

# DR 4500 Truline Digital Circular Chart Recorder with Innovative Smart Chart – Prints Its Own Chart!

*Proven LeaderLine Quality, Accuracy, and Value*

## Ask for the “Truline”

Created to satisfy industry’s demand for increasingly precise and accurate records, the DR 4500 Truline® represents a quantum leap forward in circular chart recorder technology. This unique recorder is ideally suited for applications in food, water and waste water treatment, pharmaceuticals, dairy, environmental testing and metal-working — wherever process variables must be documented on a single chart and retained to meet industry requirements. Functionality of the Truline can be expanded by numerous available options including communications and control capability. Microprocessor-based and field configurable, the Truline is industrially hardened for use in plant and factory.

## How It Records Is Why It’s Better

The Truline is the only circular chart recorder which draws its own chart as it records your data. This technological innovation pays off in user benefits which make the Truline the most convenient and the most accurate circular chart recorder on the market today.

## No More Preprinted Charts

A box of blank Truline charts is all you need to have a virtually infinite selection of charts at your command. You create the chart design when you input the operating parameters. The Truline puts an end to preprinted chart ordering, storage and inventory.

## Unrivalled Accuracy

Although undetectable to the human eye, chart paper can move and distort due to ambient conditions of heat and humidity, environmental ingredients which are



probably present where your recorders are in use. This paper movement can jeopardize the accuracy of your records. In situations involving close tolerances, the margin for error can make the difference between being in, or out, of specifications. Because the Truline prints its chart as it records data, the pinpoint accuracy seen on the digital indicator is precisely transcribed onto the blank chart paper.

## Up to Four Variables on a Timeline

All other circular chart recorders use multiple pens to track multiple inputs, making it impossible to show more than one variable on a timeline. Records made this way are often difficult to interpret and leave the user uncertain about when a given event occurred. Since the Truline uses only one stylus to record data and print the chart, up to four variables can be conveniently monitored on the same timeline. This makes Truline records exceptionally easy to read, a valuable feature when stored records must be retrieved and reviewed.

## Creates a Permanent, Reliable, Readable Document

With other circular chart recorders, an operator must write identifying information on completed charts, creating the possibility of confusion. The Truline automatically performs this function. On the border of the chart it prints pertinent identifying data including a listing of the variable being monitored, the range of each variable, totalized values, time references and alphanumeric messages. Having this information as an integral element of the chart itself adds authority to your records and makes them easier to read and use for reference.

## Condensed Specifications

- **Field configurable** — The Truline offers simple English prompts which walk you through the setup process. It can be reconfigured any time so it is adaptable to changes in the range or input measurement and even to completely different applications.
- **Extreme accuracy** — Typically less than  $\pm 1^\circ\text{F}$  for the usable thermocouple ranges;  $\pm 0.1\%$  or better for voltage ranges.
- **Universal inputs** — Accepts all thermocouples (Types B, E, J, K, N Nicrosil/Nisi, R, S, T, W5W26); Radiamatic; RTDs (100, 200, or 500  $\Omega$  Platinum, 100RH);  $F_0$  lethality calculation; voltage/current (0-10 mV, 10-50 mV, 0-5V, 0-10V, 4-20 mA); Open channel flow, all inputs are keyboard selectable without field calibration.
- **Data brilliantly displayed** — Bright, digital dual displays are easily read at a distance or in dim light.
- **Your entire process at a glance** — Selectable displays include indication of PV, SP, deviation, alarms, control mode (automatic, manual or remote), output level, temperature units (F or C), engineering units, totalized flow values, and setpoint program (run/hold).

## So Smart, It Writes

The Truline prints identifying information right on the chart for a record that's comprehensive and reliable. Identifying information includes:

- **Power requirements** — 120/240V, 60 or 50 Hz. A built-in standard 24 Vdc power supply will drive up to 2 transmitters.

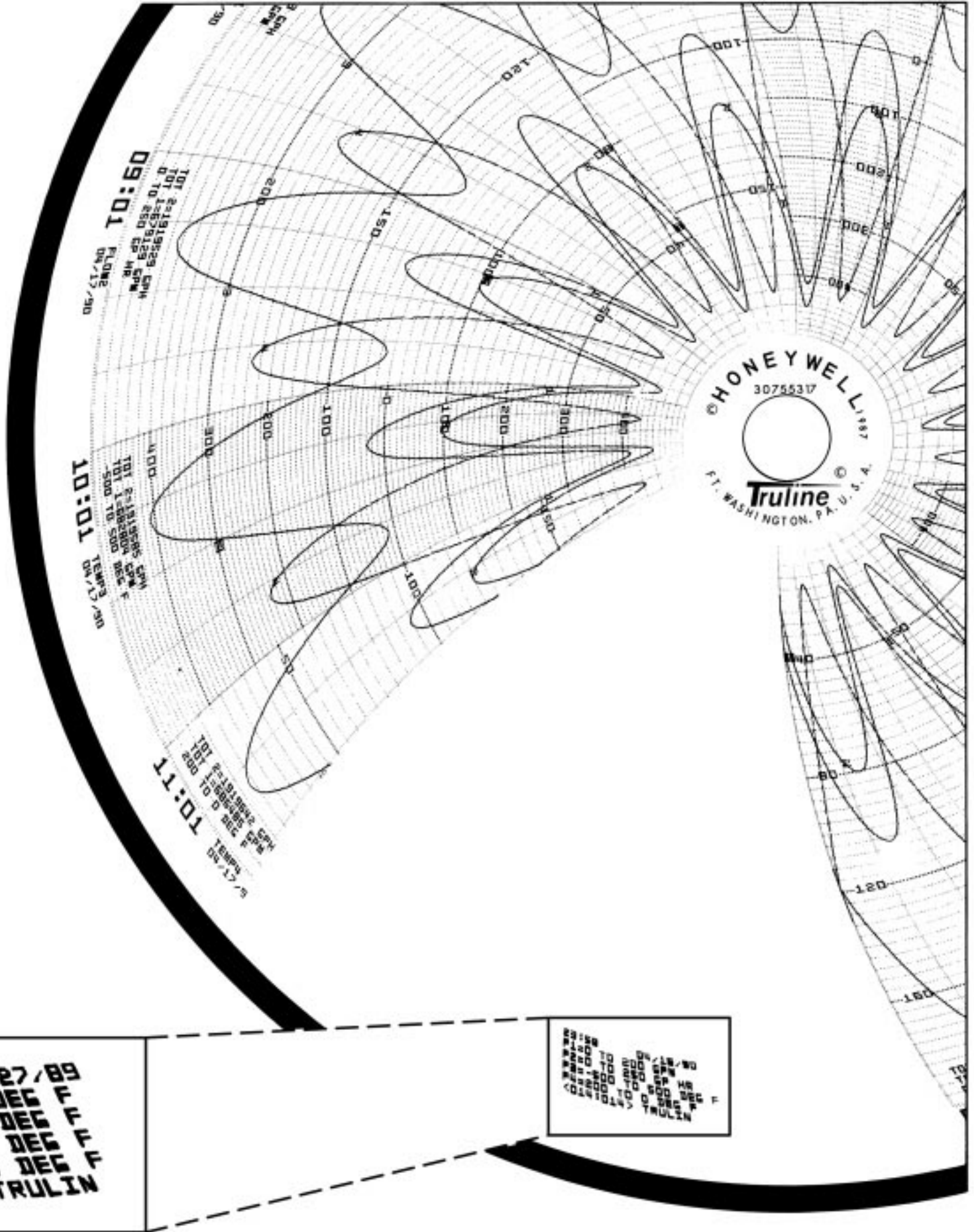
## It's Your Option

Expand the functionality of your DR 4500 Truline recorder with these options. Some options are restricted depending on base model.

- **Universal control output** — Configurable for on-off, PID-A, PID-B, or PD with manual reset. Two control loops available with outputs of Time, Current or Position Proportioning, Three Position Step, Simplex or Duplex with Mixed Output forms.
- **Chart illumination**
- **Alarms** — Up to 6 fully configurable alarms alert you to critical process changes.
- **Door lock**
- **Flow totalization** — Printed on chart, 4 totalizers possible, plus grand total print capability.
- **Setpoint programming** standard with control outputs.
- **DMCS communications**
- **Math capability** (+, -,  $\times$ ,  $\div$ , BTU, Mass Flow)
- **$F_0$  calculation** for the food and pharmaceutical industries.
- **STLR (Safety Thermal Limit Recorder)** for dairy pasteurization applications.
- **Flow recorder/controller** for dairy pasteurization applications.
- **HTST (High Temperature Short Time)** model for dairy industry applications.
- **Stainless steel door**
- **Abrasion-resistant pen** for harsh environments.
- **Open channel flow measurement** model for the water and waste industry
  - V-notch weir
  - Rectangular weir
  - Cipolletti weir
  - Parshall flume
- **UL listing and FM approved**
- **CE Mark**

<ul style="list-style-type: none"><li>• Time</li><li>• Date</li><li>• Description of all measured processes</li><li>• Range of each parameter</li><li>• Alphanumeric messages</li></ul>	<p>06:57 02/1 P1=0 TO 175 P2=0 TO 250 P3=0 TO 500 P4=200 TO 0 &lt;010:020&gt;</p>
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Chart shown actual size.



09:01  
 FLOW  
 04/13/90  
 TOP 2-1919585 CPM  
 D TO 250 CPM HR

10:01  
 TEMP  
 04/13/90  
 TOP 2-1919585 CPM  
 4.000  
 TOP 1-288-8000 DEG F  
 5000 TO 5000 DEG F

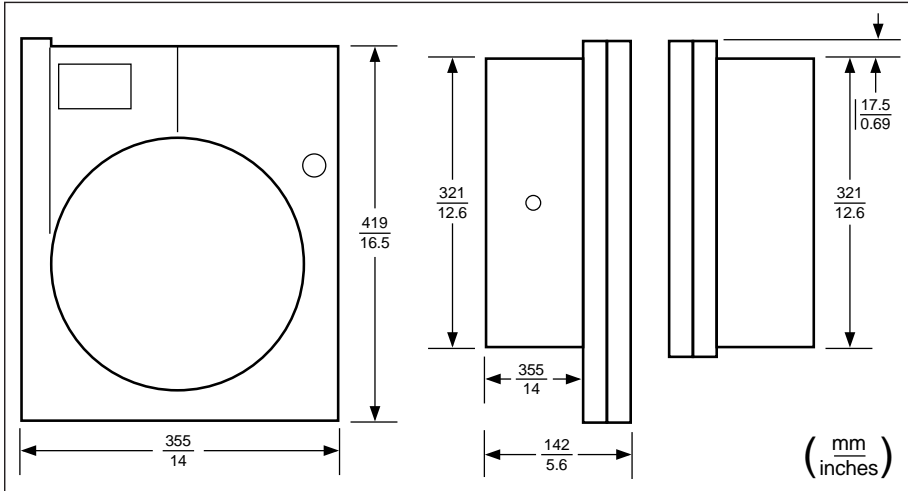
10:11  
 TEMP  
 04/13/90  
 TOP 2-1919585 CPM  
 2.100  
 TOP 1-288-8000 DEG F  
 5000 TO 5000 DEG F

2/27/89  
 6 DEG F  
 00 DEG F  
 00 DEG F  
 00 DEG F  
 TRULIN

2-1919585 CPM  
 1-288-8000 DEG F  
 5000 TO 5000 DEG F  
 TRULIN



Brilliant fluorescent displays and English language prompts not only simplify configuration but also keep you informed of process conditions at all times. Display shown indicates recorder for a chart speed of 24 hours; operation is manual.



Specifications subject to change without notice.

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## Honeywell Quality Assurance

The DR 4500 Truline carries a TWO YEAR WARRANTY backed by unmatched service and support capability you expect from the industry leader. There is also a toll-free 800 number for immediate technical assistance and problem resolution.

## A Complete Product Offering

The DR 4500 Truline digital circular chart recorder is a member of Honeywell's extensive line of digital instrumentation. If the DR 4500 Truline doesn't meet your recording needs, Honeywell has a digital recorder that does. Contact your Honeywell distributor or sales representative for price and delivery information on the Truline and other Honeywell digital recorders.

If it's worth recording, it's worth specifying Honeywell.

**Honeywell**

### Industrial Automation and Control

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