X4 Intelligent Insole System

Human Performance Measurement

KEY BENEFITS

CAPTURE NATURAL GAIT

Insole sensor technology built for use in the real world. Get high-resolution plantar pressure data to measure foot and gait function—wherever activity takes place.

LAB QUALITY DATA

Industry-leading sensor technology provides accurate, reliable, and repeatable data with outstanding image quality.

EFFICIENT DATA COLLECTION

Measure natural gait motion in the field with confidence. Reliable sensors, electronics and software can be set-up in minutes—and with no recalibration needed, you can focus your time on collecting and analyzing valuable data.
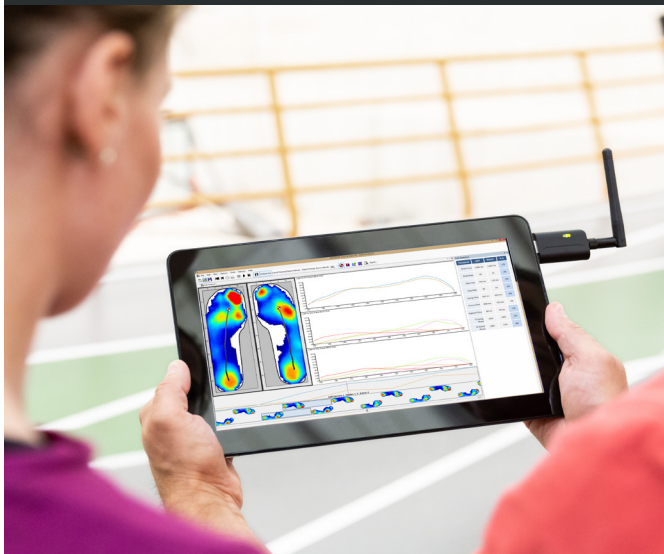
Better performance leads to better results.

It can be challenging to measure plantar pressure and analyze gait accurately, consistently, and in the environments where activity normally takes place: outside of the lab. In the past, capturing natural gait has been limited because current products are not suited for real-world testing.

The X4 Intelligent Insole is a plantar pressure and gait measurement system for athletic coaches and clinicians that captures lab-quality biomechanical and human performance data in the field.

- Wireless, compact on-shoe electronics and undetectable sensors simplify data collecton in long duration, multi-participant studies, and evaluation of patients with limited mobility.

- Durable construction and factory calibration means the sensors are reliable for continuous use in research and sports performance testing.

- Accurate, repeatable sensors—plus high resolution data and high speed collection with integrated IMU capability—provide rich datasets for analysis.

- Advanced AI-powered gait analysis tools provide insights for human performance or biomechanics research.

X4 INTELLIGENT INSOLE SYSTEM SPECIFICATIONS

INSOLE SENSOR	
Accuracy:	+/- 5%
Thickness:	< 0.2 mm
Pressure Range:	1-128 psi, kPa
Resolution:	5mm (230 sensels/sensor)

SENSOR SIZING	XXS	XS	S	M	L	XL
Men	2/3	4/5	6/7	8/9	10/11	12/13
Women	4/5	6/7	8/9	10/11	12/13	N/A
EU	N/A	36/37	39/40	41.5/43	44/45	46.5+

ELECTRONICS - ON-SHOE	
Sampling Rate:	150 hz
Wireless:	Bluetooth
Memory:	16 GB (7.5 hrs recording)
Size:	1.7 cm x 4 cm x 5.5 cm
Weight:	42 g

PRO FOOT & GAIT SOFTWARE

Desktop software and companion app provide flexible recording options and comprehensive tools for biomechanics professionals who are interested in conducting detailed analyses. Highest quality visualizations, graphing and detailed statistics reveal insights into gait function. Export options support external analysis for large data sets.

SOFTWARE	
Android App:	• Preview • Record • Download
Desktop Software:	• 2D or 3D images • Pressure/load vs. time graphs • Flexible zone configuration • CoP, gait lines & cyclogram • Auto gait analysis • Compare files • Flexible export options • Video sync • Customizable reports • Complete gait statisics

OUR PLATFORM

INTELLIGENT DYNAMIC SENSING

The platform behind our human performance products, Intelligent Dynamic Sensing (IDS) enables precise measurements and features highly detailed visualizations and rich data with AI-powered analysis — resulting in optimized performance, comfort and safety.

Maximum performance sensing

Real-time data measurement and highest quality visualizations

AI-powered data analysis and optimization

XSENSOR