

Smartgloves I vs II

Specification Comparison

Datasheet version	1.0.0
Build date/time	2026-06-30 11:35:43 CEST

Comparison overview. This document lists the **typical** value of each parameter for both variants side by side. For the min/typ/max limits, see the per-variant datasheets — **Smartgloves I Technical Specifications** and **Smartgloves II Technical Specifications** — and look up the matching **Ref**.

Using this document. Each parameter has a **Ref** (left column), and this document has a version (shown on this page). If you have a question about any value — for support or otherwise — please quote its **Ref** and the document version so we can identify exactly which figure and revision you are referring to.

Electrical characteristics

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
EL-01	Power consumption	All systems on	390	285	mA

Sensors & Tracking overview

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
TR-01	Tracked degrees of freedom	Device driver output. 6 dof per finger/arm sensor pose + 3 dof for hub orientation	39	39	
TR-02	Tracked degrees of freedom with Coil Pro	See TR-01 + 6 dof for Coil Pro tracking.	45	45	
TR-03	Total number of sensor axes	In raw sensor data.	60	63	
TR-04	Output data rate	From device to device service	83.33	83.33	Hz
TR-05	Latency (WiFi)	Motion to device-service output. From motion to output from the device service. On the WiFi there can be a lot of jitter, so the average value is provided. Note that we sample 83.3 Hz → every 12 ms. We define the motion to be in the middle of a sample, so with this sample rate we will always start with a latency of 6 ms. If we define the latency from measurement done, subtract 6 ms.	20	20	ms
TR-06	Latency (USB)	See conditions on TR-05. USB has much less jitter.	N/A	19	ms

EMF characteristics - Hub transmitter

The hub is the transmitter on the back of the hand. "Hub tracking" reports position relative to the hub; "Coil Pro tracking" relative to an external Coil Pro transmitter.

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
ET-01	Transmitter voltage		1.51	1.00	V rms

EMF characteristics - Finger sensor

The numbers in this table indicate performance before Sensor Fusion.

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
EF-01	Receiver sampling rate		96	96	kHz
EF-02	Receiver voltage amplitude noise	fs=96 kHz, 576-sample window, worst sensor connector	70.8	70.8	uV rms
EF-03	Position noise, hub tracking	On-axis @ 12 cm, stddev., worst channel	0.94	1.23	mm

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
EF-04	Position accuracy, hub tracking	Mean across sphere @ 12 cm, sim. based on measured tolerances	—	1.60	mm

EMF characteristics - Arm sensor

The numbers in this table indicate performance before Sensor Fusion.

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
EA-01	Receiver sampling rate		96	96	kHz
EA-02	Receiver voltage amplitude noise	fs=96 kHz, 576-sample window	14.5	4.0	uV rms
EA-03	Position noise, hub tracking	On-axis @ 12 cm, stddev., worst channel	0.07	0.01	mm
EA-04	Position noise, Coil Pro tracking	On-axis @ 1 m, stddev.	0.21	0.04	mm
EA-05	Position accuracy, hub tracking	Mean across sphere @ 12 cm, sim. based on measured tolerances	—	3.00	mm
EA-06	Position accuracy, Coil Pro tracking	Per-meter error, mean across sphere	12.65	—	mm/m
EA-07	Minimum range / saturation distance, Coil Pro	Distance where the AC signal reaches the clipping amplitude	0.46 – 0.55	0.39 – 0.47	m
EA-08	Maximum range, Coil Pro tracking	Distance where on-axis 1 σ position noise reaches 20 mm	3.11	4.81	m

IMU characteristics

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
IM-01	Sampling rate		166.67	250.00	Hz

Magnetometer characteristics

Ref	Parameter	Conditions	Smartgloves I	Smartgloves II	Unit
MG-01	Sampling rate		N/A	83.33	Hz