

Werth Dennis L  
Form 4  
December 18, 2017

**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 \*  
Werth Dennis L

(Last) (First) (Middle)

2 TECH DRIVE, SUITE 201

(Street)

ANDOVER, MA 01810

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol

MKS INSTRUMENTS INC [MKSI]

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

12/14/2017

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

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

Sr. VP, Business Units

6. Individual or Joint/Group Filing(Check Applicable Line)

Form filed by One Reporting Person  
 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)
				(A) or (D)	Price		
Common Stock	12/14/2017		M	A	\$ 27.79	4,199	D
Common Stock	12/14/2017		S	D	\$ 95.615	2,582	D
Common Stock	12/14/2017		D <sup>(1)</sup>	D	\$ 95.65	1,362	D
Common Stock	12/14/2017		F <sup>(2)</sup>	D	\$ 95.65	0	D
Common Stock	12/15/2017		M	A	\$ 27.89	5,911	D

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Common Stock	12/15/2017	S	2,022	D	\$ 97.9	3,889	D	
Common Stock	12/15/2017	D <sup>(1)</sup>	1,682	D	\$ 98	2,207	D	
Common Stock	12/15/2017	F <sup>(2)</sup>	2,207	D	\$ 98	0	D	
Common Stock						7,995.437	I	By The Werth Family Trust

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

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

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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)		
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Stock Appreciation Right	\$ 27.79	12/14/2017		M	4,199	<sup>(3)</sup>	05/17/2018	Common Stock	4,199
Stock Appreciation Right	\$ 27.89	12/15/2017		M	5,911	<sup>(4)</sup>	04/12/2019	Common Stock	5,911

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Werth Dennis L 2 TECH DRIVE SUITE 201			Sr. VP, Business Units	

ANDOVER, MA 01810

## Signatures

/s/ M. Kathryn Rickards,  
attorney-in-fact

12/18/2017

\_\_Signature of Reporting Person

Date

## 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) Reflects the disposition of shares to the issuer deemed to occur upon the exercise of a stock appreciation right.
- (2) Shares have been withheld in satisfaction of reporting person's tax withholding obligations resulting from the exercise of stock appreciation rights.
- (3) The stock appreciation right became fully vested on March 31, 2014.
- (4) The stock appreciation right became fully vested on March 31, 2015.

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.