



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX TUR 19.0037** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-03-11

Applicant: **OleumTech Corporation**
19762 Pauling
Foothill Ranch
California 92610
United States of America

Equipment: **Tuning Fork Level Switch, Model HTF17 series**

Optional accessory:

Type of Protection: **Equipment protection by flameproof enclosures "db", Equipment dust ignition protection by enclosure "tb"**

Marking: Ex db IIB T4 or T5 or T6 Gb
Ex tb IIIC T130°C or T95°C or T80°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Dipl.-Ing. Yang Wang

Position:

Assigned Certifier

Signature:
(for printed version)

Date:

2020-03-11

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany





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Manufacturer: **OleumTech Corporation**
19762 Pauling
Foothill Ranch
California 92610
United States of America

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/TUR/ExTR19.0037/00](#)

Quality Assessment Reports:

[DE/TUR/QAR18.0002/00](#)

[GB/SIR/QAR13.0004/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Tuning Fork Level Switch, HTF17 series

The HTF17 Series is using piezoelectric elements to drive the resonance of the tuning fork and generate a continuous oscillation and a signal feedback which the frequency signal is transformed to voltage signal through a frequency detector. When the measuring material covers the tuning fork, the generated damping will change the resonance frequency. By the RC and OP circuit, the frequency can be transferred to the voltage. Depending on the difference of voltage, the HTF17 Series can judge whether the tuning fork is covered or not. If covering, it sends out a relay output signal.

The HTF17 Series also provide the Fail Safe Low/High Function as protection. Additionally, it provides a remote test function to detect whether the HTF17 series are installed well with surrounding equipment and work functionally.

The temperature class and the maximum surface temperature depend on the temperature of the medium. The protection degree of enclosure is IP65.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[DE-IECEx_TUR_19.0037_0_Attachment_2020-03-11.pdf](#)



Attachment to Certificate IECEX TUR 19.0037

Device: Tuning Fork Level Switch
Types: HTF17 series

Manufacturer: OleumTech Corporation

Address: 19762 Pauling, Foothill Ranch, California 92610,
United States of America

General product information:

Description

The HTF17 Series is using piezoelectric elements to drive the resonance of the tuning fork and generate a continuous oscillation and a signal feedback which the frequency signal is transformed to voltage signal through a frequency detector. When the measuring material covers the tuning fork, the generated damping will change the resonance frequency. By the RC and OP circuit, the frequency can be transferred to the voltage. Depending on the difference of voltage, the HTF17 Series can judge whether the tuning fork is covered or not. If covering, it sends out a relay output signal.

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Technical Data

Electrical data

HTF17 Tuning Fork Level Switch

Power supply 20~250Vac/Vdc, relay output contact 3A/250Vac or PNP/NPN(MOSFET 400 mA/60 Vac/Vdc).

Environmental data

Ambient temperature: -20°C ~ +70°C

The level of temperature class for explosion sign and its maximum allowed temperature relating to the medium as below:

Temperature class	T4	T5	T6
Temp. of process medium	≤ 125°C	≤ 95°C	≤ 80°C

Routine test at manufacturer:

The routine overpressure test shall be performed at a pressure of 7.5 bar (0.75 MPa). The period of application of the pressure shall be at least 10 s. But this test has to be done only for the type 1741 and only for part 16 combined with part 12. For the other parts no routine test is required. Inspection of the ex-relevant gap dimensions is a routine test and must, therefore, be performed for each part as a measuring inspection.



Model designation:

HTF17

Order NO.

- 40 : Explosion proof Standard Type
- 41 : Explosion proof Extension Type
- 54 : Explosion proof Corrosion Type
- 60 : Explosion proof Sanitary Type

Power & Output Module

- 20~250 Vac/Vdc
- R : Relay O/P
- N : SSR (MOSFET)

Material

- 0 : SUS304 6 : SUS316 P : PTFE

Connection

- | | | |
|------------------|--------------------------|------------|
| C : 3/4" (20A) | M--- 5kg/cm ² | W--- PN 10 |
| D : 1" (25A) | N---10kg/cm ² | X--- PN 16 |
| E : 1-1/2" (40A) | O--- 150 Lbs | Y--- PN 25 |
| F : 2" (50A) | P--- 300 Lbs | Z--- PN 40 |
| G : 2-1/2" (65A) | | |
| H : 3" (80A) | Q--- PT | |
| I : 4" (100A) | R--- PF(G) | |
| J : 5" (125A) | T--- BSP | |
| K : 6" (150A) | U--- NPT | |
| S : Others | | |

Probe Length (unit: mm)

- 0500 : 500mm (Under)
- 1000 : 501~1000mm
- 1500 : 1001~1500mm
- 2000 : 1501~2000mm
- 2500 : 2001~2500mm
- 3000 : 2501~3000mm