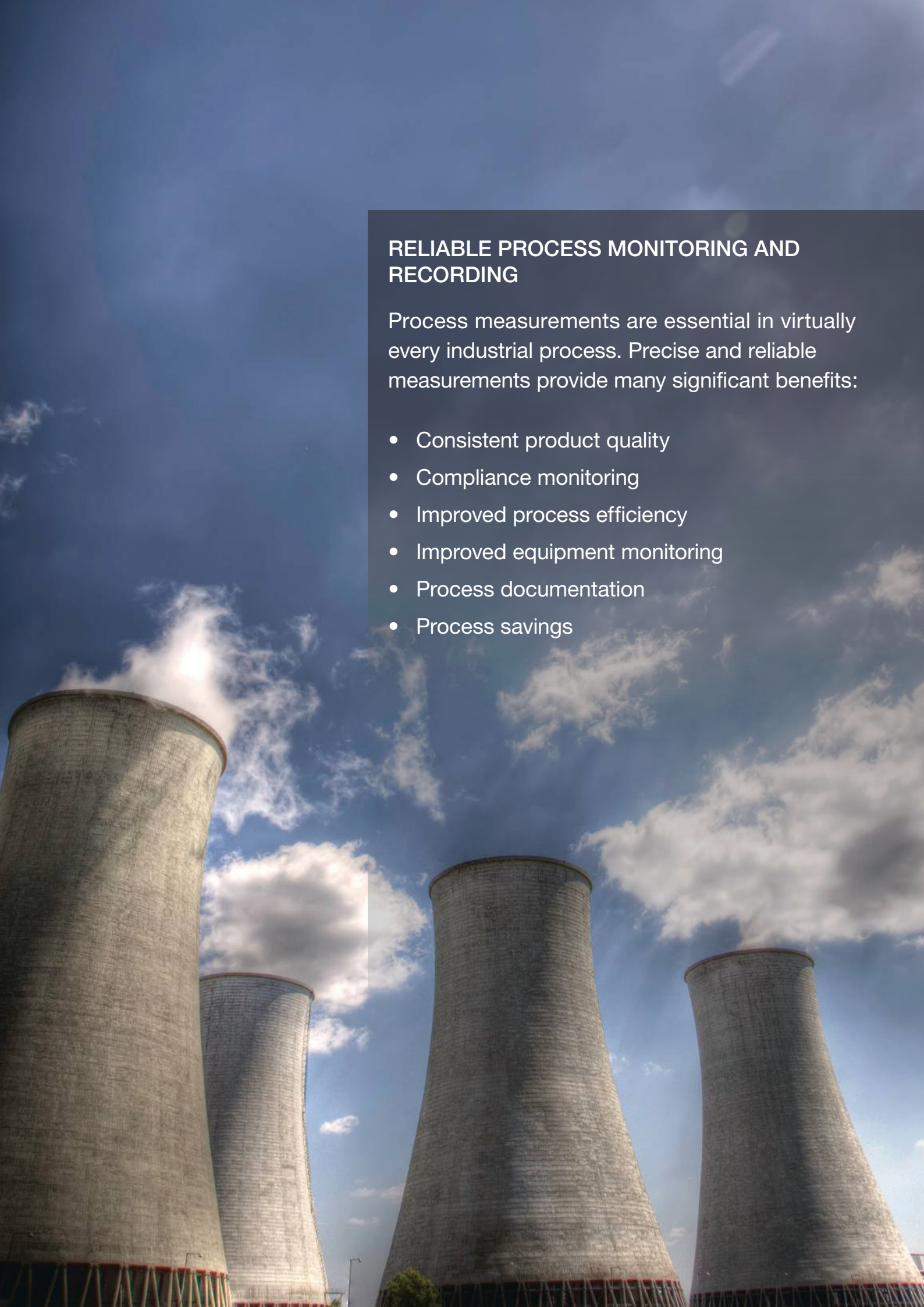




## Paperless Recorders and Data Acquisition Solutions





## RELIABLE PROCESS MONITORING AND RECORDING

Process measurements are essential in virtually every industrial process. Precise and reliable measurements provide many significant benefits:

- Consistent product quality
- Compliance monitoring
- Improved process efficiency
- Improved equipment monitoring
- Process documentation
- Process savings

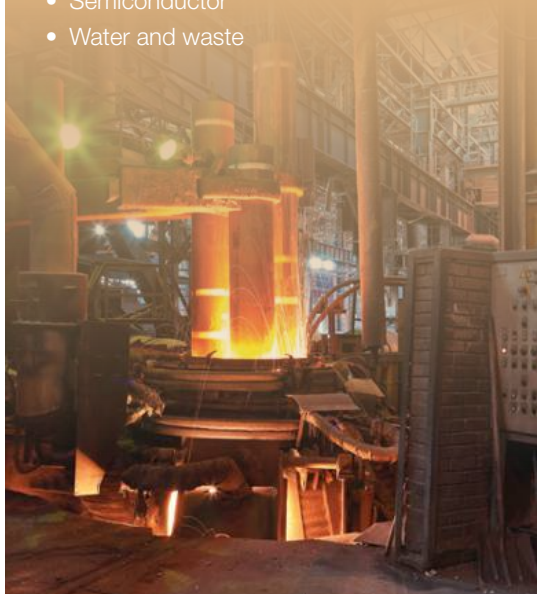
# See, Store, Send Data Securely

Honeywell offers a broad product portfolio of data acquisition products to address most industrial recording needs. A wide range of features make it easy to set up, use and analyze your process data. Your operation runs smoothly, safely and efficiently.

- Simple infrastructure provides faster start-ups and lowest lifecycle costs
- Intuitive analysis tools and process visualization help employees be more efficient and make good decisions
- Reliable process monitoring and recording ensures product quality and compliance

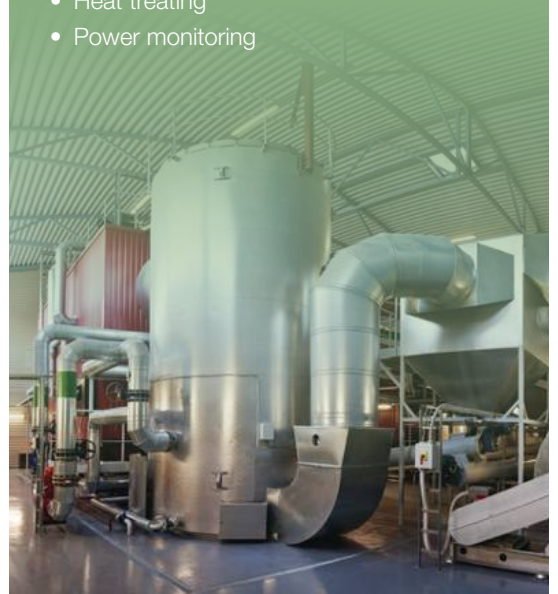
## Industries:

- Biotech
- Chemical
- Food processing
- Industrial heating
- Manufactured goods
- Metals processing
- Pharmaceutical
- Power generation
- Semiconductor
- Water and waste



## Typical Applications:

- Drying ovens
- Environmental monitoring
- Fermentation processes
- Flow monitoring
- Freeze drying
- Retorts and cooking processes
- Sintering furnaces
- Sterilization
- Heat treating
- Power monitoring





# Simple Infrastructure and Flexibility



## Transform Your Data and Lower Your Lifecycle Costs

Experience the usability, security and networking capabilities of Honeywell's TrendView paperless recorders. The eZtrend, Minitrend, Multitrend and DR Graphic recorders feature easy configuration, remote viewing and control, touch-screen navigation, high-capacity storage, custom screen design, diagnostics, software support and more.

## Easy Setup, Configuration and Maintenance

- Ease of use achieved with informational graphics and touch screen displays
- Personal delivery of process data at the recorder by user-developed customizable displays
- Batch recording or continuous data
- Independent storage rates assignable to each pen
- A "credit management system" provides flexibility to select and manage the recorder's firmware features
- Multiple data storage: removable Secure digital (SD) port, on-board non-volatile flash, USB flash storage ports
- Event marker system to initiate actions using alarms, digital inputs, totalizers and other causes to create effects such as start/stop/reset functions or to cause state changes



# Ideal System and Data Security



## Reliable Data and Process Monitoring

- Supports standard Ethernet and RS485 networks for easy connectivity
- Web access for viewing data remotely
- Real time data acquisition for accurate process knowledge
- File Transfer Protocol (FTP) for efficient data uploads
- OPC Server for easy connectivity to any OPC client
- Data archived to integral database for added security
- Export data to spreadsheet for additional data analysis using standard tools

## Secure Connectivity

- Password management system ensures secure user access for up to 50 users
- Encrypted secure data file protection protects against data tampering, provides compliant data
- Audit trail of actions provides documentation for compliance with 21 CFR Part 11
- Secure download protects against unauthorized data access and transfers
- Tamper proof seals and configuration lock-out protects against unauthorized recorder access



Remote viewing  
and control via Web browser.



# Intuitive Analysis Tools and Process Visualization



## **TrendManager Pro**

**Industry leading PC based data analysis package that supports:**

- Import data and archive for quick data retrieval
- Multi-level, multi-user passwords to prevent unauthorized access
- Graph, plot and export data across any recorder, pen or time frame for detailed data analysis
- Audit trails to monitor user actions and track changes
- Batch recorder management to easily track batch data and batch performance

## **TrendServer Pro**

**Industry leading PC-based communications software to network your recorders:**

- Client/server architecture for efficient use of resources for gathering the data
- Schedule FTP downloads of recorder data for efficient data collection
- Remotely configure recorders for improved efficiency
- Real time data acquisition provides current data for accurate process knowledge
- OPC Server for easy connectivity to any OPC Client

# Analyze and Communicate

## **TrendServer Pro Database Management Tool**

- Safe data administration
- Archive, sort, move, copy or delete data in local or remote database for efficient data management
- Use tree structure for easy understanding of where files are located
- Store data to a secure server and back up data to secure access and prevent data loss

# Easy-to-Read Displays

## Custom Displays to Suit Your Application

The recorder menu structure is designed to allow easy navigation through each screen for fast, reliable set-up of recording, networking and data storage.

Screen displays provide an integral indicator to show the path used to get to the current screen.

Set-up is fully password protected, supporting multiple users and passwords along with an audit trail of actions.

Set-up is defined in terms of pens, not computer files, making it easy to relate process information to the recorded data.

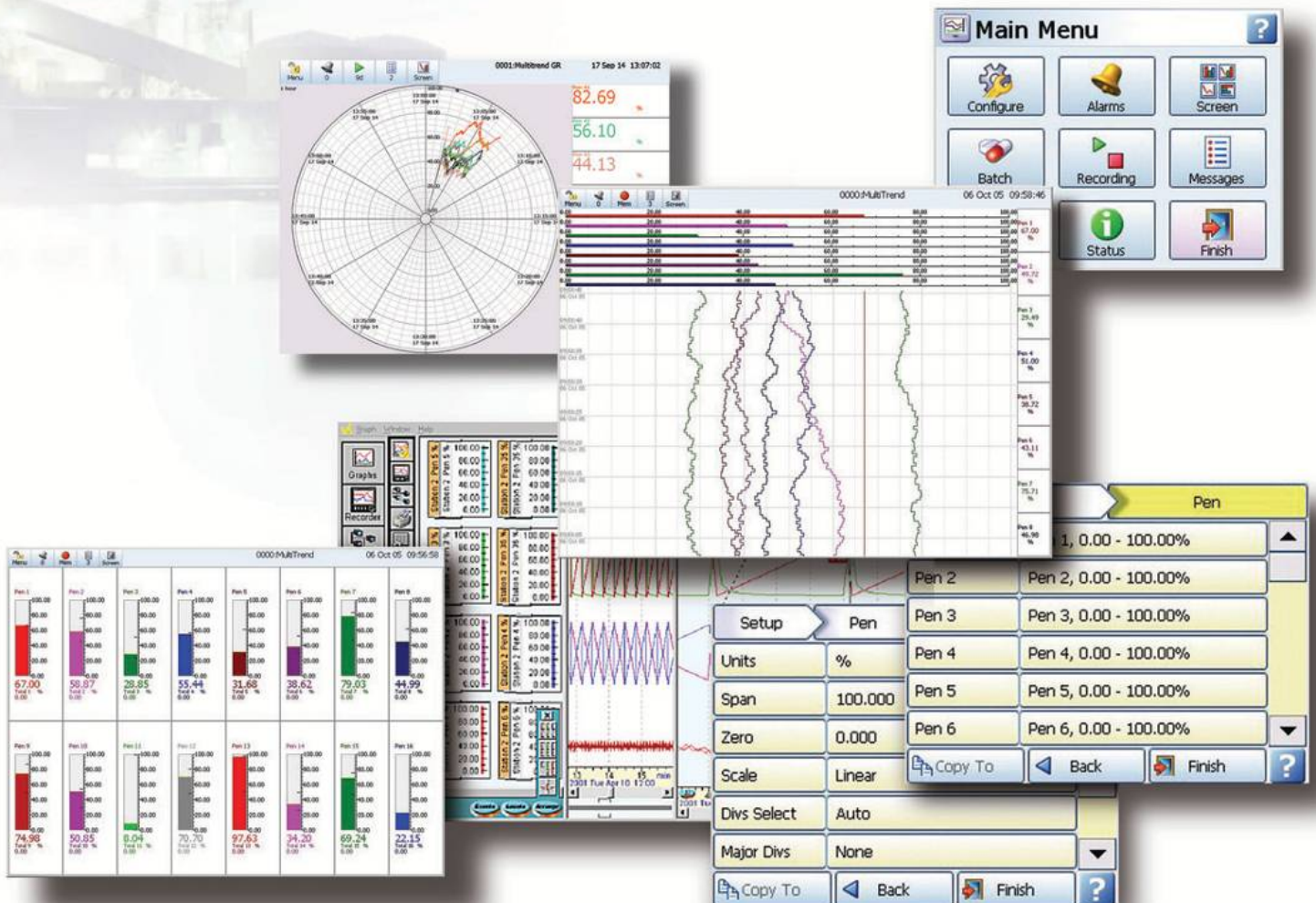
Screens are easily selected to view as trends, digitals, bars, a combination of these or as a custom designed screen. This makes it easy to view the data and take action.

Select from different screens and adjust the chart speed with the touch of a finger.

Quickly replay the historical data to view past events and data or use the find and zoom functions to focus on specific events.

Screen Designer software allows you to design unique display layouts for transfer to the recorder.

Customized screens allow the user to create the best display to match the application needs.



## Product Features

| Features                        | eZtrend                                   | Minitrend                                 | Multitrend                                | DR Graphic                                   |
|---------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------------------|
| Chart Size / Screen Size        | 145 mm (5.7 in)                           | 145 mm (5.7 in)                           | 307 mm (12.1 in)                          | 307 mm (12.1 in)                             |
| Number of Inputs                | Up to 12                                  | Up to 16                                  | Up to 48                                  | Up to 16                                     |
| Input Signal Type               | Thermocouple, RTD, Pulse, mA, mV, V, Ohms | Thermocouple, RTD, Pulse, mA, mV, V, Ohms | Thermocouple, RTD, Pulse, mA, mV, V, Ohms | Thermocouple, RTD, Pulse, mA, mV, V, Ohms    |
| Scan Rate                       | 100/200/500 ms                            | 20 ms (linear input)* / 100 ms            | 20 ms (linear input)* / 100 ms            | 20 ms (linear input)* / 100 ms               |
| Chart Speed / Display Rate      | 1 to 6000 mm/hr (0.04 to 240 in/hr)       | 1 to 6000 mm/hr (0.04 to 240 in/hr)       | 1 to 6000 mm/hr (0.04 to 240 in/hr)       | 1 to 6000 mm/hr (0.04 to 240 in/hr)          |
| Accuracy                        | 0.1% Typical - T/C                        | 0.1% Typical - T/C                        | 0.1% Typical - T/C                        | 0.1% Typical - T/C                           |
| Screen Design* (Custom Screens) | No                                        | Yes                                       | Yes                                       | Yes                                          |
| Alarm Outputs* / Alarm SP       | Up to 8 / 6 per pen                       | Up to 16 / 6 per pen                      | Up to 48 / 6 per pen                      | Up to 16 / 6 per pen                         |
| Digital Inputs*                 | Up to 8                                   | Up to 16                                  | Up to 48                                  | Up to 16                                     |
| Auxiliary Output*               | None                                      | Up to 4                                   | Up to 8                                   | Up to 4                                      |
| Transmitter Power*              | Yes                                       | Yes                                       | Yes                                       | Yes                                          |
| Totalizer(s), Counters*         | Yes                                       | Yes                                       | Yes                                       | Yes                                          |
| Math Functions* / Math Scripts* | Yes / No                                  | Yes                                       | Yes                                       | Yes                                          |
| Communications                  | Ethernet                                  | Ethernet / RS485                          | Ethernet / RS485                          | Ethernet / RS485                             |
| Front Face Protection Rating    | IP54 / NEMA 3, IP66 / NEMA 4X*            | IP65 / NEMA 3, IP66 / NEMA 4X*            | IP65 / NEMA 3, IP66 / NEMA 4X*            | IP55 / NEMA 3; IP66 / NEMA 4X*               |
| Case Size (W x H x D)           | 144 x 144 x 200 mm (5.7 x 5.7 x 7.9 in)   | 144 x 144 x 200 mm (5.7 x 5.7 x 7.9 in)   | 300 x 300 x 200 mm (11.8 x 11.8 x 7.9 in) | 395 x 392 x 140 mm (15.57 x 15.43 x 5.51 in) |
| Cutout Size (W x H)             | 138 x 138 mm (5.4 x 5.4 in)               | 138 x 138 mm (5.4 x 5.4 in)               | 281 x 281 mm (11.06 x 11.06 in)           | 323 x 323 mm (12.7 x 12.7 in)                |
| Instrument Power                | 90 to 250 Vac, 12-30 Vdc / 12-20 Vac*     | 90 to 250 Vac, 12-30 Vdc / 12-20 Vac*     | 90 to 250 Vac, 20-50 Vdc / 20-30 Vac*     | 90 to 250 Vac, 20-50 Vdc / 20-30 Vac*        |
| Approval                        | CE, cUL / cCSAus *                        | CE, UL / CSA*, FM CL 1 Div 2*             | CE, UL / CSA*, FM CL 1 Div 2*             | CE, cUL/cCSAus *                             |
| Display                         | Color LCD (Active TFT) QVGA               | Color LCD (Active TFT) VGA                | Color LCD (Active TFT) XGA                | Color LCD (Active TFT) XGA                   |
| Data Storage                    | SD card* / USB memory key                 | SD card / USB memory key                  | SD card / USB memory key                  | SD card / USB memory key                     |
| Chart Type                      | Electronic media                          | Electronic media                          | Electronic media                          | Electronic media                             |
| Portable Case                   | Yes *                                     | Yes*                                      | Yes*                                      | No                                           |
| HealthWatch / Maintenance       | Yes*                                      | Yes*                                      | Yes*                                      | Yes                                          |
| Remote Viewing                  | Yes*                                      | Yes*                                      | Yes*                                      | Yes                                          |

Data acquisition products are available worldwide from authorized Honeywell representatives.

\*Optional

## For More Information

To learn more about Honeywell's paperless recorders, visit [www.honeywellprocess.com](http://www.honeywellprocess.com) or contact your Honeywell account manager.

## Honeywell Process Solutions

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