

Reichert Vet360-Chek Digital Refractometer



All-in-one dependable, automatic, digital, clinical refractometer for veterinary practice

Compact, Powerful, Dependable, Accurate

The Reichert Vet360-Chek is a multi-scale clinical refractometer specifically designed for veterinary use. Unlike other models, this refractometer was designed with multi-scales developed using the appropriate chemistry data for large and small animals. Using digital technology, the measurements are accurate and precise.

Four measurement scales can be quickly accessed with a simple push of a button:

- Canine Urine Specific Gravity (USG)
- Feline Urine Specific Gravity (USG)
- Large Animal Urine Specific Gravity (USG)
- Serum Protein Concentration for all animals

The Reichert Vet360-Chek, the first choice in a true veterinary clinical refractometer!

In many veterinary practices, clinical refractometers designed for humans are being used to measure the Urine Specific Gravity and Serum Protein Concentration of animals. Unfortunately, these measurements are not accurate and can lead to a misdiagnosis of the animals' condition. All clinical refractometers measure Refractive Index and then correlate that measurement to a USG or Serum Protein value that is imprinted on a scale. That correlation is based on the chemistry tables of the particular species, e.g., human or animal.

The Reichert Vet360-Chek digital pocket refractometer, in the tradition of our Reichert RHINO VET360 analog clinical model uses actual chemistry data from animals, not humans. This ensures accurate, precise measurement all the time.

In addition, the Reichert Vet360-Chek has separate Urine Specific Gravity measurement scales for Feline and Canine. Numerous research studies have shown that the urine chemistry from cats differs from dogs and larger animals. If one measures a cat's Urine Specific Gravity on a refractometer scale designed for either human or dog, the refractometer will produce falsely elevated levels. The Reichert Vet360-Chek solves this problem by offering multiple measurement scales programmed with the specific chemistry tables for dogs, cats, and large animals.



Reichert Vet360-Chek Key Features:

- **4 measurement scales**
- **All measurements are Automatically Temperature Compensated which produces accurate readings**
- **5-digit, full view LCD screen**
- **Results displayed in seconds**
- **Over 10,000 measurements powered by 2xAAA batteries**
- **Compact, fits in a pocket, and provided with a detachable neck lanyard**

See reverse side for additional information regarding the use of the Reichert Vet360-Chek Digital Refractometer in diagnosing Equine Dehydration and Peritonitis.

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TECHNOLOGIES

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Equine Dehydration and the Reichert Vet360-Chek digital refractometer

The requirements placed on performance and show horses can be extremely demanding. Factors such as distance, speed, terrain and climate, as well as the horse's own physiologic responses to exercise can all affect the level of water lost during an event.



In endurance events, water losses tend to occur early in the ride and often persist even a day after the ride. Even more troublesome is the fact that further fluid loss occurs in the trailer on the return trip home. Horses do not typically drink enough water to replace losses endured during an event, so the number of dehydrated equines is quite high.

One method used to detect dehydration is the "Skin Pinch." This method, however, lacks the ability to provide reproducible results. In addition, problems are often not evident in the early stages of dehydration. That's why continuously monitoring "water level" dehydration with a more accurate method is critical.

The Reichert Vet360-Chek is a specialized analytical tool for providing an index of dehydration. Simply place a drop of urine or serum on the prism to obtain a direct reading. The repeatable, accurate results help in effectively monitoring the health of horses and other animals.

SPECIFICATIONS:

Catalog Number	13940018
Measurement Method	Digital Refractometer
Canine USG Range/Accuracy	1.000 to 1.060/0.005 USG
Feline USG Range/Accuracy	1.000 to 1.090/ 0.005 USG
Large Animal USG Range/Accuracy	1.000 to 1.061 0.005 USG
Serum Protein Range/Accuracy	2.5 to 15.0 0.1 g/100mL
Calibration	Distilled Water
Automatic Temperature Compensation	68°F (20°C)
Illumination	589nm LED
Dimensions	54 x 27 x 100 mm / 2.1 x 1.1 x 3.9 inches
Weight	3.5 ounces (100 grams)
Comfort/Ergonomics	Detachable neck lanyard and rubber side grips for ease of handling
Power	2 AAA Batteries, included
Power Management	10,000 readings, Auto-Off Sleep Mode
Ratings	IP65 Dust proof/Water Resistant, CE, RoHS, and WEEE compliant.
Factory Warranty	One Year
Accessory Holster case	Catalog 13941000 (cell phone type available)

Diagnosing Peritonitis with a refractometer

Though colic is common in the equine practice, correctly diagnosing its severity and recommending the proper treatment is critical. Often, no definitive findings can be revealed through physical examinations.

The evaluation of abdominal or peritoneal fluid has been described as one of the most important clinical tests that can be conducted when determining the need for surgical intervention. Peritoneal fluid provides important information as to the nucleated cell count, bacterial growth, and protein concentrations levels.

Elevated protein levels can be directly related to the inflammatory condition of the equine. In the early stages of a strangulated obstruction, total protein values range between 1.6-2.6 g/Dl. The normal range is 1.0-1.5 g/Dl. As the condition worsens, total protein values range from 2.6-4.0 g/Dl and the equine begins to go into shock. In the most severe cases, total protein levels can exceed 4.0 g/Dl which requires immediate surgery. It is at this critical stage where bacterial growth matures and the color of the peritoneal fluid has changed from orange to blood tint.

Studies have shown that when evaluated in series, abdominal fluid color and specific gravity have a high positive predictive value for Lesion type. In addition, several studies advocate measuring total protein concentrations as a significant prognostic indicator of Colic.

The Vet360-Chek refractometer is a valuable diagnostic tool for assisting with an on-the-spot diagnosis. It provides quick and accurate total protein concentrations and specific gravity results. When a decision must be made immediately, the Reichert Vet360-Chek can be an equine's best friend.

References:

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Erinden, CB. *Equine Vet Journal*. Volume 22, Pg. 359. 1990



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