

# HR

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

# Handheld refractometers

## HR-Models



### Typical applications

The handheld refractometers HR series are the ideal solution for the petrochemical, automotive, aviation, metal processing and food industries.

- Identity test and concentration determination
- Outgoing goods inspection
- Stability test
- Quality and purity control of raw materials and end products
- Determination of the sugar concentration
- Determination of water content in honey
- Examination of urine samples

## Model specifications

Handheld refractometer	Scale	Measurement range	Measurement accuracy	Application
HRB10-T	Brix	0- 10 %Brix	±0.1 %Brix	Determination of sugar content in fruit, grapes, juices, vegetables, foods and cooling liquids
HRB18-T	Brix	0- 18 %Brix	±0.1 %Brix	Determination of sugar content in fruit, grapes, juices, vegetables, foods and cooling liquids
HRB32-T	Brix	0-32 %Brix	±0.2 %Brix	Determination of sugar content in fruit, grapes, juices, vegetables, foods and cooling liquids
HRB62-T	Brix	28-62 %Brix	±0.2 %Brix	Analysis of chemical and technical fluids, e.g. oils, greases,

Handheld refractometer	Scale	Measurement range	Measurement accuracy	Application
				<p>radiator fluids and lubricants</p>
HRB82-T	Brix	45-82 %Brix	±0.2 %Brix	<p>Analysis of highly concentrated sugar solutions as well as chemical and technical liquids, e.g. oils, fats, radiator fluids and lubricants</p>
HRB92-T	Brix Baumé Water content in honey	58-92 %Brix 38-43 °Bé 12-27 % Water content in honey	±0.5 %Brix ±0.5 °Bé ±0.5 % Water content in honey	<p>Examination of highly concentrated sugar solutions as well as analysis of fats, lubricants and food.</p> <p>Examination of honey to the water content (according to guidelines of the German Beekeepers' Association).</p> <p>Determination of the relative density with respect to the Baumé scale.</p>
HRB90	Brix (with thermometer 6-36 °C)	0-90 %Brix	±0.2 %Brix	<p>Universal handheld refractometer for determining the sugar content of fruit, grapes, juices, vegetables, foods, oils, fats, coolants, lubricants and other sugary</p>

<b>Handheld refractometer</b>	<b>Scale</b>	<b>Measurement range</b>	<b>Measurement accuracy</b>	<b>Application</b>
				substances
HRH30-T	Water content in honey	12-30 % Water content in honey	±0.1 % Water content in honey	Examination of honey to the water content (according to guidelines of the German Beekeepers' Association).
HRND	Refractive index	1.3330-1.5170	±0.0005	Universal handheld refractometer for refractive indices. Measuring range covers the most frequent substances of the pharmacy requirement.
HRS10-T	Salinity (NaCl) Specific gravity	0-10 % 1.000-1.070	±0.1% ±0.001	Salt content determination (NaCl) in liquids, such as in seawater, in drinks and preservatives of food. Determination of the specific density of liquids at 20 °C with respect to water.
HRS28-T	Salinity (NaCl)	0-28 %	±0.2 %	Salt content determination (NaCl) in liquids, such as in seawater, in drinks and preservatives of food.

<b>Handheld refractometer</b>	<b>Scale</b>	<b>Measurement range</b>	<b>Measurement accuracy</b>	<b>Application</b>
HRM18-T	Refractive index Serum protein Specific gravity of urine (UG)	1.3330-1.3600 0-12 g/dl 1.000-1.050 UG	$\pm 0.0005$ $\pm 0.2$ g/dl $\pm 0.002$ UG	Analysis of urine samples for refractive index and specific gravity, as well as protein content in serum.
HRO32-T	Brix Oechsle Potential alcohol content	0-32 %Brix 30-130 °Oe 4.4-19 % Alcohol	$\pm 0.2$ %Brix $\pm 1$ °Oe $\pm 0.1$ % Alcohol	Examination of grape must and alcoholic beverages.
HRKFZ-T	Ethylene and propylene glycol (antifreeze) Battery acid	-50-0 °C 1.10-1.30 g/cm <sup>3</sup>	$\pm 5$ °C $\pm 0.01$ g/cm <sup>3</sup>	Determination of acid concentration in batteries and measurement of glycol content in coolants.
HRKFZG-T	G11/12 G13 Battery fluid Windshield wiper water (ethanol) Windshield wiper water (SFR1 - isopropanol)	-50-0 °C -50-0 °C 1.10-1.40 g/cm <sup>3</sup> -40-0 °C -40-0 °C	$\pm 1$ °C $\pm 1$ °C $\pm 0.01$ g/cm <sup>3</sup> $\pm 5$ °C $\pm 5$ °C	Determination of the electrolyte condition of the battery, determination of the freezing point of the antifreeze G11/12 and G13, determination of the freezing point of ethanol- and isopropanol-based windshield wiper water

**По вопросам продаж и поддержки обращайтесь:**

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	