

NIERENBERG INVESTMENT MANAGEMENT CO  
 Form 4  
 March 20, 2009

**FORM 4**

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

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 NIERENBERG INVESTMENT MANAGEMENT CO

2. Issuer Name and Ticker or Trading Symbol  
 ELECTRO SCIENTIFIC INDUSTRIES INC [ESIO]

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)

(Last) (First) (Middle)  
 19605 NE 8TH STREET  
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)  
 03/18/2009

\_\_\_\_ Director  
 \_\_\_\_ Officer (give title below)  
 \_\_\_X\_\_\_ 10% Owner  
 \_\_\_\_ Other (specify below)

CAMAS, WA 98607  
 (City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 \_\_\_ Form filed by One Reporting Person  
 \_\_\_X\_\_\_ Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)			
			Code	V	Amount	(A) or (D)	Price			
Common Stock	03/18/2009		S		16,000	D	\$ 6.06	582,762 <sup>(1)</sup>	I	By The D3 Family Fund, LP
Common Stock	03/18/2009		S		39,000	D	\$ 6.06	607,294 <sup>(1)</sup>	I	By The DIII Offshore Fund, LP
Common Stock	03/19/2009		S		13,323	D	\$ 6.14	569,439 <sup>(1)</sup>	I	By The D3 Family Fund, LP
	03/19/2009		S		12,000	D		595,294 <sup>(1)</sup>	I	

Common Stock					\$ 6.14				By The DIII Offshore Fund, LP
Common Stock	03/20/2009		S	5,200	D \$ 6.01	590,094 <sup>(1)</sup>	I		By The DIII Offshore Fund, LP
Common Stock						2,414,476 <sup>(1)</sup>	I		By The D3 Family Bulldog Fund, LP
Common Stock						232,475 <sup>(1)</sup>	I		By The D3 Family Canadian Fund, LP

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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(9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned (Instr. 6)
						Date Exercisable	Expiration Date	Title	Amount or Number of Shares
				Code	V (A) (D)				

## Reporting Owners

**Reporting Owner Name / Address**

**Relationships**

Director    10% Owner    Officer    Other

NIERENBERG INVESTMENT MANAGEMENT CO  
19605 NE 8TH STREET

X

CAMAS, WA 98607

Nierenberg Investment Management Offshore Inc  
 19605 NE 8TH STREET X  
 CAMAS, WA 98607

D3 FAMILY FUND LP  
 19605 NE 8TH STREET X  
 CAMAS, WA 98607

DIII OFFSHORE FUND LP  
 19605 NE 8TH STREET X  
 CAMAS, WA 98607

NIERENBERG DAVID  
 19605 NE 8TH STREET X  
 CAMAS, WA 98607

## Signatures

David Nierenberg, President, Nierenberg Investment Management Company, Inc.  
 (NIMCO) 03/20/2009  
 Date  
 \*\*Signature of Reporting Person

David Nierenberg, President, Nierenberg Investment Management Offshore, Inc.  
 (NIMO) 03/20/2009  
 Date  
 \*\*Signature of Reporting Person

David Nierenberg, President, NIMCO, General Partner of The D3 Family Fund, L.P.  
 03/20/2009  
 Date  
 \*\*Signature of Reporting Person

David Nierenberg, President, NIMO, General Partner of The DIII Offshore Fund, L.P.  
 03/20/2009  
 Date  
 \*\*Signature of Reporting Person

David Nierenberg  
 03/20/2009  
 Date  
 \*\*Signature of Reporting Person

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Each of the reporting persons disclaims beneficial ownership of these securities except to the extent of the reporting person's pecuniary interest therein.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.