

# VivaChek™ Ino

Blood Glucose Monitoring System

***Simple & Reliable***

Fulfills all the requirements  
of DIN EN ISO 15197: 2013





## Cutting-edge technologies

The system detects the haematocrit level of the blood sample then adjusts for interference by  $\pm 10\%$



The system detects the temperature signal then compensates the effect within  $\pm 5\%$



The system detects the coding info of each test strip automatically



We use a unique mediator in the test strip which is very stable in extreme environments



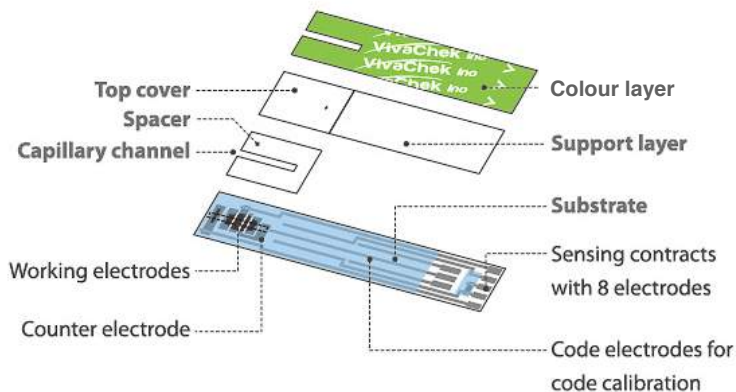
After detecting signals from various sources of interference, the VivaChek™ Ino runs a unique algorithm to give a highly accurate result

## Advanced 8 electrodes

The 8 electrodes on the VivaChek™ Ino test strip work with the VivaChek™ Ino meter to deliver highly accurate results.

Detailed functions of the electrodes are:

- No coding calibration
- Eliminating haematocrit interference
- Eliminating temperature interference
- Checking for exposure to humidity
- Checking that sufficient sample has been added
- Checking if the sample is control solution or blood
- Checking if the test strip is damaged



## Superior performance | Advanced features



8 electrodes



No coding



Can test neonates, pregnant women and anaemic patients



Wide operating temperature



0.5 µL blood sample



5s testing time



Insufficient sample detection



Strip ejector



900-test memory



Meal markers



Hypo warning



5 test alarms

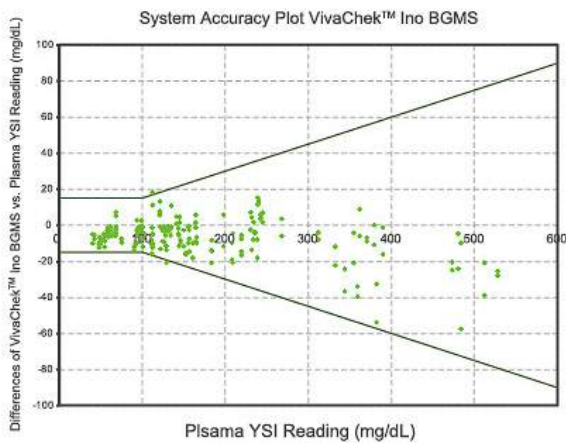
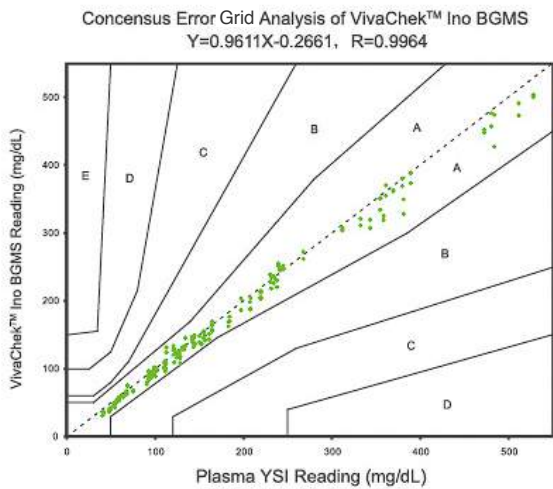
## Specification

Feature	Specification
Measurement range	0.6 to 33.3 mmol/L
Result calibration	Plasma-equivalent
Sample	Fresh capillary whole blood
Sample volume	About 0.5 µL
Test time	About 5 seconds
Power source	Two (2) CR 2032 3.0V coin cell batteries
Battery life	12 months or approximately 1,000 tests
Memory	900 records with date and time
Automatic shutoff	2 minutes after last action
Weight	Approximately 47g (with batteries)
Operating temperature	5-45 °C
Operating relative humidity	10-90% (non-condensing)
Haematocrit range	20-70%
Data port	Micro USB



## Proven accuracy

A recent independent clinical study conducted by IDK Germany\* shows that **98.8%** of all results from VivaChek™ Ino blood glucose monitoring system are within  $\pm 15\%$  or 15 mg/dL (0.83 mmol/L) of the YSI plasma results, which is fully compliant with the new **DIN EN ISO 15197:2013** standard.



\*IDK: Institute of Diabetes » Gerhardt Katsch « Karlsburg  
(www.diabetes-karlsburg.de).

Risk level (CEG zone)	Risk to diabetic patient
A	No effect on clinic action
B	Altered clinical action-little or no effect on clinical outcome
C	Altered clinical action-likely to effect clinical outcome
D	Altered clinical action-could have significant medical risk
E	Altered clinical action-could have dangerous consequences

### System accuracy results for glucose concentration < 5.55 mmol/L (100 mg/dL)

Within  $\pm 0.28$  mmol/L (5 mg/dL) 78/186 (41.9%)

Within  $\pm 0.56$  mmol/L (10 mg/dL) 148/186 (79.6%)

Within  $\pm 0.83$  mmol/L (15 mg/dL) 185/186 (99.5%)

### System accuracy results for glucose concentration $\geq 5.55$ mmol/L (100 mg/dL)

Within  $\pm 5\%$  233/414 (56.3%)

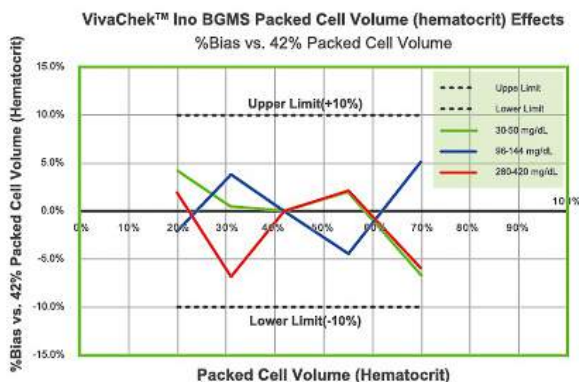
Within  $\pm 10\%$  360/414 (87.0%)

Within  $\pm 15\%$  408/414 (98.6%)

### System accuracy results for glucose concentration between 2.28 mmol/L (40.9 mg/dL) and 29.4 mmol/L (528.3 mg/dL)

593/600 (98.8%)

## Haematocrit effect study



Over and under estimation of glucose levels due to the haematocrit effect is a common source of error with many meter systems. Anaemia falsely elevates whilst polycythemia and dehydration falsely depresses blood glucose readings. The magnitude of this effect may vary 4 to 30% for every 10% change in the haematocrit, depending on the meter system.<sup>1,2,3</sup> According to the WHO, anaemia affects around 25% of the population, 47% of pre-school children and 42% of pregnant women worldwide.<sup>4</sup>

With advanced haematocrit correction technology, the VivaChek™ Ino blood glucose monitoring system can be used for testing patients with a haematocrit level between 20 and 70%, including neonates with very high haematocrit levels as well as anaemic patients and pregnant women with very low haematocrit levels.

#### References:

1. Consensus Statement on Self Monitoring of Blood Glucose. Diabetes Care 19
2. The effect of Haematocrit on reagent strip test for glucose. Diabet Med 1991;
3. Factors Affecting Blood Glucose Monitoring: Source of Errors in Measurement H.Gnsberg Barry, MD, Ph.D.J Diabetes Sci Technol. Jul 2009; 3 (4): 903-913.
4. Worldwide prevalence of anemia 1993-2005, WHO Global Database on Anaemia Geneva, World Health Organization, 2008.

## Catalogue numbers | Ordering Information

Item	Catalogue No.	Contents
VivaChek™ Ino Starter Kit	VGM01-011	Meter 10 Test strips 10 Lancets Lancing device Control solution N (2mL)
VivaChek™ Ino Starter Kit II	VGM01-012	Meter 10 Test strips 10 Lancets Lancing device
VivaChek™ Ino Meter Only Kit	VGM01-013	Meter 10 Lancets Lancing device Control solution N (2mL)
VivaChek™ Ino Meter Only Kit II	VGM01-014	Meter Lancing device
VivaChek™ Ino Meter Only Kit III	VGM01-015	Meter
VivaChek™ Ino Meter Only Kit IV	VGM01-016	Meter Lancing device 10 Lancets
VivaChek™ Ino Test Strips 50s (25/vial)	VGS01-011	50 Test strips (25/vial)
VivaChek™ Ino Test Strips 25s (25/vial)	VGS01-012	25 Test strips (25/vial)
VivaChek™ Ino Test Strips 10s (10/vial)	VGS01-013	10 Test strips (10/vial)
VivaChek™ Ino Test Strips 100s (25/vial)	VGS01-014	100 Test strips (25/vial)
VivaChek™ Ino Test Strips 50s (individual)	VGS01-015	50 Test strips (individual)
VivaChek™ Ino Test Strips 25s (individual)	VGS01-016	25 Test strips (individual)
VivaChek™ Ino Test Strips 100s (individual)	VGS01-017	100 Test strips (individual)
VivaChek™ Ino Test Strips 50s (50/vial)	VGS01-018	50 Test Strips (50/vial)
VivaChek™ Ino Test Strips 200s (50/vial)	VGS01-019	200 Test strips (50/vial)
VivaChek™ Ino Test Strips 100s (50/vial)	VGS01-01A	100 Test strips (50/vial)
VivaChek™ Ino Control Solution	VGC01-011	Control solution L (2mL) Control solution N (2mL) Control solution H (2mL)
VivaChek™ Lancing Device	VG01-001	Lancing device
VivaChek™ Lancets 50s	VGL01-002	50 Lancets
VivaChek™ Lancets 100s	VGL01-003	100 Lancets
VivaChek™ Safety Lancets 50s	VGL02-001	50 Safety lancets
VivaChek™ Safety Lancets 100s	VGL02-002	100 Safety lancets

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