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

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)*

InfuSystem Holdings, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share (Title of Class of Securities)

> 45685K102 (CUSIP Number)

April 27, 2012 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

o Rule 13d-1(b)

S Rule 13d-1(c)

0 Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

| | Global Undervalued Securities Master Fund, L.P. |
|---|---|
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) |
| | (a) |
| | (b) • |

| 3 SEC USE | EONLY | |
|-------------------|-----------------|--|
| 4 CITIZEN | SHIP OR PLACE O | FORGANIZATION |
| Cayman I | slands | |
| - | 5 | SOLE VOTING POWER |
| NUMBER OF | | -0- |
| SHARES | 6 | SHARED VOTING POWER |
| BENEFICIALLY | | |
| OWNED BY | | 1,861,480 |
| EACH | 7 | SOLE DISPOSITIVE POWER |
| REPORTING | | |
| PERSON | | -0- |
| WITH | 8 | SHARED DISPOSITIVE POWER |
| | | 1,861,480 |
| 9 AGGREO | GATE AMOUNT BI | ENEFICIALLY OWNED BY EACH REPORTING PERSON |
| 1.861.480 |) | |
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| 0 CHECK | IF THE AGGREGA | TE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) |
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| 9 7 <i>01</i> | | |
| 8.7% 2 TYPE OF | F REPORTING PER | SON (SEE INSTRUCTIONS) |
| | F REPORTING PER | SON (SEE INSTRUCTIONS) |

| | Global Undervalued Securities Fund, L.P. |
|---|---|
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) " (b) " |
| 3 | SEC USE ONLY |

| 5 6 7 8 | SOLE VOTING POWER -0- SHARED VOTING POWER 1,861,480 SOLE DISPOSITIVE POWER -0- SHARED DISPOSITIVE POWER 1,861,480 |
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| 6 | -0- SHARED VOTING POWER 1,861,480 SOLE DISPOSITIVE POWER -0- SHARED DISPOSITIVE POWER |
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| | 1 961 490 |
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| DUNT BEN | NEFICIALLY OWNED BY EACH REPORTING PERSON |
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| SS REPRE | ESENTED BY AMOUNT IN ROW (11) |
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| NG PERS | SON (SEE INSTRUCTIONS) |
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| | Global Undervalued Securities Fund (QP), L.P. |
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| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) |
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| | (b) " |

| 3 SEC US | EONLY | |
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| 4 CITIZEN | SHIP OR PLACE O | FORGANIZATION |
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| | 5 | SOLE VOTING POWER |
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| | | 1,861,480 |
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| 0 CHECK | IF THE AGGREGAT | TE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) |
| 1 PERCEN | NT OF CLASS REPR | ESENTED BY AMOUNT IN ROW (11) |
| 8.7% | | |
| 2 TYPE O | F REPORTING PERS | SON (SEE INSTRUCTIONS) |
| PN | | |
| | | |

| 2 | Global Undervalued Securities Fund, Ltd. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) " (b) " |
|---|---|
| 3 | SEC USE ONLY |

| 4 CITIZENSHI | CITIZENSHIP OR PLACE OF ORGANIZATION | | | |
|------------------------|--------------------------------------|--|--|--|
| Cayman Island | ds | | | |
| | 5 | SOLE VOTING POWER | | |
| NUMBER OF | | -0- | | |
| SHARES BENEFICIALLY | 6 | SHARED VOTING POWER | | |
| OWNED BY | | 1,861,480 | | |
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| PERSON | | -0- | | |
| WITH | 8 | SHARED DISPOSITIVE POWER | | |
| | | 1,861,480 | | |
| 9 AGGREGAT | E AMOUNT BE | ENEFICIALLY OWNED BY EACH REPORTING PERSON | | |
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| 10 CHECK IF T | HE AGGREGA | TE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) " | | |
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| 8.7% | | | | |
| 12 TYPE OF RE | PORTING PER | SON (SEE INSTRUCTIONS) | | |
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| 2 | CHECK THE | EAPPROPRIAT | E BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) |
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| | (a) " | | |
| | (b) " | | |
| 3 | SEC USE ON | NLY | |
| 4 | CITIZENSHI | P OR PLACE O | FORGANIZATION |
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| | | 5 | SOLE VOTING POWER |
| NUMB | ER OF | | -0- |
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| OWNI | | | 1,861,480 |
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| 1 | PERCENT O | F CLASS REPR | ESENTED BY AMOUNT IN ROW (11) |
| | 8.7% | | |
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| 1 | PERCENT O | F CLASS REPR | ESENTED BY AMOUNT IN ROW (11) |
| | 8.7% | | |
| 2 | | PORTING PERS | SON (SEE INSTRUCTIONS) |
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| | John Kleinheir | | E BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) |
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| | (b) " | | |
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| 3 | SEC USE ON | LY | |
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| 0 | CHECK IF TH | IE AGGREGA | TE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) |
| 1 | PERCENT OF | CLASS REPR | ESENTED BY AMOUNT IN ROW (11) |
| | | | |
| | 8.7% | | |
| 2 | I Y PE OF REI | YOKTING PER | SON (SEE INSTRUCTIONS) |
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SCHEDULE 13G

This Schedule 13G is being filed on behalf of Global Undervalued Securities Master Fund, L.P., a Cayman Islands exempted limited partnership (the "Master Fund"), Global Undervalued Securities Fund, L.P., a Delaware limited partnership (the "Domestic Fund"), Global Undervalued Securities Fund (QP), L.P., a Delaware limited partnership (the "Domestic QP Fund" and together with the Domestic Fund, the "Domestic Funds"), Global Undervalued Securities Fund, Ltd., a Cayman Islands exempted company (the "Cayman Fund" and together with the Domestic Funds, the "Feeder Funds"), Kleinheinz Capital Partners, Inc., a Texas corporation ("Kleinheinz"), Kleinheinz Capital Partners LDC, a Cayman Islands limited duration company ("LDC"), and John Kleinheinz (collectively with the Master Fund, the Feeder Funds, Kleinheinz, and LDC, the "Reporting Persons").

Pursuant to Rule 13d-1(h) of Regulation 13D-G of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended, the Reporting Persons hereby again report on Schedule 13G their beneficial ownership of the Common Stock of InfuSystem Holdings, Inc. (the "Issuer"). The Reporting Persons (i) originally reported their beneficial ownership on Schedule 13G, filed December 19, 2007, as amended by amendment no.1 filed February 14, 2011; (ii) amended such Schedule 13G by reporting their beneficial ownership on Schedule 13D, filed December 6, 2011, as amended by amendment no. 1 filed January 20, 2012, amendment No. 2 filed January 31, 2012, amendment no. 3 filed February 27, 2012, amendment no. 4 filed March 15, 2012, and amendment no. 5 filed April 27, 2012; and (iii) by filing this Statement of Schedule 13G, do hereby amend their Schedule 13D to cease reporting on Schedule 13D their beneficial ownership of the Issuer's Common Stock.

This Statement on Schedule 13G relates to shares of Common Stock of the Issuer purchased by Kleinheinz for the account of the Master Fund. Kleinheinz acts as investment adviser to the Feeder Funds and the Master Fund. The Feeder Funds serve as general partners of the Master Fund. LDC serves as general partner of the Domestic Funds. Mr. Kleinheinz is the principal of both Kleinheinz and LDC.

Item 1(a) Name of Issuer.

InfuSystem Holdings, Inc.

Item 1(b) Address of Issuer's Principal Executive Offices.

1700 Research Park Drive Madison Heights, Michigan 48071

Item 2(a) Name of Person Filing.

- (1) Global Undervalued Securities Master Fund, L.P.
- (2) Global Undervalued Securities Fund, L.P.
- (3) Global Undervalued Securities Fund (QP), L.P.
- (4) Global Undervalued Securities Fund, Ltd.
- (5) Kleinheinz Capital Partners, Inc.
- (6) Kleinheinz Capital Partners LDC
- (7) John Kleinheinz

Item 2(b) Address of Principal Business Office, or, if none, Residence.

- Global Undervalued Securities Master Fund, L.P.
 c/o BNY Mellon Alternative Investment Services Ltd.
 48 Par-La-Ville Road, Suite 464
 Hamilton HM 11, Bermuda
- (2) Global Undervalued Securities Fund, L.P.
 c/o BNY Mellon Alternative Investment Services Ltd.
 48 Par-La-Ville Road, Suite 464
 Hamilton HM 11, Bermuda
- (3) Global Undervalued Securities Fund (QP), L.P.
 c/o BNY Mellon Alternative Investment Services Ltd.
 48 Par-La-Ville Road, Suite 464
 Hamilton HM 11, Bermuda
- (4) Global Undervalued Securities Fund, Ltd.
 c/o BNY Mellon Alternative Investment Services Ltd.
 48 Par-La-Ville Road, Suite 464
 Hamilton HM 11, Bermuda

- (5) Kleinheinz Capital Partners, Inc.301 Commerce Street, Suite 1900 Forth Worth, Texas 76102
- (6) Kleinheinz Capital Partners LDC c/o Walkers SPV Limited Walker House, 87 Mary Street George Town, Grand Cayman KYI-9002 Cayman Islands
- (7) John Kleinheinz301 Commerce Street, Suite 1900Forth Worth, Texas 76102

Item 2(c) Citizenship or Place of Organization.

- (1) Global Undervalued Securities Master Fund, L.P. is a Cayman Islands exempted limited partnership.
- (2) Global Undervalued Securities Fund, L.P. is a Delaware limited partnership.
- (3) Global Undervalued Securities Fund (QP), L.P. is a Delaware limited partnership.
- (4) Global Undervalued Securities Fund, Ltd. is a Cayman Islands exempted company.
- (5) Kleinheinz Capital Partners, Inc. is a corporation organized under the laws of the State of Texas.
- (6) Kleinheinz Capital Partners LDC is a Cayman Islands limited duration company.
- (7) John Kleinheinz is a U.S. citizen.

Item 2(d) Title of Class of Securities.

Common Stock, par value \$0.0001 per share

Item 2(e) CUSIP Number.

45685 K 102

Item 3 If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not Applicable.

Item 4 Ownership.

- (a) The Reporting Persons may be deemed the beneficial owners of 1,861,480 shares of Common Stock held by the Master Fund.
- (b) The Reporting Persons may be deemed to be the beneficial owners of 8.7% of the outstanding shares of Common Stock.
- (c) Number of shares as to which each Reporting Persons has:
 - (i) sole power to vote or direct the vote of any shares:

No Reporting Person has sole power to vote or direct the vote of any shares

(ii) shared power to vote or direct the vote:

Each Reporting Person has shared power to vote or direct the vote of 1,861,480 shares

(iii) sole power to dispose or direct the disposition:

No Reporting Person has sole power to dispose or direct the disposition of any shares

(iv) shared power to dispose or direct the disposition:

Each Reporting Person has shared power dispose or direct the disposition of 1,861,480 shares

Item 5 Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owners of more than five percent of the class of securities, check the following O.

Item 6 Ownership of More Than Five Percent on Behalf of Another Person.

Not Applicable.

Item 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported On by the Parent Holding Company.

Not Applicable.

Item 8 Identification and Classification of Members of the Group.

Not Applicable.

Item 9 Notice of Dissolution of Group.

Not Applicable.

Item 10 Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Exhibits

Exhibit A Joint Filing Agreement, dated May 1, 2012, by and among the Reporting Persons.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: May 1, 2012

GLOBAL UNDERVALUED SECURITIES MASTER FUND, L.P.

By: Global Undervalued Securities Fund, L.P., its general partner

By: Kleinheinz Capital Partners, Inc., its investment manager

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

GLOBAL UNDERVALUED SECURITIES FUND, L.P.

By: Kleinheinz Capital Partners, Inc., its investment manager

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

GLOBAL UNDERVALUED SECURITIES FUND (QP), L.P.

By: Kleinheinz Capital Partners, Inc., its investment manager

| By: | /s/ John B. Kleinheinz |
|-------|------------------------|
| Name: | John B. Kleinheinz |

Title: President

GLOBAL UNDERVALUED SECURITIES FUND, LTD.

| By: | /s/ John B. Kleinheinz |
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| Dy. | /S/ JOHH D. KICHIICHI |

Name:John B. KleinheinzTitle:Director

KLEINHEINZ CAPITAL PARTNERS, INC.

| By: | /s/ John B. Kleinheinz |
|-----|------------------------|
| | |

| Name: | John B. Kleinheinz |
|--------|--------------------|
| Title: | President |

KLEINHEINZ CAPITAL PARTNERS LDC

By: <u>/s/ John B. Kleinheinz</u>

| Name: | John B. Kleinheinz |
|--------|--------------------|
| Title: | Managing Director |

JOHN B. KLEINHEINZ, INDIVIDUALLY

/s/ John B. Kleinheinz

John B. Kleinheinz

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a Statement on Schedule 13G (including any and all amendments thereto) with respect to the Common Stock, par value \$0.0001 par value, of Infusystem Holdings, Inc., and further agree that this Joint Filing Agreement shall be included as an Exhibit to such joint filings.

The undersigned further agree that each party hereto is responsible for the timely filing of such Statement on Schedule 13G and any amendments thereto, and for the accuracy and completeness of the information concerning such party contained therein; provided, however, that no party is responsible for the accuracy or completeness of the information concerning any other party, unless such party knows or has reason to believe that such information is inaccurate.

This Joint Filing Agreement may be signed in counterparts with the same effect as if the signature on each counterpart were upon the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of May 1, 2012.

GLOBAL UNDERVALUED SECURITIES MASTER FUND, L.P.

By: Global Undervalued Securities Fund, L.P., its general partner

By: Kleinheinz Capital Partners, Inc., its investment manager

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

GLOBAL UNDERVALUED SECURITIES FUND, L.P.

By: Kleinheinz Capital Partners, Inc., its investment manager

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

GLOBAL UNDERVALUED SECURITIES FUND (QP), L.P.

By: Kleinheinz Capital Partners, Inc., its investment manager

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

GLOBAL UNDERVALUED SECURITIES FUND, LTD.

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: Director

KLEINHEINZ CAPITAL PARTNERS, INC.

By: <u>/s/ John B. Kleinheinz</u>

Name: John B. Kleinheinz Title: President

KLEINHEINZ CAPITAL PARTNERS LDC

By: <u>/s/ John B. Kleinheinz</u>

Name:John B. KleinheinzTitle:Managing Director

JOHN B. KLEINHEINZ, INDIVIDUALLY

/s/ John B. Kleinheinz

John B. Kleinheinz

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