

Neurologn USA, LLC (formerly Neuro Kinetics)

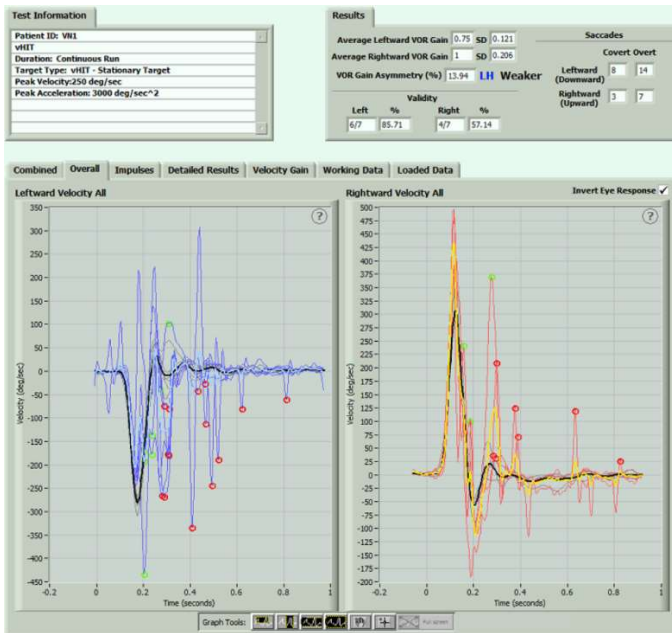
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Neurologn DX Falcon



The DX Falcon is a lightweight 250Hz binocular goggle combined with a software package that includes vHIT, positioning, positional, caloric and custom tests. It can be purchased as a standalone unit or combined with our DX100 system for full VNG, vHIT and advanced ocular-motor, vestibular and reaction time tests (OVRT) tests in a single package.

Falcon goggle hardware specs

Records both eyes simultaneously	Yes
Goggle weight	244 grams
Sampling rate	100 or 250 Hz, choose in software
Resolution in pixels	350x250
Spatial resolution / Tracking accuracy	Between 0.02 and 0.1°
USB level	USB 3.0
System latency	4 msec
Torsion recording	Yes
Pupil diameter recording	Yes
Pitch, yaw and roll sensors	Yes

CATEGORY	TEST	DX-NOTC-C	DX100	DX-Falcon	Notes	# of user-controlled test parameters
Traditional Ocular Motor	Smooth Pursuit	√	√		Horizontal and Vertical	4
	Saccade	√	√		Horizontal and Vertical	4
	Optokinetic (OKN)	√(Horizontal only)	√		Horizontal, Vertical and Rotational	8
Advanced Ocular Motor	Vergence Pursuit		√		Depth, Horizontal and Vertical	11
	Vergence Steps		√		Depth, Horizontal and Vertical	5
	Predictive Saccade	√	√		Horizontal and Vertical	5
	Antisaccade	√	√		Horizontal and Vertical	6
	Self-Paced Saccade	√	√		Horizontal	2
Reaction Time	Visual Reaction Time	√	√			2
	Auditory Reaction Time	√	√			2
Dual Task	Saccade and Reaction Time	√	√		Horizontal and Vertical	4
Static Vestibular	Spontaneous Nystagmus	√	√		Center fixation target	3
	Gaze Nystagmus Positional	√	√	√	Eccentric horizontal and vertical targets Center fixation target	4 4
Dynamic Vestibular	Sinusoidal Harmonic Acceleration (SHA)	√			0.01 to 2.0 Hz	5
	SHA with Visual Enhancement	√			Earth-fixed optokinetic field	5
	SHA with Visual Suppression	√			Head-fixed fixation target	5
	Pulse-Step-Sine Positioning (Dix Hallpike etc.)	√	√	√	Optional, at additional cost 4 defined positions plus user-defined Center fixation target	10 3 7
	Caloric (Requires irrigator, sold separately)		√			
Impulse tests	Trapezoidal Rotation (Impulse Step Test)	√			Peak velocity up to 300 deg/sec	8
	WHIT (video Head Impulse Test) crHIT (controlled rotation Head Impulse Test)	√		√	Lateral, RALP, LARP Optional, at additional cost	6 11
Otolith Function	Subjective Visual Vertical	√	√			3
	Subjective Visual Horizontal	√	√			3
	Dynamic Unilateral Centrifugation (incl. SVV)	√			Fixed centrifugation travel parameters	5
	Custom Unilateral Centrifugation	√			Optional, at additional cost. Customizable centrifugation travel parameters	6
Custom Test	Gives users the ability to design their own test. Established protocols include ocular counter roll, post-headshaking nystagmus and OKN after-nystagmus	√	√	√(No OKN after-nystagmus)	Visual stimuli manually controlled by user during test.	2
Research-only Tests (requires IRB)	Dynamic Off Vertical Axis Rotation ¹ (OVAR)	√				
	Memory Guided Sequence		√			
	Light Reflex		√			
	Visual Paired Comparison		√			
	Strabismus		√			