

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-8  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**ELECTRO-SENSORS, INC.**

(Exact name of registrant as specified in its charter)

**Minnesota**  
(State or other jurisdiction of  
incorporation or organization)

**41-0943459**  
(I.R.S. Employer  
Identification No.)

**6111 Blue Circle Drive**  
**Minnetonka, Minnesota 55343-9108**

(Address of principal executive offices and zip code)

**Electro Sensors, Inc.**  
**2013 Equity Incentive Plan**  
(Full title of the Plan)

**David L. Klenk**  
**President**  
**Electro-Sensors, Inc.**  
**6111 Blue Circle Drive**  
**Minnetonka, MN 55343-9108**  
**952-930-0100**

Copy to:  
**Thomas G. Lovett, IV**  
**Lindquist & Vennum LLP**  
**4200 IDS Center**  
**80 South 8th Street**  
**Minneapolis, Minnesota 55402**  
**612-371-3211**

(Name, address and telephone number, including area code, of agent for service)

\*\*Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.10 per share	<b>600,000</b>	<b>\$3.43</b>	<b>\$2,010,000</b>	<b>\$207.24</b>

(1) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) and (h) and based upon the closing price of the Company's Common Stock on the Nasdaq Capital Market on April 21, 2016.

## INTRODUCTION

This Registration Statement on Form S-8 is filed by Electro Sensors, Inc., a Minnesota corporation, (“ELSE” or the “Company”) to register 600,000 shares of its common stock issuable under its 2013 Equity Incentive Plan.

### PART I

Pursuant to the note to Part I of Form S-8, the information required by Items 1 and 2 of Form S-8 is not filed as a part of this Registration Statement.

### PART II

#### **Item 3. Incorporation of Documents by Reference.**

The following documents filed with the Securities and Exchange Commission are hereby incorporated by reference:

- (a) The Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015;
- (b) The Company’s Definitive Proxy Statement filed March 14, 2016 for the 2016 Annual Meeting of Shareholders;
- (c) The Company’s Form 8-K dated April 20, 2016; and
- (d) All other reports filed pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act since the end of the year ended December 31, 2015.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 prior to the completion or termination of this offering of shares of Common Stock will be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

#### **Item 4. Description of Securities.**

##### **Common Stock**

Under its Restated Articles of Incorporation, the Company has authorized 10,000,000 shares of its common stock \$0.10 par value.

Each share of common stock is entitled to one vote on all matters submitted to a vote of the shareholders. Shareholders do not have cumulative voting rights. The absence of cumulative voting rights generally means that the holders of a majority of the outstanding shares of common stock can elect all the directors then standing for election.

Each share of common stock has an equal and ratable right to receive dividends legally declared by the Board of Directors out of any funds legally available for the payment for dividends. In the event of Company liquidation, dissolution or winding up, after satisfaction of amounts payable to creditors, holders of common stock are entitled to share ratably, on a per share basis, in the assets available for distribution to the shareholders.

Holders of common stock are not entitled to subscription or preemptive rights. All outstanding shares of common stock when issued in connection with the terms of the 2013 Equity Incentive Plan will be validly issued, fully paid and nonassessable.

The current transfer agent for the common stock is American Stock Transfer & Trust Company.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Section 302A.521 of the Minnesota Statutes and Article 5 of the Company's Amended and Restated Bylaws require, among other things, the indemnification of any person made or threatened to be made a party to a proceeding by reason of acts or omissions performed in the person's official capacity as an officer, director, employee or agent of the Company against judgments, penalties and fines (including attorneys' fees) if the person is not otherwise indemnified, acted in good faith, received no improper benefit, reasonably believed that such conduct was in the best interests of the Company, and, in the case of criminal proceedings, had no reason to believe the conduct was unlawful. In addition, Section 302A.521, subd. 3, of the Minnesota Statutes requires payment by the Company, upon written request, of reasonable expenses in advance of final disposition in certain instances if a decision as to required indemnification is made by a disinterested majority of the Board of Directors present at a meeting at which a disinterested quorum is present, or by a designated committee of the Board, by special legal counsel, by the shareholders or by a court. The Company also maintains insurance to assist in funding indemnification of directors and officers for certain liabilities.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

Exhibit

- 4.1 Electro-Sensors, Inc. 2013 Equity Incentive Plan, incorporated by reference from Appendix A to the Proxy Statement dated March 14, 2016 for the Electro-Sensors, Inc. Annual Meeting of Shareholder held April 20, 2016.
- 5.1 Opinion of Lindquist & Vennum LLP
- 23.1 Consent of Lindquist & Vennum LLP (included in Exhibit 5.1)
- 23.2 Consent of Boulay PLLP, the Company's Independent Registered Public Accounting Firm
- 24.1 Power of Attorney (included on signature page)

**Item 9. Undertakings.**

- (a) The Company hereby undertakes to:
  - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
    - (i) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;
  - (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
  - (3) To remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person connected with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Minnetonka, State of Minnesota, on April 26, 2016.

### Electro Sensors, Inc.

By: /s/ David L. Klenk  
David L. Klenk

## POWER OF ATTORNEY

The undersigned officers and directors of Electro-Sensors, Inc. hereby constitute and appoint David L. Klenk and Joseph A. Marino, each acting alone, with power to act as our true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for us and in our stead, in any and all capacities to sign any and all amendments (including post-effective amendments) to this Registration Statement and all documents relating thereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each attorney-in-fact and agent, full power and authority to do and perform each and every act and thing necessary or advisable to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each attorney-in-fact and agent, or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities indicated on April 26, 2016.

<u>/s/ David L. Klenk</u> David L. Klenk	President and Director CEO and CFO
<u>/s/ Joseph A. Marino</u> Joseph A. Marino	Chairman and Director
<u>/s/ Scott A. Gabbard</u> Scott A. Gabbard	Director
<u>/s/ Jeffrey D. Peterson</u> Jeffrey D. Peterson	Director
<u>/s/ Michael C. Zipoy</u> Michael C. Zipoy	Director

April 26, 2016

Electro-Sensors, Inc.  
6111 Blue Circle Drive  
Minnetonka, Minnesota 55343-9108

Re: Opinion of Counsel as to Legality of 600,000 shares of Common Stock to be registered under the Securities Act of 1933

Ladies and Gentlemen:

This opinion is furnished in connection with the registration under the Securities Act of 1933 on Form S-8 of 600,000 shares of Common Stock, \$0.10 par value per share, of Electro-Sensors, Inc., (the "Company") offered to employees, directors and consultants of the Company or its subsidiaries pursuant to the Electro-Sensors, Inc. 2013 Equity Incentive Plan (the "2013 Plan").

As general counsel for the Company, we advise you that it is our opinion, based on our familiarity with the affairs of the Company and upon our examination of pertinent documents, that the 600,000 shares of Common Stock to be offered to employees, directors and consultants under the 2013 Plan will, when paid for and issued, be validly issued and lawfully outstanding, fully paid and nonassessable shares of Common Stock of the Company.

The undersigned hereby consent to the filing of this opinion with the Securities and Exchange Commission as an Exhibit to the Registration Statement with respect to said shares of Common Stock under the Securities Act of 1933.

Very truly yours,

/s/ Lindquist & Venum LLP  
Lindquist & Venum LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors  
Electro-Sensors, Inc.:

We consent to the use of our report dated March 14, 2016, with respect to the consolidated financial statements of Electro-Sensors, Inc. and subsidiaries as of December 31, 2014 and 2015.

/s/ Boulay PLLP  
Boulay PLLP

Minneapolis, Minnesota  
Boulay PLLP  
April 26, 2016