

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

NOX MEDICAL EHF,

Plaintiff,

v.

NATUS NEUROLOGY INC.,

Defendant.

Civil Action No. 15-709-RGA

**MEMORANDUM OPINION**

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Attorneys for Plaintiff.

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**ANDREWS, U.S. DISTRICT JUDGE:**

Presently before me is the issue of claim construction of multiple terms in U.S. Patent No. 9,059,532 (“the ’532 patent”). The ’532 patent generally relates to biometric belt connectors. I have considered the parties’ Joint Claim Construction Brief. (D.I. 63). I held oral argument on November 17, 2016. (D.I. 71 (“Tr.”)).

**I. LEGAL STANDARD**

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’”

*SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at \*1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321

(internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19. “Judges . . . may [] rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.” *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 n.6 (Fed. Cir. 1996). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Phillips*, 415 F.3d at 1317–19. Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GMBH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation omitted).

## **II. CONSTRUCTION OF DISPUTED TERMS**

Claim 1 is representative and reads as follows:

1. An electrode belt and a belt connector for electrically connecting a conductor of the electrode belt to a male portion of a snap connector electrode connected to a biometric device, the belt connector comprising:

a molded plastic frame including a receiving hole having radial flexibility, the receiving hole being configured to function as a female snap button fastener for receiving and fastening the frame to a protrusion of the male portion of the snap connector electrode,

a fastener configured to fasten the frame to a first end of said electrode belt, and

an engaging member adjacent to said receiving hole, the engaging member engaging the conductor of the electrode belt by the conductor passing through the receiving hole while being wrapped around the engaging member, such that when the male portion of the snap connector electrode penetrates the receiving hole, the conductor is forced into physical contact with at least a lateral surface of the male portion of the snap connector electrode,

wherein radial flexibility of said receiving hole is achieved by one or more slot extending from said hole, and wherein said receiving hole and one or more slot are formed by at least one elongated member having flexibility transverse to its longitudinal axis, thus imparting flexibility to the width of the hole.

('532 patent, claim 1). Figure 1A of the '532 patent shows one embodiment of the invention.

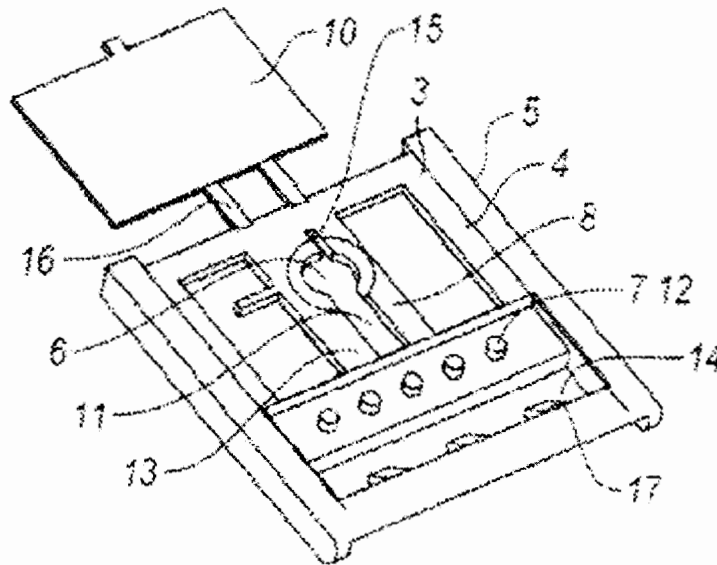


FIG. 1A

('532 patent, Figure 1A). This figure shows a biometric belt connector comprised of “a molded plastic frame (3) having a front side (4) and a rear side (5), a shaped circular or semi-circular hole (6) with radial flexibility to function as a female snap button fastener . . . .” (*Id.* at 5:6–9). “The frame (3) may include two [elongated] members (8, 13) adjacent to said hole (6), the two members (8, 13) forming a slot (11) extending from the hole and a second slot (15) across from the first slot (11).” (*Id.* at 5:13–17). “The elongated members and slots provide the hole with sufficiently flexibility (i.e. elasticity in the width of the hole) to function as a female snap button fastener.” (*Id.* at 5:18–20).

#### A. “flexibility” (claim 1)

- *Plaintiff's proposed construction*: elasticity allowing movement from and substantially back to a starting position or configuration
- *Defendant's modified proposed construction*: plain and ordinary meaning, in other words, the ability of a part, related to its geometry and material properties, to elastically deform under an applied stress (Tr. 27:22–28:4)
- *Court's construction*: the ability of a part, related to its geometry and material properties, to elastically deform under an applied stress

The parties dispute what it means for the receiving hole to have flexibility. The receiving hole is formed by the elongated members. Preliminarily, both parties agree that flexibility requires some degree of deformation. (*See* Tr. 20:24–25, 27:22–28:4). “Deform” means anything that “bends or moves from its original position.” (Tr. 28:14–15). Both parties propose that flexibility requires some degree of elasticity. Elasticity means that after it bends or moves, it returns to its original state to a certain extent. (*See* Tr. 12:21–23, 29:5–7, 29:10–12).

Plaintiff is concerned that my construction would require perfect elasticity. (Tr. 34:23–35:2). Perfect elasticity means “movement from and then all the way back to exactly the same position without any change between the starting configuration and the ending configuration.” (Tr. 12:11–13). My construction is not so limiting. It encompasses varying degrees of how much

the parts return to their original state. To be clear, my construction does not require perfect elasticity.

Plaintiff is also concerned that my construction would not cover the scenario where the elongated members are used such that they “go[] beyond the elastic range to a complete plastic deformation.” (Tr. 35:11–14). Plastic deformation is permanent deformation. (Tr. 23:2–3). So long as the elongated members *initially* have “flexibility,” they would be covered by the claim. (See Tr. 35:17–22). It matters not whether they subsequently lose such flexibility. (See *id.*). That a rubber band snaps is not to say that it was not originally flexible. Thus, it is possible for Plaintiff’s scenario to be covered by my construction.

Plaintiff’s last concern is that my construction does not include the word “substantial.” (Tr. 36:15–25). Alternatively, Plaintiff proposes that my construction include the word “sufficient.” (Tr. 36:23–37:5). It is unclear whether this is still an actual concern of Plaintiff. (Tr. 37:6–38:9). Regardless, a natural reading of the claim language does not necessitate the use of either of these words.<sup>1</sup>

For these reasons, “flexibility” has its plain and ordinary meaning, which is “the ability of a part, related to its geometry and material properties, to elastically deform under an applied stress.”

#### **B. “through the receiving hole” (claim 1)**

- *Plaintiff’s modified proposed construction*: passing from a front side of a hole, through the interior of the hole, to a rear side of the hole (Tr. 42:15–16)
- *Defendant’s proposed construction*: plain and ordinary meaning
- *Court’s construction*: entering the hole, passing through the hole, and exiting the hole

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<sup>1</sup> My construction of “flexibility” should not be understood to read out other limitations of claim 1 such as that the receiving hole must be configured to “function as a female snap button fastener . . . .” (’532 patent, Claim 1).

The relevant claim language is the following: “the engaging member engaging the conductor of the electrode belt by the conductor passing through the receiving hole while being wrapped around the engaging member.” (’532 patent, claim 1) (emphasis added).

The parties dispute how the conductor needs to pass through the receiving hole (for illustrative purposes, 6 in Figure 1A). Using Figure 1A as an example, Plaintiff’s construction seems to suggest that the claim only covers conductors passing vertically through 6, or from the top to bottom. The top would correspond to the “front” of the hole. The bottom would correspond to the “rear” of the hole. Defendant’s construction would cover conductors passing horizontally through 6, or from side-to-side.

I agree with the Defendant. The receiving hole can be envisioned as a roughly cylindrical space. The plain meaning of the word “through” is “used as a function word to indicate movement into at one side or point and out at another and especially the opposite side of.” *See Through*, MERRIAM-WEBSTER (December 14, 2016), <https://www.merriam-webster.com/dictionary/through>; *Vitronics Corp.*, 90 F.3d at 1584 n.6. To go “through” this cylindrical space, the conductor need not necessarily enter and exit the “top” and “bottom” of the cylinder (or the circular regions) as Plaintiff’s construction seemingly requires. Rather, so long as the conductor passes through one side or point, and goes out at another side or point (typically, the side or point opposite to the initial side or point), then that is enough. Although I recognize that the preferred embodiment supports Plaintiff’s construction, it does not rise to the level of a clear disclaimer of claim scope. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 (Fed. Cir. 2004) (“[a]bsent a clear disclaimer of particular subject matter, the fact that

the inventor may have anticipated that the invention would be used in a particular way does not mean that the scope of the invention is limited to that context”).<sup>2</sup>

For these reasons, I adopt Defendant’s proposed construction, with the understanding that the conductor must enter the receiving hole, pass through the interior of the hole, and exit the hole.

**IV. CONCLUSION**

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.

  
United States District Judge

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<sup>2</sup> The conductor must still pass through the receiving hole while being wrapped around the engaging member. ('532 patent, claim 1).