Confirmation FN ISO 15848-1: 2015



Name and postal address of manufacturer:

FITOK Incorporated 1-4F, Block C, Zone E, Yingtai Industrial Park, Dalang Street, Longhua District, Shenzhen City, Guangdong Province, 518109, China.

We hereby certify that the needle valve specified below and made by above company was tested and approved acc. to EN ISO 15848-1 with more stringent requirements regarding the leakage rate. The details are outlined in the pertinent test report

It reflect only our witness findings to tested valve described herein and does not refer to any other matters. This confirmation only includes the external leakage test to the stem assembly, and valve body part excluding sealing leak rate measurement.

Detail valve technical data and manufacturer information refer to annex and test report.

Poduct description:

Needle Valve: DN4/ Class 600, Drawing No.: NBSS-FL4-7-Y REV. C1

The product satisfies the following requirements:

- Leakage test according to EN ISO 15848-1

Service conditions:

- Needle valve: drawing No.: NBSS-FL4-7-Y REV. C1
- Tightness class: BH - Load cycles: 205/CO1 - Temperature: RT ~ +65°C
- Visual verification of the required surface pressure set forth in the operating manual.
- Specified structure of the seal assembly

Performance category:

ISO FE BH-CO1-SSA0-t65°C-Class 600-ISO15848-1

The confirmation covers leakage measurement carried out a stem seal as EN ISO 15848-1 to verify tightness/ compliance with the specific leakage rate defined, and extended tests under the above operating conditions.

This confirmation will not be valid until FITOK Incorporated. Has completed leak and material testing and prepared a manufacturer's certificate in accordance with EN 10204 3.1, including the exact type designation plus serial number.

Beijing, Dec. 6th, 2018 (Place, date)

Beijing Branch ustrie Service TÜV SÜD Industrie Service GmbH

Mr. LU Bingjiang

TÜV SÜD Industrie Service GmbH Beijing Branch

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District Beijing 100102 P.R. China

Tel.: +86 10-65906186 Fax: +86 10-65906182



ANNEX: Data for Needle Valve: Drawing No.: NBSS-FL4-7-Y REV. C1 (CL 600- DN4)

Name of manufactuer:

FITOK Incorporated

Address of manufacturer:

1-4F, Block C, Zone E, Yingtai Industrial Park, Dalang Street, Longhua District,

Shenzhen City, Guangdong Province, 518109, China.

Test Report:

201811-M-01182-1 dated 2018-12-06

We hereby certify that the valve below has passed the fugitive emission test successfully according to Class BH of ISO 15848-1:2015 for a total of 205 cycles.

| N4/ Class 600 eedle Valve TFE TFE |
|--------------------------------------|
| TFE |
| |
| TEE |
| 11 - |
| BSS-FL4-7-Y REV. C1 Dated 2018-11-13 |
| elium |
| Н |
| O1; 205 mechanical cycles |
| T ~ 65°C |
| |

The test was verified by TÜV SÜD engineer according to requirements of ISO15848-1:2015 and found compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

The tested valve covers performance class (para.6.6):

ISO FE BH-CO1-SSA0-t65°C-Class 600-ISO15848-1.

Extension of qualification (in particular) to untested valves in accordance with paragraph 8 of ISO 15848-1.

Stem sizes qualified: Ø5.6mm/ Half to twice (included) the tested valve diameter.

Pressure ranges qualified: Class 600/ the valve class or PN designation is equal or lower

Beijing/P. R. China Dec 06th, 2018

TÜV SÜD Industrie Service GmbH Beijing/Branch

(Liu Bingjiang)

Confirmation

FN ISO 15848-1: 2015



Name and postal address of manufacturer:

FITOK Incorporated 1-4F, Block C, Zone E, Yingtai Industrial Park, Dalang Street, Longhua District, Shenzhen City, Guangdong Province, 518109, China.

We hereby certify that the needle valve specified below and made by above company was tested and approved acc. to EN ISO 15848-1 with more stringent requirements regarding the leakage rate. The details are outlined in the pertinent test report It reflect only our witness findings to tested valve described herein and does not refer to any other matters. This confirmation only includes the external leakage test to the stem assembly, and valve body part excluding sealing leak rate measurement.

Detail valve technical data and manufacturer information refer to annex and test report.

Poduct description:

Needle Valve: DN4/ Class 600, Drawing No.: NDSS-NS4-7P REV. C1

The product satisfies the following requirements:

- Leakage test according to EN ISO 15848-1

Service conditions:

- Needle valve: drawing No.: NDSS-NS4-7P REV. C1

- Tightness class: BH - Load cycles: 205/CO1 - Temperature: RT to +65°C

- Visual verification of the required surface pressure set forth in the operating manual.

- Specified structure of the seal assembly

Performance category:

ISO FE BH-CO1-SSA 0-t65°C-Class 600-ISO15848-1

The confirmation covers leakage measurement carried out a stem seal as EN ISO 15848-1 to verify tightness/ compliance with the specific leakage rate defined, and extended tests under the above operating conditions.

This confirmation will not be valid until FITOK Incorporated. Has completed leak and material testing and prepared a manufacturer's certificate in accordance with EN 10204 3.1, including the exact type designation plus serial number.

Beijing, Dec. 6th, 2018 (Place, date)

TÜV SÜD Industrie Service GmbH Beijing Branch dustr

Mr. LU Bingjiang

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District Beijing 100102 P.R. China

Tel.: +86 10-65906186 Fax: +86 10-65906182



ANNEX: Data for Needle Valve: Drawing No.: NDSS-NS4-7P REV. C1 (CL 600- DN4)

Name of manufactuer:

FITOK Incorporated

Address of manufacturer:

1-4F, Block C, Zone E, Yingtai Industrial Park, Dalang Street, Longhua District,

Shenzhen City, Guangdong Province, 518109, China.

Test Report:

201811-M-01182-2 dated 2018-12-06

We hereby certify that the valve below has passed the fugitive emission test successfully according to Class BH of ISO 15848-1:2015 for a total of 205 cycles.

| Model | Needle Valve: Drawing No.: NDSS-NS4-7P REV. C1 (CL 600- DN4) |
|----------------------------|--|
| Nominal Diameter | DN4/ Class 600 |
| Type of Valve | Needle Valve |
| Stem Sealing | FKM O-ring+PTFE BK-ring |
| Body Sealing | FKM O-ring+PTFE BK-ring |
| Valve assembly drawing no. | NDSS-NS4-7P REV. C1 Dated 2018-11-13 |
| Test Gas | Helium |
| Tightness Class | ВН |
| Endurance Class | CO1; 205 mechanical cycles |
| Temperature class | RT ~ 65°C |

The test was verified by TÜV SÜD engineer according to requirements of ISO15848-1:2015 and found compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

The tested valve covers performance class (para.6.6):

ISO FE BH-CO1-SSA 0-t65°C-Class 600-ISO15848-1.

Extension of qualification (in particular) to untested valves in accordance with paragraph 8 of ISO 15848-1.

Stem sizes qualified: Ø3.6mm/ Half to twice (included) the tested valve diameter.

Pressure ranges qualified: Class 600/ the valve class or PN designation is equal or lower

Beijing/P. R. China Dec 06th, 2018 TÜV SÜD Industrie Service GmbH Beijing Branch

(Liu Bingjiang)

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