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

**POST-EFFECTIVE AMENDMENT NO. 1 TO:
FORM S-3
REGISTRATION STATEMENT NO. 333-267046
UNDER
THE SECURITIES ACT OF 1933**

MKS Instruments, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts
(State or other jurisdiction of
incorporation or organization)

04-2277512
(I.R.S. Employer
Identification Number)

**2 Tech Drive, Suite 201,
Andover, MA 01810
(978) 645-5500**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Kathleen F. Burke
Executive Vice President, General Counsel and Secretary
MKS Instruments, Inc.
2 Tech Drive, Suite 201,
Andover, Massachusetts 01810
(978) 645-5500

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

Copy to:

Rosemary G. Reilly, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
Telephone: (617) 526-6000
Telecopy: (617) 526-5000

Approximate date of commencement of proposed sale to the public: Not applicable. Removal from registration of certain securities that were not sold pursuant to the registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

**EXPLANATORY NOTE
DEREGISTRATION OF COMMON STOCK**

This Post-Effective Amendment No.1 (the "Post-Effective Amendment") is being filed by MKS Instruments, Inc. (the "Registrant") to deregister those certain shares of common stock, no par value per share (the "Common Stock"), that were previously registered for resale pursuant to the registration statement on Form S-3ASR (File No. 333-267046) filed with the U.S. Securities and Exchange Commission on August 24, 2022 (the "Registration Statement") but were not sold in the offering described in the prospectus supplement dated June 1, 2023 (the "Underwritten Offering"). In connection with the Underwritten Offering, Carlyle Partners VI Cayman Holdings, L.P., CEP IV Participations, S.à r.l. SICAR and Gamma Holding Company Limited (collectively, "Carlyle") sold an aggregate of 2,000,000 shares of Common Stock. The Registrant has been informed that Carlyle has sold the remaining 6,482,732 shares that were registered for resale on the Registration Statement and not sold in the Underwritten Offering pursuant to Rule 144 of the Securities Act of 1933, as amended.

The offering of shares pursuant to the Registration Statement has been completed, and accordingly, the Registrant hereby deregisters the 6,482,732 shares of Common Stock that remain unsold under the Registration Statement in compliance with the Registrant's undertaking to do so in Item 17 of the Registration Statement.

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-3 and has duly caused this Post-Effective Amendment to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Andover, Commonwealth of Massachusetts, on February 21, 2024.

MKS Instruments, Inc.

By: /s/ Kathleen F. Burke

Name: Kathleen F. Burke

Title: Executive Vice President, General Counsel &
Secretary

Pursuant to Rule 478 under the Securities Act of 1933, as amended, no other person is required to sign this Post-Effective Amendment to the Registration Statement.